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A Maritime Icarus

The Roots, Rise, and Fall of the American Air-Sea Battle Concept, 2007-2015

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**A MARITIME ICARUS:
THE ROOTS, RISE, AND FALL OF THE AMERICAN AIR-
SEA BATTLE CONCEPT, 2007-2015**

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ABSTRACT

This thesis examines the origins, formation, evolution, and dissolution of the American Air-Sea Battle innovation movement, from 2008-2015. It addresses two research questions:

1. What institutional and ideational factors explain the formation, evolution, and dissolution of the Air-Sea Battle attempt at doctrinal innovation?
2. What was the Air-Sea Battle program's relationship to American Pacific strategy? Specifically, was Air-Sea Battle untethered from oversight and antithetical to broader American strategy, as claimed by its scholarly critics?

My aim is to give a more complete historical understanding of the Air-Sea program than is available to date. Doing so addresses current gaps in our understanding of this period of contemporary American history, as well as scholarly disagreements regarding Air-Sea Battle's origins and strategic suitability. Methodologically, I employ Farrell et al's framework of contemporary historical examination informed by military innovation theory. For evidence, I draw upon a combination of primary and secondary source material, including over 60 stakeholder interviews, including the Secretary of Defense, Commander of US Pacific Command, Chiefs of the Navy and Air Force, and general officers from the landpower services.

Regarding the first research question, the research fills in substantial lacunae in our understanding of Air-Sea Battle's historical development. In particular, the research highlights the centrality of senior military leadership within the Air Force and Navy in originating and driving Air-Sea Battle, the interaction between the Air-Sea program and Pacific Command (PACOM), and the lack of robust support from senior civilian leadership. External to the Navy and Air Force, this lack of robust support, sequestration, the ongoing wars in Iraq and Afghanistan, and organizational resistance from the Army and Joint Staff stand as central factors in blunting Air-Sea Battle's innovative potential. Internally, leadership changeover within the Navy and Air Force prevented the program from continuing, in a less ambitious form, within its parent services. The program invigorated a dispute within the Department of Defense regarding the organizational and warfighting dimensions of military "jointness," eventually being subsumed by the Joint Staff after such disagreement reached its apex. The research demonstrates, however, the extent to which

Air-Sea Battle's ideas on the centrality and immediacy of anti-access warfare, and American unpreparedness for it, continued to be influential after the program's formal dissolution.

Regarding the second research question, the research demonstrates that Air-Sea Battle was aligned to American Pacific strategy and had proper civilian oversight. Specifically, the research suggests the distance between the controversial think tank version of "AirSea Battle," and the Department's Air-Sea program, is more substantial than present scholarship appreciates. This is particular true regarding potential mainland strikes on China, the subject at the center of most scholarly debate over Air-Sea Battle's strategic suitability. Regarding strategic alignment, ADM Willard, PACOM Commander, developed and articulated a strategy for the US in East Asia, vetted at the Cabinet-level of the American government. Through repeated interactions between PACOM with the Air-Sea Battle program, PACOM leadership saw Air-Sea Battle as strongly aligned to, and supportive of, this strategy. Regarding civilian oversight, the Air-Sea program was reviewed by successive Secretaries of Defense, had routine interactions with OSD Policy up to the Undersecretary level, and was socialized and wargamed regularly in the Department's most senior civil-military fora.

In sum, in addition to addressing empirical gaps in our understanding of Air-Sea Battle's origins and historical development, the thesis suggests "buzzwords" like Air-Sea Battle can have seminal effects on the intellectual feedstock of military innovation. Such impacts can be significant, yet remain a loose fit for the currently consequentialist definitions of "success" in military innovation scholarship. Air-Sea Battle, as a program and buzzword, died. Yet, before it did so, it constituted a change in American military thought, framing and evangelizing new problems while suggesting new solutions. While not an unalloyed "success," its history suggests the importance such ideas and debates hold for later, and more gradual, instantiations of military change. The thesis concludes with observations of what Air-Sea Battle's history suggests about contemporary American efforts at conceptual and doctrinal innovation, organizational jointness, and American readiness for great power competition with China.

*To the Enlisted American Warfighter.
May we who think about war be worthy of those who must fight it.*

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CHAPTER ONE: INTRODUCTION

How does the modern American military innovate its warfighting doctrine? More specifically, as an initial response to a rising China and the proliferation of precision strike warfare, what factors best explain the rise and fall of the American military’s “Air-Sea Battle” innovation movement? Air-Sea Battle represents an important and underappreciated inflection point in American defense, as the American military began reorienting from unipolar dominance and non-state threats towards the return of great power competition. This thesis provides the most complete historical account to date of the origins, formation, evolution, and dissolution of the American Air-Sea Battle attempt at doctrinal innovation.

Led by its Navy and Air Force, the US military developed the Air-Sea Battle “operational concept” from 2009-2015, seeking to innovate its doctrine for major maritime conflict. As detailed in the following conceptual chapter, in the American military such operational concepts are seminal vehicles for doctrinal innovation, challenging existing doctrine and suggesting a “new theory of victory.”¹ After two decades of relative unipolarity after the Cold War, the Air-Sea concept marked the return of American military attention to major conventional war, the demands of great power competition, and the challenges of a rising China. More challenging still, during its unipolar period, the American military had become accustomed to operating from sanctuary, envisioning its bases and aircraft carriers as relatively free from serious threat. The proliferation of long-range, precision strike capabilities undercut these advantages, necessitating reforms to overcome decades of operational habits and institutional inertia. Air-Sea Battle was the first serious attempt at such reform. Eschewing traditional means of “joint” innovation, it centered on a bilateral partnership between the American Navy and Air Force—two services with a long record of institutional distrust—and provoked a struggle within American military over the meaning of military “jointness.” Air-Sea’s merits were hotly debated, and remain controversial, as the American military continues to wrestle with the twin challenges of China’s rise and the onset of mutual precision strike.

Air-Sea Battle thus occupies an important position in modern American military history, representing the American military’s first significant reaction to China’s rise, renewed great power competition, a changing balance of power in Asia, and the conditions of mutual precision strike.

¹ (S. Rosen 1991, 20)

The historical importance regarding China and great power competition is clear. Great power competition and conflict remain the most consequential, and frequently tragic, factors shaping global politics.² Many scholars, Kissinger among them, identify China’s rise as the most significant event in contemporary international relations.³ The implications of the shift to mutual precision strike are also profound, if less obvious. While the contest between denial and control is as old as maritime warfare itself, for the American military of the early 21st century, this contest remained relatively alien. Unfettered power projection had become an intellectual norm, undergirding American foreign policy efforts at deterrence and assurance—and guiding successive decades of military platforms, posture, and doctrine. By the late 2000s, this vision of military operations was coming under increasing strain, as the proliferation of precision strike greatly expanded the reach and lethality of coastal states’ denial capabilities. The American monopoly on precision strike warfare—and the sanctuary it offered—was rapidly eroding. American power projection, a central pillar of American foreign policy and deterrence, was eroding alongside.

At the forefront stood China, pursuing history’s largest military modernization effort, intelligently designed to counter American power projection in the Western Pacific.⁴ Operationally, China’s rapid military rise advertised a potential new balance in the modern contest between “ships” and “forts,” one that augured poorly for naval powers. In this context, it is unsurprising that figures no less than respected navalist RADM Michael McDevitt mark the Air-Sea period as a “an inflection point in both American seapower and the changing geopolitics of Asia...[when] a great deal of our assumptions about power projection and seapower broke.”⁵ Given the obvious threat such capabilities imply to static airbases, a similar argument can be advanced regarding airpower as well. The Air-Sea Battle movement was the first attempt to holistically address these issues, re-envisioning the American approach to maritime warfare writ large. It was, in essence, the moment when the American Navy and Air Force acknowledged the threats from China’s military rise and anti-access warfare were not “future problems,” but immediate ones, requiring serious attention. While the American reaction to this reality remains incomplete and partial, Air-Sea was vital to driving these challenges to the center of American military discourse and praxis, where they have remained. Air-Sea Battle thus spans a critical moment in modern American military history, with

² (Mearsheimer 2003)

³ (Kissinger 2012)

⁴ (T. Yoshihara and Holmes 2010)

⁵ (Michael McDevitt 2021)

implications that range from military operations to international relations and contemporary geopolitics.

Given its importance, scholars like McDevitt and Princeton's Aaron Friedberg note our limited historical understanding of the Air-Sea movement is surprising.⁶ Scholars such as Friedberg, McDevitt, and Tangredi describe fundamental gaps in our historical understanding of Air-Sea Battle.⁷ There is a notable lack of primary source evidence regarding basic facts of Air-Sea Battle's origins, evolution, deliberations, and dissolution. We thus currently have only a cursory understanding of the American military's initial response to China's rise, and how it attempted to reorient itself towards great power competition. Further, scholars and practitioners sparred mightily over Air-Sea Battle's strategic merits. The disagreement is vast, with scholars seeing in Air-Sea evidence of a strategically autistic American military dangerously disconnected from proper civilian oversight, or of a return to coherence after a period of strategic drift. The Air-Sea case thus has much to suggest about the modern American military, yet remains poorly understood.

In sum, what are we to make of Air-Sea Battle? Was it antithetical to American Pacific strategy? Was it a mere "buzzword," or did it hold greater meaning? We enjoy comparatively deep treatment on previous American operational concepts, AirLand Battle, the Maritime Strategy, Effects-Based Operations, and Network Centric Warfare, to name a few.⁸ We have nothing analogous in scholarship regarding Air-Sea Battle, despite its important historical position. Given the stakes of Sino-American competition, the answers matter, as the American military continues to attempt to weld operations and strategy in response to China's rise.

Reconsidering Air-Sea Battle: A Maritime Icarus?

The relatively recent conclusion of the Air-Sea case presents an opportunity for retrospective, contemporary historical analysis. Almost a decade on, this thesis takes stock of newly available materials and interviews to better understand this period, and Air-Sea Battle's role in the American reaction to China's rise. To better understand this case, I address two issues in current scholarship.

⁶ (Aaron Friedberg 2021)

⁷ (Aaron Friedberg 2021; S. Tangredi 2013, 52; Michael McDevitt 2021)

⁸ As examples, see (John B. Hattendorf 1988; Friedman 2009; Davis 2001; Kagan 2007)

The first is the aforementioned gap in our historical understanding of Air-Sea Battle’s origins, development, and dissolution. The second is unresolved scholarly debates surrounding Air-Sea Battle’s relationship to American Pacific strategy and civilian oversight. The two are related; I leverage a deeper understanding of Air-Sea Battle’s historical development to shed new light on unresolved scholarly debates over its relationship to American Pacific strategy.

Conventional wisdom suggests Air-Sea Battle was a failure, a “buzzword,” and perhaps a relatively insignificant one.⁹ Indeed, despite being hailed as a “new approach to warfare,” Air-Sea failed to materialize as official American doctrine, with the name abolished after less than six years.¹⁰ This thesis challenges that conventional wisdom. Far from insignificant, as noted above, Air-Sea Battle occupies a historically pivotal moment. Without understanding America’s initial military response to a rising China, we have limited insight into key historical aspects of Sino-American relations and their evolving military competition. Further, we miss an opportunity to understand how threat perceptions change in modern American defense, and how the American military attempts innovation in response to such changes. Examining Air-Sea Battle reveals much about the interplay of external threats and internal battles in changing the American military, and how the modern American military attempts to marry operational doctrine to strategy. These issues are important in the broader history of both the American military and Sino-American relations. Even if one views Air-Sea Battle as a failure, the reasons for such failure are more relevant still, as the American military continues to wrestle with growing Chinese military power. Failure or not, Air-Sea Battle remains an important case.

Examining Air-Sea Battle in greater historical context, I also disagree with the characterization of Air-Sea Battle as a “failure.” Specifically, our current scholarly conception of Air-Sea Battle as a “buzzword” misses its enduring effects. Military innovation is hard, and frequently slow. It begins intellectually, generally with the perception of a threat and the creation of a “new theory of victory” to answer it.¹¹ After this remains the laborious work, within the military services, of organizational, cultural, programmatic, and organizational change. This work often takes decades—but cannot begin, and cannot be guided, without its seminal intellectual vision. Air-Sea Battle, and the debates it engendered, mark the moment the American Navy and Air Force began

⁹ (Haun 2020a) (B. Armstrong 2016a)

¹⁰ (HASC Subcommittee on Seapower and Projection Forces 2013)

¹¹ (S. Rosen 1991)

that work in earnest. Through them, so did the American Defense Department, in a change that remains incomplete and partial—but has at least begun.

Specifically, the Air-Sea program advanced American thinking about future war in two important respects. First, Air-Sea Battle forced much of the American military to recognize the inadequacy of its current doctrine, and its unreadiness for the operational and strategic challenges of China’s military rise. In essence, Air-Sea diagnosed the operational problem correctly. Despite two ongoing continental wars, a contracting budget, interservice undercutting, and senior Defense leadership focused elsewhere, the initiative was able to move the conversation about “anti-access and area denial” (“A2AD”)¹² from a “future issue” to the center of American military discourse, where it has remained. The Air-Sea Battle experience held up a mirror to the American military, challenging it to confront atrophied capabilities, habitual ways of operating, and outdated assumptions about high-end modern warfare.¹³ Second, while falling short of a full “solution” to China’s rise, the Air-Sea movement spawned concepts of operations, capabilities, and relationships that continue to influence the American approach to modern maritime warfare. These include catalyzing an overdue institutional collaboration between the Navy and Air Force. Given these contributions, I question the meaning of “failure” in the currently consequentialist bent of military innovation scholarship. The formal Air-Sea innovation program indeed died, and the American military response to the generational challenges of China’s rise and mutual precision strike remains nascent. Yet, the American reaction would have started later, and been much less robust, had it not been for the ideas and debates Air-Sea Battle generated.

In retrospect, Air-Sea Battle is thus reminiscent of the Greek myth of Icarus, who died in a failed attempt to escape landbound imprisonment on Crete. Like Icarus, Air-Sea Battle failed, and on first inspection, is easy to dismiss. Yet, as the poet Jack Gilbert reminds, “Everyone forgets that Icarus also flew.”¹⁴ Air-Sea Battle failed, but achieved much in its short life, pointing towards significant shortcomings in the American military, and catalyzing a conversation on how to solve them that continues to present.

¹² Adapting from Krepinevich’s original definition, this thesis defines A2AD as strategies employing precision strike capabilities to prevent an adversarial force from entering a theater of operations, and constricting their freedom of action therein. See (Krepinevich, Watts, and Work 2003, 4–6)

¹³ The thesis’s interviews with principal figures in the 2018 National Defense Strategy attest to the direct impact of the Air-Sea experience with subsequent changes in American military strategy. See (Jim Mitre, n.d.; Robert Work 2021; Elbridge Colby 2022)

¹⁴ (Jack Gilbert 2005)

Defining Air-Sea Battle

Drawing on new primary sources and original research, I argue that our scholarly understanding of Air-Sea Battle is both incomplete and, in important ways, inaccurate. Regarding completeness, we lack primary source evidence on such major questions as the roles of civilian and military leaders in Air-Sea's formation and evolution; how organizational politics affected the program's development; how (and whether) the program related to American strategy; why it was discontinued; and whether its ideas continued in subsequent American military planning.

That our historical understanding of Air-Sea Battle is inaccurate is suggested by the wide discrepancy in even defining what Air-Sea Battle was. Sources point to Air-Sea Battle alternatively as an operational concept, a doctrine, a warplan, a strategy, a foreign policy, a "revolution," a "help desk" for military operations, a "buzzword," a parochial budgetary ploy, and conversely, a device for budgetary reductions.¹⁵ Beyond this definitional confusion, the scholarly debate over Air-Sea remains contemporary and policy-oriented in nature, debating its merits without deeper consideration of its broader historical context. Scholarly critics of Air-Sea Battle often envision the program as "part of the problem" with American Pacific strategy. I argue such critiques, in the light of new evidence, are inaccurate. First, such critiques are often based on a misunderstanding of what Air-Sea was, and what it was attempting to do. Second, they reflect a misunderstanding of how military change can occur, looking for discrete cases of "innovation," thus missing the more subtle intellectual and cultural currents undergirding much military change.

Responding to this definitional confusion, I argue Air-Sea Battle is best understood as a long-term attempt at doctrinal innovation, driven by senior military leaders in the American Navy and Air Force. As described in the subsequent conceptual chapter, "doctrine" represents how a military currently fights, incorporating existing tactics, platforms, training, and organization. Paralleling Rosen's scholarship, to change doctrine significantly, at least three preceding changes are generally required. First and seminally, new "operational concepts" intellectually challenge current doctrine, representing a "new theory of victory" for how a military should fight.¹⁶ The new concept

¹⁵ For a review of this issue, see (Bitzinger and Raska 2013a, 2; S. Tangredi 2013, 51–54)

¹⁶ (S. Rosen 1991, 55–107) Note that some programmatic, tactical, or organizational changes can precede the conceptual vision. Yet, eventually, a conceptual vision is generally required to synchronize these smaller scale changes and experiments into a more comprehensive change to a military's platforms, organization, and eventually, doctrine. See, for example, Adamsky's description of early American precision warfare: (Dima Adamsky 2010, 58–93)

represents an intellectual rationale for driving and synchronizing subsequent changes to a military's platforms, tactics, training, and organization. This is often a lengthy and iterative process, as it takes time to design and field new platforms, reorganize warfighting units, and train to the new vision. These steps frequently further refine the concept itself, as innovative ideas answer to the realities of engineers, budgeteers, policymakers, and warfighters. Internally, disrupting doctrine means re-adjudicating a military's existing equities and power structure, both across and within military services.¹⁷ As such, would-be innovators often must evangelize their proposed innovation in a campaign of intellectual and cultural change. This entails convincing key constituencies of the merits of the new vision, such that the new vision has the political and financial capital required to both drive changes and cement them beyond the tenure of its founders. When concepts, platforms, organizations, and training align, doctrinal innovation has been achieved, and “fighting tonight” under a new doctrine is possible. Until they do, doctrinal innovation remains nascent, and often—as it was in Air-Sea Battle—fiercely contested.

As such, I define “Air-Sea Battle” in two dimensions. I refer to the Air-Sea Battle “concept” as the operational concept, articulated and refined by the American Navy and Air Force from 2009-2015, that represented a “new theory of victory” for answering China's rise and emerging anti-access warfare. I refer to the Air-Sea Battle “movement” or “program” as the longer-term attempt at doctrinal innovation built around that concept—the amalgamation of intellectual, cultural, programmatic, and organizational changes the American Navy and Air Force pursued during the period, attempting to move the Air-Sea concept into doctrine. By viewing Air-Sea Battle as such, we can undertake primary source research to better understand the Air-Sea concept, the accompanying innovation movement, and any continuing effects these generated.

Deepening and Clarifying the Historical Record

To address the gaps in our historical understanding of this period, this thesis draws upon new documents and interviews from across the American defense community. I look beyond structural explanations of military change, describing the inner workings of the American Department of Defense—the interplay of civilian and military leaders, external threats and organizational politics, strategic ambitions and budgetary realities, political goals and the crafting of military

¹⁷ (S. Rosen 1991, 19–26)

instruments—that shape the direction and character of military change. I do so because, while structural forces can be vital to inducing military change, they tell us little about the character such changes take.¹⁸ Specifically, structural explanations tell us little about how a military perceives such threats and incentives, how it conceives of its options for innovation, how it navigates internally competing ideational and institutional factors, and how it chooses or “satisfices” amongst them. Such decisions matter, often differentiating between successful and unsuccessful innovation movements.¹⁹ To understand these consequential decisions, one must look inside a military. In the Air-Sea case, I am aided by my own service in the Department during this period,²⁰ and was able to interview over sixty stakeholders—including the Secretary of Defense, Deputy Secretary, PACOM Commander, general officers from all four services, officers working within the Air-Sea program, and officers opposed to it—representing the most comprehensive primary source evidence available to date.

Considering this new evidence, I argue Air-Sea Battle—while far from perfect—remains largely misunderstood. Aided by the Department’s ineffective communications efforts, scholars and practitioners alike have conflated the Department’s more holistic Air-Sea program with the high profile “AirSea” concept promoted by CSBA, a defense think tank.²¹ Where CSBA envisioned a notional campaign with potentially numerous strikes against military targets on the Chinese mainland, the Department’s Air-Sea program pursued a different focus. Distinct from a campaign plan, the DoD’s Air-Sea program was an attempt to address deleterious operational habits and capability shortfalls facing the American military that, left unaddressed, would erode the operational underpinnings of any effective Pacific campaign. The distinction between the CSBA and DoD Air-Sea vision is important. Most prominently, the issue that dominated much of scholarly discourse on Air-Sea Battle—the strategic, operational, and budgetary implications of large-scale²² mainland strikes on China—was dismissed early in the Department’s Air-Sea effort.

¹⁸ (Stulberg, Salomone, and Long 2007, 19–20)

¹⁹ Perhaps the best description of this is (Dima Adamsky 2010)

²⁰ I worked in the American Department of Defense in a variety of roles throughout this period, though never in direct contact with Air-Sea Battle. From 2008 to 2014, among other roles I served as a China analyst at the Office of Naval Intelligence and RAND Corporation. In 2014 and 2015, I served in the Army Secretariat, as a Special Assistant to the Undersecretary. From 2015-2017, I served in OSD as a presidential appointee and senior Defense official, the Deputy Assistant Secretary for Force Readiness.

²¹ For examples, see (Rovner 2012; Etzioni 2013a; Jaffe 2012)

²² It is important to note that “large scale,” in this context, does not mean the kind of broad strategic bombing or leadership targeting historically present in some major American bombing campaigns (for example that of the 8th and 20th Air Forces during WWII in Germany and Japan, respectively). Rather, it here denotes a large number of military targets, over a potentially wide geographic space, continuing over a long period of time. CSBA limited

Further, contrary to several scholarly critics, the Air-Sea program wrestled heavily with strategic questions of crisis stability, escalation management, mainland strikes, and conflict termination. It did so internally, and through extensive interaction with OSD-Policy, Combatant Commands (COCOMs), think tanks, academics, and others. While this measure of strategic consideration is rare for American operational concepts, which are often intentionally developed in a strategic vacuum to maximize operational creativity, the potential consequences of Sino-American conflict demanded such consideration. The thesis's new primary source research on Chinese military writings about Air-Sea Battle suggest Air-Sea's potential deterrent value—which PACOM actively leveraged—but there is no evidence that they perceived the concept as excessively escalatory. Finally, this research demonstrates that the Department's Air-Sea program had proper civilian oversight and strategic inputs, and directly supported American Pacific strategy.

Air-Sea Battle was not, however, an unalloyed success. Organizationally, as noted, it failed to become American doctrine. From what can be gleaned from unclassified research, the Air-Sea concept represented progress on an American response to A2AD, but fell short of a full conceptual “solution.” I argue Air-Sea's institutional demise stems from several factors. Air-Sea struggled for senior leader investment that, outside of the Air Force and Navy, remained fundamentally focused on the land wars of Iraq and Afghanistan. Air-Sea Battle had civilian oversight, but fell short of winning robust civilian support. The movement faced significant headwinds in terms of budgetary reductions that undercut both Air-Sea Battle and the Obama Administration's desired “Pacific Rebalance.” As noted, the initiative employed a disjointed communications strategy, constrained and rendered disingenuous by its inability to name China. The initiative was also beset by difficult internal politics, both within the Air Force and Navy, and with the Army and Joint Staff. Culturally and organizationally, Air-Sea Battle engendered two contending coalitions—the Navy-Air Force Air-Sea coalition, and the Army alongside the Joint Staff—animated by both organizational equities and fundamental disagreements over the nature of “jointness” in American defense. Finally, after the departure of Roughead and Schwartz, subsequent Navy and Air Force leadership did not prioritize Air-Sea Battle sufficiently to weather the period's considerable budgetary, cultural, and organizational headwinds. While its ideas

targeting to military targets associated with China's A2AD system, and preferred a lower number of targets if the threat environment permitted it. Nor did CSBA advocate for a “preemptive strike” approach that would proactively target China's A2AD system, seeing such an approach as politically and strategically untenable. See (van Tol ... Thomas 2010)

endured, the formal program would not long survive the departure of its founders. Air-Sea's history thus suggests a fundamental tension in American military innovation between the time required for significant change—often in excess of a decade—and the shortened tenures of the senior military leaders that drive innovation movements.

Importance of the Research

In charting this history, this thesis contributes to the academic literature in three primary respects. First, the thesis addresses large empirical gaps in our historical understanding of this important period. Filling these empirical gaps also lays the groundwork for future scholarship in this area, particularly in how the Air-Sea case relates to future evolutions of both American air-naval doctrine and the military aspects of Sino-American relations. In sum, without a historical understanding of the American military's initial answer to these challenges, as scholars and practitioners, we are poorly positioned to understand the period in question, and the continued evolution of these dynamics. Second, in better understanding Air-Sea Battle, we deepen our understanding of how the modern American military innovates in response to changing strategic and technological circumstances. In so doing, we add another case to our understanding of modern military change generally, and American military practice in particular. Finally, as described in the methodology section, the thesis contributes to the field of military innovation studies, providing an instantiation of the new method of scholarship represented in Farrell's work. The remainder of this chapter is organized as follows. The section below provides a brief overview of current conceptions of Air-Sea Battle's development timeline, primary sources, and core characteristics. Following this, I review the relevant academic literature, demonstrating its lacunae and open questions. The final section describes the thesis's methods, sources, and structure.

Competing Conceptions of Air-Sea Battle

Amassing existing scholarship, we can observe the broad outlines of Air-Sea Battle's history. The concept has its modern roots in the late Cold War, in American military thought on great power competition and the onset of precision strike warfare. As the Cold War ended, the Office of Net Assessment (ONA) began considering the combination of China's geostrategic potential and the likely proliferation of precision strike capability, and how precision strike could be employed for

maritime denial.²³ On the heels of AirLand Battle’s success in the Gulf War, an “Air-Sea Battle” concept was first articulated by then-Commander, later Admiral, James Stavridis in the early 1990s.²⁴ Yet, enraptured by “transformation,” busy with myriad deployments, and lacking any serious competitor, such thinking remained peripheral. By the new millennium, the emerging threat of A2AD began to feature in American strategic guidance, most notably in 2001 through the Department’s preeminent strategy document, the Quadrennial Defense Review (QDR).²⁵ That anti-access threat was, however, downplayed by the Navy and Air Force, as it questioned existing service concepts and equities. More fundamentally, serious American planning for mutual precision strike became displaced as the US focused on its global war on terror.

The origins of Air-Sea’s reemergence are unclear in present scholarship, with sources citing its beginnings either in a 2009 directive from Secretary of Defense Robert Gates, or originating out of a 2008 wargame at Pacific Air Forces.²⁶ With a belated recognition of the severity of China’s military challenge, the 2010 Quadrennial Defense Review (QDR) further directed the Navy and Air Force to develop an Air-Sea concept.²⁷ Championed by their respective Chiefs, the two services did so in a bilateral effort, outside the normal Joint Staff channels for operational concept development. The Joint Staff simultaneously developed its own, “Joint Operational Access Concept” (JOAC), claiming Air-Sea Battle as a subordinate part of the JOAC, and offering equal roles to all four services.

Debate over the Air-Sea effort began immediately, featuring heavily in the pages of the American military’s professional journals. As Bitzinger and Raska relate, “no new operational concept has been touted as more important, or more hotly debated.”²⁸ Beyond mere “jointness,” in the Air-Sea vision the Air Force and Navy—rivals that deliberately avoided interoperability through much of the Cold War—sought “integration,” including the syncing of major acquisitions and training.²⁹ Yet, the focus on Air Force and Navy integration troubled the Army, with obvious concerns over its relevance, size, and budget in such vision. Sequestration and budgetary instability magnified

²³ A2AD can be defined here as capabilities and concepts to delay or deter deployment to theater, create denied zones therein, and hold forces at risk at a greatly extended range.

²⁴ (Stavridis 1992a)

²⁵ (Department of Defense 2001)

²⁶ (Marsh and Jones 2015, 247; A. Friedberg 2014, 74–75; Holloran 2009, 54)

²⁷ (Department of Defense 2010)

²⁸ (Bitzinger and Raska 2013a, 2)

²⁹ (Marsh and Jones 2015, 246–59)

such interservice competition. Combined with the Joint Staff's resistance to Air-Sea Battle, the result was "a titanic battle in the Pentagon, little noticed outside defense circles..." that shaped the trajectory of America's military response to its eroding Pacific position.³⁰

After two years of development, in late 2011, the Department established an Air-Sea Battle Office, eventually, if only partially, incorporating the Army. The Air-Sea concept went through at least sixteen revisions until, in January 2015, with little public explanation, the Department abandoned the Air-Sea Battle effort.³¹ The Joint Staff absorbed the Air-Sea Battle Office, and whatever remained of the Air-Sea concept continued within the Joint Staff process of conceptual development, rather than a Navy and Air Force led effort. The concept itself was incorporated into a new, and even more opaque, "Joint Access Concept for Maneuver in the Global Commons" (JAM-GC), that promised full participation for the landpower services.³² Air-Sea Battle, which had dominated defense discourse, faded into obscurity, as JAM-GC never revealed meaningful details nor elicited much public comment. The Air-Sea Battle program thus ended.

"AirSea" and "Air-Sea"

Sifting through the definitional problems noted above, during this period American military discourse tended to use the term "Air-Sea Battle" to refer to four distinct—yet commonly conflated—meanings:

1. CSBA's unclassified and high profile 2010 "AirSea" concept.
2. The classified Air-Sea operational concept developed by the American military.
3. The Department's Air-Sea program, which authored, revised, evangelized, and enacted changes in the American military, in line with the classified concept.
4. The Department's unclassified, public, and nondescript 2013 sketch of its Air-Sea concept.

The CSBA AirSea concept was the first to be publicly released, and remained the most prominent throughout the period. Following the 2010 QDR directive for an Air-Sea concept, CSBA proposed, in detail, what such a concept should include. This report drew from a preceding decade of intellectual work, through which CSBA proved prescient in predicting and intellectually

³⁰ (Perry 2015a)

³¹ (Goldfein 2015a)

³² (Kazianis 2015)

preparing for the broader challenges associated with China's rise. While it examined the challenge and proper response holistically, its illustrative employment of an Air-Sea concept in a hypothetical high-end conflict with China became the focal point of public debate. As an effort to disrupt Chinese reconnaissance and communications capabilities, which CSBA saw as vital for American victory, the CSBA vision featured potentially numerous and enduring strikes into mainland China.³³ Through a series of wargames, reports, books, and leadership engagements, CSBA socialized defense stakeholders to the strategic and operational significance of China's rapid modernization and the American military's attendant unreadiness.

Yet, beginning in March 2009, the Department of Defense had already quietly begun its own classified Air-Sea concept and program. This diverged significantly from the CSBA vision. Most importantly, as the following chapters describe, the Department's concept featured a far more circumspect approach to mainland strikes, focusing on a diversified set of new capabilities, better employment of the current force, and air-naval integration. To be clear, these themes were central to the CSBA vision as well.³⁴ However, as subsequent chapters evidence, in deemphasizing mainland strikes, the Department's concept developed these areas far further, as the foundation and focus of its Air-Sea Battle program.

While the Department's classified concept was socialized widely in the Department, its important programmatic details were shrouded in secrecy, alienating many national security stakeholders. The Air-Sea program's external communications for stakeholders outside the Department were ineffective and vague. This was, in large part, due to the secrecy of the project, and an Obama Administration reticence to antagonize Beijing. These translated into a wooden inability of the Department's Air-Sea program to publicly address the China challenge, to provide meaningful detail about its direction, or differentiate itself from the CSBA concept. Three years after CSBA's lucid and controversial report—three years which saw robust scholarly and public debate of the CSBA concept, alongside little definitive commentary from the DoD—the Department published its own unclassified Air-Sea concept sketch. Far shorter and more abstract than the CSBA version, this framed Air-Sea Battle as a response to the diffusion of precision strike capabilities globally. The word "China" is wholly absent from the document. There was little in the sketch to lead a reader to believe that the DoD work was meaningfully distinct from the CSBA version, particularly

³³ Van (Tol ... Thomas 2010)

³⁴ *Ibid.*, Chapter 4.

regarding mainland strikes. The DoD document functioned as a bromide. Although it was augmented by occasional statements by the service chiefs and other senior leaders, these added little meaningful detail.³⁵ In the minds of most stakeholders, the distinctions between these four meanings were thus lost (or, more accurately, were never formed). “Air-Sea Battle” was, for many, synonymous with a campaign of large-scale strikes across the Chinese mainland, which appeared operationally, budgetarily, and strategically dubious. For many observers, the Department’s excitement for Air-Sea Battle was evident but—worryingly, given the stakes of any Sino-American conflict—its content remained opaque.³⁶

Commonalities and Conflation

While distinct, the CSBA and Departmental Air-Sea Battle concepts shared some core characteristics. Both identified the diffusion of precision-strike warfare as creating an A2AD challenge to American forces. This blunted American power projection and habituated forms of American operations, most notably the consolidation of force into vulnerable bases, a reliance on relatively short-ranged platforms, and the requirement for forces to train together in theater prior to conducting extensive joint operations.³⁷ This, in turn, undercut American deterrence credibility. In the Chinese case, China’s A2AD system was considered robust enough to threaten American bases and surface ships out to 1,500 nm, and potentially deny the area within the “First Island Chain” (see Figures 1.1 and 1.2).³⁸ Both Air-Sea Battles offered three broad means of overcoming this vulnerability. The first was to develop forces more attuned to A2AD conditions. Second, regarding the current force, was to better protect forward elements and foster “pre-integrated” forces. Such units would routinely engage in peacetime joint training and enjoy an unprecedented level of network connectivity, exploiting strength in one domain to create opportunities in another. Finally, in war, Air-Sea Battles described a three-part operational schema to disaggregate an A2AD system and “break the kill chain”: disrupting enemy C4ISR, employing mainland strikes if needed; destroying A2AD offensive platforms; and defeating those incoming weapons that were still able to engage.³⁹

³⁵ See (Torsvoll 2015a)

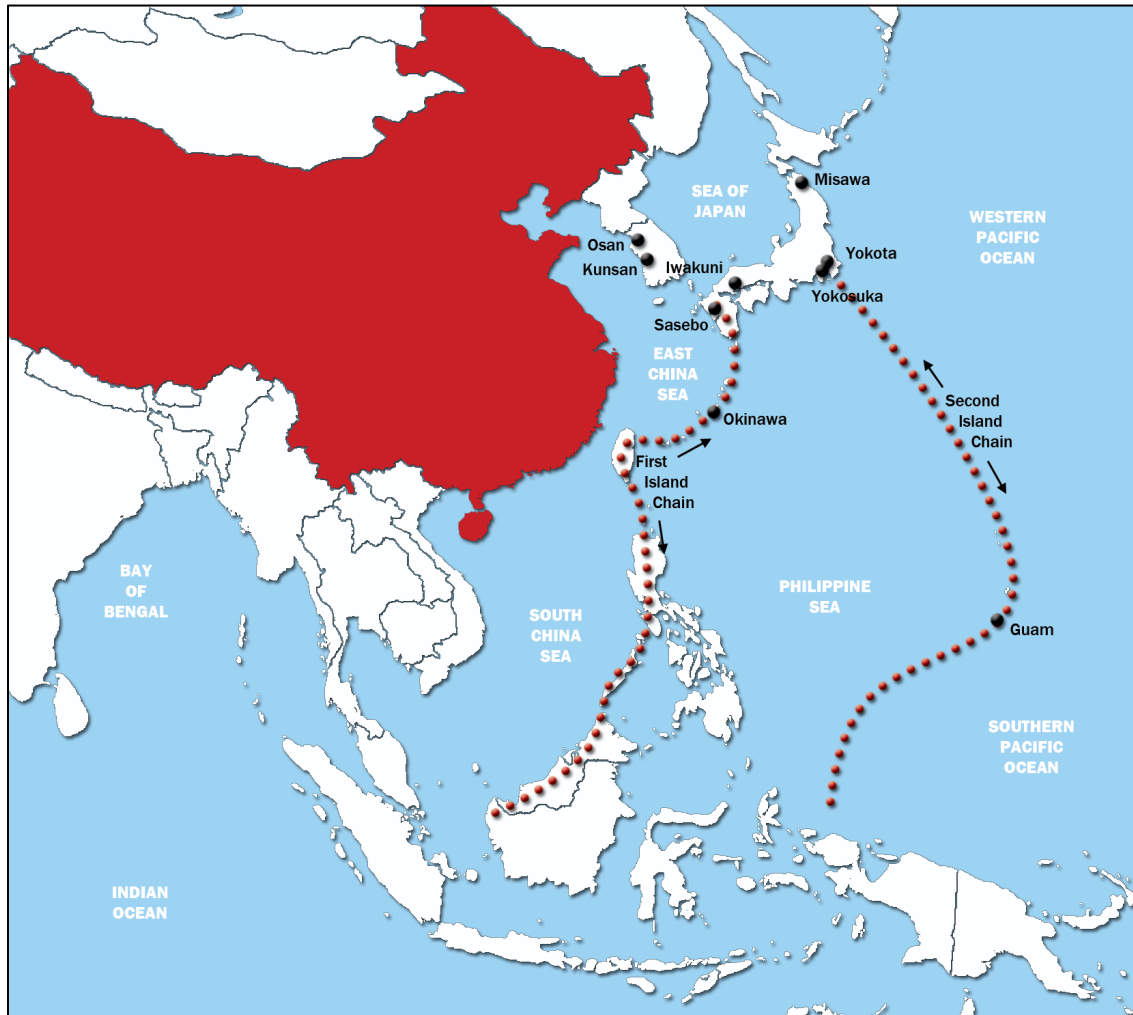
³⁶ (Bitzinger and Raska 2013b) 2.

³⁷ (“Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges” 2013)

³⁸ (Aaron L. Friedberg 2014) 82. Van (Tol ... Thomas 2010) 22.

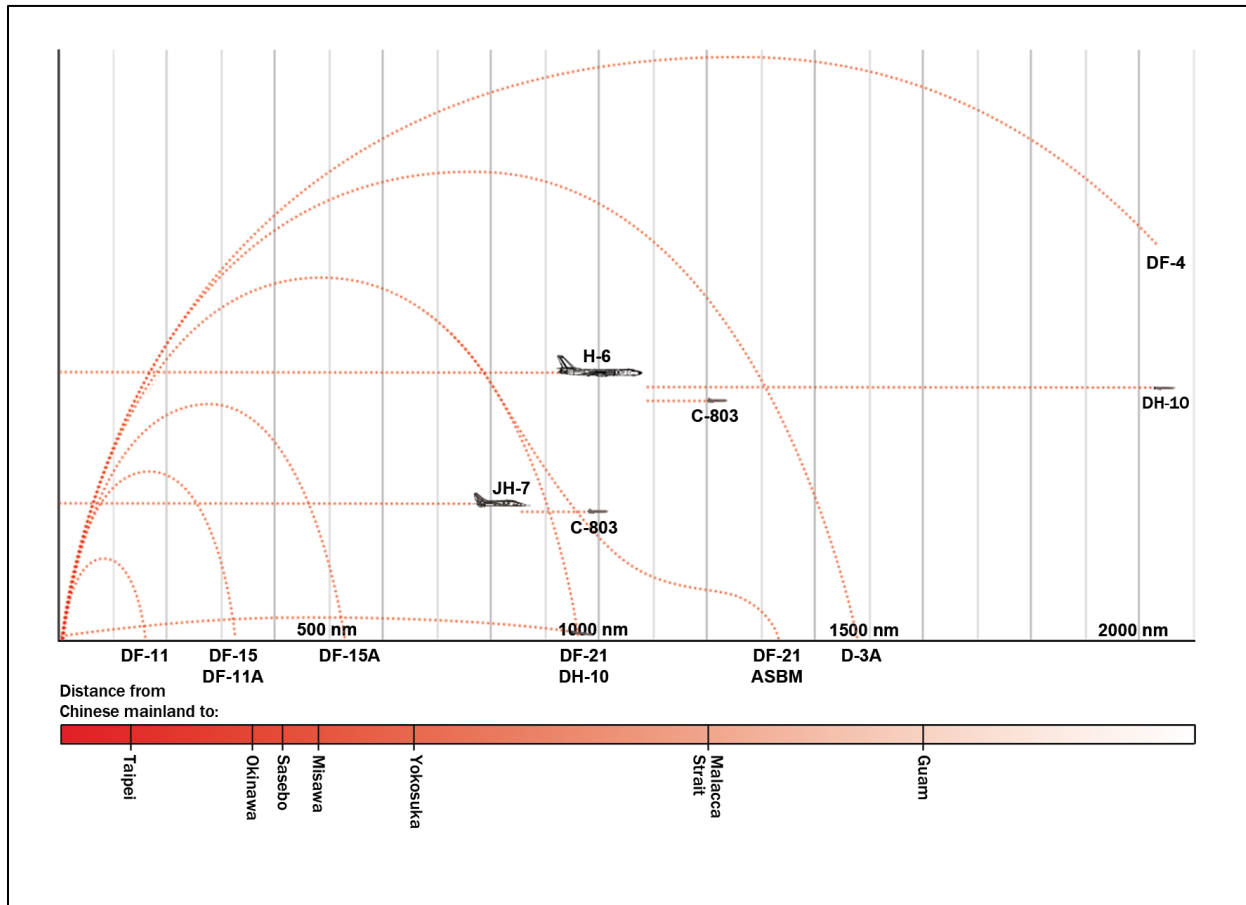
³⁹ (Department of Defense 2013) For “kill chain,” see (Greenert 2013)

Figure 1.1: The First and Second Island Chains with Major US Bases ⁴⁰



⁴⁰ Van (Tol ... Thomas 2010) 13.

Figure 1.2: Range of Major Chinese Strike Platforms, Circa 2010 ⁴¹



Within these broad outlines, however, this thesis argues that the Departmental and CSBA visions of Air-Sea Battle took markedly different directions. In the debates over Air-Sea Battle, these differences remain largely overlooked. This, combined with a lack of meaningful commentary from the Department and paucity of primary source material, continues to contribute to the confusion regarding Air-Sea's intent, evolution, and broader meaning. While the CSBA version remains the most prominent version of Air-Sea Battle, as the following literature review details, the Department's more consequential Air-Sea program remains far less understood.

⁴¹ Ibid., 18.

The Academic Literature

This literature review argues that our historical understanding of the Air-Sea case remains both incomplete and, in several ways, inaccurate. This was a result of the apparent confusion in the way the Air-Sea Battle came to be publicly presented and communicated, as explained in the previous section.

It begins by describing existing historical scholarship, demonstrating the areas where our understanding remains incomplete. It then focuses on the central question of scholarship on Air-Sea Battle: whether, and how, Air-Sea Battle was connected to American Pacific strategy. Here, I argue that critical scholarship paints an inaccurate picture of Air-Sea Battle, misrepresenting its role in American Pacific strategy.

Air-Sea Battle: Historical Sources

The majority of scholarship on Air-Sea Battle focuses on its strategic effects, operational merits, and budgetary feasibility (see below).⁴² To the extent that this literature provides historical treatment, it is generally as background to these primary concerns. I can identify no source that gathers the existing primary source evidence, which is itself incomplete, and views the Air-Sea movement holistically in retrospect. Much of this lack of historical treatment is likely due to two causes. The first is the conflation of the DoD program with the CSBA concept, which led many to believe they understood Air-Sea Battle through the debates the CSBA concept engendered. Second has been the lack of access to primary stakeholders in the Department's Air-Sea program, combined with the culture of secrecy that surrounded it. Despite these limitations, six sources give valuable historical insight into Air-Sea Battle: Friedberg, Tangredi, Haun, Haddick, Green, and Etzioni.

Aaron Friedberg's 2014 *Beyond Air-Sea Battle* is the most prominent scholarly work associated with the concept, focusing on the period's debate over American military options.⁴³ In so doing, Friedberg briefly sketches Air-Sea's historical progression, documenting its existing primary sources and associated leadership statements. He presciently notes that differences between the CSBA concept and Departmental program must exist, but given the lack of information on the

⁴² The best review of this debate is (Aaron L. Friedberg 2014)

⁴³ Ibid.

latter, focuses on the former.⁴⁴ Friedberg describes Air-Sea Battle as the “direct approach” to solving Chinese A2AD development, framing it alongside the JOAC as a “belated response” to the rise in Chinese power. While valuable, Friedberg’s primary concern is in comparative strategy rather than historical depth. Thus, he does not examine Air-Sea’s history in depth, nor introduce new primary source material in doing so. Moreover, the evidence in this thesis demonstrates that the differences between the CSBA concept and Departmental program, which Friedberg notes but does not examine, were indeed substantial. Finally, given its publication date, it cannot cover Air-Sea’s dissolution and any enduring relevance.

Samuel Tangredi’s 2013 *Anti-Access Warfare* provides a short but valuable treatment on the institutional history of Air-Sea, as a part of his wider examination of the historical evolution of anti-access warfare.⁴⁵ Tangredi’s work breaks new ground on understanding Air-Sea Battle, examining its roots in earlier naval concepts and in its early institutional development. While valuable, Tangredi’s focus is on the evolution of anti-access warfare over a much broader historical timescale, beginning with the Greco-Persian wars. Thus, covering Air-Sea’s history in eight pages, he cannot go into great depth. Given this, it is unsurprising that he does not introduce a great deal of new primary source material. Per his own admission, basic lacunae in our historical understanding of Air-Sea persist.⁴⁶ Nor does Tangredi focus on how Air-Sea interacted with American Pacific strategy or navigated institutional tensions. Tangredi’s 2013 work also cannot, naturally, cover the whole of the Air-Sea movement, particularly its 2015 dissolution.

Phil Haun’s 2020 article on AirLand Battle, grounded in military innovation theory, focuses on interservice cooperation in contemporary military innovation.⁴⁷ In briefly comparing AirLand with Air-Sea, Haun examines the reasons for Air-Sea Battle’s dissolution against AirLand’s continuity. He thus is one of the few scholars examining Air-Sea Battle’s dissolution, which he attributes to two primary factors. First, the Russian invasion of Crimea undercut the tacit agreement for focusing on China as the sole major American security threat. This lessened the appetite for an exclusive Air-Sea operating concept. Second, far from being a parochial budgetary effort as some scholars have posited, Haun argues Air-Sea Battle was detrimental to the preferred acquisition priorities of the Air Force and Navy. Neither service in 2015 wished to invest in the long-range

⁴⁴ Ibid. 79.

⁴⁵ (S. Tangredi 2013, 32–59)

⁴⁶ Ibid. 52

⁴⁷ (Haun 2020a)

strike capabilities the concept emphasized.⁴⁸ Haun’s scholarship is valuable, but as his primary focus is on AirLand Battle, it lacks the length, depth, and primary sources to fully support its claims about Air-Sea’s dissolution. Further, he focuses little on Air-Sea’s origins, evolution, interservice dynamics, or tether to American Pacific strategy.

Michael Green’s 2017 history of American strategy in the Pacific frames the broad sweep of this period, including its troubled “Pacific Pivot.” Green notes Air-Sea Battle’s development, and how it was warped by the Obama Administration’s “extreme reluctance to focus on military competition with China at a time when ‘strategic reassurance’ was a priority with Beijing.”⁴⁹ This, in his view, significantly hampered Air-Sea Battle’s ability to defend itself with Congress and other external stakeholders. Green also breaks new ground in demonstrating the contradiction between America’s strategic desire to “rebalance” towards the Pacific, yet inability to do so given budgetary constraints and a lack of leadership focus. He also admirably views the Air-Sea movement in wider context, sketching it as part of a broader evolution of the American reaction to China’s rise, and suggesting several of its follow-on effects. While valuable, however, Green’s history runs from 1783-2017. As such, he can only give a handful of pages to this particular period of history, let alone Air-Sea Battle itself. Green thus, understandably, only sketches Air-Sea’s historical progression, telling us little about its origins, interservice dynamics, evolution, relationship to strategy, and eventual dissolution.

Robert Haddick’s 2022 *Fire on the Water* is the most recent scholarship to examine Air-Sea Battle. Haddick examines the period’s competing options for answering China’s rise, namely Air-Sea, the JOAC, and blockade. Haddick lauds the Department’s Air-Sea and JOAC efforts for correctly and candidly diagnosing the worsening A2AD challenge. His historical treatment of Air-Sea Battle, about four pages, focuses on the debates over Air-Sea’s presumed effectiveness, rather than its institutional development. Conceptually, Haddick argues the program lacked the scale to achieve its desired ends, and that its culture of secrecy raised organizational suspicions.⁵⁰ Operationally, Haddick raises doubts about Air-Sea Battle’s potential utility. He notes the Desert Storm air campaign required tens of thousands of aim points—against a much smaller military in a much smaller space. Given this, Haddick doubts Air-Sea could sufficiently “blind” Chinese maritime

⁴⁸ Ibid. 731

⁴⁹ (Green 2017, 531–32)

⁵⁰ (Haddick 2022, 116–20)

surveillance sufficiently to prove effective, and that doing so would require the kinds of large-scale mainland strikes that critics saw as so operationally and strategically dubious. While Haddick's work is commendable, it remains far too short to even sketch the program's history. Further, my research suggests that the Department's Air-Sea concept, while not fully overcoming Haddick's critique, was more nuanced, detailed, and thoughtful than his presentation of it.

Amitai Etzioni's three articles, published between 2013 and 2016, represent the most extensive scholarship on Air-Sea Battle's historical development.⁵¹ This is true both in the novel arguments that Etzioni advances, and the comparative depth of his primary source evidence. Etzioni was a fierce critic of Air-Sea. He employs his historical analysis instrumentally to undergird his argument that Air-Sea was dangerously disconnected from, and contradictory to, regional stability and American strategy.

In examining Air-Sea Battle's institutional history, Etzioni argues the American military developed Air-Sea with a lack of strategic and policy consideration, combined with "little to no civilian oversight" (which he frames as "structural inattention").⁵² These factors were augmented by budgetary incentives: Etzioni cites that Air-Sea demanded over \$500B in expenditures, with major defense contractors thus acting as indirect "subterranean forces" promoting Air-Sea Battle to Congress.⁵³ These factors, in his view, combined to create in Air-Sea Battle a dangerous operational instrument: escalatory, offensive-minded, and potentially leading to a "total war" with China, risking nuclear consequences.⁵⁴ Etzioni concludes Air-Sea Battle represented a new American "strategy" for China, one more provocative than that of containment with respect to the Soviet Union.⁵⁵ In his view, Air-Sea was evidence that "the United States is preparing for war with China, a momentous decision that so far has failed to receive a thorough review from elected officials..."⁵⁶

While valuable, Etzioni's scholarship still contains basic lacunae about Air-Sea's roots, origins, evolution, and dissolution. Further, his historical assertions remain far from proven. First, do we know that this "structural inattention" was the case? Etzioni's primary evidence is indirect: the

⁵¹ (Etzioni 2016a) (Etzioni 2014a; 2013b)

⁵² (Etzioni 2016b, 169)

⁵³ (Etzioni 2016a, 173)

⁵⁴ (Etzioni 2013c)

⁵⁵ (Etzioni 2013b, 43)

⁵⁶ (Etzioni 2013b, 37)

lack of attention to Air-Sea Battle in Presidential, National Security Council, and Secretary of Defense memoirs and biographies.⁵⁷ Such an interpretation fundamentally misunderstands American operational concept development, and the well-established desire of policymakers at the time to avoid security dilemma pressures with Beijing.⁵⁸ It is unsurprising that a recent Secretary, let alone a President, wouldn't comment deeply on Air-Sea Battle in their memoirs.⁵⁹ Further, Secretary Gates commissioned the Air-Sea project, and Secretary Panetta endorsed it.⁶⁰ Etzioni classifies such Secretarial participation as cursory, but offers no primary source evidence supporting this claim. My interview with Secretary Panetta, among others, paints a far different picture. More fundamentally, this thesis documents the many intermediate steps between the Secretary of Defense and the Air-Sea Battle Office, where such policy inputs and strategic considerations took place, in addition to being directly considered by the Air-Sea Office itself. Etzioni's instrumentality comes at the expense of his historical veracity, here taking the absence of evidence as the evidence of absence. This doesn't work; one would have to examine the development process more deeply, as this thesis does, before concluding that such oversight and policy considerations were wholly absent. My evidence demonstrates that they were not.

In addition to misinterpreting the development of Air-Sea Battle, Etzioni misunderstands the role of operational concepts in American defense. He regularly represents Air-Sea as an operational concept, a "doctrine," a "strategy," a "warplan," and a foreign policy, conflating their respective roles. The comparison of Air-Sea Battle and Cold War containment is particularly misplaced; Air-Sea Battle was neither a grand strategy nor a foreign policy. For military affairs, while operational concepts indeed build capabilities for warplans, Air-Sea Battle hardly had a monopoly on American military capabilities. The US Pacific Command (PACOM) had plenty of other doctrinal options for its operational plans; as my interviews with the PACOM and Pacific Fleet Commanders evidence, Air-Sea capabilities were seen as "arrows in a much wider quiver."⁶¹ Etzioni here conflates the DoD Air-Sea program with the CSBA concept, further conflates this with the PACOM warplan, and finally assumes that the CSBA vision constituted a monopoly on American options. This badly misinterprets the role of Air-Sea Battle.

⁵⁷ (Etzioni 2016a, 173)

⁵⁸ For concept development, see (Echevarria 2016; Kreuder 2013) For security dilemma, see (Bader and Institution 2013)

⁵⁹ (LaGrone 2012)

⁶⁰ (Aaron L. Friedberg 2014, 74; Perry 2015a, 3)

⁶¹ (Robert Willard 2022; Scott Swift 2022)

In sum, while these are valuable sources, significant gaps in our understanding of Air-Sea Battle's origins, development, and dissolution remain. Given limitations to access and the secrecy surrounding Air-Sea, we have had relatively scant primary source evidence from which to build a better picture. We also have little retrospective sense of how and whether Air-Sea Battle continued to affect American military thought and praxis after 2015. The most significant historical scholarship we have on this movement is Etzioni; this scholarship is both incomplete and significantly flawed. This thesis challenges Etzioni's interpretation, while deepening the primary source material available for evaluating Air-Sea's historical development.

Scholarly Debate over Air-Sea Battle's Strategic Suitability

The second set of relevant scholarship is the debate surrounding Air-Sea Battle's tether to American Pacific strategy. Debate among scholars and practitioners about Air-Sea Battle's strategic suitability began immediately following the 2010 publication of the CSBA concept. Critics, most prominently Hammes, Williams, Kearns, and Etzioni, argued that Air-Sea Battle was not a suitable approach to a conflict with China, and nor could it meaningfully support American strategy.⁶² Hammes described Air-Sea Battle as “the antithesis of strategy,” while Dan Blumenthal, writing in *Strategic Asia*, described “an operational concept detached from a strategy...articulating a high risk operational doctrine that does not answer basic strategic questions.”⁶³ Invectives from prominent defense intellectuals ran darker still. Thomas Barnett described Air-Sea as “a self-serving fantasy” pursued with “indifferent cynicism” and from which “strategic thinking has been completely eliminated.”⁶⁴ Similarly, Brookings' Jonathan Pollack described Air-Sea's description of the threat of a Chinese strike against American forces as “completely fraudulent.”⁶⁵

Other critics, notably Rovner, emphasized the escalatory, and potentially nuclear, implications of the deep strikes into mainland China envisioned by CSBA.⁶⁶ Several scholars noted the risks for crisis stability: having two opposing military systems, both of which are powerful but

⁶² (Hammes 2012b; Williams 2011b; Etzioni 2014b; Kearns 2014)

⁶³ (Hammes 2012a; Tellis, Tanner, and Blumenthal 2012, 309)

⁶⁴ (T. P. M. Barnett 2012)

⁶⁵ (Jaffe 2012)

⁶⁶ (Rovner 2012) For a review of the mainland strikes debate, see (Meyers 2019)

simultaneously vulnerable, creates powerful incentives to fire first.⁶⁷ If critics saw danger in Air-Sea precipitating conflict, they also noted that it offered little basis for credible war termination in a conflict with China.⁶⁸

From an organizational and budgetary perspective, critics argued that Air-Sea ignored the potential contributions of landpower, perhaps as a parochial budgetary play.⁶⁹ Several critics saw Air-Sea Battle as unrealistic from a budgetary and operational perspective, particularly the demand for advanced, long-endurance aircraft required to hunt for Chinese A2AD platforms.⁷⁰ Scholars, including some within Asia, suggested that Air-Sea was damaging to America's peacetime regional diplomacy, and fraught with political risk, as few regional states would be keen to host platforms performing mainland strikes on China.⁷¹ Similarly, critics worried that the offensive concept provoked China, perhaps spurring a regional arms race.⁷² Finally, Stephen Biddle opined that the A2AD threat was overstated, questioning the demand for a robust Air-Sea capability.⁷³

Critics of Air-Sea Battle advanced two alternatives, seeking ways of deterring or defeating China that were not premised on mainland strikes. The first, by T.X. Hammes, was "Offshore Control," a concept for leveraging American command of the commons to blockade Chinese maritime commerce from beyond its A2AD umbrella.⁷⁴ Second, several scholars, most notably Hughes, Erickson, and Ochmanek, advanced versions of "Maritime Denial."⁷⁵ Here, American forces would focus on defensively denying Chinese maritime power projection within the First Island Chain without the need for mainland strikes, leveraging American strengths in undersea warfare to "turn A2AD on its head."⁷⁶

Scholars supporting Air-Sea Battle addressed these challenges. Elbridge Colby was arguably the most prominent, particularly in a series of exchanges with Hammes.⁷⁷ Proponents of Air-Sea, including some officers serving within the Air-Sea Battle Office, were quick to retort that the

⁶⁷ (Goldstein 2013; Kelly and Gompert 2013)

⁶⁸ (Torsvoll 2015a) 42. (Hammes 2012a)

⁶⁹ (Macgregor and Kim 2012, 583)

⁷⁰ (Aaron L. Friedberg 2014, 83–84) Note the CSBA version highlights that this mission would be impossible in a China scenario without substantial changes to the US aircraft inventory. Van (Tol ... Thomas 2010) 65.

⁷¹ (Aaron L. Friedberg 2014, 83–84; Torsvoll 2015a, 43; Rapp-Hooper ... Suh 2016, 45)

⁷² (Etzioni 2016b, 169–91)

⁷³ (Biddle and Oelrich 2016)

⁷⁴ (Hammes 2012a)

⁷⁵ (Kline and Hughes 2012; Erickson 2013; Ochmanek 2015)

⁷⁶ Conversation with Dr. Terrence Kelly, RAND Corporation, Summer 2014.

⁷⁷ (E. Colby 2013a; 2013b; Hammes 2013c; 2013a; 2013b)

concept was intended neither as a strategy nor a warplan for China.⁷⁸ Rather, it was a means of building integrated capabilities between services, long dormant, for high-end maritime conflict against precision strike defenses. These new capabilities would, as Finney notes, function alongside others as inputs for both warplans and strategies, rather than displacing them.⁷⁹ Similarly, scholars pointed out that Air-Sea capabilities could be applied flexibly as a situation demanded; even mainland strikes need not be extensive, but rather could be both proportionate and retaliatory.⁸⁰ In a conflict, having a deep strike option could reinforce concepts like Offshore Control and Denial.⁸¹ As Friedberg noted, without any ability to conduct deep strikes on China, the US was granting an operational sanctuary to Chinese forces, presenting serious gaps in American options.⁸²

Friedberg and others also noted that concepts like Offshore Control tended to ignore the strategic shortcomings and operational difficulties of blockade.⁸³ In practice, operational concepts unable to project power within the First Island Chain would essentially cede that space to China, with disastrous effects for both deterrence and regional diplomacy.⁸⁴ Other Air-Sea proponents noted that, in forcing the Chinese to divest funds from offensive capabilities into defending against mainland strikes, Air-Sea represented intelligent additions to a long term competitive strategy.⁸⁵

Friedberg, Colby and others further argued that Air-Sea's escalatory pressures were overstated.⁸⁶ As Friedberg notes in his book *Beyond Air-Sea Battle*, Beijing could hardly be surprised by mainland military strikes as a reaction to their own strikes on the mainland bases of American allies.⁸⁷ Beijing's incentives for a nuclear response were dubious, given they would invite a disproportionately devastating American response.⁸⁸ Arguably, by decreasing the suite of conventional options available to American policymakers, eschewing deep strike capability encouraged nuclear escalation rather than containing it.⁸⁹ These authors, Colby among them,

⁷⁸ (Dupree and Thomas 2012a; Callaway 2016)

⁷⁹ (Finney 2012)

⁸⁰ (Torsvoll 2015a, 41; Forman 2014a)

⁸¹ (Rapp-Hooper ... Suh 2016, 46)

⁸² (Aaron L. Friedberg 2014, 137)

⁸³ (E. Colby 2013a, 6)

⁸⁴ (Aaron L. Friedberg 2014, 89, 94)

⁸⁵ (Aaron L. Friedberg 2014, 93).

⁸⁶ (E. Colby 2013a; Forman 2014a)

⁸⁷ (Aaron L. Friedberg 2014, 86; E. Colby 2013a)

⁸⁸ (Ford 2013)

⁸⁹ (Forman 2014a)

argued for a graduated conventional escalation capability, within which the US could deter escalation and incentivize war termination by demonstrating escalation dominance.⁹⁰

This debate was rich, and both sides made valuable points about the right American response to its eroding Pacific dominance. Yet, the question remains: was the Department's Air-Sea program disconnected from American Pacific strategy? Few sources on either side of these debates introduced primary source material to support their divergent claims about Air-Sea Battle's relationship to broader American strategy. While debate raged about the CSBA concept, there was comparatively little inquiry into whether the formulators of Air-Sea Battle considered strategic issues, how they did so, or whether they had meaningful strategic inputs from OSD-Policy, strategists in the Navy and Air Force, Pacific Command, or other sources. This thesis demonstrates that such debates and inputs did exist, resulting in a Departmental Air-Sea Battle program that was significantly distinct from the CSBA vision animating most scholarly debate. Similarly, scholars argued at length about how the Chinese would perceive mainland strikes, but introduced almost no evidence from Chinese language military discourse to evidence such claims.⁹¹ In the appendix, this thesis reviews sixteen previously untranslated Chinese journal articles about Air-Sea Battle. These sources suggest the Chinese took Air-Sea Battle seriously, but did not perceive excessive or automatic escalatory pressures associated with it.

Methods, Sources, and Structure

To focus the research, I pursue two primary research questions. These draw directly from the literature review: the first addresses the argument that our understanding of Air-Sea Battle is incomplete, while the second addresses its inaccuracies. Through them, I seek to deepen our understanding of the Air-Sea case, and place it in broader historical context.

3. What institutional and ideational factors explain the formation, evolution, and dissolution of the Air-Sea Battle attempt at doctrinal innovation?

⁹⁰ (E. Colby 2013a)

⁹¹ The only exception to this that I can identify is Michael Swaine's research on Chinese reactions to the Pacific Pivot, wherein Swaine briefly notes the Chinese took Air-Sea seriously and saw it as part of the Pivot. (Michael Swaine 2012)

4. What was the Air-Sea Battle program's relationship to American Pacific strategy? Specifically, was Air-Sea Battle untethered from oversight and antithetical to broader American strategy, as claimed by its scholarly critics?

Approach and Methodology

I model my historical methodology on Farrell and Terriff's 2013 *Transforming Military Power Since the Cold War*, employing a contemporary historical perspective informed by military innovation theory. I draw upon innovation scholarship because, as noted above, Air-Sea Battle is best understood as an attempt at doctrinal innovation. As described in the following chapter, Farrell argues that incorporating the conceptual richness of military innovation theory, while allowing an inductive historical method, illuminates more than either approach alone.⁹²

As noted, the confusion over what Air-Sea Battle was obscures both its role in American defense and its enduring effects. Farrell's lens proves valuable in examining Air-Sea Battle in context as an innovation movement, and an inflection point in the evolving American conversation about future war. That conversation had to navigate institutional realities—like budgetary strictures and organizational competition—and was shaped fundamentally by both civilian and military leaders. Military innovation scholarship provides a rich empirical and theoretical means of examining these variables, and positing relationships between them. As I detail in the following conceptual chapter, this richness proves valuable in guiding historical inquiry, even if such historical research does not attempt to “prove” the universality or supremacy of a given theory. Specifically, theory informs this historical thesis in two related ways. First, the competing theories of military innovation present different models and assumptions regarding military change. I distill these into three plausible hypotheses regarding the drivers of Air-Sea Battle's historical evolution. Second, building off of these hypotheses, the competing models of innovation suggest which of the historical gaps surrounding Air-Sea Battle might prove particularly important, informing the selection of interview sources, questions, and primary source materials that the thesis employs.

Farrell's methodological approach presents an appropriate means for examining the evolution of Air-Sea Battle. Farrell's subject matter and historical period correspond with those of this thesis.

⁹² (Farrell, Rynning, and Terriff 2013, 1–14)

This period is marked by significant change in the geopolitical and technological contexts, moving from the Cold War through the American unipolar moment, two troubled counterinsurgency wars, and to its belated realization of renewed great power competition. Given the longer period and multiple contexts across which the thesis must operate, Farrell's caution regarding a theory-driven approach, and a relative monofocus on privileged variables, is well-placed. Alternatively, one could write a history of Air-Sea Battle without drawing from the concepts and vocabulary of military innovation theory. Yet, eschewing the richness of innovation theory would be suboptimal. As Farrell notes, innovation scholarship demonstrates potential causal mechanisms, supports these mechanisms empirically with historical case studies, and provides a useful conceptual lexicon to describe the factors causing and shaping historical military change.

Distilling the major theories of military innovation, Farrell identifies four such variables for historical examination: institutional politics; the actions of civilian and military leaders; ideas and institutional culture; and lessons from operational experience.⁹³ Farrell traces these four variables in his historical narrative, examining how both the innovation process and its outcomes change over the study period. While guided by Farrell's approach, I modify it in several ways. Farrell employs his methodology in a comparative landpower perspective, examining innovation across three armies. I focus principally on the American Navy and Air Force. Second, to make the links between innovation theory and the historical inquiry more concrete, I distill from innovation theory three plausible hypotheses as to Air-Sea Battle's historical development. as detailed in the following chapter, I differ somewhat with Farrell in my distillation from military innovation theory. Most notably, while I do not discard it entirely, I give less emphasis than Farrell to lessons learned from operational experience. Such a focus is appropriate for the land domain, which has seen more frequent and significant combat under the conditions of precision strike. In contrast, there has been no comparable major air-sea war under such conditions, and no major air-naval war for over seven decades. Militaries thus have no operational experience of major precision-strike maritime war from which to draw such lessons. Hence, operational "lessons learned" represent a less powerful as a driver of the maritime dimensions of American precision strike, Air-Sea included. Air-Sea perforce remained speculative, in a way that AirLand and its offspring—

⁹³ Ibid. 1-14

after the conflicts between Desert Storm and the Second Lebanon War—did not. My distillation of innovation theory thus modifies Farrell’s lens, focusing on four dimensions:

- The respective roles of civilian and military leaders in American doctrinal innovation, including in defining doctrine’s relationship to broader American strategy.
- Inter- and intra-service organizational dynamics, including engagement with the Combatant Commands, Joint Staff, and Office of the Secretary of Defense.
- The contested evolution of the prevailing “theory of victory” within the Air Force and Navy, as well as intersecting Army and Marine Corps concepts.
- The ways in American doctrinal innovation during this period reflected and challenged organizational cultures, particularly regarding “jointness.”

Sources and Evidence

For evidence, the thesis draws from two primary modes of inquiry. The first is to assess trends across the historical period through existing primary and secondary source scholarship, employing the theoretical lens established by Farrell et al. This includes an examination of publication data regarding anti-access and Air-Sea Battle, suggesting how Air-Sea affected American defense discourse. Second, the thesis conducts original primary source research, in the form of stakeholder interviews, the translation and analysis of Chinese-language military articles, and a handful of new internal US defense documents. As noted, I emphasize new primary source research for two reasons. First, to address the substantial lacunae in our historical understanding. Second, the new primary sources help us go beyond structural-level explanations of military change, examining the “nuts and bolts” of how the American defense community perceived external threats and institutional equities, and crafted new military concepts to answer both. The set of 61 interviews incorporates perspectives from across the military services, the Office of the Secretary of Defense, Pacific Command, Congress, think tanks, and Joint Staff. In addition to those officers serving in or around the Air-Sea Battle effort, I am grateful to include interviews with the several senior leaders: Secretary of Defense Leon Panetta, Deputy Secretary Robert Work, the Chiefs of the Navy and Air Force, Army and Marine Corps Deputy Chiefs, PACOM Commander, primary authors of the 2018 National Defense Strategy, and 17 other senior

leaders.⁹⁴ These interviews were semi-structured, consisting of a core set of questions that ensure continuity across sources and periods, while allowing a free-ranging conversation that incorporates the particular experience and perspective of the interviewee.

As with all historical research, the challenge of interview research is to identify and account for source bias.⁹⁵ Stakeholders within the Air-Sea effort, for example, may portray their experience in a positive light. Conversely, knowing that the Air-Sea movement ultimately dissolved, interviewees may, consciously or not, focus on its shortcomings. Further, as Builder notes, military members may not perfectly perceive their cultural biases, nor be cognizant of the link between institutional self-interest and organizational decisionmaking.⁹⁶ To guard against such potential biases, I took several actions. First, I incorporated multiple interviews from across the American defense community. In so doing, I hope to have a wide enough distribution of interviews to understand more general findings, rather than those particular to an individual. Regarding seminal or controversial matters, I leveraged multiple perspectives across multiple organizations wherever possible, recontacting interviewees to clarify points of disagreement. Second, to encourage candor, I allow responses to be anonymous or semi-anonymous (e.g. “a field grade officer in PACOM stated...”). These interviews are cited by their interview number only (e.g. “Interview 4”). To ensure accuracy alongside privacy, I have shared the fully attributable list of interviews with my supervisor alone. Second, I crosschecked interview material against the primary and secondary source documentary evidence.

In addition, in the appendix I have located, translated,⁹⁷ and analyzed sixteen previously untranslated Chinese-language journal articles, from 2010-2020. These articles suggest the Chinese military had trepidations regarding Air-Sea Battle—a fact that PACOM actively leveraged. Such findings further demonstrate the utility of Air-Sea Battle to American Pacific strategy during this period. On the advice of Dr. David Dorman, and one anonymous senior intelligence professional, I eschewed the English language *Global Times* articles that Western sources often cite regarding China’s foreign policy and defense discourse. I do so because these articles are employed

⁹⁴ Defined here as general/flag officers or civilian SESs.

⁹⁵ (Howell and Prevenier 2001; Seldon 1988)

⁹⁶ Builder, *The Masks of War: American Military Styles in Strategy and Analysis*, Chapter 1. Lee makes a similar point on page 22.

⁹⁷ For translation, in addition to my own Chinese language skills (I have three years of university training in Mandarin, including study abroad in China), I hired two translators to ensure accuracy. One translated the articles in toto, the other I used to ensure accuracy on key passages and terms. I can provide further details upon request.

as strategic messaging tools to external, English-speaking audiences, rather than sources of internal conversation among the Chinese-speaking defense community. They are, by design, read by foreigners rather than the Chinese military community. They are thus an inaccurate guide to Chinese military thought, often intentionally reflecting back themes from English-language debates in an attempt to influence their outcome.⁹⁸

Methodological Challenges and Limitations

This thesis is limited to the history of Air-Sea Battle. It is not a broader history covering the evolution of American precision strike, nor the whole of the American military reaction to China's rise. Such a history would entail far deeper treatment of the period before Air-Sea Battle, and why the United States did not pursue a more robust response before 2009. While I address some of these issues in the background chapter, this thesis remains focused on documenting and understanding Air-Sea Battle's history.

The contemporary historical approach also brings both costs and benefits. Traditional history allows greater distance from the subject, with the benefits of deeper hindsight. Some of this perspective is inevitably sacrificed in contemporary history. As Sheldon and others note, however, contemporary history complements traditional history in its ability to document the perspectives of the stakeholders, and the intellectual context in which they operated, while the number of stakeholders and quality of their memory remains robust.⁹⁹ This can curate perspectives, documents, and the subtleties of social contexts that are likely more difficult for future scholars to faithfully resurrect. Here, I am encouraged by the work of a recent KCL doctoral thesis, wherein Caitlin Lee examined contemporary American Air Force unmanned innovation, structured similarly to this thesis and drawing heavily from stakeholder interviews.¹⁰⁰

Air-Sea Battle presents the additional methodological challenge that classification limits the information available to historical research. Most limiting, we lack the ability to examine the classified Air-Sea Battle concept, assessing its strategic dimensions and differences from the CSBA document directly. Yet, while many details remain rightly classified, much of the concept's

⁹⁸ (David Dorman 2022; Interview 20 2022)

⁹⁹ (Seldon 1988)

¹⁰⁰ Lee, "The Culture of US Air Force Innovation: A Historical Case Study of the Predator Program," 2016.

institutional history, operational approach, strategic inputs, intellectual foundations, and interservice dynamics are not. Stakeholders proved willing to be far more descriptive of the Air-Sea program in hindsight during interviews for this thesis than they were during Air-Sea's secretive life. Regarding process, my interview questions were general enough to avoid most classification concerns (e.g. "Were policy inputs sought during the development process, and if so, from whom?"). The research successfully uncovered new primary source material that has not yet been assessed by existing scholarship. Further, as noted, no source yet gathers and assesses all of the already extant primary source evidence in historical retrospective. In sum, while rightly unable to see everything, this thesis has been able to see more about Air-Sea Battle's history than has been previously available.

Structure

The thesis is organized as follows. The following chapter provides a shared conceptual framework on the thesis's distillation of military innovation scholarship, and on American "operational concepts" as vehicles of innovation. In applying the major theoretical perspectives of military innovation scholarship to the historical period, the chapter demonstrates the value and limitations of innovation theory for this study, while explaining the thesis's modification of Farrell et al's conceptual lens.

Equipped with this conceptual framework, the subsequent five chapters conduct the thesis's historical examination. Chapter Three outlines Air-Sea Battle's deeper historical roots in the debate between "futurists" and "orthodoxy" in American defense, and outlines the belated American response to China's military rise. Chapter Four describes Air-Sea Battle's origins, as it moved ideation in the think tank community to the center of the American Navy and Air Force. Chapter Five examines the rise of Air-Sea Battle, in the seminal period from Secretary Gates's 2009 directive to the late 2011 establishment of the Air-Sea Battle Office (ASBO). Chapter Six then describes Air-Sea's "inflection point" between 2012 and 2013, wherein budgetary sequestration and leadership changeover proved central to its later dissolution. Chapter Seven examines the fall of the Air-Sea movement after 2014, before considering its continued relevance to modern American military thought. Finally, a concluding chapter looks across the historical period, summarizing the research by returning to the original research questions.

CHAPTER TWO: REVIEWING INNOVATION THEORY AS A FRAMEWORK

Introduction: Operational Concepts as Innovation Vehicles

This thesis provides a theory-informed historical examination of the roots, rise, and evolution of the American Air-Sea Battle operational concept. To conduct such an examination requires an understanding of military innovation theory, and the role of “operational concepts” as vehicles for doctrinal innovation in modern American military practice. This chapter provides that conceptual foundation. As cultural models of innovation also require an understanding of the organizational culture in question, I also sketch the organizational cultures of the American Navy and Air Force. By chapter’s end, the reader should have a working knowledge of the innovation concepts, lexicon, and processes that recur in the historical chapters.

The chapter’s intellectual framework consists of three elements, unfolding from an examination of innovation theory. First, I review military innovation theory, demonstrating how it guides historical inquiry towards causal factors that have shown themselves as conducive or deleterious in past cases of military change. As I review each theoretical model, I note that while each is valuable, no single theoretical perspective consistently describes the changes observed in the thesis’s historical period. They do, however, suggest different hypotheses regarding Air-Sea Battle’s evolution. Aligning with Farrell’s historical method, I distill innovation theory down to four central factors—civil-military dynamics, institutional politics, competing theories of victory, and organizational cultures—that competing innovation theories frequently cite as significant in shaping peacetime doctrinal innovation. These factors differentiate between these suggestive hypotheses, guiding this thesis’s historical inquiry and shaping the selection of primary sources (e.g. interviews, questions, and documents). Finally, to understand this theoretical lens in the context of the modern American military, I examine American operational concepts, and the role they play in American doctrinal innovation. This includes a brief examination of the relationship between operational concepts and strategy, due to the assertions of Etzioni and others that Air-Sea was an operational concept untethered from American strategy. A brief conclusion then summarizes the chapter and charts the way ahead.

Military Innovation Theory

Defining Military Innovation

Why, and how, do militaries change? Military innovation theory provides an empirically rich set of competing theories as to why military change occurs, and assumptions regarding how militaries approach change. This section reviews these theories, culling from them the key assumptions, mechanisms, and concepts that shape the thesis's historical inquiry.

To do so, we first must understand what “innovation” is. Drawing from Zisk, this thesis defines military innovation as “a significant change in how a military conceptualizes and prepares for future conflict, which can be either disruptive or sustaining in character.”

Scholarly definitions for military innovation vary, emphasizing different aspects and scales of military change. While varied, scholarly definitions of military innovation generally require some degree of intellectual, organizational, and doctrinal change.¹⁰¹ Technological change alone fails to capture the vital organizational and intellectual decisions that transfer technological potential into new modes of military operations. As the most frequently cited example, while all of the primary interwar militaries had the tank and airplane, only the Wehrmacht had *blitzkrieg*. Among the competing definitions of military innovation, Adam Grissom provides a valuable and widely cited “tacit consensus” of military innovation theory. In Grissom's view, to constitute “innovation,” a military change must: directly involve operational praxis (rather than administrative or organizational reshuffling); represent improvement; and be significant in its impact.¹⁰²

While valuable, Grissom's “consensus” definition is consequentialist, defining innovation based on “significant” and “successful” outcomes. As Grissom himself notes, among others, this presents methodological challenges.¹⁰³ Many historically important cases of attempted change to military praxis cannot meet a consequentialist standard for “innovation.” Identifying a “significant success” is subjective, and more importantly, contingent upon factors exogenous to an innovation movement. For example, innovation attempts may represent significant change to military praxis,

¹⁰¹ Theo Farrell and Terry Terriff, *The Sources of Military Change: Culture, Politics, Technology*, (Boulder, CO: Lynne Rienner Publishers, 2002), 5.

¹⁰² Adam Grissom, “The Future of Military Innovation Studies,” *Journal of Strategic Studies* 29, no. 5 (2006): 906.

¹⁰³ Grissom, 907; Theo Farrell, Sten Rynning, and Terry Terriff, *Transforming Military Power since the Cold War: Britain, France, and the United States, 1991–2012*, (West Nyack: Cambridge University Press, 2013), 8. Armin Grunwald, “Responsible Research and Innovation (RRI): Limits to Consequentialism and the Need for Hermeneutic Assessment,” in *The Future Information Society*, vol. Volume 8, World Scientific Series in Information Studies, (World Scientific, 2016), 139–52.

but prove unsuccessful or deleterious; be ambiguous or debatable in their effects; or like American concepts for modern air-naval conflict, be untested by conflict. Even battlefield success may be problematic as “proof” of successful innovation: as Clausewitz reminds, battlefield success is contingent upon many factors beyond the purview of an innovation effort.¹⁰⁴ In sum, a wide swath of historically significant military change lies beyond the limits of a consequentialist definition of “innovation.” This includes Air-Sea, which cannot meet Grissom’s definition given a lack of unambiguous success, yet was an explicit attempt at doctrinal innovation.

For these reasons, I prefer Kimberly Zisk’s definition of “innovation” as a starting point: “a major change in how military planners conceptualize and prepare for future war.”¹⁰⁵ While retaining a focus on praxis, and a differentiation between significant and insignificant change, Zisk’s definition eschews a consequentialist notion of “success.” Unlike some definitions, Zisk’s is also not tethered to material or organizational factors, and thus can incorporate significant doctrinal changes that involve existing, rather than new, field formations and equipment.¹⁰⁶ This is germane to Air-Sea Battle, as much of the concept sought to employ existing platforms and structures in doctrinally novel ways, at least until new platforms could be designed, acquired, and integrated.

Drawing from Farrell, I add to Zisk’s definition a qualitative differentiation between *disruptive* and *sustaining* innovation.¹⁰⁷ Sustaining innovation seeks improvements to current modes of operation, as opposed to the creation of new modes. For example, the improvements in Royal Navy battleships between the *Dreadnought* and the *Vanguard* classes granted substantial gains in capability, opening new operational and, arguably, strategic possibilities. They did so, however, by incrementally improving upon current doctrine, organization, and platforms.¹⁰⁸ “Sustaining” here does mean insignificant. Such changes can accumulate, over time, into significant innovation. Defining innovation only by dramatic episodes of disruptive change obscures the more gradual work of innovation over longer time periods. In contrast, *disruptive* innovation attempts to create

¹⁰⁴ Carl von Clausewitz, F. N. Maude, and Anatol Rapoport, *On War*, New and revised, (New York, N.Y.; Harmondsworth, Eng; Penguin Books, 1982), 89, 164–67.

¹⁰⁵ Kimberly Zisk Marten and Societies, *Engaging the Enemy: Organization Theory and Soviet Military Innovation, 1955-1991*, (Princeton, NJ: Princeton University Press, 1993).

¹⁰⁶ This shares similarities with “adaptation” or “bottom up” mechanisms of military change. Adaptation, however, is “primarily a wartime effort that builds on the insights produced in battlefield frictions and lessons learned...” See (D. Adamsky and Bjerga 2012, 189). This is distinct from peacetime innovation attempts like Air-Sea Battle. In contrast to “bottom up” or deckplate innovation, Air-Sea Battle also used existing formations, but was decidedly a “top-down” affair.

¹⁰⁷ (Farrell, Rynning, and Terriff 2013, 8–9)

¹⁰⁸ (Breyer 1980)

new organizations, doctrines, and principles, generally over shorter time periods. As such, disruptive innovation typically involves “acts of organizational destruction.”¹⁰⁹ To continue the example, moving from a battleship navy to a carrier navy, or the onset of battlefield aviation in World War One, represented such “disruption.”¹¹⁰ Disruptive innovation, entailing greater cost, risk, and conflict, is considered both more difficult and comparatively rare.¹¹¹

The distinction between sustaining and disruptive innovation proves helpful in understanding the interplay of sudden and gradual change in modern American doctrine, Air-Sea Battle included. Through much of the preceding “transformation” period, the American military was explicitly attempting disruptive innovation. Regarding Air-Sea Battle, it is unclear in previous scholarship how disruptive or sustaining the Air Force and Navy desired Air-Sea Battle to be. Aaron Friedberg suggests the American military faced a fundamental choice on whether to take a sustaining approach to Air-Sea, modifying doctrine but not deeply affecting platforms, or a more disruptive one, which would see a more dramatic expansion of long-range strike capability.¹¹² The ensuing historical chapters shed new light on Friedberg’s assertion.

Innovation Theory: Valuable but not Definitive

Defining military innovation as such, we can examine the factors and causal mechanisms that can create it. Innovation theory includes four major “schools,” each of which is relevant for this thesis, reviewed below.. As Farrell demonstrates, even for cases falling short of consequentialist “success,” these theories provide powerful models of military change behavior, identifying causal mechanisms, key variables, assumptions about the actors involved, and a conceptual lexicon for historical inquiry. Yet, while valuable, no innovation theory demonstrates efficacy across all, or arguably even most, cases of military innovation. As Williamson Murray notes, contending theoretical approaches to military innovation can find ample evidentiary support precisely because there is no single, dominant causal factor that drives innovation reliably across varying contexts.¹¹³

¹⁰⁹ (Farrell, Rynning, and Terriff 2013, 9)

¹¹⁰ Geoffrey Till in Williamson Murray and Allan Reed Millett, *Military Innovation in the Interwar Period*, (Cambridge;New York; Cambridge University Press, 1996), 191–227.

¹¹¹ (Farrell, Rynning, and Terriff 2013) 8

¹¹² (A. Friedberg 2014, 95–99)

¹¹³ Williamson Murray and Allan Reed Millett, *Military Innovation in the Interwar Period*, Book, Whole (Cambridge;New York; Cambridge University Press, 1996), 381.

Downs and Mohr make a similar point: “Factors found to be important for innovation in one study are found to be considerably less important, not important at all, or even inversely important in another study. This phenomenon occurs with relentless regularity.”¹¹⁴ Thus, while theoretical explanations can find ample evidence in discrete cases, they often struggle to explain innovation across extended timescales and changing contexts.¹¹⁵ As the section below demonstrates, each theory indeed falls short of consistently explaining the American military innovations of the precision strike historical period. This recommends a historical approach, particularly given the longer timescale and multiple contexts across which the thesis operates. As such, this section highlights where the historical record contradicts the expectations of innovation theory, but also where theory raises valuable areas of historical inquiry for Air-Sea Battle. Doing so demonstrates the value of Farrell’s method, and the specific areas of focus for this thesis.

The Civil-Military Model

The earliest theoretical perspective is Posen’s, a civil-military model focused on doctrinal change. Envisioning innovation as the product of bureaucratic mechanisms reacting to changing international security conditions, Posen draws heavily from both organizational theory and realist perspectives of international relations. At root, Posen envisioned militaries as conservative bureaucracies, incapable of significant change without external imposition.¹¹⁶ Civilian leaders, free from parochial service concerns and bureaucratic inertia, react to changing external threats in a realist fashion. Perceiving a need for innovation, they press a recalcitrant military bureaucracy into change, aided by “maverick” senior officers, thus welding military innovation to national security strategy.¹¹⁷

Subsequent scholars have applied the civil-military perspective to new cases.¹¹⁸ Most importantly here, Zisk argues civil-military dynamics were central to Soviet doctrinal innovation.¹¹⁹ In what

¹¹⁴ Cited from Stephen Peter Rosen, *Winning the next War: Innovation and the Modern Military*, Book, Whole (Ithaca: Cornell University Press, 1991), 5.

¹¹⁵ (Clark 2016, 25)

¹¹⁶ Barry Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars*, (Cornell University Press, 2014), 34–81,.

¹¹⁷ (Posen 2014, 41–78)

¹¹⁸ For examples, Deborah Avant, *Political Institutions and Military Change: Lessons from Peripheral Wars*, (Ithaca: Cornell University Press, 1994); David A. Armstrong, *Bullets and Bureaucrats: The Machine Gun and the United States Army, 1861-1916*, 1st ed., vol. no. 29., (Westport, Conn: Greenwood Press, 1982).

¹¹⁹ (Marten 1993)

she describes as “doctrine racing” between great powers, Soviet doctrinal innovations responded to those of NATO, and vice versa. The Soviets did so through the increasing imposition of Soviet civilian stakeholders, against a conservative Soviet General Staff. Zisk notes the growing importance of civilian analysts in this process, somewhat paralleling the role of the ONA and CSBA in the evolution of American precision strike.¹²⁰

The civil-military model finds mixed support in the historical record of American precision strike. The model assumes militaries are rather universally conservative. Yet, Kagan’s history of American “transformation” during the 1990s demonstrates the opposite: a military more prone to “chasing fads,” including the ill-fated “Rapid Dominance” concept, than abiding by established principles.¹²¹ The degree of military conservatism in shaping Air-Sea Battle remains an open question in existing scholarship. Second, while civilian pressure was evident in some periods of American “transformation,” particularly with Secretary Rumsfeld, it was notably absent from AirLand Battle, the most consequential and successful doctrinal innovation of the period.¹²² For Air-Sea, the relative roles of civilian and military leaders remain undefined.

Finally, the civil-military argument suggests pressing external threats as structural drivers of change. While this appears potentially true in AirLand and Air-Sea, the 1990s “transformation” agenda was striking for precisely the opposite reason. In this period, the lack of any strategic competitor fostered a belief in a window of opportunity, wherein the American military pursued disruptive innovation explicitly due to a perceived decrease in risk.¹²³ Regarding Air-Sea Battle, the degree to which Air-Sea was driven by “doctrine racing” with respect to the Chinese military, or as its proponents asserted, by wider trends in mutual precision strike warfare, remains unclear. In sum, the civil-military approach suggests historical attention to the respective roles of civilian and military leaders, and to the degree of military conservatism in precision strike innovation.

¹²⁰ (Marten 1993, 183)

¹²¹ Frederick Kagan, *Finding the Target: The Transformation of American Military Policy*, (New York, USA: Encounter Books, 2007), 199–287.

¹²² Phil Haun, “Peacetime Military Innovation through Inter-Service Cooperation: The Unique Case of the U.S. Air Force and Battlefield Air Interdiction,” *Journal of Strategic Studies* 43, no. 5 (2020): 712.

¹²³ See United States. President (2001-2009 : Bush), *A Blueprint for New Beginnings : A Responsible Budget for America’s Priorities*, (District of Columbia: Office of Management and Budget, Executive Office of the President : for sale by the Supt. of Docs., U.S. G.P.O., 2001, 2001), 54; See also United States. National Defense Panel, “Transforming Defense: National Security in the 21st Century : Report of the National Defense Panel” (Arlington, VA: The Panel, 1997).

The Interservice Model

The interservice perspective places competition between a state's military services, typically for budgets or prestige, as the central driver of innovation.¹²⁴ Senior military leaders will press their service to innovate when they perceive the risks of losing these to a competing service as greater than the costs of change.¹²⁵ Like the civil-military approach, the interservice model assumes bureaucratic conservatism amongst military services; without sufficient interservice competition, such conservatism will prevail. The market-oriented model is perhaps best summarized by Sapolsky: "There is no better spur to candor, error correction, and creativity in defense planning than a very tight budget and a few smart rivals competing for budget share."¹²⁶

Several interservice scholars focus on competition over "mission areas" (e.g. long range strike, naval surface warfare, etc.). Innovation occurs when technological or strategic changes open new mission areas, or cause the re-adjudication of old mission assignments.¹²⁷ Services innovate to gain or defend jurisdiction over these missions, motivated by concordant effects on budget, prestige, and end strength. We should expect to see, therefore, greater innovation during periods of tight budgets, and in areas where the services do not enjoy a strong monopoly (e.g. the Marine Corp's monopoly over amphibious assault).

Three interservice scholars—Gallo, Cote, and Haun—are particularly valuable here. First, Gallo's recent doctoral thesis combines elements of interservice and intra-service models to examine peacetime doctrinal change. Gallo argues that while realist perceptions of external threats catalyze innovation, innovation behavior is best explained by two factors: the desire for services to maintain a monopoly over their respective warfighting domains, and the constant competition of "theories of victory" within services (see below).¹²⁸ Given that Air-Sea allowed the Air Force unprecedented access to traditionally naval missions, in Gallo's perspective we should expect

¹²⁴ The interservice perspective is supported by a range of empirical case studies, some of which predate the articulation of the model itself. See Harvey Sapolsky, *The Polaris System Development: Bureaucratic and Programmatic Success in Government*, (Cambridge, Mass: Harvard University Press, 1972); Andrew J. Bacevich and Press National Defense University, *The Pentomic Era: The US Army between Korea and Vietnam*, (Washington, DC: National Defense University Press, 1986).

¹²⁵ Harvey Sapolsky, Benjamin Friedman, and Brendan Green, *US Military Innovation since the Cold War: Creation Without Destruction*, (Hoboken: Taylor & Francis, 2009), 8.

¹²⁶ Harvey Sapolsky and Marvin Miller, "Defense and Arms Control Studies Program of the Massachusetts Institute of Technology, Cambridge, MA," 1996, 3.

¹²⁷ (Grissom 2006, 210)

¹²⁸ Andrew Gallo, "Understanding Military Doctrinal Change during Peacetime" (ProQuest Dissertations Publishing, 2018), 299–314.

resistance from the Navy. The preceding AirLand collaboration was indeed sorely tested, replete with Army-Air Force tensions.¹²⁹ These facts invite historical scrutiny on how “joint” Air-Sea Battle was. Despite much rhetorical “jointness,” we have little understanding of how the Navy reacted to the significantly deeper Air Force incursion into the Navy’s maritime domain. For example, it is possible Navy leadership felt obliged to publicly support Air-Sea, but was happy to see it dissolve before the Air Force cemented itself with new maritime missions.

Second, Cote’s doctoral dissertation argues that an abundance of jointness destroys the impetus for military innovation.¹³⁰ Indeed, some scholars cite a democratic form of American military “jointness,” in which equal participation, and equal distribution of rents, takes precedence over the prioritization demanded by strategy.¹³¹ This is relevant, given the Air Force and Navy Chiefs’ decision to develop Air-Sea Battle bilaterally, outside the more inclusive Joint Staff process. Drawing from Huntington, Cote further notes that when services cannot resolve their differences, this invites civilian interposition.¹³² The navigation of interservice jointness, and role of civilian and military leaders in Air-Sea Battle’s dissolution, remain unclear in existing scholarship.

What is most intriguing about this period from an interservice perspective, however, is where the history appears to directly contradict theoretical expectations. Facing tightening budgets, from 2009-2015 the Navy and Air Force chose to *collaborate*, rather than compete, in Air-Sea Battle. The Army and Air Force behaved similarly in AirLand Battle. Before and after AirLand, the Air Force emphasized the independent and strategic decisiveness of airpower. Yet, for roughly fifteen years in AirLand Battle, the Air Force organized itself around a tactical and supporting role for the Army. As Haun notes regarding AirLand, the interservice model fails to explain these rare cases of service collaboration.¹³³ Moreover, as Kagan demonstrates, interservice competition over budgets in the 1990s led to a “regression in the quality of airpower theory,” with theory used instrumentally to “cheerlead” for Air Force budgets (see Chapter Three). This contributed

¹²⁹ Harold Winton, “Partnership and Tension: The Army and Air Force Between Vietnam and Desert Shield,” *Parameters (Carlisle, Pa.)* 26, no. 1 (1996): 100.

¹³⁰ (Cote 1998)

¹³¹ David Fautua, “The Paradox Joint Culture. (Out of Joint),” *Joint Force Quarterly*, (2000): 81; Seth Cropsey, “The Limits of Jointness,” *Joint Force Quarterly*, no. 1 (Summer 1993): 72–79; Michael Vlahos, “By Our Orthodoxies Shall Ye Know Us,” *Joint Force Quarterly*, no. 2 (Autumn 1993): 108–10; Bryan McGrath, “The Unbearable Being of Jointness,” *Proceedings - United States Naval Institute* 136, no. 5 (2010): 40. Sam Tangredi, *Anti-Access Warfare: Countering Anti-Access and Area-Denial Strategies*, (Annapolis: Naval Institute Press, 2013), 18.

¹³² (Cote 1998, 46)

¹³³ (Haun 2020b, 712)

substantially, in Kagan’s view, to the disastrous application of “Rapid Dominance” in Iraq.¹³⁴ In essence, this scholarship suggests services indeed focus on securing their equities, but not in ways that necessarily foster innovation.

While agreeing that interservice competition drives innovation, Haun argues the services collaborated in AirLand due to a specific confluence of threats, both external (Soviet developments in central Europe) and internal (tightening budgets, domestic advocacy for higher quantity/lower capability platforms, and mounting Congressional scrutiny of Air Force acquisitions).¹³⁵ This internal/external confluence explains both the AirLand outlier, and collaborative innovation’s rarity. Similarly contradicting interservice expectations, Echevarria notes that the Navy did not undercut the AirLand innovation, because it felt secure in its budget and its own innovative Maritime Strategy concept.¹³⁶ It is unclear in present scholarship, however, what precipitated Navy-Air Force collaboration in Air-Sea, to what extent the services encountered similar pressures to AirLand. Finally, as demonstrated in the roles of the Joint Staff, OSD, and PACOM in Air-Sea Battle’s history, the historical period suggests that organizational actors beyond the services can hold important roles in shaping military innovation.

In sum, the interservice perspective demonstrates that the role of organizational competition in Air-Sea Battle remains unclear in our current historical understanding. While the Air-Sea coalition was clearly competing with the landpower services, the extent to which the Air Force and Navy perceived themselves as competing or cooperating within Air-Sea Battle is unclear. The respective roles of OSD, the Joint Staff, and COCOMs are also unclear. The thesis will thus pay particular attention to these interservice and institutional dynamics, the relationship between the Navy and Air Force, and their relative degree of service commitment to Air-Sea.

The Intra-Service Model

Stephen Rosen’s intra-service perspective rejects the primacy of civilian actors and interservice competition in driving military change. With regards to civilian interposition, echoing Neustadt, Rosen argued that civilian leaders rarely have the institutional power, capacity, and longevity to

¹³⁴ (Kagan 2007, 201)

¹³⁵ (Haun 2020b, 713–15)

¹³⁶ (Echevarria 2016, 44)

foster sustained change in military organizations.¹³⁷ Like Gallo and Builder, Rosen’s approach suggests that military services defend a relative monopoly on innovation within their domain; i.e., the Navy will be the most powerful actor in determining how a state fights at sea, etc. Service power in these domains, often undergirded by powerful legislative constituencies, proves difficult for even Presidents to overcome.¹³⁸ Organizationally, the intra-service perspective rejects that military services behave like the civilian bureaucracies described by organizational theory.¹³⁹ First, given their respective monopolies, innovation is largely explained within services rather than in interservice competition. Further, as Long notes, interservice analysis provides only a “black box”: describing potential incentives for a service to innovate, but revealing little about why a service pursues one approach to innovation over another.¹⁴⁰

Rosen instead posits an intra-service model of military innovation, wherein innovation is the result of competition between a service’s respective branches. Rosen argues peacetime innovation occurs when senior officers within a service successfully advance a “new theory of victory” in intra-service bargaining.¹⁴¹ Ideologically, theories of victory consist of a vision of future warfare, and an argument for how it should be won. Innovation thus “requires an ideological struggle ...[which can] challenge the basic agreements as to how the service should operate in wartime.”¹⁴² As explored in the next section, American “operational concepts” have clear parallels to Rosen’s competing theories of victory. The senior officers driving competing theories of victory occupy the central positions of their respective services, and thus, by definition, are not “mavericks.”¹⁴³

Organizationally, Rosen envisions military services as complex political communities rather than monolithic bureaucracies. These communities are governed by agreements between their branches on how the service will fight in the next war, and what roles and missions hold priority.¹⁴⁴

¹³⁷ Stephen Rosen, *Winning the Next War: Innovation and the Modern Military*, (Ithaca: Cornell University Press, 1991), 8–11. Richard E. Neustadt, *Presidential Power and the Modern Presidents: The Politics of Leadership from Roosevelt to Reagan*, (New York; Toronto; Free Press, 1990)

¹³⁸ Gallo, “Understanding Military Doctrinal Change during Peacetime,” 295; See also Carl Builder, *The Masks of War: American Military Styles in Strategy and Analysis*, (Baltimore: Johns Hopkins University Press, 1989), 3–17.

¹³⁹ (S. Rosen 1991, 8–19)

¹⁴⁰ Adam Stulberg, Michael Salomone, and Austin Long, *Managing Defense Transformation: Agency, Culture and Service Change* (Aldershot, Hampshire, England: Ashgate, 2007), 19–20.

¹⁴¹ (S. Rosen 1991, 6, 57–75)

¹⁴² (S. Rosen 1991, 19)

¹⁴³ (S. Rosen 1991, 21)

¹⁴⁴ Rosen, 69-93.

Innovation, particularly disruptive innovation, will disturb these agreements. It likely requires an adjustment to the distribution of power between branches within a service, at the expense, perhaps destruction, of older structures (e.g. cavalry regiments). Thus, innovation efforts are contested. In this competition, personnel matters prove surprisingly powerful. In Rosen's view, factions that can create organizational structures, including new general officer billets, can attract talented mid-level officers to commit their careers to the new vision of warfare.¹⁴⁵ Victory is established, and innovation complete, when talented mid-level officers staff new organizational structures, enacting a new doctrine. This takes time, and thus in Rosen's view, peacetime military innovation is therefore typically a generational task.¹⁴⁶

Several scholars have continued and deepened the intra-service perspective, of which two have particular relevance here.¹⁴⁷ Reinforcing the importance of Rosen's intra-service "theory of victory," Patalano and Russell point out the fundamental role that service-level strategy plays in shaping and driving military innovation efforts. This begins with the service's national value proposition—what national strategic problem is the service meant to solve? Patalano and Russell highlight the key role of service strategies in translating broader (and often vaguer) national security strategy into the tangible changes the services seek in military innovation.¹⁴⁸ Without "clear connective tissue" to service strategy, which in turn connects the service's innovation effort to national strategy, innovation movements prove difficult to sustain.¹⁴⁹ Patalano and Russell thus place military services as organizations at the center of military innovation, as it is within the services that military innovation emerges at the intersection of national strategy, service strategy, and the management of available resources.¹⁵⁰ Also of relevance to Air-Sea, Jensen takes a public policy approach to examine the relationship between actors, coalitions, and ideas in driving early American precision strike warfare. In his view, small groups of "programmatic actors" that cross institutional lines, competing for authority and influence, can prove decisively effective if able to

¹⁴⁵ (S. Rosen 1991, 105)

¹⁴⁶ Other scholars have applied this intra-service perspective across a range of historical cases. As examples, (Engel 1994; Haworth 1999)

¹⁴⁷ Suzanne Nielsen, "Preparing for War: The Dynamics of Peacetime Military Reform" (Harvard, 2003). Note that I cover another of these scholars, Richard Lock-Pullan, in greater depth in the cultural section below.

¹⁴⁸ (Patalano and Russell 2021, 13, 291)

¹⁴⁹ (Patalano and Russell 2021, 283)

¹⁵⁰ (Patalano and Russell 2021, 9–16, 280)

leverage internal networks effectively. Jensen argues that such coalitions had powerful effects in early American “transformation,” exemplified by ONA and its alumni.¹⁵¹

While valuable, the intra-service model falls short of fully explaining American precision strike innovation. In the significant changes in the American military from 1975-2015, it appears little of the predicted organizational creation, destruction, and competition for mid-career officers took place.¹⁵² In both AirLand and Air-Sea, bureaucratic competition for mid-career officers appeared to play little role.¹⁵³ Further, the landpower services’ staunch, and apparently effective, resistance to Air-Sea Battle suggests that interservice dynamics had more impact on innovation efforts in this period than the intra-service perspective suggests.

The perspective, however, proves valuable in suggesting areas of inquiry. First, the competition between “theories of victory” strongly parallels the debates over American transformation, including the competition between Air-Sea Battle, Offshore Control, and Maritime Denial.¹⁵⁴ The roles of senior officers, and intra-service discourse, in advancing these competing visions are both important and unclear. Finally, Jensen’s perspective suggests attention to the roles of small groups of influencers in Air-Sea, particularly ONA and CSBA.

In sum, the intra-service perspective stresses that the historical level of analysis should not remain solely at interservice competition, but should deeply consider competing ideas and factions within service domain monopolies. Second, through the notion of competing theories of victory, the intra-service position stresses the importance of the ideational aspects of innovation. Whatever the structural and organizational motivations to innovate, the intra-service perspective emphasizes that innovation’s particular form will hinge on competing ideas and service strategies regarding future war. Finally, given Etzioni’s critiques regarding “structural inattention,” the degree of Air Force and Navy “insulation” from civilian oversight in forming Air-Sea Battle is of clear interest.

¹⁵¹ Benjamin Jensen, “The Role of Ideas in Defense Planning: Revisiting the Revolution in Military Affairs,” *Defence Studies* 18, no. 3 (2018): 308–9.

¹⁵² (H. Sapolsky, Friedman, and Green 2009)

¹⁵³ (Haun 2020b, 712–13)

¹⁵⁴ In the defense discourse of this period, Offshore Control and Maritime Denial were the major competing concepts with Air-Sea Battle regarding a potential conflict with China. For a comparison of these concepts, see Aaron Friedberg, *Beyond Air-Sea Battle: The Debate over US Military Strategy in Asia*, Adelphi Series 444 (International Institute for Strategic Studies, 2014) and (Torsvoll 2015b)

Cultural Perspectives

Cultural perspectives on military innovation stem from the increased interest in constructivist approaches and culture within security studies that began in the 1990s.¹⁵⁵ Less a discrete model than a diverse body of aligned scholarship, cultural perspectives argue that militaries hold different fundamental beliefs, perceptions, identities, and habits that explain observed differences in innovation behavior.¹⁵⁶ While neither monolithic nor immutable, such lenses tend to represent a quorum view that evolves slowly.¹⁵⁷ Cultural perspectives suggest an influence over military innovation in two ways: in shaping how militaries perceive the strategic, technological, and organizational drivers of change, and in generating new opportunities for innovation when such cultural lenses shift. “Culture” here generally refers to two related, but distinct, phenomena: the strategic culture of a state, and the organizational cultures of its military services.¹⁵⁸

The cultural perspective arguably has its genesis in Kier’s 1997 *Imagining War*, with the perspective reaching prominence in 2002 with Farrell and Terriff’s *Sources of Military Change*.¹⁵⁹ This thesis employs Farrell et al’s definition of cultural lenses: “inter-subjective beliefs about the social and natural world that define actors, their situations, and the possibilities of action.”¹⁶⁰ In this sense, cultural lenses tend to bind militaries to some possibilities for innovation, while blinding them to others. These cultural lenses are relatively inelastic, but offer opportunities for innovation when cultural shift occurs.¹⁶¹ Farrell argues cultural change can drive innovation in three ways: when senior leaders deliberately change organizational culture (“planned change”); in response to exogenous shocks; and when militaries emulate foreign military services.¹⁶²

A wealth of scholarship examines the strategic culture of the contemporary United States, with sources generally arguing the American approach favors technology, firepower, and decisive engagement over nuanced strategy, indirect methods, and limited aims.¹⁶³ Two cultural innovation

¹⁵⁵ (Grissom 2006, 916)

¹⁵⁶ Griffin, “Military Innovation Studies: Multidisciplinary or Lacking Discipline?,” 197–203.

¹⁵⁷ Thomas Mahnken, “Comparative Strategic Cultures,” *SAIC*, 2006, 3, 15.

¹⁵⁸ (Mahnken 2006)

¹⁵⁹ Elizabeth Kier, *Imagining War: French and British Military Doctrine between the Wars*, (Princeton, N.J.: Princeton University Press, 1997); Farrell and Terriff, *The Sources of Military Change: Culture, Politics, Technology*.

¹⁶⁰ (Farrell and Terriff 2002, 7)

¹⁶¹ (Mahnken 2006, 3,9)

¹⁶² (Farrell and Terriff 2002)

¹⁶³ Colin Gray, “National Style in Strategy: The American Example,” *International Security* 6, no. 2 (1981): 33. The “American Way of War” literature frequently makes similar assertions. Note that Echevarria makes a cogent critique of this categorization of American strategic culture; see (Echevarria 2014)

scholars are particularly relevant for this thesis. First, regarding strategic culture, Dima Adamsky's 2010 *Culture of Military Innovation* argues that differences in American, Soviet, and Israeli strategic culture account for their markedly different adoptions of precision strike innovation.¹⁶⁴ Adamsky argues the American military, culturally fixated on engineering and efficiency improvements but lacking in comparative appreciation of theory, failed to recognize the revolutionary character of precision strike. Unlike the Soviets, the Americans were the first to develop the technology, but failed to appreciate the doctrinal and organizational changes that could not only support sustaining innovation, but disruptive. Echoing Jensen, Adamsky suggests it took a combination of internal advocacy from ONA, and the relatively shocking results of Desert Storm, to change American perceptions.¹⁶⁵

Second, regarding organizational culture, Carl Builder's seminal 1984 *Masks of War*, and its 2019 RAND update *Movement and Maneuver*, combine elements of cultural and interservice approaches in describing modern American military behavior.¹⁶⁶ Given their relative domain monopolies and legislative support, Builder sees the services as the most empowered actors in American defense. Builder thus sees interservice competition as central to understanding American national security behavior, but notes this competition is conditioned by deep cultural differences between the services.¹⁶⁷ This culturally mediated competition shapes the services' respective theories of victory and subsequent behavior, innovation included.

Paralleling Rosen's "theory of victory," Builder argues service "concepts of war" prove central to American doctrine, force structure, and innovation. While such concepts are rhetorically guided by "strategy," Builder argues that they are better understood as products of service interests and culture.¹⁶⁸ In this sense, rather than objectively reflecting threats or national-level strategic guidance, service cultural lenses and interservice competition determine which threats, technologies, and civilian guidance the services downplay or seize upon to justify the service's preferred concept of war. This echoes critiques, from Etzioni and others, that Air-Sea Battle reflected service preferences rather than strategic realities or civilian guidance.¹⁶⁹ Given the

¹⁶⁴ Dima Adamsky, *The Culture of Military Innovation: The Impact of Cultural Factors on the Revolution in Military Affairs in Russia, the US, and Israel*, (Stanford, Calif: Stanford University Press, 2010).

¹⁶⁵ (Dima Adamsky 2010, 65–74)

¹⁶⁶ I describe these below under the combined term "Builder"

¹⁶⁷ (Builder 1989, 2–5)

¹⁶⁸ (Builder 1989, 127–33)

¹⁶⁹ (Etzioni 2016b, 180–83)

inelasticity of culture and service monopolies, Builder argues military innovation is difficult, rare, and internally driven.¹⁷⁰

The cultural perspective explains much of the observed diversity of innovation efforts, unaddressed by more structural theoretical approaches. Yet, in citing more inelastic factors like strategic and organizational culture, a cultural perspective tends to emphasize continuity rather than disruptive innovation. For example, the cultural perspective alone struggles to explain the American history of theorizing about war, which includes Mahan, Boyd, Marshall, and the untethered theories of 1990s “transformation.” At the service level, the cultural perspective alone struggles to explain why the Air Force would, in AirLand, switch from decades of emphasis on independent airpower to embrace a supporting role to the Army, before switching back.¹⁷¹ Similarly, collaborating deeply with the Air Force in Air-Sea—and inviting them to take roles within the Navy’s monopoly on the maritime strike mission area—appears to directly contradict the Navy’s cultural preference for service independence. This questions whether the Navy’s cultural independence is proving permeable, or conversely, how sincerely the Navy pursued Air-Sea integration.

In sum, the cultural perspective on innovation highlights the tension between observed change and cultural inelasticity. It further suggests attention to how innovation behavior during this period reflected or rejected cultural norms, and the power of senior leaders to shape cultural norms. These include the broader norms of American strategic culture, as well as the organizational cultures of the Navy and Air Force.

US Navy Organizational Culture

Unlike the previous three theories, which rely on structural explanations of change, cultural perspectives are contingent upon understanding the particular culture in question. Thus, I draw here from a body of scholars to briefly describe the organizational cultures of the Navy and Air Force, and borrowing from Builder, their culturally preferred “concepts of war.” As suggested by cultural innovation theory, both organizations brought to the Air-Sea movement a wealth of cultural lenses, identities, biases, and preferred modes of operations.

¹⁷⁰ (Builder 1989, 202–4)

¹⁷¹ (Haun 2020b, 727)

Builder notes two cultural aspects shared by the Air Force and Navy that bear on Air-Sea Battle. First, while waxing and waning over time, American airpower and seapower theory features a persistent leitmotif that, by dominating their respective domain, they can be used independently in a strategically decisive manner.¹⁷² Thus, the need for joint operations has historically been questioned by both services, at least in comparison to the Army and Marine Corps, raising interesting questions regarding the mutual decision to pursue joint innovation in Air-Sea.¹⁷³ Second, Builder and others argue both services hold a strong cultural preference for offensive concepts over defensive. This can be seen, arguably, in the parallels between the services' concepts for Cold War operations in the Asia-Pacific and later debates over Air-Sea Battle.¹⁷⁴ As with Air-Sea, Cold War debates over American posture in East Asia saw the services favoring offensive concepts and strike aircraft, rather than a defensive approach emphasizing sea- and air denial.

Several scholars describe the Navy's organizational culture as animated by a fierce independence and, with its own powerful air and land forces, a preference for operating forward, offensively, and alone.¹⁷⁵ Further, like most navies, the American Navy focuses heavily on the technological dimensions of war.¹⁷⁶ Intellectually, force design in the American Navy has been, as Patalano and Russell would predict, driven by the organization's conception of maritime strategy. That strategy has gone through distinct transformations over the twentieth century.¹⁷⁷ Before WWII, shore bombardment was deeply ancillary, as the Navy focused on establishing sea control by decisively beating other major navies. After WWII, power projection became the primary mission of American naval forces, centered on naval strike aircraft. Eschewing supporting roles like convoy protection, Builder argues power projection animated American naval thinking during the Cold War, particularly in the Maritime Strategy, despite in his view being a loose fit for broader American strategic goals and civilian guidance.¹⁷⁸ Sea control increasingly became a means rather than an end, with the partial exception of the sea control challenge presented by the 1970s Soviet Navy. With the passing of the Cold War, the US Navy felt more secure still in sea control over

¹⁷² (Builder 1989, 134) (S. Rebecca Zimmerman ... Orrie 2019, 82) Note that neither intellectual tradition is monolithic. Figures like Corbett, Callwell, Garstka, and others have noted the centrality of joint operations.

¹⁷³ (S. Rebecca Zimmerman ... Orrie 2019, 74–75) (Builder 1989, 70–73)

¹⁷⁴ Builder, *The Masks of War: American Military Styles in Strategy and Analysis*, 174–80.

¹⁷⁵ (R. W. Barnett 2009, 106–8; S. Rebecca Zimmerman ... Orrie 2019, 74–75) *The Culture of Military Organizations*, (Cambridge; New York, NY : Cambridge University Press; Cambridge, 2019), 356.

¹⁷⁶ (*The Culture of Military Organizations* 2019, 360–71)

¹⁷⁷ (Swartz 2004)

¹⁷⁸ (Builder 1989, 81–85)

strategically relevant geography. Power projection and littoral operations became the intellectual lodestar of naval innovation, as evidenced by innovation initiatives like the Littoral Combat Ship. As Chinese anti-access capability has eroded the Navy’s assurance of sea control, arguably Air-Sea Battle could be seen as the service’s initial conceptual attempt to update (or repair) the vital linkage between national strategy, maritime strategy, and naval innovation.

While fundamentally shaped by maritime strategy, the US Navy has faced several practical and cultural limitations with regards to disruptive innovation. The first is structural: the long acquisition timelines and service lives of America’s exquisite naval platforms, contrasting with a more elastic strategic environment. For example, the 1990s Navy reacted to the period’s deep geostrategic changes by emphasizing littoral operations. While this reshaped both its innovation activity and the fleet’s disposition (see Chapter 3), foundational elements like the carrier strike group remained as central as they were to “Bull” Halsey and Chester Nimitz.¹⁷⁹ The 1990s push for operations *From the Sea*, like later Air-Sea Battle, could not start with a “clean sheet,” eschewing the enormous operational mastery, supply chains, and sunk costs inherent to the fleet. Analysts envisioning quick and decisive naval innovation through fleet redesign often excitedly ignore such realities. In addition to this structural inelasticity of naval platforms, the American Navy’s organizational culture of independence, pragmatism, and flexibility has deep roots in modern American naval history. Shaken by the interservice battles brought on by the arrival of airpower and nuclear weapons, Builder suggests the modern Navy employs an institutional hedging strategy: it avoids being “too wrong,” emphasizing its flexibility across a range of scenarios, rather than tethering itself to a single dominant concept for naval power.¹⁸⁰ It does so to avoid staking its future budget on an argument it might lose if strategic conditions change, as almost occurred in the 1950s “Revolt of the Admirals.”¹⁸¹ Thus, more so than its sister services, in Builder’s view the Navy pursues a more diversified force structure, a wide variety of roles, and a vague naval strategy that functions more a justification for a flexible and diversified naval force than a strategic plan.¹⁸²

¹⁷⁹ To be fair, carrier aviation is a remarkably flexible operational instrument, as central to sea control as it is to power projection.

¹⁸⁰ (Builder 1989, 75–78)

¹⁸¹ (Barlow 1994)

¹⁸² (Builder 1989, 78–80)

US Air Force Organizational Culture

Several scholars describe the Air Force as founded on a belief in the efficacy of technology and flight to create decisive strategic effects.¹⁸³ Further, scholars describe the Air Force as influenced by the cultural icon of the pilot, and more broadly the Air Force preference for manned aviation over missiles and unmanned vehicles.¹⁸⁴ While the bomber community held the service's highest ranks and cultural esteem in the Air Force's first two decades, the fighter community gradually displaced them, particularly after the Vietnam War.¹⁸⁵ Yet, in both, the notion of airpower strikes on an enemy's strategic or operational nodes as warfare's decisive center of gravity has endured.

As Farley notes, contemporary Air Force culture remains a product of two wars in the mid-twentieth century: against the Axis powers in the sky, and against the Army and Navy in Washington.¹⁸⁶ The Air Force was born in conflict with the other services, as it fought bureaucratically to emerge from the Army and challenge the Navy for missions. This struggle for life had three interrelated and continuing effects. First, it unsurprisingly generated fierce interservice rivalry.¹⁸⁷ The birth of the Air Force, and particularly its unwillingness to be a supporting tactical actor to the Army and Navy, created an enduring interservice contest over roles and missions. Second, it encouraged the Air Force's concepts of war to continuously assert, and attempt to prove, the independent efficacy of airpower.¹⁸⁸ Airpower theory emerged simultaneously with the creation of the first air forces; in the American case, doctrine and theory were used instrumentally to justify an independent air service.¹⁸⁹ Air Force concepts—from strategic bombing in the 1920s to Rapid Dominance in the 2000s—demonstrate a consistent assertion that airpower can be decisive largely on its own accord.¹⁹⁰ This stands in contrast to many other air forces, contemporary and historical, which place airpower in tactical supporting

¹⁸³ (*The Culture of Military Organizations* 2019, 431–38; Builder 1989, 67–74)

¹⁸⁴ (Lee 2016b, 146)

¹⁸⁵ (Laslie 2015)

¹⁸⁶ (*The Culture of Military Organizations* 2019, 426)

¹⁸⁷ (Barlow 1994; Builder 1989, 61)

¹⁸⁸ (Pape 1996)

¹⁸⁹ (*The Culture of Military Organizations* 2019, 427–29)

¹⁹⁰ John Warden, *The Air Campaign: Planning for Combat*, (Washington, DC: National Defense University Press, 1988); Harlan Ullman et al., *Rapid Dominance: Achieving Rapid Dominance*, (Washington, DC: NDU Press Book, 1996).

roles for land and maritime forces.¹⁹¹ This tension between viewing airpower as independently decisive, or airpower as an enabler to land and sea forces, has been central to the American Air Force since its roots in the Army Air Corps.¹⁹² Third and finally, Kagan, among others, argues Air Force culture displays a relatively technological and apolitical approach to strategy: a question of which targets need to be struck, rather than a deep engagement with the social and political dimensions of war that are more difficult for airpower to decisively shape.¹⁹³

Applying this cultural lens to Air-Sea Battle, the Air Force should favor operational concepts that emphasize strikes by manned, fighter aviation. Further, these strikes should be central and independently decisive in their nature, rather than acting as a form of tactical, airborne artillery support for decisive land and naval forces. Both of these dynamics are arguably present in the public documents describing Air-Sea Battle, and absent in its chief competitors, Maritime Denial and Offshore Control. Further, Builder's perspective suggests Air Force doctrinal innovations may not fully consider the political and social dimensions of war. This echoes some critiques of Air-Sea Battle, but existing scholarship has yet to fully understand how the Air Force envisioned Air-Sea as a contribution to strategy.

The Air Force's participation in Air-Sea Battle, however, appears in tension with its organizational culture in at least two ways. First, as noted, is the Air Force's desire to partner with the Navy. Unlike the Navy, the Air Force has participated in interservice conceptual innovation, in AirLand Battle. It is not clear the extent to which this experience informed the Air Force decision to pursue Air-Sea, nor how similar these conditions were. Second, in seeking to rebalance towards long-range strike, Air-Sea Battle appears to contradict the central role of the fighter, and the foundation of the Air Force's acquisition program, the shorter-range F-35. Air Force acquisition priorities during this period continued to emphasize shorter-range fighters over long-range strike.¹⁹⁴ Taken together, these factors illustrate that we presently have little sense of how committed the Air Force was to Air-Sea, nor what factors would cause it to overcome these cultural and material incentives in pursuing collaborative innovation.

¹⁹¹ Perhaps the most famous example is the Luftwaffe, which focused heavily on close air support and interdiction.

¹⁹² (S. Rebecca Zimmerman ... Orrie 2019, 83–84)

¹⁹³ (Kagan 2007, 199–287)

¹⁹⁴ Authoritative budget and procurement data can be found at <https://www.saffm.hq.af.mil/FM-Resources/Budget/>

Suggestive Historical Hypotheses

This section has argued that, while each theoretical perspective raises interesting questions about Air-Sea Battle, no theoretical perspective consistently explains American military innovation across the period. Yet, like Farrell's approach, distilling from the analysis above suggests several potential causal mechanisms for Air-Sea's roots, formation, and dissolution. These, in turn, highlight the most important gaps in our historical understanding.

As a starting point for historical inquiry, building off the review of innovation theory above this thesis posits three broad hypotheses regarding Air-Sea Battle's historical evolution. These hypotheses remain suggestive, rather than definitive, exhaustive, or mutually exclusive. Air-Sea's actual history is, naturally, more muddled and contingent than these "ideal type" hypotheses suggest. Yet, each is plausible, given the current lack of primary source evidence surrounding Air-Sea. The purpose of these hypotheses is not to propose and test three rigid competing historical explanations of Air-Sea's history, at the expense of inductive primary source research. Rather, they provide three plausible explanations that proved valuable in guiding primary source research towards relevant questions, sources, and themes that could help reveal Air-Sea's history (see the interview questions in Appendix B). Each corresponds to the assumptions and mechanisms of a major school of military innovation theory, with cultural perspectives operant throughout.

First, as suggested primarily by civil-military models of military change, perhaps Air-Sea Battle was largely the product of proactive civilian leaders, attempting to press an innovation movement onto a conservative American Air Force and Navy. In reaction to China's rise, Secretary Gates directed both services to conduct an Air-Sea innovation in July 2009, reinforcing this through the 2010 Quadrennial Defense Review. Paralleling Jensen's scholarship, a group of ONA and CSBA alumni were central to driving and shaping Air-Sea Battle throughout its life, both intellectually and institutionally. In this perspective, this advocacy group worked across organizational equities to press Air-Sea into existence. As one interview with a senior Congressional staffer noted, perhaps Air-Sea Battle was an "ONA fever dream," eliciting only a pro-forma reaction from the Navy and Air Force.¹⁹⁵ Neither service, in this view, was deeply invested in Air-Sea. Reflecting their organizational cultures, each favored service independence, and viewed their respective

¹⁹⁵ (Interview 22 2022)

domain as the center of gravity for a future conflict with China. Air-Sea Battle ended when conservative military leaders, who largely “slow rolled” Secretarial directives regarding Air-Sea Battle during Gates and Panetta’s tenures, were able to relegate it to the Joint Staff once Secretary Hagel took control of the Department.

Drawing from the assumptions of interservice theory, perhaps Air-Sea’s history is better explained by focusing on budgetary factors and institutional competition. In this sense, 9/11 and the subsequent wars in Iraq and Afghanistan created a budgetary windfall for the landpower services. While conservative in nature, Roughead and Schwartz initiated Air-Sea Battle to claw back budgetary share, and reassert their services at the center of American defense. While generated within its parent services, as suggested by one Joint Staff interview, the Air-Sea effort was less of an inward-facing attempt at innovation than an outward-facing “buzzword” for winning back budgetary share.¹⁹⁶ Roughead and Schwartz concordantly eschewed the Joint Staff conceptual innovation process, as they would be unable to pursue budgetary share therein. Air-Sea Battle failed, in this perspective, for two related reasons. First, despite surface-level collaboration, the Navy and Air Force could not overcome their respective cultural bents for service independence, nor interservice competition over mission space. This fractured their thin two-service coalition, rendering it less institutionally effective. Second and more structurally, Air-Sea Battle failed because budgets remained too generous to force conservative militaries into meaningful innovation. While tight enough to generate some buzzwordy budget competition, the budgets underwriting the Air Force and Navy remained generous enough, and secure enough, to blunt the institutional pressures that generate serious attempts at innovation. Neither service was, internally or externally, motivated to pursue a disruptive Air-Sea vision. The next generation of Navy and Air Force leaders killed Air-Sea in late 2014, when it became clear it would not be effective as a competitive budgetary mechanism.

Finally, aligning with intra-service and cultural perspectives, perhaps Air-Sea Battle’s history was fundamentally a product of internal dynamics within the Air Force and Navy. Interservice competition was not a primary motivator: in late 2008, both services felt relatively secure in their budgetary shares, given the defense budget’s relative inelasticity and expected conclusion of CENTCOM’s wars. Air-Sea was, instead, initiated and driven by Roughead and Schwartz as senior

¹⁹⁶ (Interview 32 2022)

military leaders, attempting to change their services' "theory of victory." Their reason for doing so was twofold: a growing operational recognition within both services that current doctrine risked significant losses in a future conflict with China, and a belief that neither service could be decisive alone. Roughead and Schwartz were sincere in pursuing a deep Air-Sea innovation, motivated by overlapping risks: to US strategic interests, to warfighters, to their organizations, and to their legacies as chiefs. This perception of risk moved from a minority view within their services to institutional prominence within the Air Force and Navy precisely when Roughead and Schwartz—with rare depth in the Pacific picture—overlapped in their tenures at the top of their services. The Air-Sea movement was thus akin to an intellectual and cultural "planned change" within both services, attempting to win over key, and culturally resistant, constituencies therein. In this perspective, Air-Sea Battle ended because it failed culturally, unable to convince enough stakeholders within the Air Force and Navy of its validity. Had it done so, given service strength over their respective doctrines and acquisitions, it would have proven capable of weathering the external pressures of budgetary shortfalls and interservice competition, if in a more nascent form. Falling short of an internal quorum within its services, the competing Air-Sea theory of victory did not survive the leadership transitions of Roughead and Schwartz.

Conclusions on Military Innovation Theory

Which, if any, of these hypotheses is closest to the truth? Were civilian or military leaders central to Air-Sea's initiation and rise? Who, if anyone, tethered Air-Sea's operational vision to American Pacific strategy? Were Roughead and Schwartz conservative, resistant, or proactive in their execution of Air-Sea Battle? Was their focus primarily external or internal? What role did other institutional actors play in Air-Sea's origination, development, and demise? Why did Air-Sea Battle fail? Given the paucity of evidence, the hypotheses above present different assumptions on these key historical questions. Answering them tells us much about contemporary American defense, particularly how it attempts at innovation.

To build a better picture, drawing from the four major schools of innovation theory, the historical chapters that follow seek to clarify four broad factors that emerge from these hypotheses. As described in the Introduction's methodology section, three of these factors directly parallel those in Farrell's summation of innovation theory, with the substitution of ideational factors for the combat "lessons learned" more common in landpower warfare:

- The respective roles of civilian and military leaders in American doctrinal innovation, including in defining doctrine's relationship to broader American strategy.
- Inter- and intra-service organizational dynamics, including engagement with the Combatant Commands, Joint Staff, and Office of the Secretary of Defense.
- The contested evolution of the prevailing "theory of victory" within the Air Force and Navy, as well as intersecting Army and Marine Corps concepts.
- The ways in American doctrinal innovation during this period reflected and challenged organizational cultures, particularly regarding "jointness."

American Operational Concepts

How do the broad forces described by innovation theory work in practice, in the context of the modern American military? As noted in the Introduction, this thesis seeks to look "under the hood" at American doctrinal innovation, examining the particular organizational processes and dynamics that shaped the Air-Sea innovation attempt. Air-Sea Battle, like AirLand Battle, Effects-Based Operations, Rapid Dominance and others before it, was an American "operational concept." This section defines operational concepts, their role in American doctrinal innovation and military strategy, and the process by which concepts can change military doctrine. I argue such concepts can have powerful functional and intellectual impacts on innovation and military strategy. Despite their centrality to American doctrinal change, operational concepts remained poorly defined by both practitioners and academics, and relatively few innovation scholars examine the concept development process in depth.¹⁹⁷

Concepts, Doctrine, and Strategy

The Joint Staff defines operational concepts in several sections of the capstone doctrinal publication, JP-1:

¹⁹⁷ (Echevarria 2016, 41)

“[Operational concepts propose] solutions to compelling, real-world challenges, both current and envisioned.”¹⁹⁸ “Joint concepts examine military problems and propose solutions describing how the joint force, using military art and science, may operate to achieve strategic goals within the context of the anticipated future security environment.”¹⁹⁹

As Echevarria notes, while this describes what operational concepts *do*, it falls short of defining them. Echevarria’s defines operational concepts as “generic schemes of maneuver [that] provide the conceptual basis for operational planning.”²⁰⁰ While valuable, this definition is vague, and fails to distinguish between concepts and doctrine. This thesis thus defines operational concepts as an alternative approach to a current or future military problem that seeks to address that problem more effectively than existing doctrine.²⁰¹ Successful operational concepts should thus serve as alternative “‘ways’ that link ‘ends’ and ‘means’ within the framework of contemporary military strategy.”²⁰²

Concepts are closely related to doctrine. As noted by JP-1, both doctrine and operational concepts posit a relationship between a state’s strategic goals (ends) and the military’s force structure (means).²⁰³ Several aspects, however, differentiate concepts from doctrine. Doctrine is authoritative guidance to forces on the conduct of military operations. It must comport with existing laws, treaties, technology and policies, and must remain tethered to present circumstances and capabilities. These requirements prevent doctrine from guiding current forces based on speculative circumstances and nonexistent capabilities. In contrast, concepts suggest alternatives to existing doctrine, proposing an operational problem and arguing for a new doctrinal approach that addresses it more effectively. In this way, operational concepts parallel Rosen’s “new theory of victory.” While concepts typically focus on current or near-future operating environments (as this is required to change doctrine) they can also describe more distant potential futures, thus guiding future force development.²⁰⁴ Concepts are, in American practice, also intentionally unconstrained by laws, treaties, technology, and policies, to maximize their operational

¹⁹⁸ (Staff 2017, 1.:VI–9)

¹⁹⁹ United States. Joint Chiefs of Staff, 1. xxvi.

²⁰⁰ Antulio Echevarria, “Operational Concepts and Military Strength,” 2017 Essays (Heritage Foundation, October 7, 2016), 41.

²⁰¹ I credit a conversation with Dr. Robert Angevine, at the Institute for Defense Analyses, for this definition.

²⁰² (Echevarria 2016, 42)

²⁰³ (Staff 2017, 1.:A-7)

²⁰⁴ (Kreuder 2013, 105)

creativity.²⁰⁵ Thus, compared with doctrine, concepts are developed in a relative strategic vacuum, creating military capabilities that, in theory, leaders would adapt to the strategic realities of real-world scenarios.

Operational concepts can function both in what I will call “formal” and “informal” capacities. Formally, operational concepts are the American military’s primary, canonical means of doctrinal innovation. This entails a codified development process, managed by the Joint Staff, as described below. Most operational concepts seek incremental changes to doctrine.²⁰⁶ A concept can also drive disruptive innovation, changing organization, equipment, and/or doctrine in its wake.²⁰⁷ AirLand, for example, not only changed American doctrine, but undergirded the Army’s “Big 5” acquisition strategy, driving the procurement of the Abrams tank, Bradley, Patriot missile, and Blackhawk and Apache helicopters.²⁰⁸

Informally, operational concepts function as broader points of debate among military leaders and in professional military discourse, considering novel means to answer emerging operational challenges. These informal roles can prove powerful. Even if not approved by the Joint Staff, such concepts can represent the prevailing military thought of their period. Should conflict or major acquisitions occur during their moment in the sun (e.g. Effects Based Operations in the Balkans, or Rapid Dominance for the Iraq War), even if not approved as formal doctrine, operational concepts can bring far-reaching effects to American military strategy and force structure.²⁰⁹

Operational concepts, like doctrine itself, can therefore have shaping effects upon military strategy. Military strategy does not emerge *tabula rasa*, but is formed from the available operational capabilities, forces, and presiding modes of thought.²¹⁰ As noted, operational concepts can influence available military capabilities, and can decidedly influence current thinking on their

²⁰⁵ (Staff 2017, 1.:VI-7–9)

²⁰⁶ (Kreuder 2013, 103)

²⁰⁷ Richard Lock-Pullan, “How to Rethink War: Conceptual Innovation and AirLand Battle Doctrine,” *Journal of Strategic Studies* 28, no. 4 (2005): 679–702.

²⁰⁸ Note that the origins of the “Big 5” predates AirLand Battle. AirLand, however, drove their subsequent design, and provided the central rationale for the extensive and sustained acquisition of each system. See Frank Schubert, *The Whirlwind War: The United States Army in Operations Desert Shield and Desert Storm*, Chapter 2, (District of Columbia: Center of Military History, United States Army, 1995).

²⁰⁹ (Kagan 2007) On FCS, see Kagan pg. 243-250.

²¹⁰ This is best expressed by Secretary Rumsfeld’s poetic 2004 remark, “You go to war with the army you have, not the army you might want or wish to have at a later time.” See also Colin Gray, *The Strategy Bridge: Theory for Practice*, (Oxford University Press, 2010), 56–57, 80–81.

employment.²¹¹ Moreover, as Kagan argues, how a military conducts military operations has powerful effects on war termination and the achievement of strategic goals.²¹² Not only *whether* a military wins battles, but *how* it does so, can have effects far beyond the battlefield. The most obvious example of this is the application of Rapid Dominance in the Second Iraq War, which proved successful operationally in destroying the Iraqi military, but arguably created social and political conditions that made strategic victory more difficult.²¹³

This relationship between operational concepts and military strategy lies at the heart of debates over Air-Sea Battle's strategic suitability, and contemporary American doctrinal innovation more broadly. The question of how well military operations support strategy is a recurrent theme in modern American military history, as evidenced by Search and Destroy in Vietnam, Rapid Dominance in the Second Iraq War, and critiques of Air-Sea Battle.²¹⁴

In sum, military services employ operational concepts to express and/or institutionalize changes in their evolving vision of future warfare. Not all concepts are equally effective or long-lasting; they are often derided, with some merit, for fleeting lifespans, buzzword faddism, or serving as resource justifications.²¹⁵ Indeed, most operational concepts are unsuccessful in the formal sense, insofar as they do not change doctrine. Yet, as evidenced by Admiral Davidson's recent call for new concepts in the Pacific theater, operational concepts are often where leaders turn for innovative answers to emerging challenges.²¹⁶ Further, successful or not, operational concepts represent important artifacts of the American military thought of their period. Such concepts generate considerable military discourse, both reflecting and ingraining a mode of operational thought in their generation of officers. In looking across such concepts, one can therefore observe the evolution of American operational thought, as concepts adjust and build upon those that preceded them.

²¹¹ See remarks by General Mattis in (Kreuder 2013, 103)

²¹² (Kagan 2007, 355–73)

²¹³ Brendan Gallagher, *The Day after: Why America Wins the War but Loses the Peace*, (Ithaca: Cornell University Press, 2020).

²¹⁴ Robert Tomes, *US Defense Strategy from Vietnam to Operation Iraqi Freedom: Military Innovation and the New American Way of War, 1973- 2003*, vol. 19., (London; New York; Routledge, 2007); Antulio Echevarria, *Reconsidering the American Way of War: US Military Practice from the Revolution to Afghanistan*, (Washington: Georgetown University Press, 2014).

²¹⁵ (B. Armstrong 2016b)

²¹⁶ Phil Davidson, "Transforming the Joint Force: A Warfighting Concept for Great Power Competition," U.S. Indo-Pacific Command, March 3, 2020. <https://www.pacom.mil/Media/Speeches-Testimony/Article/2101115/transforming-the-joint-force-a-warfighting-concept-for-great-power-competition/>.

How Operational Concepts Change Doctrine

This subsection briefly describes the formal process by which operational concepts are debated, and if successful, change joint doctrine.²¹⁷ I do so for two reasons. First, the process represents the established path of American joint doctrinal innovation. As this thesis examines American air-naval doctrinal innovation, an understanding of the formal process is helpful. Second, Air-Sea's relationship with this process represents an important gap in our understanding of Air-Sea Battle's history.

Specifically, the Chiefs of the Navy and Air Force eschewed the formal joint process described below in launching Air-Sea Battle. Instead, they created an almost exclusively bilateral office to create a new Air-Sea doctrine.²¹⁸ Why? It is possible they perceived an opportunity to compete with the landpower services in an era of tightening budgets, which the inclusive official process would not allow. It is also possible they feared an “egalitarian” jointness in the process, which would “water down” the concept by favoring interservice politics over strategic demands. In this view, the landpower services would get nearly equal voice over the new concept, and share in any attendant funding, despite having fewer relevant capabilities for Air-Sea scenarios. It is also possible the Chiefs believed the process was too slow, conservative, or laborious for effective conceptual innovation. Institutional ownership of the process changed hands in 2011—midway in Air-Sea's life—moving from the now defunct Joint Forces Command (JFCOM) into the Joint Staff J-7. It is unclear if this turmoil, or the organizational equities involved, affected the Chiefs' decision. The Chairman's 2015 decision to dissolve Air-Sea and move its ideas into the formal process, fully incorporating the landpower services, remains equally unclear.²¹⁹ It is unclear whether this was motivated by operational considerations, interservice tensions, civilian intervention, or a cultural bent towards egalitarianism in joint warfare. A better understanding of why Air-Sea originated outside of this system, and eventually was brought within it, would reveal much about contemporary American conceptual innovation and interservice politics.

²¹⁷ Joint doctrine is distinct from service doctrine; services retain their own processes for writing doctrine that does not involve other services.

²¹⁸ (Office 2011)

²¹⁹ David Goldfein, “Memorandum: Joint Concept for Access and Maneuver in the Global Commons” (Joint Chiefs of Staff, January 20, 2015), <https://news.usni.org/2015/01/20/document-air-sea-battle-name-change-memo>.

Before describing the steps involved, four aspects of the formal process merit attention. First, the formal process provides an intentional brake on innovation, preventing doctrine from eschewing enduring principles to “chase fads,” or changing so frequently that units have little chance to align acquisitions and training to doctrine.²²⁰ This reflects a central tension in innovation movements. Namely, innovation is inversely correlated to expertise and unit performance in the short term. To achieve mastery of military tasks, upon which a military units’ lives quite literally depend, requires repeated training and drilling, and deep familiarity with weapons systems and doctrine. For this reason, there is tension between the competing demands for change and for mastery, with innovation movements thus facing a high bar. As such, the concept development process attempts to manage the tension between the demand for adaptive doctrine and the need for doctrinal soundness and stability. Second, the formal process requires collaboration across all four military services and the Combatant Commands (COCOMs). The services and COCOMs should “rigorously” evaluate the proposed concept, through workshops, wargames, exercises, modeling, and/or joint fora.²²¹ Interestingly from a strategy and civil-military perspective, the Office of the Secretary of Defense, including the offices for policy and strategy, were not authorized to directly comment nor vote on doctrinal issues. Their position was represented by the far more operationally-minded Joint Staff.²²² In other words, Doctrine remains a strictly military purview. Finally, in addition to the requirement for joint coordination and rigorous evaluation, the decision process is based on democratic consensus amongst the services. Thus, the process is laborious, and potentially requires several years to substantially change doctrine.²²³

During the Air-Sea period, operational concepts could be proposed by services or Combatant Commands, and progressed through two overarching stages: development and implementation. Development required 18-24 months, during which the joint community (principally the services, Joint Staff, and Combatant Commands) vetted a potential concept through a detailed drafting, evaluation, and revision process (See Figure 2.1).²²⁴ The output of this process was an approved, formal joint operational concept. In implementation, the joint community would then decide how doctrine, force development, and training should adjust based on the new concept. This would

²²⁰ (Kreuder 2013, 103)

²²¹ (Joint Chiefs of Staff 2020b, A-5; 2020a, A-4, B-C-1)

²²² (Joint Chiefs of Staff 2020a, A-8)

²²³ (Echevarria 2016, 41)

²²⁴ (Echevarria 2016, 42)

generally require at least a year, often significantly longer, and be subject to a similar process of consensus-based decision and rigorous evaluation.²²⁵

Figure 2.1: The Joint Concept Development Process during the Air-Sea Period ²²⁶

Major Activities	1. Prospectus Development	2. Research and Writing	3. Concept Evaluation	4. Coordination and Approval	5. Concept Implementation
Concept Development Milestones	-Sponsors submit concept proposals; -JCWG selects proposals for refinement into prospectuses	-Organize concept development team; -Stakeholder kickoff; -Writing workshops; -Conduct baseline research -Develop Required Capabilities	-Independent Red Team Review; -Evaluate Concept via Wargames -Implementation Planning	-Initial JSAP -Final JSAP -Comment Resolution Conference	-Approved Implementation Plan -Post-approval concept testing -- CBAs or similar analysis
Concept Draft Versions & Products	JCWG submits prospectus papers to JC GOSC	Concept v0.1-0.3 Develop Concept Evaluation Plan	Post Red Team: Concept v0.4 Post Evaluation: Concept v0.5 Evaluation report with DOTMLPF-P implications	Post Initial JSAP Concept v0.7 Post Final JSAP Concept v0.9 Finalize Concept Implementation Plan	-Monitor implementation plan execution -Track status of required capabilities -Assess and report implementation efforts
Sr. Leader Engagements & Decisions	JC GOSC endorses prospectuses for DJ-7 approval	DJ-7 IPR	JC GOSC IPR	-DJ-7 Final IPR -OP SDEPS review; -JCS review -CJCS approval	-JCB/JROC Validate Capability Requirements IAW CJCSI 3170.02

Criticisms of Operational Concepts

The process of doctrinal innovation outlined above is subject to several critiques, which underscore the thesis’s research questions. First, as noted, the concept development process explicitly directs planners to ignore political realities when crafting operational concepts, to maximize operational creativity. This direction reinforces critics’ concerns regarding how well such concepts, Air-Sea Battle included, support broader American strategic goals. Second, the joint and democratic nature of the process opens it to service parochialism, or to banal concepts that represent an inclusive “least common denominator” in service bargaining.²²⁷ Echevarria

²²⁵ Joint Chiefs of Staff, “Joint Doctrine Development Process” (Washington, DC: Department of Defense, 2012).

²²⁶ David Goldfein, “CJCSI 3010.02D Guidance for Developing and Implementing Joint Concepts” (Joint Chiefs of Staff, 2013), A-9. Note that this system was changed in 2016, after the dissolution of Air-Sea Battle.

²²⁷ (Echevarria 2016, 41–44)

argues such service bargaining drove the Full Spectrum Operations concept to this end, which reflected compromises to support service preferences rather than any strategic prioritization.²²⁸ Echevarria further notes, echoing Builder, that concepts can be “reverse-engineered to justify developing or retaining preferred...equipment or force structure.”²²⁹ As such, concept development can be an exercise in service rent-seeking, ironically being employed to justify the status quo rather than seek innovation.²³⁰

Third, reflecting the tension between the need for innovative doctrine and the laborious, conservative development process, critics describe the Joint Staff process as “lethargic,” too complacent for the needs of a quickly changing security environment.²³¹ Finally, the degree of consensus and sustained effort required to advance an operational concept can stifle debate.²³² In essence, sponsors of operational concepts face heavy requirements to push the concept through the process, there is little time to advance multiple concepts simultaneously and debate their merits. Competing ideas are crowded out by the understandably heavy demands of attention on the leading concept. This raises the question of how intensively the Department considered Maritime Denial and Offshore Control as competing concepts.

These critiques inform the thesis’s historical inquiry, particularly regarding Air-Sea’s strategic suitability and interservice dynamics. Regarding strategic suitability, this review highlights the importance of the degree of policy input to Air-Sea Battle, the degree of insulation from civilian oversight, and ways in which Air-Sea was envisioned as contributing to broader American Pacific strategic ends. Interservice dynamics appear central to Air-Sea, particularly the decision, later reversed, not to equally incorporate the landpower services.

Conclusions

In sum, there is much present scholarship does not understand about Air-Sea Battle. In addressing these gaps, a historian could profitably employ a number of angles to explain Air-Sea’s roots, rise,

²²⁸ (Echevarria 2016, 43)

²²⁹ (Echevarria 2016, 42) (Builder 1989, 100–112)

²³⁰ (Echevarria 2016, 41–44) See also (A. Bacevich 2020)

²³¹ Consider, for example, the lack of change in American counterinsurgency doctrine from Vietnam to the first half of the Second Iraq War. For the Pacific, see (Brose 2020)

²³² (Echevarria 2016, 41)

and dissolution.²³³ To narrow and guide the historical focus, this thesis focuses on Air-Sea Battle as an attempt at military innovation. I do so because Air-Sea Battle was an explicit attempt at doctrinal innovation and, as later chapters describe, played a part in gradual, but important, change in the American military that continues to present.

To understand Air-Sea Battle in the context of military change, this chapter has reviewed the major theoretical perspectives on military innovation, and focused on operational concepts as the particular vehicles of doctrinal innovation within American military practice. This performs two functions for the thesis. First, it arms the reader with a lexicon and set of concepts that recur throughout the historical chapters. Second, paralleling Farrell's methodology, this chapter distills these findings to the four factors identified above: civil-military dynamics, institutional politics, competing theories of victory, and organizational cultures. The subsequent chapters explore these dynamics through the historical background to Air-Sea Battle, and in detail, the rise and fall of Air-Sea Battle itself. This thesis asks what factors explain Air-Sea Battle's historical evolution; rather than start *tabula rasa*, military innovation scholarship identifies and empirically supports several potential mechanisms. In short, it tells us as historians where to look, and what questions to ask, to best understand Air-Sea Battle as an attempt at doctrinal change. These four areas thus recur throughout the historical chapters, and in the concluding chapter, constitute the backbone of the thesis's explanation of the drivers of Air-Sea's history.

²³³ As examples, alternative historical approaches could focus on the budgetary and programmatic incentives surrounding Air-Sea; a political view (the interplay of the services and Congress); an operational view (specific Chinese capabilities and Air-Sea responses); an international relations theoretical view (A2AD and Air-Sea as responses to security dilemma pressures); or a domain-theoretical view (Air-Sea as an expression of airpower or seapower theory). Alternatively, one could explore Air-Sea as an expression of American Pacific strategy, the American "way of war," broader maritime warfare, or in the deeper history of how great powers compete militarily. Any of these approaches could prove valuable in explaining aspects of Air-Sea Battle's quixotic history. Conversely, no history, including this one, can hope to capture every aspect.

CHAPTER THREE: HISTORICAL BACKGROUND: 1944-2007

As Long poetically notes, there is no “immaculate military innovation.” Innovation efforts must draw from the past, even while changing it, “[resonating] with preexisting understandings and experiences of the service.”¹ This chapter describes those preexisting understandings and experiences in the American military, as they relate to Air-Sea Battle’s emergence in 2007.

For reasons of scope, this chapter does not attempt to recast the intellectual history of the modern Navy, Air Force, or the wider American military approach to the Pacific. This has been done expertly elsewhere.² Instead, it describes the key contextual elements from which Air-Sea Battle emerged, and in which it represented an important inflection point. One could look profitably for such background elsewhere: America’s military history in East Asia; Sino-American military history; a technological history; or American historical reactions to great power competition. This thesis, however, locates Air-Sea Battle’s relevant historical background principally within its parent services, the Navy and Air Force, and their evolving operational concepts. I do so in keeping with Builder, Huntington, and Rosen’s conceptions of the services’ relative empowerment, particularly over doctrinal innovation.³ As subsequent chapters demonstrate, Air-Sea Battle originated as a program within its parent services, was developed there, and died ultimately due to leadership decisions therein. Air-Sea Battle is thus best understood as an inflection point in service doctrinal development, reacting to external and institutional stimuli.

The chapter is organized chronologically. It advances four points. First, the chapter describes Air-Sea Battle’s air and naval roots, both deep and contemporary. Second, the chapter locates Air-Sea Battle in American “transformation” thinking, specifically in debates between “futurists” and “orthodoxy” in modern American defense. The transformation debates of the 1990s proved particularly critical, strategically and operationally, to Air-Sea’s emergence. Third, the chapter examines the American military’s interrupted and partial response to Chinese anti-access before 2007. Finally, the describes the Air Force and Navy relationship prior to Air-Sea Battle, characterized by growing operational collaboration amidst institutional competition.

¹ (Stulberg, Salomone, and Long 2007, 14)

² As examples, (Haynes 2015; Green 2017; Kagan 2007) (Echevarria 2014)

³ (Huntington 1972; Builder 1989; S. Rosen 1991)

Deeper Roots: Access, Anti-Access, and Precision Strike Warfare, 1944-1991

The Perennial Contest between Maritime Access and Denial

Despite being heralded by Air-Sea advocates like ADM Foggo as a “new approach to warfare,”⁴ Air-Sea Battle and “anti-access/area-denial” (A2AD) represent longstanding continuities in naval operations. The modern and multidomain concepts of “access” and “anti-access” stem from history’s original contested commons—the sea. Specifically, the access question is grounded in the enduring historical contest between stronger navies seeking sea control, and weaker seeking sea denial. As part of this perennial contest, navies have been contending with sea denial capabilities and coastal defenses since time immemorial.⁵ While the rise of A2AD has increased the range and lethality of coastal defenses, sailors have long known “a ship’s a fool to fight a fort.”⁶ Given that moving significant military power over great distance still requires seaborne transport, the maritime domain remain central to “access.”⁷ As Armstrong aptly summarizes, “Fighting for access is, by definition, what naval forces do in wartime. It is not something new, or special, or particularly assured.”⁸ Similarly, Till frames modern A2AD as “simply the latest in a long series of struggles for sea control, to which navies around the world will have to respond...”⁹

Reflecting this operational reality, “anti-access” defensive strategies recur throughout the history of maritime warfare. As Tangredi defines them, they are strategies employed to prevent a stronger power from outside the region from consolidating its forces close enough to strike a defender’s strategic centers of gravity. Generally, while the outside power enjoys greater military power, the defender holds greater political will; the interests at stake are geographically distant from the outside power, and local to the defender. In response, the anti-access approach, from Salamis to the present, advocates engaging enemies far from one’s centers of gravity, leveraging strategic depth, time, attrition, and external events to whittle down an opponent’s military power and political will.¹⁰ This contrasts with taking a strategically offensive approach, seeking decisive battle

⁴ (“HASC No. 113-62]D Department Of Defense Development and Integration Of Air-Sea Battle Strategy, Governance And Policy Into The Services’ Annual Program, Planning, Budgeting And Execution (PPBE) Process” n.d.)

⁵ (Till 2018, 194–96)

⁶ (Hughes, Girrier, and Richardson 2018, 60–66)

⁷ (S. Tangredi 2013, 34)

⁸ (B. Armstrong 2016b)

⁹ (Till 2018, 217)

¹⁰ (S. Tangredi 2013, 61–62)

immediately, consolidating forces along a close perimeter, or drawing an enemy in for close combat.

Thus, while the fight for access has evolved in important ways, envisioning A2AD or Air-Sea Battle as a “new approach to warfare” requires heavy caveats. This caution is particularly valid when considering the frequent contest between maritime power projection and sea denial in American military history. Beginning with the Barbary Pirates, American military forces have regularly projected transoceanic military power against a local adversary. That projection has often been contested, and often bitterly, as exemplified by the attritional German U-Boat campaigns of both World Wars, and the Pacific War’s “island hopping” campaign.¹¹ Nor was the emergence of mutual maritime precision strike in the early 2000s the first time the American Navy was outranged by a robust, missile-based coastal defense network. It was the third, beginning with Japanese kamikazes, constituting an early form of precision guided missile used for anti-access warfare, with devastating effects.¹² As these examples suggest, the fight over maritime access has historically proven difficult and costly for both sides. In marked contrast to the triumphant visions of war of the 1990s explored below, Yoshihara notes “there is nothing elegant or clean about anti-access,” noting it historically implies significant losses for both parties.¹³

Soviet Anti-Access and American Responses

One can find historical parallels to Air-Sea Battle in earlier American naval concepts, dating at least to Warplan Orange and PAC-10.¹⁴ The American response to the late Soviet challenge, in addition to being the most proximate, is the most instructive. While a detailed examination of Soviet “echeloned defense in depth” is beyond scope,¹⁵ the parallels between the Soviet and Chinese anti-access defenses, and American responses to them, are revealing. American naval forces were decidedly outranged twice in the period from the late 1940s to 2008: by the late Soviet military, and the contemporary Chinese. In both, an anti-access network presented long-range open-ocean surveillance, long-range air and sea strike, and required escalation management with a nuclear adversary. The discrepancy in range is roughly similar in both cases: in the late 1970s,

¹¹ (Toshi Yoshihara 2014)

¹² (Toshi Yoshihara 2014, 123)

¹³ (Toshi Yoshihara 2014, 131)

¹⁴ (Ganske 2014)

¹⁵ (J.B. Hattendorf 2004, 121)

American carriers could be engaged at 1600 NM from Soviet bases, while still being 1000 NM from their own striking range.¹⁶ Both cases emerged after a period when the service largely felt assured in sea control, with an adversary's anti-access threatening its operational concept and "strategic concept"—Huntington's term for a service's national value proposition.¹⁷

In both the late Soviet and contemporary Chinese cases, the Navy reacted to a robust anti-access threat in a somewhat similar fashion: fostering a new, offensive operational concept that leveraged forward presence for power projection, driven by the service's chief. This began with ADM Hayward's Project Sea Strike in the late 1970s, pushing Pacific carrier groups through anti-access threats to strike Soviet targets, evolving into the 1980s Maritime Strategy.¹⁸ In both the 1980s and 2010s, there were other options; the Navy could have adopted a more defensive approach, focusing on sea lane protection in the former and maritime denial in the latter. The Maritime Strategy and Air-Sea Battle were both controversial for precisely this reason. In both cases, rather than "peeling back" anti-access gradually, the Navy sought dramatic forward employment to threaten key nodes, accepting the potential for high losses and escalation. Arguably, both concepts sought to culturally refocus and motivate the Navy after a relative ebb; the Maritime Strategy after the Carter Administration ebb, and Air-Sea after its peripheral role in the GWOT.

These operational and institutional parallels can be taken too far; the Maritime Strategy was not a "blueprint" for Air-Sea. As obvious differences, the Maritime Strategy was fundamentally shaped by the centrality of the Central European landpower front, and deliberate threatened Soviet nuclear capabilities. Further, in contrast to the Maritime Strategy's independence, Air-Sea sought heavy Air Force integration. Yet, both the Maritime Strategy and Air-Sea Battle represented dramatic changes in operational vision, seeking to be cultural lodestars for directing the Navy internally, and justifying its relevance externally. When threatened operationally and institutionally, true to its institutional culture, the Navy reacted in a broadly similar way: its senior uniformed officer driving an innovative and offensive-minded operational concept to break out of a supporting role and into a central one, in a way that justified fleet size, forward presence, and power projection.

¹⁶ (Toshi Yoshihara 2014, 126)

¹⁷ (Samuel Huntington 1954)

¹⁸ (J.B. Hattendorf 2004)

Summarizing these deeper naval roots, considering both the naval tradition of fighting for access, and the similarities to the late Soviet case, neither A2AD nor Air-Sea Battle were truly “revolutionary” for the American Navy, as some have claimed.¹⁹ A2AD and Air-Sea Battle, rather than being outliers, represented a return to traditional naval concerns after a unipolar holiday. The outlier is, instead, the roughly two decades of unipolar dominance after the Cold War, during which fighting for access retreated in American military thought and practice. Simultaneous with that holiday, the onset of mutual precision strike brought profound strategic and operational implications for the American military, particularly regarding the balance of power in the Western Pacific. China’s A2AD growth represented the most serious challenge to American maritime access and forward presence since the Pacific War.²⁰ That reality, once belatedly realized, necessitated a return to traditional Navy warfighting concerns of access and anti-access. ADM Foggo is thus partially right that Air-Sea Battle represented a “new approach to warfare.” It was new, insofar as it challenged six decades of American dependence on major bases, and two decades of unfettered access to global commons. It was not new, insofar as it was, at root, a return to the traditional naval contest between maritime access and anti-access.

Deeper Airpower Foundations: Boyd and the “Systems View”

To this preexisting naval foundation of access and anti-access, the Air Force brought its own cultural lenses, institutional imperatives, and operational concepts to Air-Sea Battle. As noted, institutionally and culturally, the Air Force has been animated by a desire to demonstrate the independent decisiveness of airpower, generating fierce rivalry with the other services, particularly the Navy. To quote Kagan, “The assertion that air power could, by itself...strike directly at the enemy’s centers of gravity and ‘win the war’ is almost as old as military aircraft.”²¹

By the early 1970s, however, such airpower theories had largely foundered in America’s Vietnam conflict. Vietnam was a catastrophe for the Air Force—tactically, in enormous losses to a second-rate power, and theoretically, wherein airpower failed to produce its much-heralded political results.²² The operational concept the Air Force took into Vietnam—prioritizing strategic

¹⁹ For an example of “revolutionary” rhetoric, see (Perry 2015b)

²⁰ (Toshi Yoshihara 2014)

²¹ (Kagan 2007, 124)

²² (Olsen 2010, 107–27)

bombing—had generated platforms, doctrine, and training dangerously misaligned to the battlefields it faced.

The modern debate between “orthodoxy” and “futurists” in American defense has its origins in the wake these failures in Vietnam and the rise of precision strike capabilities. Its direction would drive American airpower—and much of American defense—over the ensuing four decades. This debate continues to present; Air-Sea Battle represents an important inflection point within it. True to the term, we can envision the “orthodoxy” here as representing the service’s traditional theory of victory, exemplified by current doctrine rather than emerging concepts. In contrast, the “futurist” camp represents, during this period, those perspectives advancing visions of a “revolution in military affairs” (see below), calling for disruptive innovation and new theories of victory leveraging precision-strike warfare.

The failures of Vietnam badly damaged the orthodoxies of both the Army and Air Force.²³ For the Air Force, this organizational shock spawned a renaissance in American airpower theory, pioneered by John Boyd as an archetypal “futurist.” Boyd’s ideas formed the intellectual basis for a dramatic rise in fighter design, tactics, training, and the fighter’s role in the Air Force, where it has remained culturally and institutionally central.²⁴ Conceptually, while far from the first to advocate for nodal strikes (airpower theorists had pursued this since Douhet),²⁵ Boyd reconceived the enemy as a national “organism,” whose system could be disaggregated at the military, government, or societal level through careful consideration of its particular centers of gravity.²⁶ Importantly, Boyd advocated for synchronization of disaggregating airpower strikes with landpower pressure, driving an operational tempo that changes faster than an adversary can cope (the famed “OODA loop”). The envisioned result was psychological disorientation at the unit level, and at the systemic level, collapse. Boyd’s ideas were timely, assisted by the initial development of precision weapons. Born of the frustration of Vietnam’s inefficient bombing, precision capabilities would begin to make Boyd’s theories of victory possible.²⁷

²³ (Kagan 2007, 25)

²⁴ (Coram 2002)

²⁵ The explicit focus on striking centers of gravity goes back to at least Clausewitz.

²⁶ (Olsen 2015, 53–61)

²⁷ (Stephen Rosen 2012, 39–46)

As this chapter demonstrates, in the wake of the Air Force renaissance, “systems thinking” has remained foundational for American defense to the present, Air-Sea Battle included.²⁸ Building off Boyd, in the late 1980s John Warden envisioned the adversary as a tiered system (the famed “Five Rings”), with an enemy’s fielded forces as the *lowest* priority.²⁹ Warden placed enemy leadership at the center and, in ways that parallel later Air-Sea strike philosophy, advocated for blinding strikes as “..a sophisticated effort to deprive the enemy leaders of accurate information and the means of communicating with their subordinates.”³⁰

As futurists, Boyd and Warden moved the Air Force intellectually from its poor performance in Vietnam to a sturdier conceptual foundation. While exceptional, they were not perfect. Both underestimated their envisioned adversary, particularly its ability to reconstitute after nodal strikes.³¹ Relatedly, both arguably conflated destruction of an enemy system as synonymous with victory in war, focusing little on the political dimensions of conflict.³² Finally, both theorists held a bias for the operational centrality of air superiority (particularly Warden), which arguably helped the later “fighter mafia” unseat the balance between American long and short-ranged strike.³³ Despite this, founded on the concepts of Boyd and Warden, the late Cold War Air Force had a deeply considered operational doctrine, highly trained force, strong sense of operating with surface forces, and a fleet of capable long- and short-ranged platforms. These ideas would move from theory to doctrine through the experience of AirLand Battle, emerging triumphantly (too triumphantly) in the coming Gulf War.

AirLand Battle

AirLand Battle’s history is well documented elsewhere;³⁴ I constrain my coverage to its connection to Air-Sea, a parallel intentionally drawn by Air-Sea Battle’s founders and one that recurred across all of the major fora of Air-Sea discourse.³⁵ Given their names, one might expect heavy parallels

²⁸ (Kagan 2007, 103)

²⁹ (J. Warden 1998, 146–52)

³⁰ (Kagan 2007, 122)

³¹ (Kagan 2007, 112)

³² (C.S. Gray 2016)

³³ (Olsen 2015, 82–89)

³⁴ (Romjue 1984)

³⁵ The AirLand-AirSea parallel recurs explicitly within CSBA’s 2010 concept sketch, the Department’s 2013 Air-Sea concept sketch, DoD Congressional testimony, and both scholarly and practitioner discourse. As examples, see (“HASC No. 113-62]D Department Of Defense Development and Integration Of Air-Sea Battle Strategy,

between AirLand and Air-Sea Battle. Operationally, in both AirLand and Air-Sea, American forces faced a somewhat similar problem, albeit in greatly different land and maritime contexts: how to maintain deterrence against a great power's numerically superior forces, operating close to their own borders but far from the bulk of American power. How could American forward forces credibly hold against significant overmatch long enough to allow decisive reinforcement, without triggering nuclear escalation?³⁶

Yet, perhaps counterintuitively, seminal figures in both the CSBA and DoD Air-Sea Battle programs describe little substantive influence from AirLand Battle into Air-Sea (see Chapters 4 and 5).³⁷ AirLand's largest contribution to Air-Sea was, instead, its example and its name.³⁸ Both served to remind internal and external audiences of the precedent of successful two-service innovation to solve a daunting operational problem. This was clever marketing, providing a preemptive rhetorical defense against the claims of "process foul" Air-Sea would later face. Despite the lack of deeper operational parallels, particularly given the frequent parallels drawn between AirLand and Air-Sea, several points about AirLand are relevant here.

Fundamental differences between AirLand and Air-Sea are evident on closer examination. Regarding operational geography, where the European central landpower front was smaller with plentiful basing, vast Pacific distances and a poverty of basing were central to the Air-Sea maritime problem. Operationally, both solutions sought to leverage air-surface integration, striking forces at depth rather than massing force and firepower at the front itself. Yet, as later chapters demonstrate, Air-Sea envisioned a smaller set of strikes over much greater distances. Where AirLand primarily sought attritional interdiction of incoming forces ("Assault Breaker"), Air-Sea envisioned more limited nodal strikes to break maritime anti-access, blinding forces to create temporary opportunities (see Chapter 5). AirLand had nothing to do with anti-access warfare, and conceptually, was not a conscious attempt to change warfare—it was a reaction to a near term threat, using near term technology.³⁹ Air-Sea sought similar near-term changes, but also was a

Governance And Policy Into The Services' Annual Program, Planning, Budgeting And Execution (PPBE) Process" n.d.) (Forman 2014b; Williams 2011a; Ballard 2015)

³⁶ Arguably, AirLand Battle and the Maritime Strategy assumed a high likelihood of nuclear escalation.

³⁷ (Robert Work 2021; Jan van Tol 2021; Vincent Alcazar 2021; Bryan Clark 2022)

³⁸ (Jan van Tol 2021)

³⁹ (Kagan 2007, 54–64)

conscious attempt at disruptive innovation, seeking long-term changes to service culture and a reorientation of future force design.

Institutionally, in both cases, operational collaboration between two services helped spawn later institutional collaboration. The Air Force exited Vietnam with a history of working with the Army, appreciation of close air support, and interservice relationships forged by operational collaboration.⁴⁰ Similarly, the experience of flying together over Iraq and Afghanistan created links between Air Force and Navy aviation (see below). Yet, beyond this, most of the major elements of the institutional environments of AirLand and Air-Sea Battle were dramatically different. Unlike Air-Sea Battle, the interservice reaction to AirLand Battle was relatively muted. The Navy was largely placated by its significant budgetary gains of the 1980s, and focused on its Maritime Strategy. Occurring before the 1986 Goldwater Nichols Act, the institutional and cultural demands for inclusive jointness were dramatically reduced. While there were tensions within the AirLand coalition,⁴¹ appreciation of the Soviet threat was obvious, old, and widely shared throughout the American military. That threat had been studied in granular detail, forming the basis of the AirLand response.⁴² AirLand thus enjoyed a much greater consensus across the Department, and following the unpopularity of Active Defense and poor showing in Vietnam, a heady tailwind for change. Finally, AirLand was cemented by Reagan's significant budgetary growth. Air-Sea Battle would face different, and more difficult, institutional conditions in all these respects. Much of Air-Sea's uphill work would be to evangelize the severity and immediacy of the Pacific threat, to services competing for a shrinking budget, and civilian leadership that was focused elsewhere and consistently underestimated China's rise. Where Reagan's budgetary growth cemented AirLand, Sequestration gutted Air-Sea (see Chapter Six). One can imagine an earlier and more accurate appreciation of China's threat; candor regarding American unreadiness for it; a lack of competing ground wars; budgets that did not force zero sum choices between current fights and modernization; and a concordantly less cutthroat interservice climate. Where these largely existed in AirLand, they remained imaginary for Air-Sea. Where AirLand would subsequently flourish, Air-Sea would, as a program, fail.

⁴⁰ (Kagan 2007, 58)

⁴¹ (Lock-Pullan 2005)

⁴² (Jim FitzSimonds 2021)

The American Military of 1991

In sum, the transformation of the 1970s and 1980s was remarkable and significant. This is evidenced by the low state of the American military in 1975, contrasted with the exceptional performance of Desert Storm and its historically lopsided casualty counts.⁴³ Importantly, aligning with Boyd’s vision, the operating concepts of air and surface forces had displayed strong strategic and operational synergies in AirLand Battle. The American Army presented Iraq with an implied threat of invasion, and in addition to killing many Iraqi units itself, forced Iraqi land units to consolidate—making them easier targets for airpower.⁴⁴ The Gulf War air campaign was AirLand Battle’s air-ground capabilities, guided by Boyd and Warden’s visions of nodal targeting. The results were outstanding.

The American military of 1991 was, of course, not perfect. The AirLand collaboration was neither seamless nor relaxed, as noted. Thankfully, we will never know how it, nor the Maritime Strategy, would have fared in a war against the Soviets. Regarding the Navy and Air Force, they continued their mutual antipathy during this period. Operationally, their norm for their respective air wings was deconfliction; “no synergies between the two services were produced—or sought.”⁴⁵ The two services deliberately eschewed interoperable communications.⁴⁶ In Desert Storm, the critical air tasking order had to be delivered by hand daily via carrier landing.⁴⁷ They conflicted mightily over unified operational control of air operations (the “CAOC”). In Desert Storm and its immediate wake, the Air Force muscled the Navy out of a central role in the CAOC, asserting control of air operations and assigning Navy officers to supporting roles.⁴⁸

For all this, the changes of the period represent a victory of the futurist camp, in what Kagan calls “one of the most complete and successful military transformations in history.”⁴⁹ The American military would enter the 1990s in a position of unprecedented military and strategic power. That position would dissipate quickly over the 1990s, as precision-strike futurists took good arguments far beyond their limits.

⁴³ (Gordon and Trainor 1995)

⁴⁴ (Kagan 2007, 262)

⁴⁵ (Lambeth 2008, 3)

⁴⁶ (Marsh and Jones 2015, 246)

⁴⁷ (Lambeth 2008, 6)

⁴⁸ (Lambeth 2008, 12)

⁴⁹ (Kagan 2007, 4)

1991-2001: “Transformation” and its Discontents

The early 1990s combination of overwhelming battlefield victory in Desert Storm, Soviet collapse, and budgetary “peace dividend” upended American defense. The loss of the primary Soviet focus erased each service’s existing strategic and operational concepts. Historically large budget cuts, alongside an increasing deployment tempo, ignited fierce interservice competition for decreasing budgetary share. The services fought in zero-sum fashion to assert their centrality in the emerging security environment. Air Force leaders, in particular, seized the moment to argue the independently decisive power of airpower, spinning history when needed.

These dynamics warped American military thought regarding the foundational strategic and operational choices facing the nation in a “new world order.” Kagan notes “An opportunity to learn from victory was turned into an opportunity to fight off rivals for defense budget funds in a time of falling budgets.”⁵⁰ In particular, while some prescient analysts would foresee precision strike’s proliferation and China’s military potential, the changes of the 1990s would double-down on the short-ranged, sanctuary basing model that proved successful in Desert Storm. They would also dramatically underestimate the forces required to support a hegemonic US strategy, contributing fundamentally to both the prolonged wars of Iraq and Afghanistan, and to the problems Air-Sea Battle would later attempt to address.

The Laocoöns: The Office of Net Assessment (ONA)

The threats of China’s rise, and mutual precision strike, did not go undiagnosed during the unipolar period. As early as the late 1980s, several organizations would cogently diagnose the future strategic and operational environments. They would also provide a solid conceptual basis for a “revolution in military affairs” (RMA), leveraging the precision strike capabilities witnessed in Desert Storm. Arguably, the most cogent was Andrew Marshall’s ONA.

The RMA perspective argues that discontinuities in military effectiveness can occur when emerging technologies are correctly understood and embraced by military forces..⁵¹ RMAs need

⁵⁰ (Kagan 2007, 166)

⁵¹ Scholars find evidence of past RMAs in Adolphus’s combined arms, Napoleon’s *levee en masse*, the onset of industrial warfare, and the introduction of nuclear weapons, among others. For a history of RMAs, see (Knox, Knox, and Murray 2001)

not be fast, and nor are they total, but once realized, their operational effects are profound.⁵² Recognition of a potential precision-strike RMA began in Soviet military thought, arguing that wedding advances in sensors, data exploitation, and precision weapons allowed militaries to create new—and devastating—operational concepts. Sensitive targets throughout the theater could be seen by sensors and engaged by long-range missiles in ways that, paralleling Boyd, could disaggregate an enemy’s military system. To do so, however, called for disruptive innovation—reorganizing military formations, doctrine, and equipment around the kind of capabilities needed to sense and strike at operational depth.

Contrary to conventional wisdom, Marshall was not the first American to appreciate emerging precision capabilities as an RMA⁵³ He was, however, the most influential. Yet, where previous predictions were more diffuse and abstract, Marshall’s was comprehensive and detailed, and most importantly, deeply attuned to precision strike’s inevitable proliferation.⁵⁴ Marshall’s contributions were diagnostic, not prescriptive. He described the future and the broad capabilities it likely required, but avoided telling the military services the discrete changes they must pursue, seeing these as service domains.⁵⁵ While underexplored, this bureaucratic strategy likely contributed to his exceptionally long tenure.

Rather than dismissing or mirror-imaging Russian military thought, ONA immersed itself in it. From that intellectual position, and independent from the services’ budgetary battles, ONA analyzed the likely character of future conflict. Marshall thus observed the origins of precision strike theory in Soviet sources, reconsidering them in American transoceanic context.⁵⁶ He also assumed adversaries would develop, and intelligently leverage, precision strike capabilities. Marshall summarized the chilly reception this perspective received in defense circles: “My impression is that a lot of people sign up to the notion that a military revolution is underway, but very few draw the significant consequences that flow from that belief.”⁵⁷

⁵² (Dima Adamsky 2010, 1)

⁵³ Beginning with William Perry’s “offset” in 1978, running through Wohlstetter and Odom, several American intellectual in the late Cold War argued advances in sensing, computing, and weapons guidance necessitated disruptive military innovation. (Dima Adamsky 2010, 59–67)

⁵⁴ (Dima Adamsky 2010, 65–74; Stephen Rosen 2012, 64)

⁵⁵ (Stephen Rosen 2012, 48)

⁵⁶ (Stephen Rosen 2012, 40)

⁵⁷ (Haddick 2022, Dedication Page)

While ONA's most consequential intellectual contribution was Krepinevich's 1992 assessment of the RMA, Marshall's work on the RMA began in the mid-1980s.⁵⁸ ONA's early efforts include the early 1990s study—branded by the Navy as the “Anti-Navy Study”—describing the anti-access threats presented to American carriers by improvements in sensing and long-range, land-based precision weapons.⁵⁹ After the Gulf War, Krepinevich's 1992 study, and Michael Vickers's 1995 RMA study following it, noted troubling implications from the inevitable proliferation of precision strike, and American dependencies that a precision-empowered adversary could exploit.⁶⁰ These included the assumptions of access, dependence on major bases and short-ranged platforms, and time required for strategic deployment to a distant theater. Krepinevich's study noted the “strong implication that the military services would likely have to undertake fundamental reforms.”⁶¹ Vickers noted the likelihood of China employing its economic growth for “anti-access” capabilities (he uses the term), with the combination of Pacific geography and American operational habits making it particularly effective.⁶²

ONA's diagnosis was early, independent, contrarian, and largely accurate. As noted in later chapters, much of Air-Sea's conceptual work can be seen as a return to themes originally raised by ONA. As late as 2012, Barry Posen derided ONA as “the Office of Threat Inflation.”⁶³ From hindsight in the 2020s, as the US faces increasingly difficult overmatch in the Western Pacific, such critiques have not aged well. Marshall's independence from the services was an intellectual advantage, but institutionally, meant he lacked authority over service decisions regarding doctrine and platforms. There is thus a Cassandra or Laocoön-like quality to ONA's work in the 1980s and early 1990s, from which the services increasingly departed over the decade.

The RMA and “Transformation”

Given no serious threats, in the 1990s the Department of Defense sensed a “window of strategic opportunity” to consciously “revolutionize warfare.”⁶⁴ Contravening military innovation theories

⁵⁸ (Stephen Rosen 2012, 46–47)

⁵⁹ (S. J. Tangredi 2019, 39; Jan van Tol 2021)

⁶⁰ (Krepinevich 1992) (Andrew Krepinevich 2021; Michael Vickers 2022)

⁶¹ (Krepinevich 1992, iv)

⁶² (Michael Vickers 2022)

⁶³ (Jaffe 2012)

⁶⁴ For example, see Army Chief Reimer: (Reimer 1998)

positing a conservative military needing external threats to spur change, the 1990s American military reorganized itself—conceptually, operationally, and strategically—around “transformational” concepts. These would help usher in fundamental challenges with which Air-Sea Battle would have to contend, including a lack of sufficient forces, a lack of range, and a belated recognition of China’s strategic challenge.

It is important to distinguish here between the broader precision strike RMA—the military ramifications of more powerful sensing, computing, and missile guidance—and the “transformational” operational concepts by which the Americans attempted to leverage the RMA.⁶⁵ The RMA was, and is, real. In addition to being the basis of China’s effective A2AD modernization, it was a key factor in the historically unprecedented casualty ratio of the Gulf War. The successful changes of 1970s and 1980s that constituted the early American RMA focused on a respected adversary presenting a clear operational problem. These concepts combined air and surface forces, had sufficient mass, and built upon available technologies rather than depending on “leap ahead” capabilities.⁶⁶ 1990s “transformation” would, comparatively, lack these qualities.⁶⁷ It would badly misrepresent the RMA, founder on the streets of Iraq, and generate an institutional backlash that would tarnish American RMA thinking within the American defense community.⁶⁸ Air-Sea Battle would later wrestle with this backlash, trying in some ways to rescue the RMA from the missteps of transformation.

Adapting Schnaubelt’s definition, we can define 1990s transformation broadly as operational concepts attempting to “use information management and networked systems” to create systemic collapse and/or psychological shock “*in lieu of* increased firepower, better armor, and more manpower (emphasis mine).”⁶⁹ To quote Gompert, transformation’s “‘mortar and pestle’ were standoff weapons and information dominance.”⁷⁰ In transformation, Americans imagined leveraging near-perfect battlefield awareness, lifting Clausewitz’s “fog of war,” and guiding precision strikes that would cause an enemy’s collapse—without the need for large force

⁶⁵ (Schnaubelt 2007, 100)

⁶⁶ (Kagan 2007, 30–37)

⁶⁷ The term “transformation” doesn’t feature significantly in US defense discourse until the late 1990s, but I use it here to refer to the body of self-described “transformational” or “revolutionary” operational concepts the US military pursued during the 1990s.

⁶⁸ (Brose 2020, 17)

⁶⁹ (Schnaubelt 2007, 95)

⁷⁰ (Schnaubelt 2007, 98)

commitments. Reflecting Toffler's work and commercial analogues, transformation advocates argued the world was transcending the 'industrial' age for the 'information' age. In a chorus of technological determinism, advocates warned such changes were inevitable; militaries that did not 'transform' would be left hopelessly behind."⁷¹ The transformation thus focused on outpacing an abstract future peer competitor that would "transform" faster than the Americans could. To be fair, transformation advocates had just witnessed an exceptional change in the American military in less than two decades, culminating in one of the most lopsided victories in military history. It is natural they would want to double down on the capabilities that brought this victory. The lessons they derived, however, remained partial, parochial, and flawed.

Misreading (and Spinning) Desert Storm

The air-surface synergies of the Gulf War, born of Boyd, were an early casualty of 1990s transformation. The Air Force immediately reframed the Gulf War, dismissing its landpower synergies and presenting the war as evidence of independently decisive airpower. This was aptly expressed by its chief historian, framing a: "a major transformation in the nature of warfare: the dominance of air power.... Simply (if boldly) stated, air power won the Gulf War."⁷²

American airpower in the Gulf War was indeed exceptionally effective militarily—attribution Iraqi forces and severing their command and control (C2). Warden's vision of disaggregating an enemy system was largely confirmed. This did not happen, however, without landpower. Nor did airpower strikes live up to their political promises: strikes did not cause Iraqi withdrawal from Kuwait, nor capitulation, nor Saddam's fall. Those required two successive landpower invasions. In its recasting, airpower theory in the 1990s began systematically dismissing its synergistic effects with surface forces, to present airpower as a substitute for them.⁷³

The degree of American military success in Desert Storm, ironically, contributed to the Department's loss of direction in two related respects. First, the success, and Air Force parochial retelling of it, changed American perceptions of "a good war." The belief that war could be—and *should* be—dramatically one-sided and "precise" made planning for sustained, attritional wars a

⁷¹ (Kagan 2007, 200)

⁷² (Haynes 2015, 64)

⁷³ (Kagan 2007, 137–39)

comparative anathema.⁷⁴ While admirable in its goals, this ignored a fundamental aspect of warfare that has endured across recorded history. As implied above, a contemporary Sino-American conflict would likely be deeply attritional, even if efforts to conduct nodal or blinding strikes were successful. Second, the vision of a non-attritional war won “cleanly” by airpower naturally led to a systemic undervaluing of mass in warfare. This supported cutting force size dramatically in exchange for technological modernization, and cutting surface forces for air. These moves exacerbated a gap between US strategy and the resources undergirding it that continues to present.⁷⁵

In hindsight, a growing gap between US strategy and resources was evident throughout the 1990s. The smaller US forces were continually stretched thin by the operational tempo the nation’s leaders demanded.⁷⁶ Regarding force sizing, the Department in the 1990s envisioned keeping sufficient forces to engage in two simultaneous conflicts. This “two war standard” reflected the historical frequency with which US forces, as a global power, have fought in multiple theaters simultaneously.⁷⁷ Yet, the 1990s military was insufficient to meet that standard even as it articulated it, falling further as the decade commenced.⁷⁸ To quote Kagan, “The conviction that a military designed to meet an arbitrary budget ceiling could necessarily manage the tasks assigned to it also persisted despite substantial evidence to the contrary.”⁷⁹ Policymakers wanted small budgets and big strategic ambitions. Rather than face this contradiction, policymakers smiled upon operational concepts that advertised dramatic effects with modest resource commitments. This phenomenon would recur in the 2003 Iraq War. The gap between resources and ambitions would also recur ten years later, in the combination of sequestration, Air-Sea Battle, and “Pacific Rebalance.”

In particular, Secretary Aspin’s 1993 downgrading of the two war standard presents parallels with later Air-Sea Battle. Aspin’s “Win-Halt-Win” standard envisioned a military big enough to win one conflict, with independent airpower “halting” enemy actions elsewhere until sufficient forces could be mustered to defeat them. This conveniently ignored the reality that while planes indeed fly quickly, their enormous logistic requirements do not—the fuel, munitions, spares, repair tools,

⁷⁴ (Samuel Tangredi 2023)

⁷⁵ (Ochmanek ... Warner 2015; Echevarria 2014, 2, 169)

⁷⁶ (Sorter and Polich 2001, xii)

⁷⁷ (Kagan 2007, 151–55)

⁷⁸ (Mitre 2018)

⁷⁹ (Kagan 2007, 198)

and personnel needed to operate them. More fundamentally, it was a tacit admission that US forces were likely too small to win a war while deterring elsewhere (leading some to label the idea “Win-Lose-Lose”).⁸⁰ In a similar absence of sufficient forces, Air-Sea Battle would later echo aspects of Aspin’s “halt phase.” In both, a forward force too small to convincingly deter or win must “hold” long enough to allow reinforcement across exceptional distance. Both 1990s airpower and Air-Sea Battle were, in essence, an operational concept trying to cover for a strategic shortcoming.

The Recurring Dream of Independent Airpower

As Gompert’s quote suggests, airpower was the heart of “transformation.” American airpower’s theories of victory during this period—from 1995’s Decisive Battlefield Knowledge, through Shock and Awe, Network Centric Warfare, and Effects Based Operations at century’s end—represented expansions of Warden’s theme of systemic disaggregation. Operationally, building off Boyd’s neglect of an active enemy reconstituting itself, 1990s airpower increasingly viewed the adversary “as an inert, lifeless mass against which US precision capabilities operate to the full extent of their potential.”⁸¹ Lacking an actual enemy to plan against, and ignoring ONA’s warnings of China’s potential, such thinking fell into abstraction.⁸² Abstraction made parochial interpretations easier still, as there was no enemy against which to ground scenario planning—scenarios themselves were parochial.

Strategically, where Warden advocated for careful attention to an adversary’s particular centers of gravity in a conflict, airpower concepts of the 1990s substituted a more generic systemic collapse. These operational concepts thus moved further still from considering the political dimensions of conflict that, as Clausewitz notes, define victory and loss in war. War, in the 1990s airpower vision, glossed over political matters considerably, conflating the ability to disaggregate an enemy with strategic victory. Such a reductionist view naturally favors the Air Force over surface forces. Rather incredibly, airpower theorists—observing policymaker attention to limited war and “OOTW”⁸³ in the 1990s—worked diligently to present precision airpower as the military linchpin

⁸⁰ (“Back to Win-Hold-Win” n.d.)

⁸¹ (Kagan 2007, 264)

⁸² (Brose 2020, 1–20)

⁸³ “Operations Other Than War,” meant to encompass the diverse peacekeeping, stabilization, and humanitarian assistance missions frequently assigned to the military.

of such politically-complex conflicts.⁸⁴ War, in the 1990s imagination, was small American surface forces, with near perfect battlefield awareness, directing near perfect strikes onto the perfect nodes. It was a remarkably reductionist view of human conflict.

To support these theories, as they did in the Gulf War, Air Force leaders would consistently overstate airpower's independent efficacy in American conflicts throughout the 1990s.⁸⁵ In particular, Air Force leaders presented the 1995 and 1999 Balkan conflicts as evidence of the new and independent airpower vision. Operationally, both conflicts included significant American or local landpower forces. Regarding airpower, much like the hunt for Iraqi Scud missiles eight years before, the Air Force struggled to target the concealed Serbian military, losing a stealth fighter in the process. Strategically, independent airpower did not deliver the desired political effects in either case.⁸⁶ Finally, crises throughout the 1990s required far more forces, including land forces, than envisioned in the "Win-Halt-Win" schema.⁸⁷

Despite these facts, in part reflecting the Air Force's selective presentation of them, the inaugural 1997 QDR largely echoed the airpower futurist vision. The QDR recommended cutting over 100,000 troops and 35 ships (including 23 submarines) to support investments in transformation.⁸⁸ Through the 1993 Bottom Up Review and 1997 QDR, the 1990s airpower-centric vision greatly expanded the gap between American strategic ambitions and military investments, helping midwife both the inadequate force sent to Iraq, and the current force imbalance in the Pacific Air-Sea Battle was meant to address.

To be clear, this is not to say precision airpower cannot be decisive, nor that militaries should universally avoid trading mass for technology, nor that seeking a "cleaner" form of war was folly. The question is one of degree. In determining a proper balance, the character of war matters—1990s transformation viewed war relatively monolithically, presenting precision airpower as an answer to "war" in all its variant types. Similarly, warfare is contingent. It involves both the vagaries of chance, and thinking adversaries rather than potted plants. In the mania, overconfidence, and competition of the 1990s transformation agenda, these points were lost, and

⁸⁴ For example, see (Hillen 1998)

⁸⁵ (Johnson 2007, 21–76)

⁸⁶ While underappreciated in American military circles, the 1999 Kumanovo Agreement ending (or freezing) that conflict with Serbia represented a compromise with Belgrade when compared to the Rambouillet Proposal. (Hehir 2013, 232)

⁸⁷ (Kagan 2007, 182–90)

⁸⁸ (Department of Defense 1997, 8–10)

along with them, the balance between the orthodoxy and futurists. The result was a military too small for the tasks assigned to it, too consumed by internal budgetary fights for objectivity, too technologically smitten to consider war's political complexities, and too confident to realize these shortcomings.

If the Air Force appears the “villain” in this story, its actions during the period reflect the effect a strategy-resource gap can have on military services. These actions parallel the Army's later resistance to Air-Sea Battle. Faced with heavy deployments, heavy force planning requirements, shrinking budgets, and shrinking forces, in both cases service leaders sincerely believed they were too small to conduct the missions the Nation asked of them.⁸⁹ As the deployment history of the 1990s suggests, they were largely correct.⁹⁰ In that context, one can view the Air Force's consistent exaggeration of airpower's effects from an empathetic perspective.

Diminishing American Long Range Strike

1990s airpower concepts also accelerated a longer-term secular trend of decreasing combat range for the majority of American military aircraft. This is observable both in the range of its primary aircraft, and the ratio of fighters to bombers, which moved from 2.5 to 1 in 1960 to 12.5 to 1 in 2016.⁹¹ The Air Force left the Cold War with 400 bombers; by 2020, it would have 158, all but 20 of which were Cold War models unsuited for penetrating modern A2AD.⁹² Such decreasing range was central to the problems Air-Sea sought to address, given the vast distances involved in the Pacific, paucity of basing, and greater range of Chinese anti-access forces.

The 1990s reduction in range was built on post Cold War assumptions of secure basing and easy access. To be fair, such assumptions had much to support them.⁹³ For carriers, this outranging was partially structural; until greater advancements in unmanned technology, smaller carrier-based

⁸⁹ This is based on my own experience as Deputy Assistant Secretary for Force Readiness.

⁹⁰ (Sorter and Polich 2001)

⁹¹ (Haddick 2022, 62)

⁹² (Mark Gunzinger 2020)

⁹³ If these assumptions hold, a shorter-range fleet maximizes the volume and speed of munitions delivered, delivering substantial cost savings. See (Watts 2013, 23) Further, the recent operational history of the Air Force and Navy supported such assumptions; short range airpower proved effective, and suffered no great threat to access. (Haddick 2022, 66–67)

aircraft continue to have shorter range than their land-based cousins.⁹⁴ Finally, high-end precision strike systems proliferated more slowly than ONA and other early futurists predicted.⁹⁵

Yet, despite the dramatic quantitative and qualitative growth of China's missile arsenal through 2008, Air Force leaders routinely dismissed such threats to airbases.⁹⁶ In the Air Force view, such missiles remained too inaccurate to threaten airbase operations.⁹⁷ This was questionable at best. Missile guidance was improving, and as the Chinese realized, high numbers of inexpensive ballistic missiles could compensate for their relative inaccuracy. Downplaying the airbase threat, however, made clear institutional sense for the Air Force. If static airbases are invalidated by strikes, as the 1990s Navy frequently argued they were, the obvious alternative would be exchanging land-based aviation for the Navy's mobile carriers. Questions of posture and base vulnerability thus became parochial rather than fully rational.⁹⁸

The late 1990s brought an opportunity to rethink the short-range fighter fleet, as the Department considered a new strike fighter. Yet, dismissing both the threat of missiles to airbases and China's military potential, range was not a key requirement. To achieve economies of scale, the Department elected for a single airframe shared across services, meaning the range limitations inherent to the carrier-borne version would be translated across all F-35s. The F-35 ultimately was shorter range than planes it replaced.⁹⁹ Undersecretary Vickers observes the military didn't increase its range because, "The Air Force didn't want standoff strike. It wanted the F-35 and F-22."¹⁰⁰ Reflecting confidence in its short-range basing posture, in 1999 Air Force leaders estimated the need for a new bomber could be put off until 2037.¹⁰¹

In hindsight, given the current operational challenges in the Pacific, such a statement is as breathtakingly wrong as the Army's 1990s quest to shed mass before the 2003 Iraq War. This is not because American military leaders in the 1990s were simpletons; leaders were eminently qualified. Instead, as Adamky's and Builder's scholarship suggests, service cultural lenses largely

⁹⁴ (Haddick 2022, 68)

⁹⁵ (Watts 2013, 2)

⁹⁶ For a notable exception to this, see the remarks of Air Force Chief Fogleman: (Krepinevich, Watts, and Work 2003, 4)

⁹⁷ (S. Tangredi 2013, 42–43)

⁹⁸ (S. Tangredi 2013, 68)

⁹⁹ (Haddick 2022, 76–80)

¹⁰⁰ (Michael Vickers 2022)

¹⁰¹ (Force 1999, 21)

define their vision of future war, and their institutional equities.¹⁰² These lenses, motivated by the fierce budgetary fights of the 1990s, envisioned future threats (or the lack thereof) in an increasingly parochial light. The overly ambitious acquisition programs of transformation—the F-35, Navy’s Littoral Combat Ship, and Army’s Future Combat System chief among them—drained both modernization funding and credibility with Congress.¹⁰³ In addition to underperforming, they were also the wrong platforms for the coming strategic challenges.¹⁰⁴

The 1990s Navy’s “Maritime” Vision

In the Gulf War, while the Army and Air Force performed brilliantly, the Navy “...had to all appearances merely played a supporting role in a conflict that was now viewed as the template for how the U.S. military would be designed and used.”¹⁰⁵ The Navy was quick to address its Gulf War lack of precision strike capabilities.¹⁰⁶ As noted, in 1992 LCDR (later ADM) James Stavridis articulated the first “AirSea Battle” in a paper he wrote while a student at the National Defense University, thinking through the application of integrated air-sea precision strike at sea.¹⁰⁷ Stavridis’s early vision was not deeply considered by later Air-Sea thinkers, but presents a similar theme: the value of “integrated” air-sea forces that have trained together extensively and can fight together effectively, striking with precision across their respective domains.¹⁰⁸

The 1990s began a pattern between the Navy and Air Force of increasingly collaboration between tactical aviation units, alongside continued institutional rivalry at each service’s headquarters. Operationally, for over a decade Northern and Southern Watch brought the best aviators of each service to get real-world operational experience over the skies of Iraq.¹⁰⁹ Thus, high performing officers on both sides familiarized with the other service, and formed relationships across them. Lambeth describes a “real world operations laboratory” for how to coordinate air assets across the services, and a “steadily evolved mutual trust” between operators.¹¹⁰

¹⁰² (Dima Adamsky 2010)

¹⁰³ (Pernin ... Sollinger 2012; Congressional Research Service 2018)

¹⁰⁴ (Brose 2020, Chapter 1)

¹⁰⁵ (Haynes 2015, 65)

¹⁰⁶ (Lambeth 2008, 8)

¹⁰⁷ (Stavridis 1992b)

¹⁰⁸ (Jan van Tol 2021; Vincent Alcazar 2021)

¹⁰⁹ (Lambeth 2008, 34)

¹¹⁰ (Lambeth 2008, 9)

Reacting to the period's new strategic realities, the 1990s Navy reoriented itself. The Navy shifted its strategic concept from great power warfighting to a "maritime" footing—emphasizing its role in defending and spreading the globalized, liberal world order envisioned by policymakers.¹¹¹ To support this, the Navy rebranded operationally, emphasizing the ability of forward naval presence to deter and react to regional crises.¹¹² This model of "expeditionary warfare," was well-oriented towards the myriad small crises of the new security order. The warfighting focus of the Navy—the centrality of sea control, decisive naval battle, and great power conflict, the grist of American naval power since the Spanish American War—fell by the wayside. The perceived threats to the liberal international order were markedly different in character: e.g. instability in the developing world, terrorists and criminal networks, WMD proliferation, pirates, ethnic nationalism. To meet these threats under shrinking budgets, the 1990s Navy cut the attack submarines later critical in the Pacific, from 102 in 1987 to 56 at decade's end.¹¹³ The Navy's new littoral focus still presented warships with myriad threats, requiring defensive capabilities. The Marine Corps would reprise its role as a "small wars" force, and the Navy would provide them "access" despite these littoral threats, as well as seaborne power projection. "Access" as a term thus rose in American naval thought during the 1990s, and as the Navy reconceived a littoral role.

The Navy's 1990s strategic and operational transitions made institutional sense, preventing policymakers from viewing the Navy as simply an anachronism of great power competition. A smaller Navy was inevitable, but the rebranding justified a fleet of largely the same makeup (minus submarines). The Air Force and Army quickly critiqued the Navy's expeditionary orientation (though by decade's end both would similarly rebrand as "expeditionary").¹¹⁴ Such naval "presence" contrasted with the Air Force's view of transformation, and the Army's focus on rapid deployment. Critics observed it was unclear how deeply threats like pirates and ethnic nationalism endangered maritime trade, let alone broader "globalization," nor how effectively seapower addressed them.¹¹⁵ Such arguments struck other services as parochial justifications to sustain budgets and force structure.

¹¹¹ (Haynes 2015)

¹¹² (S. Tangredi 2013, 40)

¹¹³ Derived from ("US Ship Force Levels" n.d.)

¹¹⁴ (S. Tangredi 2013, 40–43)

¹¹⁵ (Work and van Tol 2008, 19)

The Navy's 1990s rebranding proved effective, at least partially. Compared to the other services, the Navy did not "transform" greatly during the decade.¹¹⁶ This is due, arguably, to policymakers seeing value in its expeditionary presence, and because its real world, forward deployed duties kept the Navy meaningfully engaged. Further, this comparative constancy reflects Builder's aforementioned conception of the Navy's organizational "hedging" strategy—given quickly changing strategic circumstances against the exceptional costs and long service lives of naval platforms, "revolutionizing" the fleet was unattractive, if not impossible. Yet, the Navy's 1990s organizational reorientation came at a cost. Programmatically, it underpinned programs like the Littoral Combat Ship and Zumwalt destroyer (see below). More fundamentally, as the American military rhetorically prioritized high technology transformation to deter future peer competitors, the Navy arguably should have been the most important advocate for countering China's growing maritime power. Yet, instead of amplifying that threat, the 1990s Navy had largely exchanged its warfighting focus to align itself with the zeitgeist of globalization and a "new world order." The 1990s "maritime" realignment thus undercut naval attention to warfighting, and the coming first-order strategic threats of China's rise and A2AD.

Misreading the Rise of China and Anti-Access

Belief in an ascendant liberal order nested neatly with longstanding American government policy towards China. Beginning with Nixon in the late 1960s, American statecraft towards China prioritized engagement. This suffered a ripple with the 1989 Tiananmen massacre, but only a ripple. The consistent primacy on the engagement approach stemmed from several factors.¹¹⁷ Chief among them was belief that trade and engagement would liberalize China, as both China's government and citizens would benefit. Deng's reforms further encouraged this assumption. Further engagement should, it seemed, shepherd the authoritarian regime towards becoming a "responsible stakeholder" supporting the existing economic order. Openly, in ways that could only be perceived as threatening by Beijing, American presidents explained this path would grow China's middle class, which would subsequently agitate for greater political representation. The recent Soviet collapse and Tiananmen movement evidenced this belief, for Washington and

¹¹⁶ (H. Sapolsky, Friedman, and Green 2009, 71–100)

¹¹⁷ This analysis draws from (A.L. Friedberg 2022)

Beijing alike. In reaction, as Friedberg eloquently expresses, China’s rulers proved “ruthless, resourceful, and resilient.”¹¹⁸ In the meantime, trade with China also brought enormous profits and anti-inflationary pressure to the American economy.

To be clear, American policy towards China included both engagement and military hedging. Indeed, the 1996 Strait Crisis saw American carriers pressed forward to force Beijing’s standdown. In practice, however, engagement consistently trumped hedging.¹¹⁹ One might imagine transformation’s hyperfocus on a theoretical “future power employing the RMA” would have generated threat inflation regarding the Chinese military (“PLA”). Indeed, ONA held ten games in the mid-1990s, examining a future “near peer” competitor employing precision strike to blunt American access and power projection.¹²⁰ Yet, as noted previously, 1990s transformation largely led the military’s focus elsewhere. The military’s relative underplaying of China thus generally supported, rather than contested, the political and economic incentives above. These, in combination, seriously delayed the American response. Concerns about China’s military rise were not absent, and the “hedging” side of the policy grew moderately, reaching a high point in the 2001 QDR (see below). Yet, the hedge consistently underestimated the success and rapidity of China’s rise, and more fundamentally, was subsumed in the broader currents of engagement and transformation. As one example, ONA’s mid-1990s analysis highlighted the emerging Chinese anti-ship ballistic missile (ASBM).¹²¹ The Navy rebuffed this as technologically infeasible “until 2030;”¹²² it would enter PLA service in 2006.¹²³

Regarding anti-access, the Navy’s attention to littoral access filtered into wider American defense discourse by the mid-1990s. Rightly, analysts began viewing anti-access as more than a threat to navies, but to airpower and landpower deployments as well. The themes of “access” and “anti-access” emerged in several senior strategic fora, beginning in earnest with a 1996 report from the Defense Science Board (DSB).¹²⁴ Acknowledging a potential “serious disruption” to US strategic deployment, the DSB highlighted that growing operational threats to basing increase the political risk of partner nations refusing American access. Skeptical that the military could analyze the

¹¹⁸ (Aaron L. Friedberg 2018, 12)

¹¹⁹ (Aaron L. Friedberg 2018, 13)

¹²⁰ (Stephen Rosen 2012, 49)

¹²¹ (Michael McDevitt 2021)

¹²² (Michael Vickers 2022; Michael McDevitt 2021)

¹²³ (“DF-21 (CSS-5)” n.d.)

¹²⁴ (S. Tangredi 2013, 43–44)

challenge objectively, Congress commissioned the 1998 National Defense Panel (NDP), which echoed these anti-access themes. The NDP noted the Navy was not immune from threats to basing; naval bases also represent critical targets.¹²⁵

Looking broadly at the 1990s conversation about access, one is struck that the Department correctly diagnosed the problem at senior levels by the mid-1990s, and ONA far earlier. Anti-access was hardly a surprise. Similarly, the combination of China's economic boom, military modernization, and conflicting interests were readily observable. The tempo of these realizations, particularly regarding China, would build in the runup to the 2001 QDR. Yet, as noted, the military did relatively little to address these threats. Instead, it sustained—or arguably deepened—its dependence on major bases and short-range aircraft, for years hence. The 1990s Department got it wrong. Just as it reduced the landpower mass soon needed in Iraq, it reduced the submarines, longer-range bombers, and long-range munitions critical to the Pacific.

Conclusions on the 1990s

Why did the Department diagnose the anti-access challenge in the mid-1990s, and not react? As described above, the muted response to anti-access and China's rise occurred for several reasons, some beyond defense.

Put simply, the American military of the 1990s didn't react robustly to China or anti-access because its military services didn't want to. Despite their seniority, none of the parties driving the anti-access and China arguments in American defense discourse during the 1990s could match the institutional influence over force development enjoyed by the military services.¹²⁶ Jim Mitre, from OSD Policy's force development office, observes that the Secretary's review of the services' budget requests is "More of a negotiation than a directive, depending on how willing the Secretary is to fight. It's selective, on 5% of the budget at most. Secretary has to, ultimately, preserve political capital with the services, and the Hill."¹²⁷

To seriously change military force structure, one typically must change the forces the services request. Those requests reflect the near monopolies services hold over their doctrine and emerging

¹²⁵ (S. Tangredi 2013, 44–47)

¹²⁶ (Builder 1989; S. Rosen 1991)

¹²⁷ (Jim Mitre, n.d.)

operational concepts—i.e. how they want to fight. While OSD and Congress attempt to shape these requests, doing so remains difficult and partial. “Picking fights” with the services is difficult and costly for civilian policymakers, requiring political capital and sustained attention. It remains difficult, for example, for civilian leaders to convincingly contradict the Navy on how to fight naval warfare. Further, with policymaker appointments typically lasting only a few years, a service can “slow roll” demands, while leveraging its powerful Congressional, industry, and veteran connections.¹²⁸ Congress and Administrations can size the military, through the purse. Shaping it, however, remains partial.

Regarding China and anti-access, the 1990s Air Force downplayed threats to airbases and demands for increased range, because these contradicted its transformation operational concepts. The Navy, fighting for budgetary share, balancing growing operational demands against a shrinking fleet, and having successfully justified itself as a “systemic guardian,” settled for the proverbial “half a loaf.” The Army transformed, but into a force less ready for Iraq and Afghanistan. The Army Chief Sullivan’s belief that “as the size of the unit decreases, there can be a corresponding increase in the effects it is able to produce...” captures the period’s flawed zeitgeist, presaging painful days ahead in Iraq.¹²⁹ The operational visions set in the Air Force and Navy during the 1990s would endure fundamentally until the late 2000s, as the military focused on the troubled wars in Iraq and Afghanistan. As subsequent chapters demonstrate, the beginning of serious changes to American military readiness for anti-access and China begin in 2008, when the Air Force and Navy decided internally, in Air-Sea Battle, to do so.

In hindsight, what is fascinating—and in American perspective, tragic—about American military thought in the 1990s is that it is awash in contradictions. It was hyperfocused on an IT revolution, yet produced military systems that generally cannot talk to one another. Its “peace dividend,” brought a significant uptick in deployments, just with smaller budgets and forces. It prioritized politically complex limited conflicts, but focused on airpower and precision strike operations. It preached “transformation,” but twenty years hence, this largely amounted to updated versions of old kit. It shed the infantry, armor, mass, bombers, and submarines it would soon be demanding back. It would steadily dilute the two war standard, only to shortly initiate two simultaneous wars. Most importantly, 1990s “transformation” was determined to not fall behind an imagined peer

¹²⁸ (S. Rosen 1991; Builder 1989)

¹²⁹ (Kagan 2007, 167)

competitor, yet failed to react meaningfully to China’s military rise. That rise was built, not on imagined leap-ahead transformative technologies, but on the capabilities the US so successfully displayed at the decade’s start.

In the end, transformation’s result was a siren’s song. For policymakers, it promised a vision of warfare that could “do more” with far fewer resources, facilitating both a peace dividend and ambitious new world order. Operationally, it offered to lift the fog of war and trade attrition for a curiously clean form of conflict, in which casualties—American, civilian, and even enemy forces—could be minimized. Reflecting this vision, it would confidently send too few forces into Iraq for a mission that was far too big.

2001-2007: American Attention, Interrupted

Chinese Military Modernization and the Importance of A2AD

The American and Chinese militaries were both “transforming” at the start of the new millennium, but in dramatically different ways.¹³⁰ Observing the results of Soviet collapse, Desert Storm, the 1996 Strait Crisis, and American ambitions for a “liberal world order,” Chinese military modernization was driven by a profound sense of threat. Unlike the abstractions shaping American transformation, PLA modernization focused on this real-world threat, which it studied deeply. Unlike the lean budgets supporting American transformation alongside heavy deployments, the PLA enjoyed sustained, massive budgetary growth. While the Americans shed mass, the Chinese trimmed, but took Stalin’s maxim that “quantity has a quality all its own.” The resulting military modernization was the largest since at least 1930s Germany.¹³¹ While broadly similar in approach to Imperial Japanese and particularly Soviet anti-access, Chinese anti-access leveraged a resource base neither could have dreamed of.¹³²

Importantly, the Chinese built not just a bigger military, but one tailored to the intersections of standoff precision weapons, anti-access warfare, and Pacific geography. It intelligently targeted American military vulnerabilities, particularly the airbases and carriers on which its power

¹³⁰ Extensive histories of China’s military modernization are available, alongside expert analysis of the Pacific military balance. For examples, see: (T. Yoshihara and Holmes 2018; Heginbotham ... others 2015; Fravel 2020; McDevitt 2020; Chase ... Berkowitz 2015)

¹³¹ (Haddick 2022, 2)

¹³² (Toshi Yoshihara 2014, 134)

projection depended. Leveraging cost asymmetries, China's military rise leveraged relatively cheap ballistic and cruise missiles, which ground forces could deploy and conceal in depth. To defend, the Americans would require expensive defensive missiles, deployable in finite numbers on a long logistical string. While Marshall struggled for receptive American audiences, Chinese General Chen Zhou relates, "Our great hero was Andy Marshall...We translated every word he wrote."¹³³ Paralleling Tangredi's anti-access definition, Beijing understood, given time and sanctuary, the US could build an overwhelming local concentration of military power, as it had in Desert Storm. Yet, if American forces could be kept from consolidating, they would not have to be conclusively defeated: the PLA could threaten or attrite them until American leaders balked at a conflict's political cost/benefit analysis.¹³⁴ This vision coalesced from 1996-2007 into a potent long-range sea and air denial force, outranging American carrier airpower by roughly 1000 NM.¹³⁵ China's efforts substantially changed not the nature, but the character of modern anti-access, qualitatively and quantitatively increasing its effectiveness.

Rumsfeld's Transformation Vision and the 2001 QDR

Rumsfeld took over the defense department eager to drive "transformation," which he defined essentially as Network Centric Warfare (NCW).¹³⁶ NCW encapsulated 1990s transformation thought: leveraging the IT revolution would provide unprecedented battlespace awareness, feeding standoff strikes that would obviate mass.¹³⁷ The basic theory of victory was straightforward: destroying things rapidly will induce enemy destruction or surrender; enemy destruction implicitly equates to strategic victory. The first premise is questionable—it did not occur in either Balkan War, either Iraq War, or Afghanistan. The second is, in many wars, plainly wrong. The destruction of an enemy military may unleash a wide range of political conditions distinct from "victory"—including Iraq's post-invasion chaos.

¹³³ (*The Economist* n.d.)

¹³⁴ (Toshi Yoshihara 2014, 131)

¹³⁵ For the best analysis of relative Chinese and American ranges in the South and East China Seas, see (Heginbotham ... others 2015). For a more critical view, see (Biddle and Oelrich 2016)

¹³⁶ (Kagan 2007, 265)

¹³⁷ (Alberts, Garstka, and Stein 2000)

The theme of trading mass for precision increased; stated explicitly in NCW, repeatedly by Rumsfeld, and even by President Bush.¹³⁸ The problem, in Rumsfeld's vision, was not the dangerous assumptions of transformation, the ready evidence that independent airpower had not delivered on strategic or operational promises, the clear signs that 1990s forces were too small, or that budgets were too thin to fund both readiness and transformation. Instead, the problem was that transformation had not been pursued with sufficient zeal. By doing so, leap-ahead capabilities could be achieved without significant increases in budgets or forces.

Rumsfeld did, however, begin seriously refocusing the Department on China. The 2001 QDR, published ten months into the new Administration and three weeks after 9/11, was the most serious American recognition of China's anti-access challenge yet. Operating under A2AD forms one of the QDR's six major goals, bluntly stating: "New approaches for projecting power must be developed."¹³⁹ The 2001 QDR got much right. Its diagnosis of the strategic environment brought China to the forefront. It correctly called for increases in battlespace awareness, long-range strike, interoperability, and most importantly, an appetite to deeply change habitual operating concepts.

Yet, while admirable in its diagnosis, the 2001 QDR remained fundamentally a document of Rumsfeld's "transformation." It doubled down on transformation's contradictions, particularly the dangerous shedding of mass for airpower, and little congruence between strategic goals and available resources. In essence, with no appreciable increase in resources, the QDR added the strategic requirement of addressing China's rise. This was questionable even before the wars in Iraq and Afghanistan. Transformation would, it appeared, allow American defense policy to avoid the discomfort of either raising budgets or cutting strategic ambitions.

9/11: Inflection Point

It is a fascinating counterfactual to ask where transformation would have led, had 9/11 not occurred, the Americans not invaded Iraq, or the Iraq War been successful and short. China's anti-access threat was finally at center, if still underestimated, alongside tacit admissions of American unreadiness for it. Perhaps, focusing the military on a clear challenge, rather than the abstractions of transformation, would have righted the American RMA. Reading the 2018

¹³⁸ (Kagan 2007, 265–68, 346–54)

¹³⁹ (Department of Defense 2001, 31)

National Defense Strategy, one is struck by its similarities to the 2001 QDR. Yet 9/11—or more accurately, the American reaction to 9/11—took American defense in another, strategically deleterious direction. Indeed, Beijing recognized 9/11 as a godsend. According to PACOM’s China expert Dave Dorman, “They were delighted when 9/11 took the US focus off China and transformation. They literally say ‘9/11 saved China...A gap has been produced by the GWOT, and it will close. We have to move quickly, now.’”¹⁴⁰

The flawed American invasions of Afghanistan and Iraq are covered well elsewhere.¹⁴¹ Both wars stand as monuments to the contradictions of 1990s strategy and operational “transformation.” Strategically, the wars instantiated the 1990s vision of expanding the liberal order, seeking to turn both troubled societies into stable democracies. Operationally, while both initial invasions were dramatically successful, neither adversary’s conventional forces were the primary obstacle to victory in either war.¹⁴² Despite this, and amidst steadily worsening conditions, Rumsfeld energetically spun both wars as evidence of transformation’s success.¹⁴³ Those who disagreed were dismissed as Luddites. Amid darkening conditions in Iraq, the implacable cheerleading of OSD and the Air Force for this “success” rang increasingly hollow, particularly with the landpower services, who were losing their warriors.¹⁴⁴ As future chapters demonstrate, the experience of Iraq contributed to how burnt the landpower services felt by “transformation,” and its cheerleading from the Air Force and OSD. This would inform their future resistance to Air-Sea Battle. They were committed to not repeating the mistake.

Despite these shortcomings, Rumsfeld was correct about one critical strategic point: the US would have to remain committed to addressing China’s rise, even as it struggled in its War on Terror. Rumsfeld’s “two handed approach” acknowledged, at least tacitly, that China remained the greater geostrategic challenge. Neither of CENTCOM’s wars represented a permanent strategic condition; nor was China’s potential “great power” challenge optional. Rumsfeld’s approach had parallels to Vietnam; the primary mission remained the Fulda Gap, even as the US painfully lost a smaller war elsewhere. His execution of that vision was fatally flawed, however, by his radical

¹⁴⁰ (David Dorman 2022)

¹⁴¹ (Malkasian 2021; Ricks and Potter 2008)

¹⁴² (Kagan 2007, 331–33)

¹⁴³ (Kagan 2007, 322)

¹⁴⁴ (William Hix 2022)

underestimation of the wars' requirements, flawed transformation concept, and obstinance to admitting either.

Thinking about China and Access, 2001-2007

Consumed by its wars in Iraq and Afghanistan, Bush Administration policy towards China took a muddled approach. Engagement remained the lodestar, even as hedging increased.¹⁴⁵ China's economic boom was in full swing, with American policy reaping economic benefits from increased engagement. Still pursuing the "liberal order" expansion, in which China would hopefully emerge an asset, Administration officials avoided letting military matters "antagonize" Beijing or damage the relationship.¹⁴⁶ Militarily, Congressional hearings from the 2000s suggest the degree to which military-military engagement remained a larger focus for PACOM than the eroding military balance.¹⁴⁷ A growing number of defense stakeholders acknowledged the anti-access diagnosis rhetorically, but it remained a "future problem," and little changed in practice.¹⁴⁸ At the tactical level, however, some units were raising doubts about the missions assigned to them. According to Brigadier General David Stilwell, "As an F-16 guy [Wing Commander] at Misawa, we felt vulnerable. We didn't see how we could complete our mission against China's A2AD system. There was a lot of 'fairy dust.'"¹⁴⁹ Similarly, cadre at the Air Force's Red Flag and Weapons School were noting the tactical mismatch.¹⁵⁰

The 2006 QDR represented a compromise. It was admirably more explicit about China's anti-access challenge, but remained divided between the demands of the current wars and those of modernization. It rightfully called for several new capabilities. Having built few submarines in the 1990s and mortgaged much of industrial capacity to do so, it called for expanding the submarine fleet by eight, assigning 60% of attack submarines in Asia. This, however, takes time. In the (long) interim, submarine numbers would continue to fall, reaching a projected low of 42 in 2026.¹⁵¹ The 2006 QDR also initiated a new long-range bomber program, troubled in execution (see below).

¹⁴⁵ (Haddick 2022, 74)

¹⁴⁶ (A.L. Friedberg 2022, 1–27)

¹⁴⁷ For example, see: ("HASC No. 110-27: Hearing on National Defense Authorization Act for Fiscal Year 2008 Before the Committee on Armed Services, House of Representatives, One Hundred Tenth Congress" 2007)

¹⁴⁸ (Bryan Clark 2022; John Callaway 2021; Vincent Alcazar 2021)

¹⁴⁹ (David Stilwell 2022)

¹⁵⁰ (Vincent Alcazar 2021)

¹⁵¹ (Department of Defense 2006, 47–48). On falling sub numbers, see (Werner 2019)

Throughout the 2000s, the wars in Iraq and Afghanistan absorbed policymaking attention, particularly within the Pentagon. Despite this, or perhaps because of it, the defense intellectual community grew increasingly vocal about the strategic and operational imperatives of China’s rise. The think tank community was thus, intellectually, well in front of the Department on China’s geostrategic challenge. Several studies would inform the Department’s later conception of A2AD and Air-Sea Battle.

In the early 2000s, CSBA and RAND released four studies central to emerging American understanding of anti-access, featuring several authors that would be formative to later Air-Sea Battle. RAND’s 2002 Air Combat Study, and a similar 2002 study by CSBA, focused on anti-access threat to Air Force, and began to get some quiet traction within the Air Force.¹⁵² Another 2002 CSBA study by Bob Work framed anti-access as a network, which—returning to Boyd and Warden—could be disrupted and blinded by carefully considered nodal strikes.¹⁵³ Strategically, he assumed Washington’s approach would be reactive and proportional, not allowing US forces to strike first, nor conduct strikes against mainland Chinese nodes unless American airbases had been attacked. These political realities meant, in Work’s conception “We would like to ‘fire effectively first,’ but for strategic reasons would have to ‘fire decisively second.’ We will have to eat the first salvo, remaining able to strike effectively enough to deny fait accompli.”¹⁵⁴ CSBA would thus quietly begin working on a new “AirSea Battle” effort, to provide a new operational concept to guide the American response (see Chapter Four). Bob Work suggested the “AirSea” name, based more on AirLand’s model of interservice cooperation than on deeper operational similarities between the concepts.¹⁵⁵

In 2003, CSBA’s Krepinevich and Watts released *Meeting the A2AD Challenge*, the first major, publicly available study of Chinese anti-access. The study brought the term “A2AD” into mainstream discourse. This included “area denial” as outreach to the Army and Air Force, as “anti-access” remained too naval a term for joint sensitivities.¹⁵⁶ *Challenge* also noted closing American airbases would require only moderate missile strikes, in periodic salvos that keep bases consistently disrupted. Krepinevich also critiqued the disjointed way in which the services reacted

¹⁵² (S. Tangredi 2013, 49)

¹⁵³ (S. Tangredi 2013, 50; Robert Work 2021)

¹⁵⁴ (Robert Work 2021)

¹⁵⁵ (Robert Work 2021; Andrew Krepinevich 2 2022)

¹⁵⁶ (S. Tangredi 2013, 5, 51) For a more complete analysis of the distinctions, see (S. J. Tangredi 2017)

to anti-access, and the need for air-naval synergies. Echoing Hughes on the centrality of scouting, Krepinevich identified open ocean surveillance as the linchpin of A2AD, without which missiles, airpower, and subs could not be directed, thereby opening space for American actions. In 2007, RAND would update and continue Krepinevich's analysis, documenting Chinese anti-access doctrine and capabilities.¹⁵⁷ ONA's analyses of China and anti-access continued apace, with Jan van Tol, the future author of CSBA's AirSea concept, joining the office shortly before 9/11. In 2005 and 2006, ONA would sponsor the East Asia 2025 Games, with van Tol leading one team of US forces. These games, incorporating Air Force and Navy officers, began socializing a wider set of officers to the potency of Chinese anti-access, and deepened the intellectual feedstock for van Tol's later work.¹⁵⁸

Taken together, these think tank efforts painted, accurately, a daunting Pacific picture that was continuing to worsen. Yet, the American military of the early 2000s continued to underestimate China's geostrategic importance and military challenge.¹⁵⁹ It was reacting to China's rise and its vulnerability to precision strike anti-access, but not seriously enough. Part of this stems from the demands of the current wars. Another part of this delayed response was structural. The platform decisions of the 1990s naturally endured; one cannot suddenly reconstitute air or naval fleets when threat assessments change. Without substantial funding for modernization, American operational thinking would largely have to conform to the military platforms it built in the 1990s. Beyond this, ADM McDevitt summarizes the lack of American response: "Decades of sanctuary had skewed the way we had learned to fight."¹⁶⁰ The lack of response reflects the overconfidence of the "liberal order" arguments of the 1990s strategically, and operationally, transformation's increasingly dated belief that Cold War and Desert Storm evidenced enduring American dominance. Majority opinion held that China represented "...a growing problem but that it still lay far into the future..."¹⁶¹ Others—dismissing the deeper precedent of both World Wars and the Cold War—believed the US tended to only fight limited wars, forming a "we'll never fight China" contingent. This included Gen James Cartwright, the Vice Chairman of the Joint Chiefs from 2007-2011—typically a position tasked with spearheading joint innovation.¹⁶² According to Air Force General

¹⁵⁷ (Cliff ... Pollpeter 2007)

¹⁵⁸ (Jan van Tol 2 2022)

¹⁵⁹ (Haddick 2022, 76)

¹⁶⁰ (Michael McDevitt 2021)

¹⁶¹ (Jan van Tol 2 2022)

¹⁶² (Michael Vickers 2022)

Herbert Carlisle, later central to Air-Sea Battle, this view would include Secretary Gates.¹⁶³ To quote one officer, “Few people thought we would go have a big conventional fight with China or Russia. People thought we might have proxy wars, economic wars, grey zone situations...things like that—but few people believed we would ever fight a big war with China in the air and maritime commons. Today, many people are thinking about that. Back then, it was niche thinking and doubted by many.”¹⁶⁴ RAND’s David Ochmanek took a 2006 analysis of airbase vulnerability to Pacific Air Forces and “got the Heisman...they didn’t want to hear it.”¹⁶⁵ Similarly, advance copies of CSBA’s AirSea concept were dismissed by the Navy.¹⁶⁶

The Navy and Air Force, 2001-2007

The Navy and Air Force of the 2000s were eager to show their relevance to counterinsurgency and limited war, straining the credulity of the landpower services. That said, their defense programs of the early to mid 2000s reflected neither the new demands for counterinsurgency, nor the longer-range military needed to counter Chinese anti-access. Instead, they fundamentally reflected the operational concepts both services had defined in the 1990s.

The Navy deepened its global systems orientation through the mid-2000s, culminating in the 2007 *Cooperative Strategy*. The document describes familiar themes: a globalizing world order, cooperative approach to protecting it, and a central role for seapower in doing so.¹⁶⁷ Reading the document, one gets little sense of a competing great power with serious conflicting interests, midstride in a massive military buildup targeting the United States. The faith in the liberal approach, desire not to antagonize Beijing, focus on the GWOT, and institutional momentum combined to prevent a reorientation towards naval warfare. Reflecting the enduring globalization focus, the rushed Littoral Combat Ship program of the early and mid 2000s bled modernization funding and Congressional support, while adding little combat power to the fleet.¹⁶⁸ The early 2000s Navy was concerned A2AD would favor the Air Force over the Navy, as policymakers deemed carriers too

¹⁶³ (“Combat Forces in Peril” n.d.; “Existential Threats Require All Levers of Power” n.d.)

¹⁶⁴ (Interview 36 2022)

¹⁶⁵ (David Ochmanek 2022)

¹⁶⁶ (Bryan Clark 2022; Michael Vickers 2022)

¹⁶⁷ (Conway 2009)

¹⁶⁸ (O’Rourke and Congressional Research Service 2018)

vulnerable to push forward.¹⁶⁹ While there was moderate refocusing of naval presence to the Pacific and Persian Gulf, the Navy would remain oriented towards its “systemic defense” course until Roughead’s tenure.¹⁷⁰

The Air Force of the mid 2000s, heavily involved in the wars in Iraq and Afghanistan, remained focused on its struggling F-22 program, struggling F-35 program and (gradually) the GWOT’s unmanned aviation demands. Having committed the service to these short-ranged F-22 and F-35, the most expensive program in military history, Air Force leaders understandably looked askance at changing operational concepts to emphasize the need for long-range strike. The service’s “Next Generation Bomber” program, highlighted in the 2006 QDR, aimed to be operational in 2018, if in limited numbers. Yet the program continued to struggle with cost growth, while seeming discordant with a defense community focused on limited wars and counterinsurgency.¹⁷¹ Likewise, pilots spent the decade training their skills at striking unprotected ground targets, but at the expense of the skills needed for countering enemy fighters and air defenses.

Regarding the relationship between the Navy and Air Force, spurred by the wars of the 2000s, the services would continue their mix of deepening operational collaboration amidst institutional competition.¹⁷² The wars introduced integrated force packages, with Air Force and Naval aircraft leveraging the comparative advantages of each. Navy fighters and electronic warfare aircraft escorted Air Force bombers, refueling on Air Force tankers. They were directed by a CAOC that not only had communications with carriers, but saw naval aviators emerge in core leadership positions (but not the head).¹⁷³ These were underscored by personnel and training rotations and exercises. While enemy resistance was relatively insignificant in both conflicts, the geographic, logistical, administrative, and cultural differences were not. This operational collaboration expanded beyond CENTCOM. From 2006 forward, PACOM’s *Valiant Shield* exercises would begin examining how such collaboration could be used in the Pacific.¹⁷⁴ The new collaborations would include Gary Roughead and Norton Schwartz, rising senior officers in their respective

¹⁶⁹ (Jim FitzSimonds 2 2021)

¹⁷⁰ Note that ADM Roughead is one of the three authors of the document. That said, the Strategy was fundamentally a product of the previous CNO, ADM Mullen, who had recently become the Chairman of the Joint Chiefs. ADM Mullen left the post in September 2007; the Strategy was published in October.

¹⁷¹ (Michael Vickers 2022; Gates 2015, 130)

¹⁷² (Marsh and Jones 2015; Lambeth 2008)

¹⁷³ (Lambeth 2008, 10)

¹⁷⁴ (Ballard 2015, 39–40)

services. In the Pentagon, however, the two services continued their “longstanding war” over the relative vulnerability and utility of carriers versus airbases, and competition over airpower missions. Writing in 2007, Lambeth notes that despite growing operational collaboration, “in the increasingly competitive annual budget battles within the Pentagon, the strike warfare components of the Air Force and Navy have all too often appeared as though they were mainly devoted to putting each other out of business.”¹⁷⁵

Conclusions: Robert Gates and the Orthodox Riposte

Looking at the 2000s in retrospect, Secretary Rumsfeld was correct, if ironically so, that “You go to war with the army you have, not the army you might want or wish to have at a later time.”¹⁷⁶ The military that transformation built—its kit, its concepts, and its strategy—ran aground in Iraq. Iraq in 2007 demanded a surge, not of leap-ahead transformative technologies, but of infantry, the oldest form of military force. After the mix of derision, cheerleading, and impermeability with which Rumsfeld defended transformation, American defense also demanded a new leader.

As this chapter has argued, Rumsfeld’s transformation was not Marshall’s revolution.¹⁷⁷ Rumsfeld’s transformation, building off 1990s airpower exuberance, badly misread the RMA, creating a military ready for neither its limited wars nor China’s rise. By the time of the surge, the flawed application of transformation in Iraq had tarnished the RMA itself. In significant ways, “transformation” cost the US the Iraq War, and the Iraq War cost the US its revolution.¹⁷⁸

In the American debate between futurism and orthodoxy, Bob Gates represented a contrast with both Marshall and Rumsfeld. As Brose notes, Gates represented the “Counter-Revolution.”¹⁷⁹ In Gates’s parlance “next war-itis” would be deferred for “winning the wars we’re in.” Gates would immediately break ground on a new National Defense Strategy, focused on the current limited landpower wars in CENTCOM, rather than platform-centered maritime competition with China.¹⁸⁰ As ensuing chapters detail, like the futurists in the 1990s, Gates’s orthodoxy would take a good argument too far. Gates’s vision embodied the misplaced confidence that US remained

¹⁷⁵ (Lambeth 2008, 42)

¹⁷⁶ (Schmitt 2004)

¹⁷⁷ (Brose 2020, 20)

¹⁷⁸ (Brose 2020, 17)

¹⁷⁹ (Brose 2020, 17)

¹⁸⁰ (Gates 2008)

dominant in high-end warfare—not indefinitely, but enough that China’s rise didn’t demand a serious course correction. Ultimately, over the next twelve years, the United States would both “lose the wars we’re in,” while extending China’s strategic window.

Undercutting both Rumsfeld’s and Gates’s approaches, American defense resources during this period remained misaligned to strategic ambitions. Simply put, for all its investment, the US military could not simultaneously turn Iraq and Afghanistan into stable democracies, defeat terrorism internationally, meet China’s challenge in the Western Pacific, deter other competitors globally (including Russia, Iran, and North Korea), maintain the nuclear deterrent, and conduct its other myriad global duties. The gap between strategy and resources forced zero sum choices between these competing priorities; American defense strategy would deny this until the partial correction of Mattis’s 2018 defense strategy.¹⁸¹ The gap between strategy and resources also made American defense policy vulnerable to siren’s songs like “transformation,” promising to “do more with less.” These facts contrast with interservice theories of innovation, wherein budgetary reductions spur successful innovation. As interservice theories predict, budgetary shortfalls during this period ignited interservice competition, but in ways that retarded rather than spurred successful innovation. The result was neither stasis nor successful innovation, but deleterious change. In contrast, the two most successful innovation movements in modern history—the 1980s American military and 2000s Chinese—were undergirded by generous budgets.

Taking the positions of Marshall and Gates as emblematic of the futurist and orthodox positions, at the center of the period’s debate was a fundamental disagreement about the likely character of future war. Gates refocused American military praxis on current conflicts, emphasizing landpower mass. Regarding China’s rise, this position retained a badly dated confidence from Desert Storm that the United States was dominant at high end warfare, and a fresh wound to the futurist position from Rumsfeld’s fallacious efforts in Iraq. Orthodox perspectives doubted the US would fight China, and implicitly, that the US needed to invest heavily to deter such conflict. As future chapters demonstrate, challenges to this orthodox perspective were easy to dismiss as service parochialism, rather than reflecting a changing national strategy for great power competition.

The futurists, in contrast, focused on the political and operational gravity of military competition between great powers, real or imagined. The conflicts that mattered—that historically shaped the

¹⁸¹ (James Mattis 2018)

international order, cost millions of lives, and held potential nuclear consequences—were the contests between great powers. These were the proper intellectual basis for organizing the military. Beyond warfighting, as demonstrated in the Cold War, the military balance between great powers remains strategically and politically consequential in myriad ways, including deterring conflict rather than inviting it. Futurists observed that limited wars were indeed more plentiful (if less consequential), precisely because of the deterrence of great power war.

In hindsight, neither position had a monopoly on insight, and given the inherent uncertainties of the future, a forward-looking defense policy must balance them. That said, reflecting the serious tensions between the US and China in the 2020s, the futurist argument has aged comparatively better. As the ensuing chapters detail, Air-Sea Battle would emerge in this context, as a response of the futurist camp to the orthodoxy's underestimation of China's challenge. Air-Sea would inherit a serious lack of mass, range, and basing born of the 1990s and 2000s, casting doubt on American warplans in East Asia. In attempting to remedy this, Air-Sea Battle would reignite Pentagon battles over first-order questions, questioning both the orthodoxy and the assumptions of 1990s transformation.

CHAPTER FOUR: AIR-SEA ORIGINS, SEPTEMBER 2007-JULY 2009

In the fall of 2007, the American military reaction to China's rise would reach an inflection point. This chapter describes that change, wherein the American military began a nearly decade-long process of returning to the themes of anti-access, great power competition, and mutual precision strike expressed in the 2001 QDR, with greater urgency. Air-Sea Battle as a major American military effort would originate during this period, and as the ensuing chapters describe, was central to this refocusing.

As noted in the previous chapter, despite the seriousness of China's rise being recognized intellectually at least a decade earlier, recognition of the severity and immediacy of the challenge grew slowly within the Department. Understandably, the Department and military were consumed with two ongoing wars, which were not going well. Recognition was strongest in Pacific operating units that had direct experience of the challenges, and in defense think tanks. Conversely, recognition was lower within the Pentagon, where focus remained on the urgency of the ongoing wars and the momentum of existing acquisition programs. Echoing themes from Rosen and Clark regarding the centrality of senior military leaders in military change, after September 2007, two officers with substantial operational experience in the Pacific would assume leadership of the Navy and Air Force, and attempt to drive change.

New Air-Naval Leadership

Admiral Gary Roughead

In September 2007, ADM Gary Roughead took the Navy from ADM Michael Mullen, who became Chairman of the Joint Chiefs. After a long period of European and Mideast orientation for the Navy, Roughead was the first CNO since 1984 to have served as Pacific Fleet Commander.¹ He brought operational experience in Asia to the top of Navy, alongside a "Pacific Mafia" of admirals into key positions within the Navy.²

From long service in Pacific Fleet, Roughead brought a deep familiarity of China's military modernization, having observed the rapidity and gravity of its evolution. From this experience, he

¹ See (Naval History and Heritage Command n.d.)

² (Gary Roughead 2022)

was convinced that a Pacific warfight would be far more onerous than most defense stakeholders appreciated. It was, in his view, “A growing problem was growing a lot worse, and we weren’t really reacting,” due chiefly to the prolonged wars in Iraq and Afghanistan.³ Further, in his view, the China threat was also a bellweather for the character of future maritime war. A2AD was principally built on technology that was almost two decades old, which had been successfully demonstrated in the Gulf War. China would export both the concepts and, increasingly, the hardware, needed to replicate A2AD to other adversaries. It would simultaneously advertise its effectiveness against American power projection. Iran, in the tight waters of the Persian Gulf, was an obvious “silver medalist” in this race.⁴

Roughead’s ascension occurred alongside a growing sense of threat within the Navy. Several prominent American navalists—RADM McDevitt, Bryan Clark, Bryan McGrath, and Trip Barber—describe a growing minority within the Navy that felt the service could not solve the Pacific’s maritime problems alone.⁵ Despite the Navy’s institutional and cultural preferences for independence, it was becoming increasingly clear that disrupting China’s land-based reconnaissance and anti-ship network required more than the Navy alone could realistically bring to the fight.⁶ These voices would be elevated under Roughead, particularly regarding a shift in the Navy’s estimation of China’s anti-ship ballistic missile (ASBM). Michael Vickers, Gates’s Undersecretary for Intelligence, and ADM Clingan, the N3/N5 during this period, note Roughead’s acknowledgement of the ASBM threat as a “fundamental shift” in the Navy.⁷ McDevitt notes: “The Navy was far less worried about the submarine and air threat—these were older threats, which the Navy had...solutions for. The ballistic missiles are what really scared the Navy. This was new, with no real answer. ASBM was ‘terra incognita.’”⁸ Change to American naval operations would prove difficult and piecemeal. Yet, Roughead marks a significant break point, when the threat was candidly acknowledged, and dissenting thinkers brought towards the center of the Navy.

While fulfilling the substantial personnel and platform requirements for the ongoing wars in CENTCOM, Roughead sought to return the Navy to a focus on naval warfighting. This included

³ Ibid.

⁴ Ibid.

⁵ (Michael McDevitt 2021; Bryan Clark 2022; Bryan McGrath 2021; Trip Barber 2022; Phil DuPree 2021)

⁶ (Jim FitzSimonds 2021)

⁷ (Michael Vickers 2022; Bruce Clingan 2022)

⁸ (Michael McDevitt 2021)

reinvigorating traditional Navy questions of scouting and anti-scouting, force protection, and increasing the Navy's striking range. Technologically, it meant additional focus on autonomous systems, C2, and cyber capabilities. Conceptually, Roughead pursued two additional changes. First, based principally on the ASBM threat, he emphasized the need for "kill chain analysis" to find holes in Chinese capabilities. Second, the kill chain analysis highlighted the need for increasing "warfare integration" within the Navy—leveraging capabilities from a naval asset in one domain (e.g. carrier-based ISR) to support another (e.g. attack submarines).⁹ These two ideas would later prove central to Air-Sea Battle. To lead them, he brought in one of the Navy's brightest young admirals, RDML Cecil Haney, later a four-star COCOM commander. Haney's work on kill chain analysis with an eye towards integration, Roughead relates, led to his belief that such integration should go beyond the Navy. This represents another key moment. Roughead could have acknowledged the threat, but dismissed the notion of partnership with the Air Force to address it. Noting the substantial capabilities and similar challenges facing the Air Force in East Asia, Roughead sought a combined approach across the services—despite the considerable organizational struggles this would require.¹⁰

General Norton Schwartz

The Air Force in early 2008, however, was in a degree of leadership turmoil. In June 2008, Gates would fire both Air Force Secretary Michael Wynne and the chief, General Michael Mosely, prompted by a mishandling of nuclear capabilities.¹¹ Beneath the surface, however, were disagreements between Gates and Air Force leadership about the service's commitment to CENTCOM's current fights, rather than what Gates derisively characterized as "next war-itis."¹² In particular, Moseley's continued defense of the F-22, needed ostensibly for conflict with China, ran steadfastly against Gates's public disdain for the F-22 program. Beyond this, Gates was seeking an expansion of near-term unmanned systems, characterizing the Air Force as "foot dragging" at getting such systems into the wars.¹³ The tension between Secretary Gates and the Air Force

⁹ (Gary Roughead 2022)

¹⁰ Ibid.

¹¹ Gates, Duty

¹² (Gates 2015, 248; "Gates vs. Air Force Round Two" n.d.)

¹³ (Gates 2015, 243)

highlights the degree to which Gates was absorbed with the current conflicts—a relative single focus that China’s strategic gravity and rapid modernization would consistently call into question. Gates replaced Wynne with confidante Michael Donley as Secretary, and Moseley with General Norton Schwartz as Chief. Schwartz was, intentionally, an “outsider” to the Air Force’s cultural “fighter mafia.”¹⁴ A special operations transport pilot, Schwartz was the first Chief since 1982 that did not hail from the fighter community, and the first since 1961 from neither fighter nor bombers. Given Schwartz’s background, his choice as chief appears to reflect Gates’s desire to focus the Air Force on the current conflicts in CENTCOM. Yet, like Roughead, Schwartz brought deep Pacific experience to the chief’s chair, having commanded PACOM’s special operations effort and, later, PACAF’s 11th Air Force. He was the first chief with such deep Pacific experience since 1984.¹⁵ He had worked previously with Roughead as three-stars, and they had a mutual rapport and respect.¹⁶ Schwartz joined Roughead in his appreciation for the gravity of China’s military threat, the inadequacy of current American approaches, and the dangers of a continued monofocus on CENTCOM’s wars.¹⁷

Yet, on the heels of Moseley’s firing, Schwartz’s institutional position was difficult. Gates directed Schwartz to prioritize three primary goals: tighten supervision of the Air Force’s nuclear enterprise; focus the Air Force on the current conflicts; expand the kinds of unmanned systems those conflicts demanded.¹⁸ None of these related to preparing the Air Force for high-end conventional and maritime conflict regarding China. Both the F-22, and the Air Force’s efforts to create a modern long-range bomber, were in trouble.¹⁹ Further, the budgetary picture looked unstable, constraining Schwartz’s leeway for projects like Air-Sea Battle.

Schwartz would make noted progress over the next four years on the Secretary’s three directives, including expanding the Air Force’s unmanned fleet from a handful to 58, and making significant contributions to the current conflicts.²⁰ Yet, he also elevated voices within the Air Force focused on the service’s unreadiness for major combat, particularly in the Pacific. As a prominent example,

¹⁴ (Norton Schwartz 2022)

¹⁵ These dates stem from my analysis of the leadership biographies of Air Force Chiefs. See (Air Force Historical Support Division n.d.)

¹⁶ (Gary Roughead 2022)

¹⁷ (Norton Schwartz 2022)

¹⁸ Ibid.

¹⁹ (Haddick 2022, 126–32; “Gates vs. Air Force Round Two” n.d.)

²⁰ (Norton Schwartz 2022)

the “Checkmate” strategic studies group, restarted by Mosely, was increasingly candid about the Air Force’s airbase vulnerability. They also noted the losing cost proposition of airbase hardening and air defense, and the potential for China’s A2AD approach to be copied in smaller form by the Iranians and North Koreans.²¹ Rather than suppress such voices, Schwartz elevated them within the Air Force.²² Thus, independent of each other, by the middle of 2008, both the Air Force and Navy were independently giving more attention to the China threat, with increased candor regarding their unreadiness for it.

A Growing Minority

Immediately preceding Air-Sea Battle, from 2007 to early 2009, several events brought increased attention to American unreadiness for China’s military rise, while providing seminal intellectual inputs to Air-Sea Battle’s subsequent development.

Seminal Wargames

Six wargames, held from mid-2007 to early 2009, proved vital to both the American military’s growing awareness of China’s military rise, and the development of the Air-Sea response. These games separately highlighted and broadcast the inadequacy of both Air Force and Navy status quo approaches of operating from sanctuary.²³ They also included many figures that would prove central in Air-Sea Battle’s later development, and the broader evolution of America’s military response to China’s rise.

Most important among them were four wargames at Pacific Air Forces (PACAF), run primarily by CSBA, at the request of Pacific Air Forces commander LtGen Chandler. RAND analyst David Ochmanek, later Deputy Assistant Secretary for Force Development in the Obama Administration, describes the first “Pacific Vision” wargame: “It was shock therapy for PACOM. People were in shellshock. The Navy and Air Force were handed their asses. With the POM’d [i.e. planned] force, operating in our standard ways (i.e. pre-ASB), we consistently got our asses

²¹ (Interview 15 2021)

²² (Vincent Alcazar 2021; Norton Schwartz 2 2022)

²³ In addition to historical research, this section is informed by my own experience as a participant in two of these games, as a China analyst from the Office of Naval Intelligence.

kicked.”²⁴ In addition to the daunting operational picture, the games highlighted that China could achieve many of its strategic objectives before distant US forces could muster a serious response.²⁵ The game was a “big wakeup” for former PACOM commander ADM Dennis Blair, previously a China skeptic, who would go to be the Director of National Intelligence in early 2009.²⁶ Ochmanek considers the Pacific Vision game as the “first blow of the hammer” for creating a case for change within the Pentagon regarding the American military approach to China.²⁷ The clear lesson was that the American military was a short-range precision strike instrument, tethered to a small set of consolidated bases, against a long-range Chinese precision strike system exploiting continental depth. The games further reinforced the notion in both the Navy and Air Force that the Western Pacific picture was sufficiently dark that neither service could accomplish its objectives alone.

Seeing the problem starkly, PACAF reached out to ONA to sponsor a CSBA-led “AirSea Battle” game, based on CSBA’s evolving A2AD work. CSBA’s Bob Work, later Undersecretary of the Navy and Deputy Secretary of the Department, was the game’s director. The AirSea game incorporated high-level civilians as political leaders, trying to observe the relationship between political realities and military options. The AirSea game demonstrated, starkly, the vulnerability of America’s Pacific posture, and how Chinese attacks on airbases could remove the bulk of the Air Force from the fight. Further, the games demonstrated the need for retaining a mainland strike option for American forces. Work relates, “As the games progressed, it was clear the NCA needed a strike option—not as a first strike, but to deter Chinese strikes and react to them if the conflict were escalating. A future President would be understandably baffled that we hadn’t developed any option for that.”²⁸ Two subsequent Pacific Vision and AirSea Battle games would bring in more Army and Marine Corps participation, as well as Australian military.²⁹ Retired Navy Captain Jan van Tol, the primary author of CSBA’s AirSea concept, noted the games were instrumental as intellectual inputs to the development of CSBA’s AirSea monograph.³⁰ Van Tol also notes the games as an inflection point, which transformed the notion of near-term Chinese power in the

²⁴ (David Ochmanek 2022)

²⁵ (Interview 18 2022)

²⁶ (Andrew Krepinevich 3 2022)

²⁷ (David Ochmanek 2022)

²⁸ (Robert Work 2021)

²⁹ (Jan van Tol 2 2022)

³⁰ (Jan van Tol 2021)

Western Pacific from “a fringe topic to something on the minds of four-stars in the Air Force and Navy.”³¹ The results were briefed to the PACOM commander (ADM Keating), Roughead, and Schwartz, among others.

Separately, under Roughead the Naval War College was examining similar Pacific issues through its prominent “Global” series of wargames. While PACAF’s games were underscoring the Air Force’s Pacific airbase vulnerabilities, the Global Games did similarly for the Navy’s Pacific operating concept.³² Using the Navy’s planned force structure and the latest intelligence on the PLA, the games demonstrated how the ASBM threat combined with other Chinese assets to hinder and slow American carriers and surface groups. Using realistic timelines for Presidential decision, mobilization, and movement to theater, the threat of *fait accompli* was clear.³³ Even with generous assumptions, the Navy struggled to deliver sufficient firepower to forestall Chinese maritime ambitions.³⁴ Doing so would not only require closer coordination with the Air Force, but also a different Air Force—one with equipment, doctrine, training and institutional interest in maritime warfare. In sum, Colonel Jordan Thomas, later the Air Force lead for the Air-Sea Battle program, notes the Global games as a “turning point...a compelling event that turned the Navy’s head and made them take A2AD more seriously.”³⁵

Taking inputs from these games, CSBA would double-down on developing its AirSea concept.³⁶ Van Tol was the primary author. He describes the AirSea development process as largely inductive, working from the problem forward rather than trying to consciously draw from previous operational concepts facing anti-access issues. He describes three principle intellectual antecedents for CSBA’s AirSea concept: ONA’s work on mutual precision strike; the results of the Pacific Vision and AirSea Battle games, and a small set of studies from CSBA, RAND, and the Naval War College (see Chapter Three).³⁷ Fundamentally, CSBA’s AirSea concept acknowledged the operational and budgetary folly of trying to combat cheap and effective incoming missiles with expensive and less reliable defensive missiles. Thus, in the near term, to

³¹ Ibid.

³² (Jordan Thomas 2021)

³³ (Jim FitzSimonds 2021)

³⁴ Ibid.

³⁵ (Jordan Thomas 3 2021)

³⁶ (Jan van Tol 2021)

³⁷ Van Tol notes these as Chinese writing on “Using the Land to Control the Sea” (以陆制海); a classified RAND “Air Combat Study”; (Cliff ... Pollpeter 2007; Angelo Caravaggio 2006) (Jan van Tol 2021)

overcome a maritime precision strike complex, van Tol argued the key would be striking its reconnaissance nodes and suppressing its missile shooters—leaving its longer-range systems unable to find America’s shorter-range tactical airpower, which could then more safely maneuver to within their weapons’ ranges. Longer term, American forces should rebalance towards long-range precision strike platforms, perhaps similarly exploiting coastal missiles, and invest in new technologies that mitigated China’s missile advantage (e.g. directed energy defenses).³⁸

Enter the Obama Administration

In January 2009, several civilian appointees in the incoming Obama Administration would increase the Department’s focus on the Pacific military balance. In particular, several members of the CSBA team would take appointments in the Obama administration’s Pentagon: Work (Undersecretary of the Navy), Vickers (a Bush holdover as an Assistant Secretary of Defense), Ochmanek, Mark Gunzinger (another Bush holdover in OSD Policy), Tom Ehrhard (senior advisor to General Schwartz), Bob Martinage (Deputy Undersecretary of the Navy).³⁹ While it would take upwards of six months to appoint and confirm the set of new civilian leadership, Work, Vickers, Martinage, Ochmanek, Gunzinger, and Ehrhard—most of them ONA or CSBA veterans—would constitute a minority set of senior civilian leaders pushing for a more robust response to China’s rise.⁴⁰

These civilian leaders, however, would still face an uphill battle. China’s challenge, while serious, remained a “future issue” in the minds of most of the Department’s senior leaders.⁴¹ This included Secretary Gates, who—even wanting to broaden his focus, still wanted to ensure prognosticating about “next war-itis” did not distract from the immediacy of the continuing wars. When it came to a robust American response to China’s rise in the short term, “They didn’t want to hear it,” Ochmanek relates. Ochmanek, as DASD for Force Development in OSD Policy, relates one illustrative example: “I recall a meeting with Bill Lynn, the Deputy Secretary, during the 2010 QDR process, when he said that the ‘conventional threat’ problem was under control and what we need to focus on is defeating terrorist groups and pacifying Iraq and Afghanistan. I then gave

³⁸ (Jan van Tol 2021; Robert Work 2021)

³⁹ (Robert Work 2 2022)

⁴⁰ (Andrew Krepinevich 2021; David Ochmanek 2022; Robert Work 2021; Michael Vickers 2022)

⁴¹ (Gary Roughead 2022; Norton Schwartz 2022; Robert Work 2021; David Ochmanek 2022)

him my elevator speech about how Blue [i.e., the US] gets its clock cleaned in wargames against China set in the 2015 time frame. You could see the shock on his face.”⁴²

Gunzinger and Ochmanek began a charge in early 2009 to get China deeply within the 2010 QDR.⁴³ Ochmanek was working within OSD Policy to lean on the Navy and Air Force for new solutions, but relates that Secretary Gates was simultaneously pressing both services to focus on the current fight—giving Roughead and Schwartz plenty of “wobble room” to avoid calls for major change, should they choose.⁴⁴ Nonetheless, Ochmanek advocated successfully that China be one of the QDR scenarios, with a realistic and critical perspective on American readiness for the Pacific problem.⁴⁵ Simultaneously, Gunzinger, now DASD for Transformation within OSD Policy, urged the Navy and Air Force to pursue an integrated approach to the Pacific problem. He got little traction at that time, perhaps reflecting the newness of Schwartz’s command of the Air Force, the Secretary’s explicit direction to Schwartz to focus on the ongoing wars, and the recent memory of Moseley’s firing.⁴⁶ Further, the lack of an immediate response may have reflected cultural norms of service independence, and their preference for internal initiatives rather than external direction from OSD. To allow this to rise from within the Air Force, rather than be an OSD directive, Gunzinger urged the new commander of the Air Force’s QDR Office, BGen Hunt, to propose a joint air-naval approach to the Pacific challenge within the Air Force.⁴⁷ Hunt did so, which he would present at the critical March 2009 Air Force-Navy “Warfighter Talk,” where Roughead and Schwartz would reach their initial Air-Sea accord (see below).

Yet, even as some Defense appointees were bringing attention to China’s challenge, from the President down, the new American foreign policy establishment was focused on avoiding antagonization with China. Obama had run, successfully, as an anti-Iraq war candidate, on a platform and deep-seeded belief in multilateral engagement over military competition. In continuing the American strategic approach towards China that emphasized a mix of engagement and balancing, the Obama White House would lean solidly towards the former.⁴⁸ This included attempting to pioneer “a new type of great power relationship” with Beijing, that eschewed the

⁴² (David Ochmanek 2022)

⁴³ (Andrew Krepinevich 2021; David Ochmanek 2022)

⁴⁴ (David Ochmanek 2022)

⁴⁵ Ibid.

⁴⁶ (Andrew Krepinevich 3 2022)

⁴⁷ Ibid.

⁴⁸ (Green 2017, 518–29)

military dimensions associated with traditional great power politics.⁴⁹ As Michael Green notes regarding American strategy in Asia, “Obama was determined that his legacy would be ending wars, not risking new ones.”⁵⁰ This perspective permeated down into the Departments of State and Defense. One State Department stakeholder notes, “During this period State Department had the mantra—Kurt Campbell’s mantra—‘if you treat China like an enemy, they will become one.’...State Department was really driving the ‘don’t shame China’ approach...Yet, this idea that we were going to change their behavior by not calling them an enemy was totally misplaced.”⁵¹ Throughout Air-Sea Battle’s life, as the subsequent chapters demonstrate, this approach would have warping effects on the Department’s conversation about China, and its ability to muster wider political support for a robust military response. Such an approach placed American defense policy on the horns of a dilemma. The Department was limited in its ability to frame China as a threat, or speak frankly about its responses to China’s military rise. Yet, to muster support and resources for an effective response, the Department needed the American foreign policy community, and wider public, to have a frank conversation of the threat posed by China’s military modernization. The inability to frankly discuss an American military response to China’s growing military threat would continue throughout Air-Sea Battle’s life.

Initiating the Department’s Air-Sea Battle Program

In March 2009, Roughead and Schwartz initiated the Department’s Air-Sea Battle effort. During this period, the respective services conducted bilateral “Warfighter Talks” every 18 months, wherein the chiefs and senior officers of two services would meet to discuss joint issues. By the late 2000s, such meetings had become largely routine in nature.⁵² In the March 2009 meeting, the first between Roughead and Schwartz, BGen Hunt briefed his proposal of a combined air-naval concept, oriented on A2AD, to guide a set of integrated capability developments for both services.

⁵³ The timing was advantageous, at the confluence of several dynamics. As noted, both chiefs, unlike their predecessors in either service, were deeply versed with the Pacific problem. Both had separately prioritized that challenge within their service, and were concerned that the

⁴⁹ (A.L. Friedberg 2022, 139–41)

⁵⁰ (Green 2017, 519)

⁵¹ (Interview 13 2021)

⁵² (Vincent Alcazar 2 2022)

⁵³ (Andrew Krepinevich 3 2022)

Department's prevailing focus on its ongoing wars would make that problem worse still. Both chiefs knew and trusted each other personally. As noted, Roughead was particularly focused on integration, noting the next natural step would be better incorporation of Air Force assets.

On the heels of the aforementioned wargames, these factors came together at the 2009 Warfighter Talk. Roughead and Schwartz agreed to robustly pursue Hunt's proposal. As Col Alcazar describes, the sudden accord "Surprised everyone in the room. They linked arms, and agreed to fight together—to convince OSD, the COCOMs, everybody. The Chiefs just cut through everything—enough kvetching over details—we are both moving due north, together...The Chiefs said '*thou shalt*.' They set the tone and gave the order, and embodied it in their personal accord with each other."⁵⁴ Neither Roughead nor Schwartz relate civilian pressure to do so. Schwartz relates, "There was no pressure, zero pressure, from civilian leaders for me to pursue Air-Sea Battle."⁵⁵ If anything, his initiation of Air-Sea was in tension with the direction he received from Gates on the heels of Moseley's sacking. Bryan Clark aptly summarizes the significance of the two chiefs not only reorienting their services towards the threat, but doing so jointly: "It was Roughead and Schwartz who took this from a think-tank conversation to the center of the DoD conversation. They didn't invent the conversation around the problem or its potential solutions, but they pulled it into the mainstream."⁵⁶

Roughead and Schwartz relate two primary motivations for initiating an integrated Air-Sea effort. Both note that precisely because the Department was so focused on Iraq and Afghanistan, no senior leaders in the Department were seriously focused on the deteriorating balance with China. Without action, the natural drift of the Department would be towards further deterioration. Roughead relates,

"We had an almost a singular focus on the fights in the Mideast, in which we enjoy complete air and sea superiority. No worry about logistics, getting in and out...the ports and airfields were secure. As I looked at what was going on in the maritime and air space, particularly regarding China, I said to Norty, we have to figure this out. We need to be doing things now, so that we're not decisively disadvantaged years from now."⁵⁷

⁵⁴ (Vincent Alcazar 2021)

⁵⁵ (Norton Schwartz 2 2022)

⁵⁶ (Bryan Clark 2022)

⁵⁷ (Gary Roughead 3, n.d.)

Second, both services had the capabilities that were most threatened by China's A2AD network, and the capabilities most relevant to overcoming that threat. Schwartz notes,

“The two services that had existential roles in the global commons at that time were the Navy and Air Force. In addition, the two services that had an appreciation for stealthy operations—not technical stealth, but operating stealthily in the commons—were the Navy and Air Force. To me, this was a quite natural alignment...This stuff was a million miles distant for most of the DoD, which was focused on the land wars.”⁵⁸

Initial Actions and Stutterstep

Word of the new accord between the Navy and Air Force quickly spread throughout the Pentagon. Alcazar relates, “For the next four weeks, all I did was explain to the people in OSD Policy, Strategy, and almost all of the major directorates...Answering questions about what the new Roughead-Schwartz partnership was going to mean.”⁵⁹

The Air-Sea effort, having little institutional precedent, would begin awkwardly. In the short term, the chiefs instructed their respective QDR offices to draft a memorandum chartering the Air-Sea effort.⁶⁰ After establishing a shared conceptual foundation for how the services would fight together, the effort should generate concrete institutional actions—developing an organizational mechanism to pursue iterative organizational, programmatic, training, and personnel proposals. The nascent Air-Sea effort made little progress while located in the QDR offices—which had heavy responsibilities drafting the QDR.⁶¹ The QDR office, however, produced a charter that moved the effort—now called the Air-Sea “Concept Development Group” (CDG)—to their respective operational directorates (the “3/5”). The group would consist of five officers from each service, led by a colonel or captain.⁶²

There was early disagreement on what to name the effort, but the services agreed on “Air-Sea Battle,” inserting a hyphen to differentiate the Department’s effort from CSBA’s evolving, as yet unpublished “AirSea” work.⁶³ Roughead felt the name evoked the institutional collaboration seen

⁵⁸ (Norton Schwartz 2022)

⁵⁹ (Vincent Alcazar 2021)

⁶⁰ (Andrew Krepinevich 2 2022; Vincent Alcazar 2021)

⁶¹ (Andrew Krepinevich 2021)

⁶² (Phil DuPree 2021)

⁶³ (Vincent Alcazar 2 2022)

in AirLand Battle, which the Navy and Air Force sought to emulate.⁶⁴ The choice is revealing. As described below, Roughead and Schwartz consciously eschewed the culturally and institutionally enshrined joint concept development process. As competent and seasoned organizational actors, the chiefs likely foresaw the coming critique of joint “process foul” from the Army and Joint Staff. Naming the effort Air-Sea Battle thus made good marketing sense, reminding stakeholders across the defense community of the precedent and success of AirLand Battle. Viewed in retrospect, the name was probably a mistake. In the ensuing years, the effort would consistently struggle to differentiate itself from the CSBA concept, adding to the initiative’s substantial headwinds. Yet, in spring of 2009, with the CSBA monograph yet unpublished, such concerns were muted.

The chiefs gave several broad and lofty parameters for the CDG, within which the officers had substantial leeway to take actions and speak on behalf of their chiefs.⁶⁵ In keeping with the sense of immediacy of China’s threat, the CDG was to look at both near-term solutions—how to better employ the existing force—and more disruptive visions of long-term change. This should go beyond technology development, including a heavy focus on institutional mechanisms, training, and non-materiel elements. The effort should focus on China, but not exclusively—China was viewed as the most mature instantiation of the coming world of proliferated maritime A2AD. This broader focus was important organizationally as well; by framing the effort as a wider approach to future warfare, the nascent Air-Sea effort would be protected from attacks from the Department’s China skeptics, and those who advocated a softer line on China across the foreign policy community.⁶⁶

Operationally, the chiefs directed that the CDG examine solutions through a cross-domain “effects chain” lens, looking for synergistic capabilities to break an adversary’s chains while preserving American. Perhaps most aspirational, the group should avoid parochialism, prioritizing and leveraging the best capability for a mission, agnostic of service. This include highlighting areas of redundancy where limited funds could be better invested. Finally, the CDG was aware that they had to operate within the political constraints that civilian leadership would likely impose on a Sino-American conflict. From the outset, Roughead and Schwartz did not want Air-Sea Battle to

⁶⁴ (Gary Roughead 2022)

⁶⁵ The details in the following two paragraphs stem from interviews with multiple members of the CDG. In particular, (Bryan Clark 2022; Vincent Alcazar 2021; Phil DuPree 2021)

⁶⁶ (Andrew Krepinevich 3 2022)

be an operational instrument that would prove strategically unusable in conflict.⁶⁷ In practice, this meant the Department’s Air-Sea planners must assume that they would “fire second,” that an adversary would initiate a robust preemptive strike targeting American bases and C2, and forge a solution that forestalled *fait accompli* without triggering potentially nuclear escalation.⁶⁸

Eschewing the Joint Staff Development Process

In driving Air-Sea Battle as a bilateral Navy-Air Force effort, Roughead and Schwartz consciously eschewed the established channels of joint concept development, led by the Joint Staff and Joint Forces Command (JFCOM). As described in the Chapter Two, these processes are structured for equal voice from all services. Joint teams develop concepts through successive rounds of review before submitting them to a vote as new joint doctrine, for which consensus is required. Roughead and Schwartz instead located Air-Sea Battle under their Title 10 authorities to develop their respective service doctrines and forces—only, in the Air-Sea case, doing so in a manner that incorporated complementary moves by another service. Such bilateral efforts weren’t unknown in the Department, but were typically far smaller and tactically-focused—for example, the tactical deconfliction of helicopters and fixed wing aircraft. Air-Sea was the first major bilateral initiative—with potentially significant budgetary and programmatic implications—since AirLand Battle, and the first since the 1986 Goldwater Nichols Act’s restructuring of “jointness.”⁶⁹ The decision to develop it outside the Joint Staff process would prove consequential, both for Air-Sea’s internal evolution and for the organizational politics it would engender.

From the perspective of stakeholders in the Joint Staff, and later the landpower services, Air-Sea Battle should have conformed to the established joint conceptual development process.⁷⁰ To quote one field grade officer involved, “The Navy and Air Force could have pursued ASB within the J7, but chose not to. This would have ameliorated a lot of the interservice distrust. I first heard of ASB at JFCOM, and I asked about making it happen in the J7 process. The J7 process was fairly bureaucratic, but it was fair and transparent. The idea was summarily dismissed [by Navy

⁶⁷ (Gary Roughead 2022; Norton Schwartz 2022; Vincent Alcazar 2021)

⁶⁸ (Robert Work 2021; Vincent Alcazar 2021)

⁶⁹ (Charles Berry 2022)

⁷⁰ (Interview 32 2022; Interview 33 2022; Interview 35 2022)

and Air Force Air-Sea representatives]. They probably didn't understand the bureaucratic terrain well enough to understand that resistance that Air-Sea Battle was going to generate."⁷¹

Roughead and Schwartz eschewed the joint process for three reasons. First, by 2009 joint concept development had, understandably, become a near-term support mechanism for the conflicts in CENTCOM, rather than long-range conceptual development for emerging warfare.⁷² The J7 and JFCOM were also struggling organizationally; JFCOM would disband in 2011. The joint innovation process was, in the eyes of the Navy and Air Staffs, "moribund."⁷³ Second, the landpower services were, understandably, "wall to wall" with the ongoing wars. There was little landpower interest at this point in participation in a new air-naval concept.⁷⁴ Roughead and Schwartz discussed their bilateral Air-Sea approach with General Casey, the Army Chief, who was "fine with it."⁷⁵ The Army's position would later change, as documented in the ensuing chapters.

Third, Schwartz and Roughead believed the joint process's cultural and institutional norms of equal participation would water down the concept, as organizational politics would trump operational clarity. TX Hammes, a critic of Air-Sea Battle, expresses this succinctly: "Joint Doctrine is by consensus...It rounds off the edges. It is focused on getting a carve-out for each service, rather than solving a problem."⁷⁶ With each service retaining a veto, the joint process would struggle to prioritize the maritime domain, as all services assert themselves as equal partners. As demonstrated in previous joint concepts of Joint Vision 2010 and Joint Vision 2020, the results were abstract and struggled to generate meaningful change.⁷⁷ Further, without command of services' budgets and force development decisions, joint doctrine was, in practice, not authoritative. Roughead and Schwartz were keenly aware that the last major conceptual leap, AirLand Battle, had taken place as a bespoke, bilateral process, rather than a fully joint one. Schwartz's opinion reflected deep experience on the Joint Staff, having previously been both the J3 and Joint Staff Director. He notes, "I know that organization's strengths and weaknesses. There are very smart people over there...but even the Vice Chairman would have a hard time diving a

⁷¹ (Interview 32 2022)

⁷² (Vincent Alcazar 2021; Bryan Clark 2022; Norton Schwartz 2022)

⁷³ (Bryan Clark 2022)

⁷⁴ (Gary Roughead 2022; Norton Schwartz 2022)

⁷⁵ Ibid.

⁷⁶ (T.X. Hammes 2021)

⁷⁷ (Kagan 2007, 227–203; Army and Army 2013)

joint warfighting concept that wasn't abstract, lowest common denominator stuff.”⁷⁸ Roughead similarly notes, “The Joint Staff effort to make the Air-Sea Battle ‘fully joint,’ would also make it superficial...as opposed to being driven largely by the institutional alignment that Norty and I were trying to attain.”⁷⁹

In developing innovative approaches for maritime domains, Air-Sea's process would be inclusive of other services, but not equal between them. The landpower services were invited to participate, and the Air-Sea team needed many of their supporting capabilities—air defense, logistics, coastal fires, and engineering, to name a few. Yet, as Roughead notes, “The air and sea environments we were dealing with were more directly an Air Force and Navy problem. The focus was on the Air Force and Navy—how to align them, how to synchronize investments, how they create capabilities that allowed them to operate more effectively together...We were not going to try to broker compromise solutions just to keep all parties happy. We weren't going to do “jointness for jointness's sake.”⁸⁰ Later, in a 2012 event at the Brookings Institute, Schwartz would make a similar observation: “If an initiative does not demonstrate sufficient potential to improve the integrated ability of air and naval forces to project power against anti-access and area denial threats, then it ain't Air-Sea Battle.”⁸¹

Thus, from Air-Sea's origins and throughout its institutional life, the effort would be shaped by contending cultural notions of jointness and concordantly difficult organizational politics. The central question was whether modern American jointness prioritized egalitarianism and organizational harmony, or whether—absent a war—the military could pursue a “joint” approach that prioritized some domains or services above others. In meaningful ways, these positions were diametrically opposed. The joint approach dampened institutional friction precisely through eschewing domain and service prioritization; the Air-Sea approach was, from its origins, founded on precisely such prioritization.

⁷⁸ (Norton Schwartz 3, n.d.)

⁷⁹ (Gary Roughead 2 2022)

⁸⁰ Ibid.

⁸¹ (“Air-Sea Battle Doctrine: A Discussion with the Chief of Staff of the Air Force and Chief of Naval Operations” 1AD)

Organizational Context: Headwinds to Air-Sea Innovation

Strategic and Budgetary Context

From its origins and throughout Air-Sea's life, it would struggle with the twin challenges of instability in the defense budget, combined with senior leadership that strongly prioritized the current landpower wars over serious preparation for China's rise. As noted, this stood in contrast to Rumsfeld's approach, which sought a balance—if flawed—between the current wars and readiness for high end future conflict. As demonstrated in the ensuing chapters, both Secretaries Gates and Panetta underestimated the immediacy and gravity of China's military challenge. As budgetary conditions worsened, both secretaries were faced with the contradictions between America's vast global strategic ambitions, diminishing defense budgets, and rising adversaries. In this context, both Gates and Panetta consistently undercut investment in the "future challenge" of China to prioritize more immediate issues.

At Air-Sea's origins in early 2009, the defense budget was still growing, and would continue to grow modestly until late 2011. It was, however, showing signs of significant instability. This instability had roots in the 2008 financial crisis, government bailouts, and growing Tea Party movement, which began in earnest in early 2009.⁸² Beginning in late 2009, while still growing modestly, the defense budget would start falling short of the "FYDP"—the planned budgetary numbers for the next five years, against which the Department made investment decisions. In trimming planned expenditures to reflect modest budget growth, Gates was likely attempting to show the Department's good stewardship, before the Department would have to defend itself in a national conversation about government spending.⁸³ Gates's cuts, unsurprisingly, leaned towards protecting investments for the ongoing wars. To quote Schwartz, "The Gates-driven efficiencies of 2009 and 2010 were writing on the wall."⁸⁴

A host of programmatic mishaps also put the chances of disruptive Pacific innovations in doubt with both Secretary Gates and Congress. This created a natural skepticism towards more "bold moves" like Air-Sea Battle. As noted, the Navy's DDG-1000 and Littoral Combat Ship were both much heralded, but fell short of their operational and budgetary promises. The F-22 was a particular target of Gates's ire. It, and the F-35, were significantly less timely and more expensive

⁸² (Skocpol and Williamson 2016)

⁸³ (Robert Work 2021)

⁸⁴ (Norton Schwartz 2 2022)

than promised.⁸⁵ Far from Etzioni’s envisioned Congressional excitement for the new high ticket expenditures Air-Sea Battle might generate, Congress’s mood towards bold and expensive programmatic innovations was decidedly cold.⁸⁶

Most prominent for the Air-Sea vision, the Air Force’s Next Generation Bomber program was in jeopardy. The Air Force’s bomber inventory consisted of a mix of Cold War era aircraft, nearing the end of their service lives and unsuited for penetrating A2AD networks, complemented by a handful of stealthy B-2 bombers. The effort to reconstitute the bomber fleet, starting in 2005 and aiming for new bombers entering the fleet in 2018, faced two hurdles. First, as noted, it was deeply counter to Gates’s focus on driving service investment towards the current wars. Counterinsurgencies don’t require long-range stealth bombers. Second, and worse still, the desire to create a technologically exquisite bomber, making up for decades of underinvestment, drove spiraling costs. Vickers relates, “Gates was getting very concerned about the costs of the new bomber. It looked like it was heading to the \$1 billion range, and he wanted it to be at \$500 million [per aircraft]. We’re not going to have the capacity we need if the cost is so high per platform.”⁸⁷ Gates would cancel the program in 2009, and refocus it with more modest goals (see Chapter Five).⁸⁸

Organizational and Cultural Resistance

Air-Sea Battle would also have to contend with a range of organizational and cultural challenges to innovation, placing limits on even what a service chief can accomplish within their tenure.

Air-Sea innovation, as a disruption to current systems and ways of operating them, implied significant opportunity costs. The desire to “integrate” Navy and Air Force systems was no small goal. Just regarding Navy-Air Force platform communications, Trip Barber, the Navy’s chief analyst for over a decade, notes, “It would require tens of billions of dollars of investment to fundamentally change communications standards. No one was going to do that. We, the services, grew up differently. You can’t make something that grew up that way change too greatly. So, there

⁸⁵ (Congressional Research Service 2018; Sydney Freedberg 2012a)

⁸⁶ (Trip Barber 2022; Russell Rumbaugh 2021) For an excellent review of Congressional attitudes towards spending during this period, see (Brose 2020)

⁸⁷ (Michael Vickers 2022)

⁸⁸ (Haddick 2022, 126–30)

were fundamental things about the force that we're not going to change. We had to work around them.”⁸⁹ Similar to its financial costs, innovation implies disrupting military training to learn and refine new ways of fighting. As noted in Chapter One, consistency in doctrine and platforms allows for mastery; innovation trades short-term mastery for potential longer-term gains. Warfighting communities in both the Air Force and Navy could be expected to be resistant, particularly if they felt the Air-Sea effort would not survive Roughead and Schwartz. To quote one officer regarding Air-Sea's push for integration, “There's not that much time for a frontline unit to train. You're trying to learn your system...Master it for high-end warfare— success or failure, and the stakes are high. The systems are complex...Having to deeply integrate with the other services—when are you going to find time to do that?... Every dollar or minute spent doing a ‘thing’ cannot be used to do another thing. So, in peacetime the services spend only a small amount of time integrating their capabilities across service lines.”⁹⁰

Institutionally, the force development arms of both the Air Force and Navy would be resistant to enacting Air-Sea changes. As a wealth of innovation scholarship notes, bureaucracies are centered upon the mastery of tasks and concordant efficiency; change movements upend such institutional processes.⁹¹ This is not an unalloyed negative; conservatism prevents doctrine and force development from swinging wildly each time a new chief or new idea promotes change. To quote Barber, “Waves of enthusiasm wash through the Pentagon regularly... The system is very resilient to disruptive change. The level of evidence you should have to bring to have a disruptive change to the POM [i.e. five-year force development plan] is enormous. The engineering questions your ideas would face are massive. The analysis required to change the basis of operations is exceptionally rigorous, for the right reasons. The staffers on the Hill are similar. They have seen so much money wasted on waves of enthusiasm.”⁹² One flag level officer relates, “The [civil servant], who stays in position over a long period of time, is what you're really fighting in an innovation effort. Their approach is often: ‘I will half do it, genuflect to it, I realize you're a zealot, but I'll wait you out until your leadership turnover, and then go back to supporting the status quo.’”⁹³

⁸⁹ (Trip Barber 2022)

⁹⁰ (Interview 36 2022)

⁹¹ (S. Rosen 1991, 13–24)

⁹² (Trip Barber 2022)

⁹³ (Interview 28 2022) The term “SES” refers to the “Senior Executive Service,” the equivalent rank of a general/flag level for a civilian government leader.

Air-Sea's desire for budget and program transparency between the services would also generate substantial bureaucratic resistance within both services. Services guard such budgetary plans closely, typically not revealing them even to contending branches within a service, let alone to another service. As explained by one senior officer, "As a general matter, the services don't want to show their POM, their priorities, until they must, late in the process. If you share it early, OSD and others can make disruptive inroads...creating counterarguments that challenge service POM priorities... Air-Sea Battle was working against this: trying to integrate SAPs (see below), trying to get priorities straight across the Department—and made some unique progress—but the services consistently resisted showing of their POM cards."⁹⁴ Pursuing such transparency is analogous to prisoner's dilemma: how to ensure that secrets, once shared, would be reciprocated and used for mutual benefit? Given such pressures, another officer in the CDG unsurprisingly relates, "The 8's (Air Force and Navy budget offices) ignored us as much as they could."⁹⁵

This resistance was particularly acute regarding the two services' "special access programs" (SAPs). Regarding SAPs—the most highly classified and highly protected programs within each service—the initial reasoning was clear enough: these highly classified programs and capabilities were inherently less secure as more people knew about them. Beyond this, like the POM, revealing SAPs meant allowing the other service to develop counterarguments for why their priorities should be funded instead of a service's own. As one example, a Navy senior leader relates, "The SES in charge of [the SAP Program] would slow roll the order to share the SAPs, say 'yes' when directed, slow roll again, get leadership directive again, still slow roll, and wait for leadership changeover to occur."⁹⁶ The CDG would eventually create mutual visibility on SAPs, though this would take considerable effort and not manifest until 2010.⁹⁷

Limits on the Chief's Power

While leading their respective services, Schwartz and Roughead faced institutional, temporal, and cultural limits on their power to enact change. Innovation is, of course, far more than changing technology—it requires doctrinal, organizational, procedural, budgetary, and training changes

⁹⁴ Ibid.

⁹⁵ (Interview 35 2022)

⁹⁶ (Interview 28 2022, 8)

⁹⁷ AZTEC

across multiple warfighting communities.⁹⁸ Those warfighting communities are controlled by other powerful four-stars in the service, often “playing their cards carefully” to ascend to the chief’s position. Like Rosen’s scholarship, this highlights the strong intra-service politics shaping innovation movements.⁹⁹ In the Air-Sea case, Schwartz relates, “As the Chief, you can slap the table, and all the four stars can nod. That does not mean they are behind you....The rationale must resonate in the key constituencies, the ‘tribes’ within your service. Beyond this, the idea needs to be something the intelligentsia, the people with long memories on Capitol Hill, and the civilian leadership have to believe in, or at least understand. An innovation effort cannot be long sustained, nor have great impact, if it doesn’t extend beyond the Chief’s own staff meeting.”¹⁰⁰ This is underscored by temporal limits on the chief’s tenure. Of the four-year tenure, Schwartz relates, “In practice, the first year is a spin up year. The last year is the institution is looking ahead to the next chief. Years two and three are the only years where you can generate change, do something substantial.”¹⁰¹ Reflecting these limitations, reflecting bounded rationality, service chiefs typically prioritize two or three “crown jewels,” where they perceive the opportunity for high impact for the service and comparatively low chance of failure.¹⁰²

General Schwartz was in a particularly difficult position, culturally and institutionally. Regarding his superiors, in the wake of Moseley’s firing, there was little trust between Gates and the Air Force’s general officer class.¹⁰³ Regarding the Air Force, Schwartz’s position outside the fighter and bomber communities marked as “...an outsider, not a mainstream Air Force guy, who became the Chief.”¹⁰⁴ Further, his April 2009 curtailing of the F-22 program was unpopular with the fighter community and Air Combat Command. These were key constituencies within the Air Force, wherein many officers felt Schwartz should have fought harder to save the F-22.¹⁰⁵ Making intra-service politics more difficult still, Air-Sea Battle’s call for increased long-range strike favored the bomber community, while raising questions about the relevance of short-range fighters. Compounding this, within the Air-Force’s intra-service politics, the bomber community was structurally disadvantaged. Schwartz notes, “During ASB, Global Strike Command hadn’t

⁹⁸ (Stulberg, Salomone, and Long 2007)

⁹⁹ (S. Rosen 1991)

¹⁰⁰ (Norton Schwartz 2 2022)

¹⁰¹ (Norton Schwartz 2022)

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

really stood up yet, so the bomber community didn't have a four star advocate at that time. All of it was essentially run by the ACC [Air Combat Command, led by a four-star fighter pilot]...So, organizationally, the bomber community's potential support for ASB was truncated."¹⁰⁶ The bomber community would not get a four-star advocate until 2015, after Air-Sea's dissolution.

Organizational Responses

Pursuing Cultural Change within the Air Force and Navy

These were difficult conditions for an innovation movement, and would become more difficult still. To overcome them, Roughead and Schwartz looked beyond shorter-term programmatic changes, envisioning Air-Sea Battle as a vehicle for cultural and intellectual change within their respective services.¹⁰⁷ Clearly, the Air-Sea initiative would not be completed in four years, let alone two. Were it to be successful, Air-Sea Battle would have to get "into the intellectual DNA" of both services.¹⁰⁸ Air Force and Navy officers would have to start seeing overcoming the A2AD threat as their primary mission, and candidly acknowledge the inability of their current doctrine and organization to address it.

Both chiefs thus eschewed directing organizational change by fiat. Instead, they began a substantial effort, which would continue throughout Air-Sea's life, to "road show" the A2AD problem and Air-Sea prescription throughout the Department, but particularly within their services. Schwartz notes, "The biggest question for the Air Force and Navy was how to generate buy in within our services. The approach was, 'Let's demonstrate that there is wisdom in this to the body politic.' Much of the ASB effort was to demonstrate the value of the ideas to our own warfighting communities, to convince enough of our services that the effort would survive past our tenures as chiefs."¹⁰⁹ This served two purposes. In the short term, it created an iterative dialogue around the Air-Sea concept within specific warfighting communities. Second, and more fundamentally, it socialized an expanding number of stakeholders to the severity and immediacy of China's A2AD challenge, making the case for change. This parallels aspects of Farrell et al's mechanism of "planned change," when senior military leaders attempt to change cultural

¹⁰⁶ (Norton Schwartz 2 2022)

¹⁰⁷ (Gary Roughead 2022; Norton Schwartz 3, n.d.)

¹⁰⁸ (Interview 33 2022)

¹⁰⁹ (Norton Schwartz 2022)

paradigms in an effort to spur innovation.¹¹⁰ In the Air-Sea case, this was consciously attempted by the Roughead and Schwartz, and as I argue in the conclusion, at least partially successful. Alongside specific Air-Sea programs, the importance of A2AD, the immediacy of China’s military power, American unreadiness for both, would survive long after the Air-Sea office closed.

Yet, despite its heavy investment in external outreach, from its origins the Air-Sea effort struggled to communicate effectively beyond describing the A2AD challenge and the concept’s broad outlines. First, in keeping with the Administration’s guidance not to antagonize China, Air-Sea’s public communications assiduously avoided naming China, always referencing Air-Sea as a reaction to changing conditions of warfare. Within the Department itself, the chiefs—particularly Roughead—wanted to keep Air-Sea’s details closely held. This was due to three concerns. First was China’s surprising and demonstrated capabilities for intelligence collection. The chiefs did not want China to get a head start designing counters to the new Air-Sea concept, negating its advantages.¹¹¹ Second, and closer to home, the chiefs did not want the institutional antibodies to begin picking apart the concept before it was fully formed. The chiefs’ concern was that an incomplete understanding of the nascent Air-Sea work would allow status quo stakeholders—both outside the Air-Sea coalition, and within the Navy and Air Force themselves—to “kill it in the cradle.”¹¹² Third, they did not want Air-Sea Battle making definitive public statements before the challenge and response were fully developed, and such statements were carefully considered.¹¹³ This broadly followed the communications model of the Maritime Strategy, wherein several years of classified work were followed by a broader, public exegesis several years later.¹¹⁴ Thus, the chiefs kept the effort small, with exceptionally limited visibility on its tactical and programmatic aspects. To allow the team to focus on its mission, the chiefs took responsibility for strategic communications surrounding Air-Sea Battle.¹¹⁵ The main communications thrust of the effort would be to broadcast the severity of A2AD challenges, and the general direction of an Air-Sea Battle solution, within the American military.

¹¹⁰ (Farrell and Terriff 2002)

¹¹¹ (Vincent Alcazar 2021, 3)

¹¹² (Vincent Alcazar 2021, 8)

¹¹³ (Gary Roughead 2 2022; Vincent Alcazar 2021)

¹¹⁴ (S. Tangredi 2013, 53)

¹¹⁵ (Vincent Alcazar 2021, 10)

As a result of these decisions, one can thus envision Air-Sea’s strategic communications in three concentric circles. At the center was the small group of officers and leaders involved in the Air-Sea effort, who had visibility on the classified Air-Sea concept and its programmatic details. One valence out were stakeholders within the Department who were briefed on the broad classified concept, but could not see its programmatic and budgetary prescriptions—which could significantly affect their warfighting communities. Yet, as subsequent chapters demonstrate, this “closed off” nature of the Air-Sea effort would cause continued animosity within the Department.¹¹⁶ Finally, at the farthest valence, Air-Sea’s public communications had would remain disastrously opaque through the program’s life. Without the ability to name China, the Air-Sea effort appeared disingenuous—as Friedberg and others note, it was clearly about China.¹¹⁷ More critically, under such strictures, the Department’s Air-Sea program could not adequately defend itself. In the midst of two active wars, vague references to future threats proved less convincing than a plainspoken explanation of the stakes of great power competition with China, America’s eroding position therein, and the consequences of deterrence failure—which would make the wars in Iraq and Afghanistan pale in comparison. Finally, this inability to communicate clearly meant the Department’s program was unable to distinguish itself from the CSBA AirSea concept. The CSBA concept would be published early in the following year, detailing a potentially vast set of mainland strikes on Chinese military targets. As noted in the literature review, criticism started immediately, with critics questioning the budgetary and operational feasibility of such strikes, alongside escalatory pressures. With little detail, and no ability to even mention China, public stakeholders understandably conflated the two Air-Sea Battles. While inaccurate, this would constitute the public conception of the Air-Sea program throughout its life.

Secretarial Directive

A confluence of events in early 2009 appear to have induced Secretary Gates to direct the Navy and Air Force to pursue an Air-Sea effort. By late spring 2009, word of Roughead and Schwartz’s integrated Air-Sea effort had spread in the defense community, including within OSD.¹¹⁸ In April, CSBA’s Andrew Krepinevich would also meet with Secretary Gates about China’s A2AD

¹¹⁶ (Interview 32 2022; Interview 33 2022; Interview 35 2022)

¹¹⁷ (A. Friedberg 2014, 65)

¹¹⁸ (Vincent Alcazar 2 2022)

challenge, making the case for a coordinated Air-Sea Battle response.¹¹⁹ As summer arrived, Krepinevich would also publish an influential article in *Foreign Affairs*, detailing the American's eroding position in the Western Pacific, and the need for an "offset strategy" to restore a favorable military balance.¹²⁰ Simultaneously, the strong but active minority of policymakers pushing for a more robust response to China—Vickers, Work, Ochmanek, and Gunzinger—were using the QDR process to advance their case. They were successful in getting the case for a coordinated Air-Sea response to China to Undersecretary for Policy Michelle Flournoy in early 2009 who, alongside Undersecretary Vickers, raised them with Secretary Gates.¹²¹ As Ochmanek relates, "Air-Sea Battle wasn't some sort of 'rogue operation.' OSD Policy was aware, up to the Undersecretary. There were regular briefings. The Secretary was well aware—although his focus was elsewhere, on the counterinsurgency fight."¹²²

In July 2009, Gates would issue a written directive to the Air Force and Navy to develop an Air-Sea Battle concept, reporting back to him on the progress in one year.¹²³ He made similar direction in the same month through the classified Guidance for the Development of the Force (GDF), giving further direction on Air-Sea Battle that remains classified.¹²⁴ A major limitation of this thesis is my inability to interview Secretary Gates on his decision calculus to enact Air-Sea Battle, and whether the ensuing effort accorded to his vision. This opacity is deepened by the fact that his memorandum directing Air-Sea Battle and GDF guidance remains classified, and the manner in which Gates worked; in small, private meetings with trusted confidantes, outside of which there was little indication of his thinking.¹²⁵ Despite these limitations, through interviews with some of Gates's close contacts and Secretary Panetta, Gates's memoirs, and the observed development of Air-Sea Battle, several tentative arguments can be made.

Several factors likely influenced Gates's decision to give Air-Sea Battle a secretarial mandate. According to Vickers, Secretary Gates was seeking to broaden his focus, even as he remained primarily focused on successful outcomes in Iraq and Afghanistan. Vickers, who was within Gates's inner circle, relates "President Obama asked Gates, Clapper, and me to stay on in the new

¹¹⁹ (Andrew Krepinevich 2021)

¹²⁰ (Andrew Krepinevich 2009)

¹²¹ (David Ochmanek 2022; Michael Vickers 2022)

¹²² (David Ochmanek 2022)

¹²³ (Dupree and Thomas 2012b; A. Friedberg 2014, 74)

¹²⁴ (Andrew Krepinevich 3 2022)

¹²⁵ (Michael Vickers 2022; Norton Schwartz 2022)

administration. We were brought in during the late Bush Administration to turn around the ground wars. As the transition loomed, Gates was trying to come around a be a ‘full’ Secretary of Defense, rather than a ‘war secretary.’”¹²⁶ Krepinevich suggests Gates was dissatisfied with the current approach of developing individual systems for countering A2AD in the Pacific, without an overarching conceptual basis.¹²⁷ Based on his meeting with Gates, Krepinevich speculates that Gates wanted a clear approach to the Pacific, and an operational logic by which to guide and judge programmatic decisions.¹²⁸ Institutionally, by July 2009 the Air Force and Navy had been pursuing Air-Sea for almost five months, albeit with limited progress. Simultaneously, the strong minority of civilian policymakers were also pressing for a coordinated response to China. By 2009, it appeared the “surge” in Iraq had pacified that conflict. Proponents of the surge were already arguing a similar approach might pacify Afghanistan as well. It appeared the Department could begin widening its view, even if, in reality, the lack of resolution in both wars would prevent Gates from diverting his focus greatly.¹²⁹

Several points stand out regarding Gates’s directive. Interestingly, Gates did not discuss the matter with Navy or Air Force leadership before issuing it.¹³⁰ The directive, by and large, surprised the Air-Sea CDG.¹³¹ Gates had almost certainly heard of their efforts and the new Navy-Air Force institutional accord, but his primary counsel on this issue appears to have been Undersecretaries Flournoy and Vickers, as well as Jim Thomas and Bob Martinage in OSD Policy.¹³² Second, his directive similarly eschewed the Joint Staff process—Secretary Gates directed the Navy and Air Force, and only them, to pursue a joint Air-Sea concept.¹³³ One can only speculate why he favored the bilateral approach. As noted, the landpower services were fully taxed in the ongoing wars, and the Joint Staff’s focus remained there as well. It is likely Gates didn’t wish to dissipate that focus, and nor did the landpower services want to participate heavily in Air-Sea.¹³⁴ Still, the fact that Gates directed a bespoke bilateral effort, rather than one within the Joint Staff, suggests he had something less than full confidence in the Joint Staff concept development system. The Navy

¹²⁶ (Michael Vickers 2022)

¹²⁷ (Andrew Krepinevich 2 2022)

¹²⁸ (Andrew Krepinevich 3 2022)

¹²⁹ (Leon Panetta 2022; Michael Vickers 2022)

¹³⁰ (Gary Roughead 2 2022; Norton Schwartz 3, n.d.)

¹³¹ (Vincent Alcazar 2021)

¹³² (Michael Vickers 2022)

¹³³ (Bryan Clark 2022; Vincent Alcazar 2021; Gary Roughead 2022; Norton Schwartz 2022)

¹³⁴ On the landpower services, see (Jeff Hannon 2022; Gary Roughead 2022; Norton Schwartz 2022)

and Air Force would later be critiqued for their bilateral effort; many critics often forgot that this arrangement was supported by Secretary Gates.

Thus, by July 2009, the Air-Sea Battle was fully launched, with both Secretarial blessing and a rare institutional accord between the Navy and Air Staffs. It existed both as a discrete program seeking institutional alignments, and as an idea—a critique of current American operations, and a vehicle for cultural and intellectual change with the American defense community, particularly its home services. As later chapters demonstrate, the latter would prove more impactful and long lasting than the former.

Conclusions: The Birth of Air-Sea Battle

This chapter has filled several lacunae in our understanding of the Air-Sea movement, and challenges several scholarly arguments. Regarding its origins, during this period Air-Sea moves from an idea to a program based on the actions of Roughead and Schwartz as senior military leaders, predating Gates's directive. That accord, paralleling Clark's innovation scholarship, stemmed in large part not only to the personal relationship between the chiefs, but their shared operational experiences.¹³⁵ Both were the first chiefs in decades to bring a deep Pacific experience to the top of their respective service. They were thus deeply acquainted with the immediacy of China's rise, and the lack of adequate response that challenge was receiving within the Pentagon.

Clarifying previous scholarly disagreements, the evidence demonstrates that Air-Sea was primarily focused on China, but not exclusively so. There was sincere and justifiable belief on behalf of both chiefs that China's A2AD system heralded a change in warfare, premised on technology whose efficacy had been demonstrated almost two decades prior. Further, from its inception, the Air-Sea movement was neither a strategy, nor a warplan, nor a duplicate of CSBA's work. It was, instead, an attempt at service doctrinal innovation and cultural change. In so doing, it had both sustaining and disruptive elements, relative to the near and long term. Most fundamentally, it was a conscious attempt at cultural change, seeking to convince the American defense community of the immediacy and gravity of its unreadiness for China's rise, and proliferated A2AD beyond it.

¹³⁵ (Clark 2016)

Finally, contrasting Etzioni, the Department's Air-Sea program had substantive interaction with senior civilian leadership, and consideration of strategic issues, from its inception.

In summary, between 2007 and 2009 Air-Sea Battle emerged as the most significant, and highest profile, bilateral innovation effort since AirLand Battle three decades before. It was also the most significant American military reaction to China's rise to date. To be clear, Air-Sea Battle was, at this point, a small movement, existing only in a small group of officers at the apex of both services. That said, ADM Willard, commander of Pacific Fleet and soon to take over PACOM, captures the opinion of many in the China community at the time: "There was a feeling of *finally*" when Air-Sea Battle came out. Finally, the Secretary, the services, and OSD were hearing, talking, and planning against the darkening strategic and operational picture that we had been living in the Pacific."¹³⁶ More subtly, Air-Sea Battle was also implicitly challenging American cultural and institutional norms regarding "jointness." This held the potential of shifting previous conceptions of jointness, characterized by institutional egalitarianism and operational deconfliction. The American Air-Sea response was nascent, small, and incomplete—but it was something. In the context of two ongoing landpower wars, senior civilian attention focused elsewhere, and rapid changes in the Pacific military balance, that change would prove welcome to a Department that, as 2020 grew near, would find itself poorly positioned for Sino-American military competition.

¹³⁶ (Robert Willard 2022)

CHAPTER FIVE: THE RISE OF AIR-SEA BATTLE, JULY 2009-NOVEMBER 2011

The Result of the Secretary's Memo: A "Multiservice" Effort

As a result of Secretary Gates's memo, the Department's Air-Sea Battle program would be a hybrid, "multiservice" effort (vice "joint"), for which there was little organizational definition or precedent.¹ There was no established organizational method at the time (or since) to prioritize one service or domain in a major conceptual innovation that involved multiple services. The Joint Staff approach offered equal voice and veto, and equal claim to ownership and budgeting, to all services, making a heavy prioritization of air and naval capabilities de facto impossible (at least, absent a war).² However, Air-Sea's largely bilateral structure meant that important but supporting landpower capabilities remained effectively outside of the reach of the effort.³ In sum, the organizational choices at the time appeared to either allow the Army in as an equal partner, or not integrate them significantly at all. The prioritization of service capabilities demanded by a fight that was both maritime in domain, but joint in character, did not exist as an option.⁴

Given the lack of precedent, the Department's Air-Sea effort would have to create ad-hoc organizational arrangements. Further, if the effort was going to be something more than a pro-forma intellectual experiment, it would have to organize quickly, both to meet the Secretary's timeline and, more deeply, to begin an innovation campaign during the chiefs' limited tenures, and before PLA modernization made existing gaps more daunting. The Air-Sea stakeholders believed time was both precious and limited; normal organizational channels would take months to define, charter, and staff such a high profile, Secretary-directed effort.⁵

Due to Air-Sea's hybrid nature, two practical dilemmas presented themselves. First, who would staff the office? The best mid-grade officers in both services were, naturally, already assigned to important positions when the Air-Sea movement began. How to find top-tier talent, with the particular intellectual skills required, rather than assigning officers that happened to be available? Second, how would decisions be made? While the Joint Staff process was slow and egalitarian, it

¹ ("Multi-Service Office to Advance Air-Sea Battle Concept" 2011)

² (Gary Roughead 2022; Norton Schwartz 2022)

³ (Interview 33 2022)

⁴ (Interview 33 2022)

⁵ (Phil DuPree 2021, 2)

had a clear decision cycle and a joint “boss.” From the start, the Air-Sea movement would be burdened by its decision process, which had to route serious decisions through both services’ chains of command, at high levels, competing for senior leader time that was difficult to find.⁶

The Air-Sea effort forged several solutions, if imperfect, to meet these challenges. Both services located the work on the Chiefs’ staffs in their “3/5,” the offices responsible for operations and strategy. This was by no means the only possibility—the service war colleges; Weapons School and Top Gun; and operational units tagged for experimentation were ready alternatives.⁷ In particular, this diverged from AirLand Battle’s organization, which located the effort in the two services’ doctrinal engines: TRADOC and the ACC. Indeed, years later, Gen Schwartz reflected that getting the effort outside of the Pentagon, and locating instead in the operational forces or doctrinal organizations, would probably have been more effective.⁸ Yet, if Air-Sea’s Pentagon location made it more distant from the experimentation and cultural throw weight of the operating forces, it did grant some advantages, including proximity to the chiefs and to the Pentagon’s budgetary engines.

Organizationally, despite the serious manning challenges of attempting modernization while contributing to the wars, the Air Force and Navy took high-quality officers “out of hide,” removing them from other priority portfolios.⁹ Roughead and Schwartz signed an August 2009 bilateral memorandum that, among other things, constituted a “letter of marque” to dragoon quality officers onto the Air-Sea CDG.¹⁰ Organizationally, the CDG had access to their services’ senior leadership, reporting directly to the three-star 3/5 of their respective service, LtGen Breedlove and VADM Clingan, who would report to the Chief.¹¹ The officers of the CDG were hand-selected and represented some of the Air Force and Navy’s intellectual best; several would go on to flag rank.¹² Throughout its tenure, the Air-Sea effort employed a higher percentage of reservists. On first glance, this would seem to suggest that the effort was not taken seriously. On the contrary, both services had a deep repository of talented reservists with impressive operational and strategic backgrounds. Moreover, reservists brought speed. To quote RADM Harris, “There

⁶ (Interview 33 2022, 3)

⁷ (Norton Schwartz 2022)

⁸ (Norton Schwartz 2022)

⁹ (Phil DuPree 2021, 3)

¹⁰ (Vincent Alcazar 2021, 6)

¹¹ (Phil DuPree 2021, 2–3)

¹² (Interview 30 2022, 2) For example, VADM Mark Montgomery.

is a cultural point here: the Navy’s culture is to make the best with what you’ve got. We weren’t going to wait for billets to be created...Why reservists? Because, at the time, the Navy Staff was downsizing. We were *losing* billets, and rearranging billets would have taken time. We knew, if we wanted to move fast, they had to hand-pick top shelf reservists.”¹³ Indeed, if the two services had wanted to slow roll the effort (as some critics have asserted),¹⁴ standard bureaucratic and personnel channels provided a ready opportunity to do so.

Early Air-Naval Challenges

The early CDG appears to have enjoyed relatively strong cohesion within the team, despite early tensions and some differing visions between Clingan and Breedlove on the direction and focus of ASB.¹⁵ This early friction was the most significant example of interservice tensions within the early Air-Sea coalition—tensions that were difficult to manage in the previous AirLand effort, nearly dismantling it.¹⁶ Specifically, VADM Clingan brought several divergent perspectives on questions of strategy, operations, and organization. Clingan had been working on an updated vision of the Navy’s operating concept. He brought this perspective strongly to the Air-Sea effort, attempting to align the Air-Sea work under the new Navy operational vision for what was, principally, a maritime domain.¹⁷ This, at least from an Air Force perspective, portended an unwanted hierarchy within the Air-Sea coalition, stoking longstanding Air Force fears of being relegated to tactical fire support for main efforts on land and sea.¹⁸ Further, Clingan brought a different vision on the political instrumentality of violence. Specifically, Clingan wanted to keep the effort operationally-focused, working the tough problem of how to strike operationally-decisive targets within A2AD.¹⁹ This diverged from CDG’s emerging focus on leveraging the ability to strike targets for political effects (see below)—and by extension, the wisdom of including

¹³ (Gregory Harris 2022, 2–3)

¹⁴ (Russell Rumbaugh 2021)

¹⁵ Regarding cohesion, (Bryan Clark 2022, 3) (Phil DuPree 2021). Regarding tension, (Interview 15 2021; Interview 52 2022) Regarding team cohesion, there is a minority of dissenting evidence of interservice tension. Interview 8 notes, “We were working together, but we weren’t. There was still interservice rivalry within the ASB effort, between the USAF and USN, within the work. Neither service wanted the other to get too far ahead. It was an okay working dynamic—not terrible, not great.”

¹⁶ (Lock-Pullan 2005)

¹⁷ (Interview 15 2021, 4–7)

¹⁸ (Interview 15 2021, 4–7)

¹⁹ (Bruce Clingan 2022, 2–3)

a deeper strategic focus within the Air-Sea effort. Finally, Clingan had doubts over the wisdom of Air Force “deep strikes” on an adversary like China, both in terms of their operational feasibility and strategic wisdom.²⁰

This disagreement over first principles tested the CDG’s early unity.²¹ While details are sparse, these early tensions were resolved without either a splintering of the coalition or the intervention of the chiefs. A personal meeting between Clingan and Breedlove reached an accord on a shared direction, without a need to be conceptually constrained to the contours of the emerging naval concept.²² However, as described below, Clingan’s reticence regarding deep strikes proved fruitful; the Department’s effort would take a conservative approach to mainland strikes, avoiding dependence upon them for its effectiveness. In sum, an early interservice crisis within Air-Sea was averted; one can imagine a very different Air-Sea effort, or none, should these organizational, cultural, and intellectual differences proved insurmountable. Instead, after this early hurdle, CDG officers report an atypical sense of institutional alignment, running from the Chiefs, through their senior staffs, and into the Air-Sea effort itself—wherein officers felt a level of intellectual and cultural cohesion, spurred by their growing realization of the severity of China’s military challenge.²³ This involved a small number of officers at the top of each service, but given the previous institutional animosity between them, it was a beachhead.

Enter the Marine Corps

The partial inclusion of the Marine Corps came early, as a result of interservice politics. As previously noted, Roughead and Schwartz opened the Air-Sea effort to participation from all services, but would not take an egalitarian approach to jointness. Air and maritime domains defined the operating environment. While all services held important pieces, the defining capabilities of the Army and Marine Corps—the Brigade Combat Team (BCT) and amphibious Marine Air-Ground Task Force (MAGTF), respectively—were not viewed as central to overcoming open-ocean anti-access. It was clear from the beginning that landpower elements would play an important supporting role—cyber, air defense, ports, logistics, engineers, and

²⁰ (Bruce Clingan 2022)

²¹ (Interview 15 2021, 7)

²² (Interview 52 2022, 3)

²³ (Bryan Clark 2022, 3) (Phil DuPree 2021)

enablers. How those landpower elements, and their respective services, would be brought into the effort was unclear, and not defined in the Secretary's memorandum. Amphibious operations generally require large-body amphibious shipping and significant time within the threat area; if anti-access forces could be sufficiently disrupted to do so, Marine amphibious assault might also prove valuable.²⁴ Yet, overcoming A2AD (at least temporarily) was, in the CDG's estimation, a prerequisite for this.²⁵

Regarding interservice dynamics, the particular institutional position of the Marine Corps must be appreciated. First, the Marines were deeply engaged in the wars in Iraq and Afghanistan, without abundant bandwidth for refocusing on their core amphibious operations, let alone future concepts. More fundamentally, as a landpower service located within the Department of the Navy, the Corps was both beholden to the larger direction of the Department of the Navy, yet concerned about decreasing institutional equities for landpower.²⁶ To quote Marine Col Chip McLean, heavily involved in the Corps' early Air-Sea effort, "ASB put the USMC in an awkward spot organizationally. We didn't want to break with the Navy publicly, but wanted to make sure that the concept wasn't ungrounded. The only thing that would have been a redline for the USMC, we were worried about budget cuts resulting from this. We didn't want to see anything that would be a USMC budget cut coming from ASB."²⁷

This mix of competing incentives would define much of the Corps' involvement throughout Air-Sea Battle. Internally, the Marine Corps had little love for Air-Sea.²⁸ McLean notes, "The Corps hated it. It was seen as a budgetary ploy by the Army and USMC—'a money grab searching for a concept'...trying to prematurely move us out of the wars we're in."²⁹ Despite this, the Corps did not publicly question Air-Sea Battle. McLean continues, "From a USMC perspective, we played nice. We aren't going to complain openly about *their* concept. Smile and nod, say things like one team one fight...We asked hard questions at the O-6 level...but *not going to war holistically against it the way the Army did.* (emphasis mine)"³⁰ Marine and Navy stakeholders report that the

²⁴ (Interview 33 2022, 3)

²⁵ (Jordan Thomas 2021)

²⁶ (Charles Berry 2022; Chip McLean 2022)

²⁷ (Chip McLean 2022)

²⁸ (Charles Berry 2022; Chip McLean 2022; John Wissler 2022)

²⁹ (Chip McLean 2022, 4)

³⁰ (Chip McLean 2022, 4)

Commandant would agree with the CNO in public or in Department forums, with Marine staff officers afterward telling the Navy, “we’re not going to do that.”³¹

In early 2009, Marine headquarters approached the Navy and Air Force for inclusion in the emerging Air-Sea effort.³² Programmatic equities were important; “There was a bit of ‘We need to keep an eye on this. This is a threat.’ The reaction to the threat was to get involved—we don’t want the Air-Sea solution to not include our capabilities.”³³ The Air Force was skeptical of Marine inclusion on interservice political grounds, fearing that the Navy and Marines would push a common position against an isolated Air Force.³⁴ The Navy was skeptical as well, fearing ulterior organizational motives.³⁵ To quote one Marine involved in the early effort, “Getting the USMC involved was contentious at first. A combination of budgetary and process concerns, not believing the Corps had capabilities we can use...and not wanting to get saddled in a joint process. There was a desire in the ASB coalition to be independent.”³⁶ Yet, in August 2009 a Marine LtCol would join the effort, part time.³⁷ This level of participation seemed to suit all involved. The Marines were involved, and could point out landpower contributions while keeping an eye on the Air-Sea effort, but without presenting much change in the CDG’s core vision or process.

The Development Group’s Initial Work

With this organization, the CDG pursued its mission. Despite quality personnel, the Air-Sea initiative was under-resourced.³⁸ This is clear from interview evidence, and also from a consideration of the tasks before them: understand the implications of A2AD down to the programmatic level; generate and refine a viable conceptual response; work through the multiservice programmatic, doctrinal, and training implications of that concept; facilitate testing these through rigorous wargaming and exercises; foment cultural change within the services; conduct external engagements to refine the concept and convince external stakeholders; bureaucratically defend the effort. As a result, according to members of the early CDG, this

³¹ (Interview 45 2022)

³² (Charles Berry 2022, 2) (Interview 32 2022, 4)

³³ (Interview 41 2022) Chip McLean’s interview makes a similar point.

³⁴ (Interview 41 2022, 2; Charles Berry 2022, 2)

³⁵ (Interview 47 2022)

³⁶ (Charles Berry 2022, 2)

³⁷ (Charles Berry 2022, 3)

³⁸ (Interview 33 2022, 6; Interview 36 2022)

meant there was not time or manpower to pursue every angle, particularly regarding bureaucratic politics and strategic communications.³⁹ Early Air-Sea officers relate that the scope of this work was quickly overwhelming.⁴⁰ This lack of bandwidth contributed to the Air-Sea's later difficulties in strategic communications.

To bring coherence to these efforts, the first step was to author a conceptual vision to guide and synchronize air and naval assets for an A2AD challenge. Yet, how to write such a concept was not immediately clear.⁴¹ Who should write? This was more than a mere procedural question. Organizationally, “holding the pen” had both advantages in shaping the concept, and ramifications for its bias and perspective. More fundamentally, how to blend airpower and seapower concepts into a single perspective? Air-Sea officers knew their service intimately, but few—if any—had deep knowledge of the other. The intellectual hurdles to truly joint innovation were substantial. To write something at greater than a facile depth—indeed, to envision the holistic (i.e. DOTMLPF)⁴² implications to the level of aligning SAPS—required building considerable shared air-sea knowledge.

Thus, there was a substantial effort in the early period to educate the group's officers about their partner service.⁴³ In addition to considerable study and discussion, the CDG sent airmen onto ships, and sailors to airbases, to begin building a mutual awareness.⁴⁴ Building such literacy was not trivial. Even within a single service, combat branches often have only a cursory understanding of the operational patterns of their peers, as their training schedule is focused on mastering their particular role. The Navy and Air Force bring together distinct capabilities and operational patterns across air, space, electromagnetic, surface, and subsurface domains. Which methods and capabilities are objectively better, and how they can best be integrated—and how to decide in a community of equals? In retrospect, considering the degree of institutional competition between these services over roles and missions, and the substantial degree to which the Air Force stood to be incorporated into naval mission space, one would expect this process to be highly contentious,

³⁹ (Interview 52 2022, 4)

⁴⁰ (Vincent Alcazar 2021, 8)

⁴¹ (Bryan Clark 2022, 3–4)

⁴² “DOTMLPF” is an acronym meant to help officers think holistically about how changes in one aspect of military affairs can affect others—e.g., how the introduction of a new weapons system has implications for training, organization, and doctrine, etc. It stands for Doctrine, Organization, Training, Materiel, Leadership, Education, Personnel, and Facilities.

⁴³ (Vincent Alcazar 2021, 4)

⁴⁴ (Vincent Alcazar 2021, 3)

if not impossible.⁴⁵ It was not seamless. While the details are classified, one officer notes, “The integration fights between the Air Force and Navy were the hardest, and honestly, were never fully successful.”⁴⁶ Yet, considering the size of the undertaking and the institutional equities involved, the subsequent Navy-Air Force cohesion regarding Air-Sea Battle’s life is noteworthy. It is easy to imagine the effort foundering, or becoming merely superficial, at this point.

Regarding the concept itself, the CDG initially attempted to compose a draft as a team. This, however, proved problematic: the deliberative process took considerable time, and produced a product lacking a coherent vision and voice.⁴⁷ This struggle to create an initial draft caused considerable angst, generating a concession by the Air Force—the Navy would draft the Air-Sea concept, provided the Air Force could fully edit it.⁴⁸ In August 2010 Roughead asked Bryan Clark, a respected civilian strategist on the OPNAV staff who had recently departed for masters work at the National War College, to draft the concept.⁴⁹ Clark, a retired submariner, thus wrote the Department’s draft Air-Sea Battle concept as his classified thesis at the War College, with China scholar Bernard Cole supervising. This four-month period included interim briefings with Schwartz and Roughead, and more frequent inputs from Clingan and Carlisle (who had replaced Breedlove as the A3/5).⁵⁰ This also included CDG outreach on specific aspects of the emerging concept to organizations across the Department, including OSD-Policy’s strategy directorate.⁵¹

Initial Critical Reactions

Critical reactions to the Secretary’s Air-Sea memo and the launch of CDG were, in this period, relatively muted. Some general officers in the Joint Staff, and figures at OSD CAPE, viewed conflict with China as unlikely, and that Air-Sea portended spending on priorities the Secretary didn’t have.⁵² Roughead relates that the Joint Staff would prove the stronger and more vocal critic, both in the early period and throughout Air-Sea’s life.⁵³ The Joint Staff’s central argument

⁴⁵ (S.R. Zimmerman ... Madden 2019)

⁴⁶ (Interview 61, n.d.)

⁴⁷ (Bryan Clark 2022, 3)

⁴⁸ (Gregory Harris 2, n.d., 1), (Interview 33 2022, 4)

⁴⁹ (Bryan Clark 2022, 2–3)

⁵⁰ (Bryan Clark 2022, 3)

⁵¹ (Vincent Alcazar 2021, 6–9)

⁵² (Andrew Krepinevich 3 2022, 3), (Interview 10 2021, 3–4)

⁵³ (Gary Roughead 2022, 7)

was the need for concepts like Air-Sea to be run through the Joint Staff process, with full inclusion of all services. As noted previously, this reflected first principle disagreements with Navy and Air Force leadership on the proper meaning of “jointness.”

The Army during the first year of Air-Sea remained absorbed by the current conflicts, and concerned over its budgetary and institutional position as a withdrawal from Iraq, with partial success at best, looked increasingly likely.⁵⁴ The worsening budgetary picture made these concerns more acute; few contingencies outside Korea appeared to demand large landpower formations. Despite this, the significance of the early Air-Sea movement didn’t register with many stakeholders in the Army.⁵⁵ To quote MG Hix, working in the Army’s strategic offices at the time, “There were three predominant views on Air-Sea Battle in the Army at the time: that this is simply a TOA [i.e. budgetary] grab; that both the threat and concept are future-oriented and theoretical; and that this is a real threat and challenge, but ASB is an incomplete way to pursue it.”⁵⁶ Such an opinion was shared in the Joint Staff, where many saw Air-Sea as a “budgetary grab.”⁵⁷

Beyond voicing these criticisms, however, the Army initially remained focused on the current wars, and in justifying the centrality of large landpower formations in American defense more broadly.⁵⁸ Despite invitation, the Army declined to send participants or observers to the CDG, a position they would later reverse.⁵⁹ Press reporting suggests some degree of anger coming out of the Army’s chief, General Odierno, and a belief that this should be pursued under the aegis of the Joint Staff—a message that would be increasingly central to the Army’s reaction to Air-Sea Battle throughout its life (see Chapter Six).⁶⁰ This would give the Army an equal footing in the concept, given the procedures and rules of joint concept development. It also reflected deeper Army cultural preferences for established procedures and “playing by the rules.”⁶¹ To the Army, Air-Sea appeared to flout both, during a period of acute vulnerability to Army budgets.

The contours of the coming institutional and interservice competition were thus clear from Air-Sea’s outset—the Air Force and Navy as a multiservice Air-Sea coalition, the landpower services

⁵⁴ (Jeff Hannon 2022, 3) (Interview 53 2022)

⁵⁵ (Interview 33 2022, 3)

⁵⁶ (William Hix 2022, 3)

⁵⁷ (Interview 8 2021, 2; Interview 32 2022, 7)

⁵⁸ (Jeff Hannon 2022, 3) (William Hix 2022, 5)

⁵⁹ (Vincent Alcazar 2021, 3)

⁶⁰ For a summary, see (Perry 2015c)

⁶¹ (Builder 1989, 184–92)

and Joint Staff disagreeing with the Air-Sea multiservice approach and/or the wisdom of rigorously preparing for conflict with China. To quote one Joint Staff stakeholder, shifting towards the future fight faced “a very tough audience at that time. The two services that were platform-based that were excited, and two that were formation-based were against it.”⁶²

These disagreements should not be overstated; this was not animosity, nor simple parochialism. Rather, it was a growing professional difference of opinion between organizations with distinct cultures and roles, and which view national defense differently.⁶³ As Air-Sea expanded, it would put these differences into sharp relief.

Sea Changes in the American Pacific Picture

While the Air-Sea movement was attempting to evangelize the A2AD threat within Washington, significant changes were also taking place at PACOM. In October 2009, ADM Robert Willard took command, with ADM Scott Swift becoming PACOM J3 the following January. In addition to deep Pacific operational experience, both men brought a vision of elevating PACOM’s thought from the operational level to a stronger strategic footing.⁶⁴ Willard, widely respected as an intellectual commander, had read deeply on Chinese strategy. He was critical of current American planning with regards to influencing China in peacetime, warplans for a Taiwan conflict, and assumptions about how regional states would react to a Sino-American conflict.⁶⁵ He initiated five strategic focused groups, focused on regional actors, with the results briefed to PACOM senior leadership.⁶⁶ Willard’s new direction attracted some critics in Washington, pointing out that such high-level strategy work was beyond the remit of COCOMs.⁶⁷ Yet, in retrospect, it is clear there was comparatively little deep and authoritative work on Pacific strategy taking place in Washington when Willard took command, and few had the deep regional politico-military expertise to do it with nuance.⁶⁸ Part of Willard’s decision stemmed from PACOM’s persistent

⁶² (Interview 32 2022, 2–3)

⁶³ (S. Rebecca Zimmerman ... Orrie 2019)

⁶⁴ (Robert Willard 2022, 2)

⁶⁵ (Scott Swift 2022, 3), (Robert Willard 2022, 2–3)

⁶⁶ (Halloran 2010)

⁶⁷ (Robert Willard 2022, 6)

⁶⁸ (Etzioni 2013a)

difficulty in getting Washington’s attention on Pacific matters, which had remained concentrated on the wars in Central Command (CENTCOM).⁶⁹

ADM Willard’s initiative was focused on military strategy as classically understood—the leveraging of military power for political ends.⁷⁰ In practice, this meant reorganizing the PACOM staff for more nuanced attention to the political dynamics of the region; deep consideration of Chinese political goals and strategies for achieving them; and critical attention to the political utility of military forces in both peacetime and war.⁷¹ The core of this work was a deeper understanding of key regional states’ strategies, and how they intersected with the strategies of the US and China in both peace and war. Willard directed sustained attention on Chinese domestic politics as potential drivers of Chinese strategic shifts.⁷² Beyond this, he conducted substantial regional outreach with Asian states, meeting with defense ministers, and at times, national leadership.⁷³ This improved the American understanding of where regional nations would likely stand in a Sino-American conflict, while providing an avenue to communicate to them how the Americans hoped they would participate. The result was a deepening, and shared, strategic understanding about China’s rise, American security guarantees, and how these intersected with East Asian states.⁷⁴

In addition to regional outreach, Willard’s strategic effort included an improved interaction between PACOM and the senior levels of American government. This included the Secretaries of State and Defense, and senior support within OSD Policy, discussing the intersection of the military instrument and foreign policy goals. To quote Willard, “Secretaries Clinton and Gates were strongly in support of the direction we were going in PACOM strategy...I attended regional outreach meetings with Secretaries Clinton and Gates, and we worked well together.”⁷⁵ As one example, ADM Willard briefed the President of the Republic of Korea, Secretary Clinton, and

⁶⁹ (Scott Swift 2022, 3)

⁷⁰ (C.S. Gray 2016)

⁷¹ (Halloran 2010; Robert Willard 2022)

⁷² (Robert Willard 2022, 2)

⁷³ For example, see (“MOFA: Courtesy Call on Mr. Naoto Kan, Prime Minister of Japan, by Admiral Robert Willard, Commander, the U.S. Pacific Command” 2010)

⁷⁴ (“HASC No. 111-114]CHINA: RECENT SECURITY DEVELOPMENTS” 2010; “HASC No. 112-21] LONG-TERM READINESS CHALLENGES IN THE PACIFIC” 2011)

⁷⁵ (Robert Willard 2022, 7)

Secretary Gates on the strategic challenges of China's rise, including the changes needed in US capabilities and posture.⁷⁶

In sum, due largely to ADM Willard's direction, PACOM's regional strategy brought a nuanced focus to the political dimensions of America's military instrument in the Pacific, socialized at the Cabinet level. PACOM's strategy work resulted in an improved understanding of the character of both peacetime competition and war in the Pacific, united as they are by Clausewitz's political logic.⁷⁷ One can disagree with that strategy, believe the strategy was too ambitious given resource realities, or note that PACOM's role in formulating that strategy was misplaced. However, it is clear that a Pacific strategy existed, which linked military means to political ends. As such, by the middle of 2010, the American strategic and operational approach to East Asia was changing simultaneously in both Washington and PACOM. A key question, given the scholarly critiques of Air-Sea's poor tether to strategy, was how well Washington's Air-Sea work would marry to, and support, PACOM's emerging Pacific strategy (see below).

Air-Sea Battle's Rising Profile

Alongside these new initiatives in the Air Force, Navy, and Pacific Command, the group of "China threat" advocates in OSD also continued to advertise the immediacy and strategic gravity of China's rise and A2AD. Most significantly, Bob Work, as Undersecretary of the Navy, advocated that OSD Policy include Air-Sea Battle into the February 2010 Quadrennial Defense Review.⁷⁸ Specifically, he suggested, successfully, that the QDR further direct the Navy and Air Force to develop the concept, socializing the demands of Secretary Gates's memo to the wider defense community.⁷⁹ The inclusion of Air-Sea Battle in the 2010 QDR is significant, as it further demonstrates some level of senior civilian engagement with the early concept. Most directly, the document is one of the flagship projects overseen by OSD Policy, meaning that socializing of the Air-Sea concept would occur broadly through Policy circles. This point should not be overstated;

⁷⁶ (Robert Willard 2022, 7)

⁷⁷ (C. von Clausewitz ... Brodie 1984)

⁷⁸ (Robert Work 2021, 8)

⁷⁹ Note that shortly after the 2010 QDR, a Congressionally-mandated bipartisan panel would, reflecting on the QDR, recommend a 346 ship Navy with increased long-range strike, expressly due the growing strategic importance of the Asia-Pacific. See ("The QDR in Perspective: Meeting America's National Security Needs In the 21st Century The Final Report of the Quadrennial Defense Review Independent Panel" 2010, 58)

this does not, by itself, equate to a thorough Secretarial or OSD-Policy review of early Air-Sea Battle. Nor does the 2010 QDR indicate a serious recommitment to focusing the Department on China’s geostrategic challenge. While highlighting the challenge of A2AD, the document remained focused on the landpower wars, with little programmatic or budgetary reprioritization towards China. The inclusion of Air-Sea Battle in the QDR does, however, suggest the emerging concept was discussed and scrutinized in the normal channels of defense governance, including senior review, rather than in Etzioni’s assumption of “structural inattention.”

With the February 2010 QDR calling for Air-Sea Battle, in May CSBA published the seminal work on AirSea Battle, their “Point of Departure” concept. CSBA was able to respond to the QDR call quickly because, as noted, they had been working presciently on the A2AD problem for the better part of a decade, and an Air-Sea Battle solution for at least three years. The May rollout of the CSBA paper was held at the Capitol, sponsored by Senators Lieberman, Thune, and McCain, and with Senators Lieberman and Thune in attendance.⁸⁰

The combination of the 2010 QDR and CSBA Congressional launch raised the profile of Air-Sea Battle, and concordantly, spurred increasing conversation of the China challenge and proper American response. However, the high-profile announcement came with costs. First, the Congressional nature of the rollout—and the expansive new capabilities the CSBA concept envisioned—stoked the sense of threat and “budgetary grab” in the minds of many, particularly the landpower services.⁸¹ Second, with attention towards Air-Sea Battle increasing after the QDR, and a notable lack of public information on the Department’s Air-Sea program, the CSBA document defined “Air-Sea Battle” for much of the defense community.⁸²

The CSBA concept was bold, engaging, and detailed. It was unafraid of citing China as both its principal *raison d'être* and the subject of its notional campaign. In strong prose accessible to the general public, the report laid out the A2AD operational challenge, its strategic importance, and proposed an operational solution. It described a set of 21 initiatives to improve American force development, posture, integration, preparation, and doctrine—many of which would be embraced in subsequent American defense preparation for China.⁸³ This detailed, provocative, and timely

⁸⁰ (Jan van Tol 2 2022, 3–5)

⁸¹ (Interview 22 2022)

⁸² (Scott Swift 2022, 6; Jan van Tol 2021, 6)

⁸³ (Elbridge Colby 2022; Leon Panetta 2022)

public description invigorated the American A2AD debate, doing much to raise the profile and immediacy of China's military challenge. Yet, given the timing and strength of the CSBA document, its provocative nature, and the comparative lack of definitive commentary from the DoD, deconflicting the DoD and CSBA Air-Sea concepts would be a consistent challenge for the Department's program throughout its life. Academic and policy debates began immediately. Yet, debate tended to center on the wisdom and feasibility of a significant mainland strike campaign, with less emphasis on the majority of the CSBA report: e.g. its analysis of the Pacific time-distance problem, the robustness of Chinese A2AD, the inadequacy of current American approaches, and the need to rebalance American defense quickly and boldly. More importantly for the Department's Air-Sea program, as I describe below, the American debate over Air-Sea Battle was premised on a congruence between the DoD and CSBA concepts that was partial at best.

The Department's Air-Sea Concept

By late 2010, the CDG was making quiet, yet substantial, progress on its Air-Sea concept. Clark began his draft off the CSBA concept but, as described below, diverged from it quickly and significantly.⁸⁴ After an initial handover meeting, there would be no significant contact between the Department's Air-Sea program and CSBA for the remainder of Air-Sea's life.⁸⁵

The Department's concept borrowed heavily from CSBA in its diagnosis of the A2AD challenge.⁸⁶ Like the CSBA concept, the CDG emphasized the problems of operating American's shorter-ranged platforms within a longer-ranged A2AD system, getting close enough to an adversary to have decisive effects.⁸⁷ Similarly, the Department's concept echoed CSBA's sobering and realistic view of the threats to American airbases and carriers in an A2AD environment, alongside its inability to operate effectively without them. Like CSBA, the Department's concept described an American military that had become accustomed to operating from sanctuary, with ample warning to mobilize and train in theater, and with insufficient interoperability. Finally, like CSBA, the Department's concept acknowledged that the daunting distances of the Pacific, and time required to operate across them, meant that forward US forces would be operating independently for a

⁸⁴ (Bryan Clark 2022)

⁸⁵ Email correspondence with Jan van Tol, May 2022

⁸⁶ This is evident in the 2013 DoD unclassified concept document: (Department of Defense 2013)

⁸⁷ (Vincent Alcazar 2021, 11)

considerable time until American reinforcements could arrive en masse. Thus, American forward forces would have to absorb a potentially massive initial strike, retaining the ability to deny an adversary its objectives until sufficient reinforcements could arrive. In contrast to much of transformation era concepts' abstract, overconfident, and astrategic approach to precision strike warfare, this framing was realistic, pessimistic, and candid about American unreadiness for combat in maritime proximity to a near-peer competitor. The CDG was under no illusion that Air-Sea Battle would make a major war fast, clean, or dramatically one sided. Like AirLand Battle, the Department's Air-Sea concept assumed conflict with a peer adversary would entail major losses on both sides.⁸⁸

While the CDG's diagnosis was largely borrowed from CSBA, their proposed solution diverged significantly.⁸⁹ These differences go far in demonstrating the strategic considerations and oversight that Air-Sea's scholarly critics have assumed were lacking. The details remain classified, but the CDG viewed CSBA's large-scale blinding and suppression campaigns as operationally and budgetarily dubious regarding China.⁹⁰ The CDG acknowledged that it needed a capability to strike mainland nodes under conditions of A2AD, and to do so at depth, operating beyond A2AD's maximally effective ranges. Further, in a point often ignored in the public debates, Secretary Panetta noted in our interview that in conflicts with non-nuclear states leveraging A2AD, including Iran, a more robust set of mainland strikes was more politically viable.⁹¹ I review the CDG's approach to mainland strikes, including its strategic considerations, in greater depth in the following section.

Consequently, while updating the American capability for conducting strikes within A2AD conditions, the blinding and suppression campaigns of the CSBA concept were removed early from the Department's concept.⁹² From the outset, therefore, public discourse on Air-Sea Battle began to diverge steadily from the Department's actual Air-Sea program. The issues would dominate most scholarly and policy debate on Air-Sea Battle over the next four years—widespread mainland strikes on China, with their attendant political and budgetary implications—had been largely dismissed in the Department's Air-Sea development process. Interestingly from a

⁸⁸ (Gary Roughead 2022; Vincent Alcazar 2021)

⁸⁹ (Gary Roughead 2022, 5)

⁹⁰ (Bryan Clark 2022; Gary Roughead 2022; Phil DuPree 2021; Vincent Alcazar 2021)

⁹¹ (Leon Panetta 2022) Officers in the CDG made a similar point: (Jordan Thomas 3 2021; Vincent Alcazar 2021)

⁹² (Bryan Clark 2022)

theoretical perspective, it was not imposition from civilian leaders that created this political consideration, but rather consideration within the military itself.

The Department's concept replaced the centrality of a large and enduring mainland strike campaign against key ISR and ballistic missile sites with several areas of focus. Importantly, while much of the public discourse surrounding Air-Sea Battle focused on the CSBA strike campaign, the Department's focus was broader than any specific campaign—mainland strikes, maritime denial, or otherwise. Instead, the Air-Sea program focused on increasing its suite of options, and the capabilities needed to operate successfully in any A2AD campaign. As noted, Air-Sea Battle was not PACOM's warplan. It was, instead, a means of reorienting the American military towards the kinds of flexible capabilities that maximally stressing scenarios like a conflict with China would require. Rather than the high end questions of a large continental strike campaign against China, the Air-Sea program focused more on fundamentals: working out the C2 relationship for integrated operations, increasing the ability to mutually support across domains, surviving and striking within A2AD bubbles, building a new institutional relationship between the services, and defeating particularly threatening Chinese tactical capabilities.⁹³

Operationally, the CDG's focus was not on destroying PLA anti access capability in toto, but rather on creating capabilities to operate within its anti-access defenses effectively enough to frustrate broader Chinese (or another adversary's) operational goals.⁹⁴ This parallels Tangredi's theoretical scholarship on anti-access, noting that an anti-access network is generally not a defender's center of gravity, but rather, a means of protecting its center of gravity. An outside power thus does not necessarily have to comprehensively defeat an anti-access defense—it instead needs to disrupt it long enough to strike the defender's critical center of gravity.⁹⁵ In the Department's Air-Sea effort, the CDG focused on sinking the PLA Navy in an attempted invasion of Taiwan, and increasing the ability of the Air Force to contribute to that end.⁹⁶ The CSBA concept suggests the center of gravity in its strike campaign located within continental China, specifically in its surveillance nodes and missile units. Considering the interview research holistically, the CDG approach appears more akin to a maritime campaign, augmented by more limited and contingent mainland strikes, envisioning the center of gravity as Chinese amphibious

⁹³ (Bryan Clark 2022; Phil DuPree 2021; Vincent Alcazar 2 2022)

⁹⁴ (Robert Work 2021, 4)

⁹⁵ (S. Tangredi 2013, 74)

⁹⁶ (Robert Work 2021, 2–3)

assets at sea. In this sense, the CDG's concept appears to have commonalities with the maritime denial approach described earlier, augmented with the capabilities needed to conduct mainland strikes and operate in an integrated Air-Sea manner.

To these ends, the CDG sought the capability to create and leverage temporary sea and air control in contested environments, and the C2 structures needed to do so efficiently.⁹⁷ Much of this focus was on shifting the American military from its habits of operating from ubiquitous sea and air control, which were deeply ingrained. Where the CSBA concept approached the salvo competition through its offensive blinding and suppression campaigns, Clark's concept focused more heavily on other means of defensively frustrating Chinese strikes, while retaining enough capability to land critical blows.⁹⁸ Given the lack of widespread blinding and suppression, the Department's concept focused more heavily on the American's ability to weather a first strike on naval assets and airbases, subsequently transitioning to a tightly focused, if limited, offensive response.

Tactically, the CDG focused deeply on "effects chains"—the ability to disaggregate the reconnaissance, command, targeting, strike, and assessment steps required to operate an A2AD defense. This meant targeting the weak points of enemy effects chains, while making American effects chains harder to target, more resilient, and more redundant.⁹⁹ This, in turn, required changes to American capabilities and doctrine in several areas. First, it implied an Air Force that could find and strike maritime targets independently. In previous years, this would have been both an anathema to the Navy, and likely of institutional disinterest for the Air Force. In the Air-Sea concept, it was vital.¹⁰⁰ More broadly, Air-Sea required an Air Force and Navy that could work together quickly and effectively together under difficult conditions—outnumbered and far from reinforcement. Capabilities in one service or domain, perforce, would have to be able to replace those lost or absent in another. This meant American air and naval forces would have to be integrated before they arrived theater; there would not be time to "train up" together before conflict initiated.¹⁰¹ Further, the military would need new logistical concepts and capabilities, as the concentration of materiel at bases presented critical vulnerabilities. These changes suggested

⁹⁷ (Interview 33 2022, 6)

⁹⁸ (Bryan Clark 2022)

⁹⁹ (Phil DuPree 2021, 1)

¹⁰⁰ (Robert Work 2021)

¹⁰¹ (Vincent Alcazar 2021)

significant implications for American “joint” operations, pushing naval and air forces to move beyond a comfortable deconfliction towards a deeper institutional and operational cooperation.

The CDG thus faced a daunting set of operational, organizational, and cultural challenges. Wrestling with them drove the CDG to define, in broad terms, the kind of American force that could operate decisively within an A2AD environment. The CDG defined this as “NIA D3.”¹⁰² Such a force would have to be Networked, Integrated, and capable of Attacking in depth, even after absorbing an enemy’s first strike (“NIA”). Regarding an adversary’s strikes, the Americans would attempt to Disrupt its reconnaissance, Destroy key offensive platforms, and Defeat any incoming ordinance that remained viable (“D3”). On the surface, this represents a repackaging of CSBA’s campaign focus, contributing to the understandable public perception of the Department’s concept as a classified derivative of CSBA’s public work. The difference, as noted above, lies in emphasis. Where the CSBA concept focused heavily on the “destroy” element, the Department’s concept increased the focus on disruption and defeat (e.g. deception, mobility, resilience, redundancy, integration), surviving an initial attack, and employing a more limited set of strikes to leverage temporary areas of air and sea control.¹⁰³

Mainland Strikes

Contrary to critical scholarship, the CDG took a deeper and more politically nuanced view of military operations, particularly regarding mainland strikes on a nuclear adversary. It did so to bolster credible conventional deterrence, and in wartime, to increase the number of politically and operationally viable options at a commander’s disposal.¹⁰⁴ To create such a capability, the CDG considered strategic issues as a necessary context for effective operations, and conducted outreach within and outside the Department on strategic questions. To quote Col Vincent Alcazar, one of the leads for the CDG, “We thought a great deal about the political use of a threat, in the context of potential nuclear escalation. We saw our task as creating a conceptual ‘theory of victory’ for how Air-Sea Battle would create the desired political endstates vis-à-vis a nuclear great power.”¹⁰⁵ Issues like crisis stability, escalation control, conventional deterrence and conflict termination

¹⁰² (Department of Defense 2013)

¹⁰³ (Interview 33 2022; Vincent Alcazar 2021)

¹⁰⁴ (John Callaway 2021)

¹⁰⁵ (Vincent Alcazar 2021, 10) (emphasis mine)

were discussed regularly within the team, and in outreach to OSD Policy and the COCOMs.¹⁰⁶ This focus on the strategic context would continue throughout the Air-Sea program and its external engagements, and in the Department’s senior wargames (see below).¹⁰⁷

Regarding mainland strikes, while a matter of debate within the team, the CDG envisioned a concept that could conduct effective strikes, and ideally, hold targets at risk over extended timeframes for strategic leverage. To this end, the CDG reached out separately to Eliot Cohen and Thomas Schelling.¹⁰⁸ Schelling, a Nobel laureate academic, argued in *Arms and Influence* that “violence withheld”—keeping a target at risk while refraining from striking it—created greater political leverage for offramping and negotiated settlement. In this logic, once a target is struck, it represents a sunk cost to an opponent, and cannot be held at risk for leverage in political negotiation.¹⁰⁹ Thus, the CDG felt a graduated and nuanced escalation ladder held three advantages.¹¹⁰ First, it created usable options for commanders who did not wish to escalate to the level of a widespread campaign of strikes, but neither wanted to forgo strikes altogether. Second, such a graduated ability diminished “use or lose” pressures which are deleterious to crisis stability. A concept built on a decisive opening salvo, but vulnerable to strikes itself, puts pressure on commanders to strike first, making the transition from crisis to conflict more likely. Finally, such a graduated chain allowed commanders greater potential for conflict offramping, as it could cordon off targets from a strike campaign, thus leveraging them for conflict termination. Col Alcazar claims Schelling noted that the Air-Sea team was using his concepts effectively, transferring them to the new operational context of A2AD.¹¹¹

The CDG was not alone in advocating a conservative and politically-nuanced view of striking the Chinese mainland. Such a view was also prominent by at least early 2010 in PACOM and OSD Policy. All three organizations agreed that the American military needed the capability to conduct mainland strikes; having *no* meaningful capability for mainland strikes would constitute an irresponsible gamble, restricting future options for the White House and COCOMs in an unpredictable future.¹¹² Yet, PACOM and OSD Policy assumed the White House would be

¹⁰⁶ (Gregory Harris 2022, 3), (Vincent Alcazar 2021, 10)

¹⁰⁷ (Gregory Harris 2022, 3), (Robert Work 2021, 2–3)

¹⁰⁸ (Vincent Alcazar 2021, 9–10)

¹⁰⁹ (Schelling 2020)

¹¹⁰ (Vincent Alcazar 2022, 4–8)

¹¹¹ (Vincent Alcazar 2021, 9–10)

¹¹² (Bryan Clark 2022; Robert Work 2021; Vincent Alcazar 2021)

conservative regarding such strikes, generally favoring proportional retaliation to a proactive, offensive campaign. To quote DASD Ochmanek, “On mainland strikes, in OSD-Policy we knew there would be White House sensitivities in such a scenario. In our thinking, the type and purpose of strikes mattered...i.e. targets that were not dual use, not nuclear, that were coastal sites that had already been used directly for fighting—these are less escalatory targets than others deeper in the inland.”¹¹³ The Department’s emerging Air-Sea concept—in part influenced by its outreach to PACOM and OSD-Policy—was similarly circumspect. In contrast to the CSBA campaign, the Department’s Air-Sea concept saw the core strike capability as limited, coastal, and generally “feet wet”—i.e. launched from seaspace rather than overland.¹¹⁴ According to Bob Work, neither CSBA nor the CDG envisioned strikes as a Warden “Five Rings” approach—disaggregating a nation’s entire command structure through widespread strikes and decapitation efforts. Such an approach seemed unusable against a nuclear armed opponent. Instead, the Air-Sea effort envisioned a graduated ladder of strikes could, hopefully, deter escalation, and provide ample incentives for offframping successfully should deterrence fail.¹¹⁵

In sum, the public Air-Sea debate focused heavily on the strategic wisdom and feasibility of a widespread mainland strike campaign as a means of winning a war with China. In contrast, the Department’s Air-Sea effort sought a diversified *capability* to conduct mainland strikes in an A2AD environment, which could be leveraged operationally and politically in the context of nuclear adversaries. It did not cultivate—in fact, consciously avoided—a *dependence* on such strikes in Air-Sea Battle, and in American Pacific strategy more broadly. Such a dependence tied the hands of both commanders and politicians in wielding operational tools for political ends.¹¹⁶ Air-Sea’s envisioned strike capability—like the interoperability, resilience, and shared maritime targeting capabilities it envisioned—was part of an “enlarged quiver” from which COCOMs could craft specific campaigns and strategies, rather than constituting the campaign itself. There were, indeed, easily imaginable scenarios in which the Americans would want a strike capability for deterrence, retaliation, or escalation. Without building such a capability in peacetime, it simply would not have one. While the external debate raged over mainland strikes, internally, the Department’s position is best expressed by OSD Policy’s Ochmanek, “I don’t think the mainland strike dilemma was a

¹¹³ (David Ochmanek 2022, 6)

¹¹⁴ (Michael McDevitt 2021; Vincent Alcazar 2021)

¹¹⁵ (Robert Work 2021, 3)

¹¹⁶ (Bryan Clark 2022, 6)

first-order question inside the building. We knew we might someday need the capability to make such strikes—so we knew we needed to develop the ability.”¹¹⁷

Challenging the POM and Socializing the Concept

The concept CDG concept would continue to go through revisions, going through at least sixteen over the program’s life.¹¹⁸ With the initial concept written, scrutinized, and approved at the highest levels of the Air Force and Navy, Roughead and Schwartz focused on two initiatives: determining the programmatic implications, and socializing the Air-Sea vision to the wider defense community.¹¹⁹

Regarding the programmatic aspects, as noted, the Air-Sea effort held both a near and longer-term vision.¹²⁰ In the near term, Air-Sea offered a better way of operating the existing force under A2AD conditions. For the longer term, the Air-Sea Battle initiative, like the CSBA concept, envisioned a more optimized force, less dependent on short-ranged tactical aircraft.¹²¹ This meant changing the Department’s acquisition program (POM). Simultaneously, defense budgets were unstable. Innovation implies disruption—there will be branches that lose emphasis and budget—and those communities can be expected to resist change. Under the tightening budget picture, this was even more acute.¹²² To quote Bob Work, Air-Sea’s effort to change the POM created “a massive surge of resistance and antibodies” portending battles within the Air Force and Navy, in addition to those outside the Air-Sea coalition.¹²³

While the details remain classified, the CDG saw promising areas of POM change in unmanned air and underwater vehicles; longer-range strike and ISR; resilient and shared communications; airborne electronic warfare; cyber capabilities; anti-submarine warfare; and advanced research in directed energy and autonomous systems.¹²⁴ Regarding long-range strike, this included a more substantial capability for Air Force penetrating bombers, and more ambitiously, a hybrid

¹¹⁷ (David Ochmanek 2022, 3–6)

¹¹⁸ (Gregory Harris 2022)

¹¹⁹ (Gary Roughead 2022; Norton Schwartz 2022)

¹²⁰ (“HASC No. 112-21] LONG-TERM READINESS CHALLENGES IN THE PACIFIC” 2011)

¹²¹ (Gary Roughead 2022; Norton Schwartz 2022; Vincent Alcazar 2021)

¹²² (Norton Schwartz 2022; Gregory Harris 2022)

¹²³ (Robert Work 2021, 1)

¹²⁴ (MajGen James Holmes 2012, 15; Gary Roughead 2022, 2–4; Vincent Alcazar 2022; Norton Schwartz 2022)

manned/unmanned carrier air wing.¹²⁵ ADM Roughead placed particular priority for Navy programs on unmanned air and undersea systems.¹²⁶

The impact of Air-Sea Battle on the Air Force's bomber program, which would become the B-21 bomber, merits particular attention. The long-range B-21 is, in the early 2020s, widely considered pivotal to sustaining American conventional deterrence in East Asia.¹²⁷ While we have no direct evidence, General Schwartz argues Air-Sea Battle was vital to continuing the B-21 program during his tenure. In early 2010, after Secretary Gates's firing of Mosely, F-22 downgrade, and April 2009 cancellation of the Next Generation Bomber program, the Air Force's program for a penetrating bomber was particularly vulnerable (see Chapter Three).¹²⁸ An expensive and stealthy long-range bomber ran decidedly against Gates's desire to focus the Department on the current landpower counterinsurgencies. For the Air Force, Gates directed Schwartz to prioritize fielding the unmanned aviation needed in current conflicts. Focusing too greatly on future conflicts and failing to maintain adequate focus on the current wars was, arguably, a factor in Mosely's sacking.¹²⁹ To quote Schwartz, "Gates was highly suspicious of us and our predecessors, and as a result, of major initiatives like the F-22 and bomber successor."¹³⁰ In Schwartz's estimation, Gates wanted to end the bomber program.¹³¹ Conversely, Schwartz saw the program as "essential to the identity of the Air Force, to its future role in joint combat, and to sustaining nuclear deterrence for the country."¹³² Schwartz proved unable to convince Gates to keep the program. Yet, after discussion with Air Force Secretary Donley, a trusted confidante, Gates gave way. According to Schwartz, Air-Sea proved critical to Donley convincing Gates to do so, as Air-Sea emphasized the importance of long-range penetrating strike in addressing A2AD, and the inadequacy of current American capabilities (the US had only 19 B-2 bombers at the time).¹³³ Schwartz characterizes the decision not to cut the LRS-B as a "close call."¹³⁴

¹²⁵ (Norton Schwartz 2 2022; Gary Roughead 2022)

¹²⁶ (O'Rourke 2014, 92) (Gary Roughead 2022, 2–4)

¹²⁷ (Goldsmith 2019)

¹²⁸ ("Next-Generation Bomber Paved Way For LRS-B | Aviation Week Network" n.d.)

¹²⁹ (Fred Kaplan, n.d.)

¹³⁰ (Norton Schwartz 2 2022, 5)

¹³¹ (Norton Schwartz 2 2022, 5)

¹³² (Norton Schwartz 2022, 8)

¹³³ (Norton Schwartz 2 2022)

¹³⁴ (Norton Schwartz 2 2022, 5)

Regarding programmatic changes, few stakeholders were willing to speak about Air-Sea’s specific programmatic tradeoffs. Yet, in broad terms, the program envisioned significant programmatic changes, over the longer term, to make budgetary room for a better set of capabilities.¹³⁵ Important warfighting communities in both services, particularly fighter aviation, were aware they faced potential budgetary losses to fund these changes, particularly during the ensuing budgetary shortfalls. For example, the Navy’s truncation of the DDG-1000 effort was a result of Air-Sea Battle, according to Roughead. This caused considerable pushback, including in Congress.¹³⁶ Further, the Air-Sea effort sought a common F-35 platform across the two services, rather than the Navy and Air Force specific variants.¹³⁷ As noted, while lowering costs (and therefore allowing investment elsewhere), this also curtailed the range of the Air Force version. Given the cost of the F-35, ultimately crowding out other investments as its cost grew while budgets shrank, the merits of this approach were debatable. Regarding “selling” Air-Sea Battle internally, neither service’s aviation community, already skeptical of Air-Sea, would be excited about a less bespoke airframe. As the CDG began to issue reclaims on the POM (i.e. changing a service’s already submitted POM), the chiefs indicated they would use the Air-Sea concept as a standard for measuring future POM submissions.¹³⁸

Convincing the Air Force and Navy

While there was institutional alignment at the top of both services, a growing American conversation on the A2AD challenge, and some nascent progress towards relevant capabilities, the organizational realities of making Air-Sea more than a “good idea” remained substantial. The Air-Sea movement was senior, but thin. The initiative, within its services, lived in a very small number of people at the top of their chiefs’ staffs.¹³⁹ Relatively few sailors and airmen were yet convinced of the merits, even as many external stakeholders would be naturally skeptical. As noted, the chiefs undertook a conscious effort at cultural change, seeking to convince their services of the Air-Sea vision, and thus cementing change beyond their tenures. This would, however, be difficult, and prove ultimately incomplete. As Krepinevich notes, “General Schwartz

¹³⁵ (Gary Roughead 2022; Vincent Alcazar 2021)

¹³⁶ (Gary Roughead 2022, 3)

¹³⁷ (Gary Roughead 2022, 4)

¹³⁸ (Vincent Alcazar 2021; Interview 33 2022)

¹³⁹ (Jim FitzSimonds 2021, 3)

was pushing uphill, against the fighter community, Congressional equities, and civilian leadership that was skeptical.¹⁴⁰ One Navy captain in the CDG noted, “While the concept was sound, we were naïve in thinking we could get there [i.e. reach widespread agreement] sooner than we did.”¹⁴¹ Air-Sea’s outreach effort was substantial, internally and externally. Some of the hardest and most consequential battles would be within the Navy and Air Force themselves.¹⁴² Internally, led by ADM Clingan and LtGen Carlisle, CDG members engaged with their service’s major warfighting communities, briefing the Air-Sea work and taking feedback from these branches. The CDG requested three actions from warfighting communities: conceptual alignment in their warfighting doctrine; POM investments reflecting this shared vision; and, most difficult, institutional commitment to sustaining these changes over the longer term.¹⁴³ As noted, the tactical aviation communities and budgeteers of both services were the most resistant to Air-Sea Battle.¹⁴⁴ The Air Force’s particular organization presented hurdles. As noted, Schwartz had struggled with the Air Force’s powerful fighter community given the truncation of the F-22, and the bomber community lacked a four-star advocate to help balance the intra-service politics. Regarding the Navy, to quote Roughead, “In most instances, where we were trying to go, the impediments were not between our services. It was the vested interests within our services...that felt threatened by this new, common approach...Our aviation community had significant angst. If we got into unmanned aviation and were able to do things together between the services, the role of manned naval aviation would be diminished.”¹⁴⁵ To quote American navalist Bryan McGrath, “The Navy is a tribal service. There was plenty of resistance... Naval senior leadership kept the parochial forces at bay, trying to stay focused on the operational problem.”¹⁴⁶ The results of Air-Sea’s early internal outreach were mixed. Few naval and air leaders rejected the arguments outright—there was general agreement on the A2AD diagnosis, and the soundness of the Air-Sea approach.¹⁴⁷ Despite this, many remained skeptical and hedged, unsure whether the effort would survive the departures of Roughead and Schwartz.¹⁴⁸ Cementing the Air-Sea vision would thus require sustained

¹⁴⁰ (Andrew Krepinevich 2022, 3)

¹⁴¹ (Phil DuPree 2021, 2)

¹⁴² (Jordan Thomas 2021, 3)

¹⁴³ (Phil DuPree 2021, 2)

¹⁴⁴ (Interview 30 2022, 3); (Elbridge Colby 2022, 4) (Gary Roughead 2022, 9) (Vincent Alcazar 2021, 10)

¹⁴⁵ (Gary Roughead 2022, 7)

¹⁴⁶ (Bryan McGrath 2021, 5)

¹⁴⁷ (Vincent Alcazar 2021)

¹⁴⁸ (Vincent Alcazar 2 2022)

outreach, refinement, and demonstration of its merits—an effort the Air-Sea program would attempt throughout its life.

While the POM and its budgetary implications garnered great attention, much of the important collaborative work of Air-Sea existed outside the POM. Air-Sea identified 212 initiatives, across the DOTMLPF, where greater capability and integration could be achieved.¹⁴⁹ These included integrated training, exercises, and organization that receive far less attention in Air-Sea scholarship.¹⁵⁰ For example, in force development, N81 and A9 began conducting campaign analysis together, agreeing on a common scenario and warfighting approach as the basis for an integrated force design.¹⁵¹ Further, the services began a series of exercises, mutual visits, and shared training opportunities that focused on Air-Sea solutions to anti-access problems. These activities provided not only the necessary experiences and analysis for transferring the “good ideas” of a concept into practical terms, but simultaneously socialized a wider circle of warfighters to A2AD’s importance and the Air-Sea vision.¹⁵²

In its attempts to coordinate the two services’ POMs and SAPs, the Navy and Air Force reached the apex—and limits—of their bilateral collaboration. According to one flag officer, “The relationship was very strong for the first three years of ASB. It was a sincere and strong attempt at collaboration between the two services. That said, there are limits. When you got into specific programmatic and weapons, there was worry about one services’ weapon getting funded, while another does not.”¹⁵³ It is worth noting that even *within* a service, during POM development funding priorities are not transparent across warfighting communities. Both service “8’s”—the programmatic and budgetary masters—resisted revealing POM priorities to their Air-Sea counterpart.¹⁵⁴ POM transparency across the services would never be fully achieved.¹⁵⁵ Given the complexity and changing nature of POMs during development, there were many avenues for blunting efforts at greatly increased transparency.

External Engagement

¹⁴⁹ (Interview 33 2022, 6)

¹⁵⁰ (Phil DuPree 2021, 2)

¹⁵¹ (Trip Barber 2022, 2)

¹⁵² (Norton Schwartz 2022)

¹⁵³ (Gregory Harris 2022, 6)

¹⁵⁴ (Interview 28 2022, 4) (Interview 15 2021, 7–8)

¹⁵⁵ (Interview 28 2022, 4)

In addition to this internal engagement, Air-Sea’s external engagements spread across OSD, PACOM, the Joint Staff, the landpower services, think tanks, and limited interaction with Congress. These sustained, senior engagements further demonstrate the inaccuracies of Etzioni’s “structural inattention” argument, and broader scholarly critiques that Air-Sea Battle was disconnected from American strategic calculi.

Regarding OSD, the Undersecretary for Policy, Michelle Flournoy, held a regular briefing every two months on strategic competition with China, with PACOM and ONA in attendance. The Air-Sea team was always present, and on some occasions would brief Undersecretary Flournoy et al on Air-Sea’s progress.¹⁵⁶ The team also briefed and took inputs from DASD-level meetings in OSD-Policy’s strategy directorate, and director-level meetings with ONA and CAPE.¹⁵⁷ Of note, both Andy Marshall and Christine Fox, then Director of CAPE, supported the Air-Sea project.¹⁵⁸ Undersecretary Vickers remained involved in the project’s space, cyber, and surveillance aspects from 2011 until its conclusion in 2015.¹⁵⁹

Congressional interest in Air-Sea Battle remained limited, and largely focused on districts with shipbuilding or basing equities.¹⁶⁰ A search of government records, illustrated in Table 6.1, shows the number of times “Air-Sea Battle” was mentioned in any Congressional hearing, including full chamber, committee, or subcommittee.¹⁶¹

¹⁵⁶ (David Ochmanek 2022, 4)

¹⁵⁷ (Vincent Alcazar 2021, 5–10)

¹⁵⁸ (Phil DuPree 2021, 2), (Vincent Alcazar 2021, 5–10)

¹⁵⁹ (Michael Vickers 2022)

¹⁶⁰ (Russell Rumbaugh 2021, 3)

¹⁶¹ Research on GovInfo.gov

	"Air-Sea Battle" Mentioned in Congressional Hearings
2009	2
2010	9
2011	14
2012	14
2013	19
2014	9
2015	10
TOTAL	77

For comparison, the term “counterinsurgency” occurred 647 times over the same period, 123 times in 2009 alone, despite this being past the 2007 Iraq surge when interest in counterinsurgency was at its peak. Further, Air-Sea Battle had one dedicated Congressional hearing from 2009-16, an October 2013 HASC Seapower Subcommittee hearing; there were seven hearings focused on counterinsurgency during the same period.¹⁶²

This data stands in contrast to Etzioni’s assertion that Air-Sea’s potential profits for the defense industry would transfer, as “subterranean forces,” into strong Congressional support for the

¹⁶² Research on GovInfo.gov

concept.¹⁶³ Indeed, in November 2011 Congressman Forbes wrote a letter to Panetta, criticizing how little Congress had been briefed about Air-Sea Battle.¹⁶⁴ The CDG did brief congressional representatives from Guam and Norfolk on the program.¹⁶⁵ Representative Randy Forbes, representing Norfolk and serving on the House Seapower Committee, was a prominent proponent of the CSBA concept. Forbes kept a copy of the CSBA report as a prop on his desk, and would frequently cite it when hearing from senior military officers in testimony.¹⁶⁶

Beyond OSD and Congress, the CDG engaged the Joint Staff, Army, and Marine Corps with the same “road show” that they had presented to their own warfighting communities, requesting feedback and advocating for support.¹⁶⁷ Unsurprisingly, the Joint Staff and Army remained skeptics at these briefings, and critical of the “multiservice” manner in which Air-Sea was developed.¹⁶⁸ Finally, the CDG also had routine and robust engagement with the COCOMs, particularly PACOM, briefing their progress and soliciting inputs. I examine the interactions with PACOM in depth below. More broadly, there was a routine meeting every two weeks, on which the combined COCOMs, Fleets, Wings, and CDG would discuss Air-Sea Battle, and how the concept could better support COCOM campaign and contingency plans.¹⁶⁹ In sum, the evidence demonstrates that while programmatic and SAP details of Air-Sea Battle remained closely held, the broad concept—including the aspects that generated such extensive scholarly debate—were hardly disconnected from oversight and inputs. The general thrust of Air-Sea Battle was widely socialized within the relevant parts of the American defense community.

Engagement with PACOM

The Air-Sea program had particularly strong engagement with PACOM. By early 2011, Willard’s strategic effort was maturing. Senior figures at PACOM, including Willard, relate that Air-Sea Battle directly supported their Pacific strategy. Willard describes the contributions and limitations of Air-Sea Battle thusly, “I wouldn’t argue that [Air-Sea Battle] was ‘central’ to our strategy—

¹⁶³ (Etzioni 2016b)

¹⁶⁴ Critical excerpts from the letter can be found at (O’Rourke 2014, 56)

¹⁶⁵ (Jordan Thomas 3 2021, 1)

¹⁶⁶ (Jan van Tol 2021, 3)

¹⁶⁷ (Phil DuPree 2021, 2)

¹⁶⁸ (Jordan Thomas 2021, 1)

¹⁶⁹ (Interview 28 2022, 2)

which involves many more dynamics than an operational concept could. But...it was ‘elemental’ to what we were trying to accomplish strategically in the Pacific.”¹⁷⁰

PACOM’s strategic effort included a renewed focus on the relationship between operational means and strategic goals. In ADM Willard’s view, “Air-Sea Battle nested under our own strategic approach.”¹⁷¹ The strategic dimensions that the CDG was wrestling with—mainland strikes, escalation control, crisis stability, conventional deterrence, and conflict offframping—were also central in PACOM’s thinking.

While many details remain classified, mainland strikes and political risk are two areas where PACOM’s more nuanced strategic thinking similarly diverged from CSBA’s AirSea concept. Like OSD Policy and the Air-Sea effort, PACOM assumed that American political leadership would place substantial limits on targeting, and would not initiate a conflict—meaning US forces would be on the receiving end of a conflict’s opening salvos. This political reality presented an operational difficulty, contradicting Hughes’s famed maxim of naval warfare to “fire effectively first.”¹⁷² Willard notes, “The [White House] debate was something we thought about deeply—what would be acceptable, and what wouldn’t. We planned with the expectation that we wouldn’t have a perfect answer.”¹⁷³ Mainland strikes, were a “very sensitive matter in our planning, as you might expect...It was much more complicated than the CSBA concept made it. Same with allies and their levels of participation with the US. These were complicated, carefully considered, multivariant dynamics in our planning, where they are laid out as givens in the CSBA concept. Mainland strike in our thinking was much more nuanced, selective, than the *carte blanche* in CSBA’s ASB. The real Pacific is not a perfect world, where we could just execute a campaign like that, with massive airstrikes and alliance buy in.”¹⁷⁴ (Note: one can debate the degree to which CSBA strikes represented a “*carte balance*” approach, given they restricted themselves to military ISR and strike platforms, and that allied participation was viewed as a “given.”¹⁷⁵ I have included this quote as it demonstrates how PACOM’s senior leadership viewed the CSBA concept at the time, and contrasted it to the DoD effort.). According to ADM Swift, “the DoD [Air-Sea] program was about preparing the military for the world of future mutual precision strike. What capabilities

¹⁷⁰ (Robert Willard 2022, 4)

¹⁷¹ (Robert Willard 2 2022)

¹⁷² (Hughes, Girrier, and Richardson 2018)

¹⁷³ (Robert Willard 2022, 4)

¹⁷⁴ (Robert Willard 2022, 4)

¹⁷⁵ Jan (van Tol ... Thomas 2010, 94–98)

do we need? How can we cooperate? The CSBA piece was much more focused on *how* to fight, like an OPLAN. This led to conflation of DoD ASB...with the CSBA concept, which people took as a proxy for our OPLANs.”¹⁷⁶

Despite his reservations about CSBA’s strike campaigns, Willard was an enthusiastic supporter of the Department’s Air-Sea effort. Willard saw the Department’s Air-Sea effort as both distinct from the CSBA concept, and bringing the kinds of integrated capabilities to undergird his Pacific vision. ADM Willard notes how the Air-Sea effort supported his Pacific strategy, and it is worth quoting him at some length. “When you look at the component parts of the DoD ASB concept, it lent itself greatly towards accomplishing our strategic goals...The conversation between what I needed in theater, and what the services needed to build, was improved by Air-Sea Battle. Whether they could deliver on the capabilities we needed was perhaps another thing, but in terms of a shared vision, a healthy conversation, a mutual exchange—those pieces were working during the ASB period...There’s very little of it [DoD’s Air-Sea Battle] that I think was non-impactful. The concept was very sound. As a consequence, the individual programs and integration efforts were very powerful.”¹⁷⁷

The team regularly briefed, and took inputs from, ADM Willard’s PACOM staff, generally at the Colonel/Captain working group level. ADM Willard relates that the interaction with the CDG was primarily with Pacific Fleet (PACFLT) and Pacific Air Forces (PACAF), with PACOM’s Army and Marine elements rightly focused elsewhere.¹⁷⁸ Much of the engagement involved examining the existing OPLANs with an Air-Sea lens, in a two-way conversation that considered how both concepts and plans needed to adjust.¹⁷⁹ As noted in the following chapter, this would grow into substantial exercises. As one Navy officer noted, ““The PACOM J-8, PACFLT, and PACAF were pains in our ass....In a good way! They were pains because they were so deeply involved, had strong opinions, and were interacting with us regularly.”¹⁸¹

The contribution of Air-Sea Battle to American Pacific strategy during this period is further illustrated by the 2011 Unified Commander’s Conference at the Pentagon. The conference was

¹⁷⁶ (Scott Swift 2022, 6)

¹⁷⁷ (Robert Willard 2022, 8)

¹⁷⁸ (Robert Willard 2022)

¹⁷⁹ (Vincent Alcazar 2021, 11)

¹⁸⁰ Jan (van Tol ... Thomas 2010, 94–98)

¹⁸¹ (Interview 28 2022, 11)

attended by Secretary Gates, Deputy Secretary Lynn, the Combatant Commanders, OSD Principals, and Service Chiefs. ADM Willard briefed his Pacific strategic vision to this collection of the Department’s most senior leaders. “They laid down a map of the Pacific region, and had me brief on peacetime competition and conflict with China, what it would look like. Many of the elements of Air-Sea Battle were briefed at this meeting, and were valuable to what we were doing.”¹⁸² To be clear, Willard did not brief the Air-Sea Battle concept holistically. Instead, Willard states that many of the approaches and capabilities coming out of the Air-Sea effort were part of this briefing, to the combined senior leadership of the Department. The briefing, according to ADM Willard, was well received.¹⁸³

It is worth noting that, in addition to PACOM engagement, the Air-Sea team also engaged with Pacific allies and partners. The CDG created a version of the classified concept that was releasable to Japan, and shared it with them.¹⁸⁴ They would later create a similar version for release to the UK and Australia, who made meaningful partner contributions on where their forces could assist.¹⁸⁵ While the details are classified, Air-Sea officers claim these allied engagements revealed general support for the concept, and helped US planners understand how their theater posture might contribute.¹⁸⁶ I was unable to establish interviews with foreign officers to verify these assertions.

Headwinds

Gates, Air-Sea, and the JOAC

Despite these gains, the tension between Air-Sea’s Pacific focus and the immediacy of CENTCOM’s ongoing conflicts continued to generate headwinds for Air-Sea Battle. Put simply, Bryan Clark notes, “The Secretary and OSD wanted to continue focusing on shorter range systems that were more useful in the wars.”¹⁸⁷ In practice, Gates’s vision remained dominated by,

¹⁸² (Robert Willard 2 2022, 2)

¹⁸³ (Robert Willard 2 2022, 2)

¹⁸⁴ (Gregory Harris 2022, 2)

¹⁸⁵ (Gregory Harris 2022, 2)

¹⁸⁶ (Vincent Alcazar 2021; Gregory Harris 2022)

¹⁸⁷ (Bryan Clark 2022, 7)

understandably but arguably mistakenly, CENTCOM's limited land wars as opposed to China's strategic rise.

To be clear, Gates was not unaware of China's rise and its potential. He took several actions to address the issue, most prominently Air-Sea Battle and retaining the Air Force's bomber program. Yet, his memoirs suggest that China loomed low on his agenda, and that he did not view China's rise as a pressing strategic challenge. Gates's memoir mention Iraq 691 times, Afghanistan 606, and Iran 207.¹⁸⁸ He mentions China 93 times, often only as part of a list of countries. For example, in a section revealingly named "Other Challenges," he notes a buffet of "hot spots all around the world: Iraq, Iran, Afghanistan, Pakistan, North Korea, Russia, China, Venezuela, and the Israeli-Palestinian conflict."¹⁸⁹ Another list of "the world beyond Iraq" (another suggestive phrase) similarly lists China alongside ten other challenges, including piracy.¹⁹⁰ Most of Gates's attention on China deals not with long-term strategic competition or the quickly reversing military balance in the Western Pacific, but on the "engagement" focus of sustaining the military relationship with the PLA despite American arms sales to Taiwan.¹⁹¹ Far from a burgeoning security dilemma, Gates describes the relationship thusly: "I thought our partnerships in Europe, Africa, and China were in pretty good shape, and the fairly sour state of affairs with Russia had more to do with their bad behavior..."¹⁹² Taking the memoirs as a whole, the notion of China as a "pacing threat" or serious adversary seems altogether absent.

Like many—arguably most—in the American community during this period, Gates consistently underestimated the speed, severity, and significance of China's rapid military expansion. China, in his own words, was a "future threat."¹⁹³ According to a senior figure in OSD, Gates felt that the Air Force and Navy were overstating the China challenge.¹⁹⁴ Almost wholly against the thrust of Air-Sea Battle, he notes, "...*the biggest danger to the military* in the next administration would be pressure from Congress *to reduce the number of soldiers in order to buy equipment* (emphasis mine)."¹⁹⁵ In April 2009 Gates predicted that China was "ten to twelve years" from fielding a 5th generation

¹⁸⁸ (Gates 2015)

¹⁸⁹ (Gates 2015, 249)

¹⁹⁰ (Gates 2015, 149)

¹⁹¹ (Gates 2015, 412–16)

¹⁹² (Gates 2015, 321)

¹⁹³ (Gates 2015, 311)

¹⁹⁴ (Interview 10 2021, 3–4)

¹⁹⁵ (Gates 2015, 266)

fighter” (China would field the J-20 in 2017).¹⁹⁶ Gates cited this as a reason for cutting the F-22, and more broadly, for not succumbing to “next war-itis” instead of focusing on the current wars.¹⁹⁷ Yet, Roughead and Schwartz’s vision was exactly that—to think critically about the world after the current wars, even while sustaining their substantial CENTCOM deployments.

This tension remained fundamentally unresolved during the Air-Sea program. Successive secretaries would believe the Department could do both, despite shrinking budgets, aided by consistent underestimations of China’s rise. The concordant lack of robust Secretarial investment would prove central to both Air-Sea Battle’s undoing, and the largely rhetorical nature of the Department’s attempts to rebalance towards the Pacific. Thus, senior civilian leaders engaged with and provided oversight to Air-Sea Battle, but throughout its life were not its principal drivers. Reflecting Rosen’s intra-service lens, senior military leaders were central, both in providing the impetus for change and deciding on its particular character.

Despite the absence of robust Secretarial support, there continued to be voices within the Department, like Air-Sea, calling for more immediate attention to the A2AD challenge. Prominent among them was the Joint Staff’s “Joint Operational Access Concept” (JOAC), which sought fully joint solutions to A2AD challenges, running conceptual development through the canonical J7 process. Both Air-Sea and the JOAC brought welcome intellectual attention to the “world after the wars,” and were admirably candid in their diagnosis of American shortcomings. However, Air-Sea Battle and the JOAC held divergent views of institutional “jointness,” and thus the proper doctrinal response. Rhetorically, the Air-Sea concept nested under the broader JOAC, describing one on the JOAC’s four envisioned phases.¹⁹⁸ Yet, in practice, the two concepts were significantly distinct, institutionally and culturally. The broader JOAC effort was inclusive and relatively transparent, but lacked the authority over programs and budgets, actionable detail, and concrete integration steps of its Air-Sea cousin. Its position in the Joint Staff also made it organizationally alien to the Air Force and Navy (e.g. “someone else’s good idea about what we should do”). Its equal voice to landpower contributions to maritime domains, moreover, distorted the concept, particularly in light of the Army’s growing efforts at justifying BCT numbers (see Chapter 7).¹⁹⁹

¹⁹⁶ (“China’s J-20 Stealth Fighter Joins the PLA Air Force” 2017)

¹⁹⁷ (“Gates to Air Force: Why I Cut the F-22” n.d.); Hix p3; (“Military Must Focus on Current Wars, Gates Says” n.d.)

¹⁹⁸ (Department of Defense 2013, 4)

¹⁹⁹ (Vincent Alcazar 2021)

The more narrowly-focused Air-Sea effort was organic to its two primary services, had budgetary authority, and extensive input from key stakeholders. Beyond the broad strokes of the Air-Sea concept, however, most defense stakeholders were walled off from Air-Sea's less transparent details. These details mattered greatly, with likely implications for future force development—i.e. how much different warfighting communities stood to gain or lose budgetarily in the coming Air-Sea world. This opaqueness alienated many who were not part of the program, including the Joint Staff.²⁰⁰ Both the JOAC and Air-Sea would continue in parallel, rhetorical cousins but, in many ways, institutional competitors.

Boding poorly for both Air-Sea and the JOAC, the budgetary picture continued to darken. In 2010, the President's Bowles-Simpson Commission laid out plans for a balanced budget by 2015, with sizable potential cuts to defense. Even as Air-Sea Battle was forming, Secretary Gates was continuing in his search for Departmental "efficiencies," hoping that by making cuts and demonstrating good stewardship, he could avoid a more draconian budgetary future.²⁰¹ Outside the Pentagon, the US faced successive debt ceiling crises, and by July 2011, appeared that it might default on debt payments. These pressures reached an inflection point in August with the Budget Control Act (BCA). Compared to the President's original 2012 budget request, the Act's budgetary caps suggested roughly \$1 trillion in reductions of defense funding over the next decade.²⁰² While it was unclear what full implementation of the BCA would entail, defense budgets appeared pointed downward over the foreseeable future. This was far from comforting for any disruptive innovation effort, which would entail costs and risks. Even more so for Air-Sea Battle, which ran against the Secretary's stated priorities, and carried a price tag in the open press—based on a faulty conflation with the CSBA concept—that appeared enormous (see below).

The Growing Public Debate

Conflation of the Department's program with the CSBA concept was also becoming increasingly onerous for the CDG. While public debate raged over mainland strikes on China, the CDG's commentary on the subject was largely sterile and devoid of detail. The Department's Air-Sea

²⁰⁰ (Interview 32 2022, 3), (Interview 20 2022, 1–2)

²⁰¹ (Robert Work 2021)

²⁰² ("What Has the Budget Control Act of 2011 Meant for Defense?" n.d.)

program, understaffed, closed off from the broader defense community, and curtailed in its ability to mention China, failed to communicate that this debate was largely a moot point.

The Air-Sea debates helped fuel renewed American attention towards Pacific defense matters and conventional deterrence in East Asia (see the quantitative data in Chapter Seven). One aspect of these debates was the creation of “competing concepts”—alternatives to Air-Sea Battle for overcoming China’s A2AD challenge. The two most prominent, as mentioned briefly in Chapter One, were Hammes’s “Offshore Control” and Hughes and Kline’s “Maritime Denial.” Both concepts accepted the A2AD diagnosis and its seriousness, but offered alternative means of addressing it. Strategically, Offshore Control critiqued the escalatory nature of Air-Sea’s mainland strikes, and noted it could not meaningfully advance the US towards strategic victory—a means of successfully offramping a nuclear-armed adversary towards a mutually acceptable political condition. Hammes advocated minimally contesting Chinese A2AD within the first island chain, instead focusing on blocking Chinese commerce beyond the limits of PLA power projection.²⁰³ Kline and Hughes applauded Air-Sea Battle as a means of integrated capability development.²⁰⁴ Rather than tailoring and leveraging those capabilities towards power projection, Maritime Denial proposed frustrating Chinese hopes at maritime power projection—in essence, creating a “no man’s land” at sea, through which neither side could manifest sufficient sea control to pursue objectives. Interestingly, the development of Maritime Denial was also funded by ONA, who were funding multiple approaches in the hopes of improving the American conversation about the A2AD challenge.²⁰⁵

Several points stand out from this public debate. First, much of the public discourse corresponded with the CSBA concept rather than the Department’s opaque Air-Sea program. Further, the debate tended to focus on one aspect of CSBA’s report—the mainland strike campaign—ignoring many of the report’s other prescient programmatic and organizational suggestions. Second, the public debates generally framed these competing concepts as binary choices. Stakeholders from across PACOM, OSD, and the Air-Sea program—from senior leaders to field-grade officers—roundly disagree.²⁰⁶ To quote Ochmanek, “There was a general sense within the Department that the external debate framed a binary choice between alternatives—ASB, Offshore Control, Denial—

²⁰³ (Hammes 2012a)

²⁰⁴ (Kline and Hughes 2012)

²⁰⁵ (Aaron Friedberg 2021, 4)

²⁰⁶ (Leon Panetta 2022; Robert Willard 2022; David Ochmanek 2022; Jordan Thomas 2021)

that we saw very much as capabilities. We didn't feel like we had to choose between these.”²⁰⁷ According to an Air Force colonel in the Air-Sea effort, “Much of the debate about these as ‘competing’ concepts was media hype rather than affecting the operating force. The operating force saw these all as options and arrows in the quiver, without seeing the need to choose one over the other”²⁰⁸ This “competing concepts” frame misunderstood the nature of the Department’s Air-Sea program, and its desire to add relevant capabilities and integration to support a number of different potential campaign designs. To be clear, the public debate was valuable, insofar as it informed American thinking about strategy and warplanning visavis China. Yet, it missed the essence of the Department’s Air-Sea program, in its role to create fundamental—and badly needed—capabilities for operating under A2AD. It instead, understandably, focused on the CSBA concept and its mainland strike campaign. Thus, there was a meaningful distinction between the Air-Sea debate within the Pentagon, and that outside it, which the Department’s program struggled to clarify.

Air-Sea’s Troubled Strategic Communications

The public debate, and attendant conflation with the CSBA concept, created two significant problems for the Department’s Air-Sea program. The CDG, already shorthanded given their expansive duties, saw increasing staff time devoted to reacting to critiques of the CSBA concept and concerns over escalatory approaches to China.²⁰⁹ To quote one CDG member, the CSBA concept was “the antithesis of DoD ASB. We did so much to try to overcome the damage done by the CSBA concept.”²¹⁰ More problematically, the program’s opacity and outward similarity to the CSBA report exacerbated a communications problem with no readily apparent solution. Worse than simply not understanding the Department’s Air-Sea Battle program, many external stakeholders mistakenly believed they understood the Air-Sea program—as a classified version of the CSBA strike campaign. There was not, however, a detailed and unclassified Departmental source to inform external stakeholders of the critical differences.

²⁰⁷ (David Ochmanek 2022, 3)

²⁰⁸ (John Callaway 2021, 2)

²⁰⁹ (Jordan Thomas 2021, 2)

²¹⁰ (Interview 28 2022, 9) Bryan Clark, Jordan Thomas, and Vincent Alcazar make similar points.

While the public debate on Air-Sea was therefore relatively disconnected from the Department's internal conversation, scholars and pundits involved were not entirely to blame. Confusion over the concept was, in large part, a result of failures in the Air-Sea communications strategy. This was itself partly a reflection of the White House's aforementioned desire not to antagonize China, which by 2011 was warping American defense discourse about East Asia. To quote RADM McDevitt, "The 'don't antagonize China' position of the Administration complicated our internal thinking and external conversation about ASB. [It] greatly complicated ASB's planning, stakeholder engagement, deterrent value, and communication's strategy."²¹¹ From PACOM's perspective, ADM Swift shared a similar assessment.²¹² An Air Force colonel in the CDG describes, "Taking the word 'China' out cost the program a lot of external credibility. It was so obvious China was part of this, the most mature part of this. Not being able to find a way to say that was very harmful to the credibility of the ASB office."²¹³ Later, in 2014, this would result in the removal of the PACOM senior intelligence officer, when he publicly noted that China was able to conduct a "short, sharp" war with Japan—a rather obvious fact to anyone taking note of Chinese military modernization.²¹⁴ The inability to mention China made it more difficult to defend the Air-Sea program, and to distinguish it from the CSBA concept with which it was so frequently and mistakenly conflated. Contrary to the assertions of its critics, the Department had conducted nuanced discussion, engagement, and wargaming on the strategic dynamics of issues like crisis stability, conflict termination, and mainland strikes regarding China. Yet, how to refute these assertions if one is not allowed to mention China, nor reveal any meaningful detail about the program?

Departmental figures—from the chiefs to the Air-Sea staff—attempted to defend the program in a smattering of articles and testimony. However, the twin shackles of being unable to mention China, and unable to provide any detail on the Department's program, gave them precious little ammunition to do so. Naval leadership remained adamant that communications be tightly controlled, given the twin threats of Chinese espionage and institutional backlash.²¹⁵ Between external restrictions from the policymaking community, internal strictures regarding secrecy, and

²¹¹ (Michael McDevitt 2021, 1)

²¹² (Scott Swift 2022, 7)

²¹³ (Jordan Thomas 3 2021, 5)

²¹⁴ (Larter 2014)

²¹⁵ (Vincent Alcazar 2021)

a lack of sufficient manpower to lead a robust communications effort, the Air-Sea effort did little to defend itself effectively in the public space. In meaningful ways, Air-Sea Battle would fall victim to the same public debate that it engendered.

The result was an “information vacuum,”²¹⁶ and a destructive dissonance between the Department’s classified Air-Sea concept and its public relations. A Joint Staff critic of Air-Sea Battle described the classified concept as “a strong document without rounded edges.”²¹⁷ Yet, the public face of Air-Sea Battle was notable for precisely the opposite reason: its rounded edges, abstract language, and vague parallels to CSBA’s more straightforward work. Air-Sea’s strategic communications were caught in a contradiction. To challenge the orthodoxy, overcome the focus on the current wars, and change the direction of defense funding, Air-Sea Battle needed to broadcast a clear threat and a compelling vision for answering it. This was in fundamental tension with its inability to name China and unwillingness to reveal programmatic details—a tension that Air-Sea Battle would never successfully navigate.

Panetta’s “Endorsement”

Despite the difficulties of Air-Sea Battle’s external communications, internally the concept’s A2AD diagnosis and Air-Sea approach continued to progress. VADM Clingan and LtGen Carlisle briefed Undersecretary Flournoy, who approved of the concept from the highest levels of OSD Policy.²¹⁸ In June 2011, the Secretaries of the Navy and Air Force signed a memo approving the classified concept. The service secretaries submitted the concept to Secretary Gates, fulfilling the directive from his July 2009 memo, one month before Gates would leave office.²¹⁹ Figure 5.1, shared with me from an ASBO officer, documents the submission to Secretary Gates.

Figure 5.1: Memorandum from Secretaries Donley and Mabus to Secretary Gates Regarding Air-Sea Battle²²⁰

²¹⁶ (Jaffe 2012)

²¹⁷ (Interview 36 2022, 4)

²¹⁸ (Phil DuPree 2021, 3)

²¹⁹ (Interview 36 2022, 2)

²²⁰ (Ray Mabus and Michael Donley 2011)



SECRET//NOFORN
(Unclassified upon removal of attachment)
THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000
THE SECRETARY OF THE AIR FORCE
WASHINGTON, D.C. 20330-1670

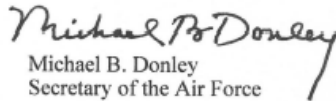
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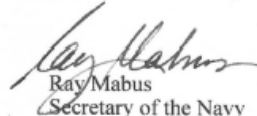
MEMORANDUM FOR SECRETARY OF DEFENSE

SUBJECT: Air-Sea Battle Concept Document and Annexes Approval

In July 2009, you directed the Departments of the Navy and Air Force to address the emerging anti-access area denial (A2/AD) challenge by collaborating on an Air-Sea Battle Concept and the related implementing initiatives. The attached concept and associated annexes provide a rigorously derived way for the Department of the Navy and Department of the Air Force to address the current and future A2/AD threats.

The Air-Sea Battle Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities (DOTMLPF) actions identified in the annexes are addressed to some extent in the President's *Fiscal Year 2012 Budget of the U.S. Government* submission and are informing our POM-13 build. We are putting in place the organization and processes necessary to update the DOTMLPF actions as the A2/AD environment changes, and intend to collaborate closely as we implement the concept.


Michael B. Donley
Secretary of the Air Force


Ray Mabus
Secretary of the Navy

Attachment:
As stated

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(Unclassified upon removal of attachment)

This submission directly to the Secretary, without the inclusion of the Army, increased the Army's level of distrust and anger at the Air-Sea effort.²²¹ By now, the American withdrawal from Iraq was nearing completion. The Army's attention was returning to a broader worldview, and to containing the almost certain drawdown of landpower forces in the wake of that demanding but largely unsuccessful war effort. The major concern was that, if the Department was indeed turning its attention to maritime environments, the traditional "even split" between the services in budgetary allotments could be broken.²²² Unlike the previous shift in American defense attention towards major conventional warfare after a painful counterinsurgency—the Vietnam conflict—there was not a pressing landpower scenario that involved competing great powers. Further, senior leaders in the Army felt that the direct submission to the Secretary, without an opportunity for Army commentary, was a process foul.²²³ The Air-Sea coalition saw this differently, noting that the Secretarial memo launching Air-Sea Battle directed the Navy and Air Force to create the concept and submit it to the Secretary. The Army, they noted, had been invited to participate, but for understandable reasons given the ongoing wars, had declined.

The Air-Sea concept, however, would not receive written Secretarial endorsement. At the end of that same month, June 2011, Secretary Gates would hand over the Department to Leon Panetta as the new Secretary of Defense. I have been unable to interview Secretary Gates, nor find written record of his views on the classified concept. It is possible Gates didn't provide a written endorsement because he wanted to preserve Panetta's decision space on the direction he wished to take the Department. It is possible that the Army and Joint Staff's resistance to the project, and thus the internal politics Panetta would have to navigate, influenced this decision. It is possible Gates did not fully approve of the Air-Sea concept. That said, rather than sign the concept himself, Gates included the Air-Sea materials in his handover to Panetta with his support.²²⁴ Panetta relates from our interview, "Because he was from the intelligence community, Gates used to have luncheons at the Department that included various intel officials, including myself (NOTE: when Panetta was Director of the CIA). We would talk about threats, important areas of focus, this included a focus on China. We discussed what we needed to be concerned about regarding China and A2AD....When I joined Department, he (Gates) summarized these concerns

²²¹ (Interview 33 2022, 9)

²²² (Interview 33 2022; Jeff Hannon 2022; Interview 53 2022)

²²³ (William Hix 2022, 3–4); (Interview 33 2022, 9)

²²⁴ (Vincent Alcazar 2021, 7–9)

from our previous conversations, particularly regarding Air-Sea Battle and the Pacific. At the same time, we were strongly focused on Iraq and Afghanistan. But, yes, there was a handover discussion of China and Air-Sea Battle.”²²⁵ That Gates transferred Air-Sea Battle suggests he at least partially approved of it; the submission of the classified concept and Secretarial transition created a convenient time for Gates to sunset the Air-Sea effort, rather than pass it on to his successor.

After transitioning into the Office, Panetta’s first major task was to help navigate withdrawal of American forces from Iraq. In addition to its staggering organizational and operational aspects, the withdrawal was politically mercurial and difficult, both domestically and regarding Baghdad.²²⁶ By October of 2011, with the Iraq withdrawal concluding, Panetta “endorsed” the Air-Sea concept.²²⁷ This requires some explanation. Rather than writing a memo approving the concept, Panetta verbally related to the Air Force and Navy that he had read the concept, approved of the work, and directed the Air Force and Navy to continue its development.²²⁸ Panetta explains, “I obviously spent a lot of time with the Chiefs and the Chairman discussing our approach to the Pacific, including our Air-Sea effort, and the importance of maintaining it. I was very aware of the Air-Sea effort as part of our approach to national security. There was, actually, a great deal of oversight. You couldn’t put a budget together during this period without talking a great deal about the Air-Sea effort.”²²⁹

Secretary Panetta’s motivation for a verbal endorsement, rather than written, remains less than perfectly clear. It is possible that he was focused on Iraq and Afghanistan, or other aspects of taking command of the Department, and verbally approving the Air-Sea effort rather than crafting a written response saved time. Similarly, it is possible that he wanted more time to develop his approach to China and East Asia before making a more concrete declaration of support. Secretary Panetta had a reputation as a consummate political actor and consensus builder. Further, under his tenure, he would ask the Army for significant cuts in end strength and budget. It is thus possible that, in light of the coming cuts to the Army and interservice tensions surrounding Air-Sea Battle, he opted to “endorse” the Air-Sea work, rather than either stop the work or make a

²²⁵ (Leon Panetta 2022)

²²⁶ (Brennan 2014)

²²⁷ (Dupree and Thomas 2012b, 1)

²²⁸ (Leon Panetta 2022; Vincent Alcazar 2021)

²²⁹ (Leon Panetta 2022)

more muscular support for it. In this sense, a verbal endorsement represents a compromise and hedge, rather than coming down forcefully on either side.

Panetta's endorsement opened a new period of Air-Sea's history. Alongside the endorsement, as detailed in the following chapter, the Navy and Air Force would expand the effort by transitioning the Concept Development Group into a broader "Air-Sea Battle Office." The interaction with PACOM would continue to grow, including substantial exercise activity. Institutional resistance would grow alongside, bringing the questions of Air-Sea's "multiservice" nature, and deeper questions of the meaning of jointness within the American military, into sharp relief.

Conclusions

This chapter covered the critical two-year period of Air-Sea Battle's rise. Several points stand out. First, Air-Sea rise during this period does not reflect the "structural inattention" and poor tether to strategy claimed by Etzioni and other scholarly critics. Regarding senior review, the concept was directed by Secretary Gates, endorsed by Secretary Panetta, and included in the QDR process, one of the highest profile documents the Department produces. Further, the concept was briefed to the highest levels of OSD Policy, and had interactions with Policy throughout its development. CAPE and ONA were also involved. The historical record hardly reflects a lack of civilian engagement and oversight.

Regarding early Air-Sea's relationship to American strategy, a Pacific strategy existed during this period, led by ADM Willard and coordinated at the Secretarial level. As Willard emphasizes, Air-Sea Battle directly supported that strategy. Further, the Air-Sea effort wrestled with strategic matters internally, and engaged on these questions externally with OSD Policy, academics, and the think tank community. These efforts produced a concept that was more nuanced and conservative than its scholarly critics allow. In sum, the Department's Air-Sea Battle program was neither developed in isolation nor disconnected from broader American Pacific strategy.

Further, the Department's effort and concept were quite distinct from CSBA—in content, in focus, and in strategic considerations. This includes being distinct organizationally; the Department's program was far from a case of ONA or CSBA alumni forcing their concepts on a

recalcitrant military. Had Roughead or Schwartz wanted to, the effort provided multiple avenues for slow rolling, creating a prima facie effort, or flipping the effort into a justification for the existing POM. Indeed, given the substantial forces of inertia that the effort would face, the effort simply would not have existed without the simultaneous support of both chiefs, and a historically remarkable degree of institutional trust between them. Instead, the period sees a substantial institutional investment in Air-Sea Battle's development and socialization, both within the air and naval services, and to external stakeholders.

Etzioni's critique of Air-Sea Battle as insular is correct and valuable insofar as the program's closely guarded tactical and programmatic details. Similarly, the Department's anodyne public descriptions of its Air-Sea program revealed little about its nature. This contributed to the incorrect—but damaging and widely-held—assumption that there few meaningful differences between it and the CSBA concept. Both aspects of its external communications hurt the program during this period; they would continue to do so until the program's conclusion. These aspects are not, however, the aspects of Air-Sea Battle Etzioni critiques or claims were not subject to adequate review. The major questions of deterrence, crisis stability, escalation, and war termination were robustly debated within the program, within the Department, within PACOM, and in a sizable public debate.

The Air-Sea movement accomplished several significant tasks during this period. It successfully hastened American attention towards China's rise, and its military unpreparedness. It did so despite the headwinds of two ongoing wars, which diverted leadership attention and might have otherwise put off recognition of China's challenge for several more years. It initiated a deeper institutional relationship between the Navy and Air Force. It highlighted the need for operational integration, and generated capabilities and concepts for answering A2AD challenges. It helped move the Department off capabilities that would be less germane for the A2AD world, while helping expand investments like the B-21 and autonomous vehicles that proved prescient.

The period was not, however, without shortcomings. In the face of budgetary tightening, outside of a few key investments, it did not make significant and lasting changes to the POM. This proved a serious limit on its ability to foster near-term disruptive innovation. As noted, its strategic communications effort largely backfired, generating powerful antibodies within and outside the Department. The program faced and stoked serious organizational rivalries, which would harry it to its conclusion. Most significantly, the program revealed competing visions of jointness within

the American military, which would later come to a head (see the following chapter). These competing visions raised doubts of whether domains could be prioritized in an institutional environment where services could not. Each of these headwinds would grow in strength, as the new Air-Sea Battle Office sought to push to concept past its founding chiefs and deeper into the fabric of the American military.

In sum, several of the two services' institutional actions suggest the Department's Air-Sea initiative was not a pro-forma effort. Pro-forma efforts do not take on fights within their services, issue POM reclaims, force SAP sharing, share mission space between competing services, and announce new yardsticks for POM submissions. The existence, or degree, of all of these actions is rare. Roughead and Schwartz were sincere about changing their services towards a new vision of future warfare, as future fights would further evidence (see the following chapters). Yet, as ambitious as these changes were, they also demonstrate the distance between the Department's more circumspect Air-Sea vision and the CSBA concept. The services do not appear to have sought the significant amounts of penetrating, loitering strike that would be required to prosecute CSBA's blinding and suppression campaigns. Scholars who derived exceptionally high budgetary expenses for Air-Sea Battle did so by extrapolating the demands of CSBA concept's mainland strike campaigns, rather than examining the Department's program (or, arguably, engaging fairly with the CSBA concept).²³⁰ The Department's Air-Sea vision was disruptive, but also less escalatory, more inclusive of strategic issues, and more fiscally realistic.

²³⁰ (Etzioni 2016b, 180)

CHAPTER SIX: THE INFLECTION POINT, NOVEMBER 2011- MAY 2013

Shifting Tides in American Defense

Even as Panetta was endorsing the Air-Sea Battle concept, the American Pacific vision and Air-Sea effort would begin facing a series of significant challenges. In relatively quick succession, leadership changes across the Air Force, Navy, and PACOM; the “Pacific Pivot”; Sequestration, and the Russian seizure of Crimea would shape the American approach to future warfare. Alongside them, Washington would watch the Arab Spring turn sour, and withdraw from Iraq only to witness the rise of the Islamic State. American forces would re-enter the country they had just departed, while Afghanistan persisted in its perpetual bardo. Internally, the Pentagon would witness a more serious effort by the Joint Staff and Army to ensure an egalitarian approach to future maritime conflict. Conditions for a disruptive Air-Sea innovation were darkening.

Standing Up the New “Air-Sea Battle Office”

At roughly the same time as Secretary Panetta’s endorsement, a memorandum between the Departments of the Air Force and Navy transitioned the Concept Development Group into a new Air-Sea Battle Office (ASBO). This was initiated by the services themselves, rather than directed by Panetta, with a goal of “implementing” the Air-Sea concept.¹ This expanded the effort slightly, but more importantly, changed its organizational character.

The ASBO would consist of six Navy officers (led by a captain), six Air Force (led by a colonel), and two billets from the Marines.² In the spring of 2012, the Army would have two billets as well, as it joined the ASBO. In practice, the landpower services would send one colonel apiece.³ The ASBO also took on a different command structure from the previous CDG.⁴ The effort was now led by a single commander, which would rotate between the Navy and Air Force. Of note, the Marines and Army were offered the leadership chair, but declined.⁵ The ASBO would then report

¹ (Interview 36 2022)

² (Interview 36 2022)

³ (Vincent Alcazar 2 2022)

⁴ (Phil DuPree 2021)

⁵ (Interview 28 2022)

through a series of combined general/flag officer steering groups at the one, two, and three star levels, drawn from their services' 3/5 equivalent.

Compared with the CDG, the ASBO featured two significant institutional differences. First, while still driven by the Air Force and Navy, the effort had become both more joint and more bureaucratized, adding layers of oversight. Second, both more importantly and more subtly, the Department's Air-Sea effort had transitioned from being a wholly internal effort *within* the Air Force and Navy, to an *external* office with multiservice representation. While this broadened the effort, as the Air-Sea effort left the relative Title 10 protection of its parent services, it also made it easier for critics to attack it. Bob Work notes, "The office...made the Services feel like they were being forced by OSD. When the ASBO stood up, I said, 'That's not how they did it in AirLand Battle.' Once you get two service chiefs pushing one concept, things start going...Having an office—as opposed to having an agenda item between the chiefs—also made ASB more vulnerable. It gave opponents a target, which could be attacked, modified, or pressed for inclusion, in a way that an agenda item between two independent service chiefs could not."⁶

The head of the ASBO, CAPT (later RADM) Gregory Harris describes the duties of the ASBO as three primary efforts.⁷ Roughly half of the ASBO's effort was spent socializing an ever-widening set of operational stakeholders to the A2AD challenge and Air-Sea solution. This included updating stakeholders on the current concept, and soliciting inputs on how the concept should be applied and/or modified regarding their warfighting area. As detailed below, it also consisted of finding opportunities for joint training, exercises, wargaming, and familiarization. These served to test the concept, refine it, and to facilitate the Air-Sea's vision of greater service integration. Second, constituting roughly a quarter of the effort, the ASBO continued its work on rationalizing and integrating acquisition programs. This included attempt to expand a shared list of Air-Sea priorities for the POM. For reasons already discussed, this required a good bit of diplomacy; while it increased POM transparency between the Air Force and Navy, full transparency was never achieved.⁸ Much of this effort was focused on effects chains—specific Chinese A2AD systems and potential US counters—that drove the heavy classification and limited access to the details of the Air-Sea effort.⁹ Third and finally, another quarter of the effort—and

⁶ (Robert Work 2021)

⁷ (Gregory Harris 2022)

⁸ (Interview 30 2022)

⁹ (Jordan Thomas 3 2021)

at times more—was spent reacting to the growing Air-Sea debates in the open press. This included prepping the Chiefs for inquiries from government, congressional, or departmental stakeholders who would continue to conflate the CSBA concept and DoD program. On top of these duties, the ASBO continued to revise the classified concept. These revisions were based on the aforementioned outreach efforts, and a steady regime of wargaming across departmental venues. While valuable (see below), these wargames perforce disrupted the work of ASBO officers as, in addition to participation, the games required considerable planning, analyzing, and debriefing.¹⁰

Participation in the ASBO marked the Army’s initial substantive interaction with the Air-Sea Battle effort, albeit less than robust. Echoing a commonly held view, one officer notes, “The USMC really showed up to work and contribute. The Army participated so that, basically, they would have a spy in the room.”¹¹ Army participation in the ASBO was part time. As I document below, the Army’s reaction to Air-Sea Battle was driven by its overriding concerns about end strength reductions, and its concordant effort to justify large landpower formations (principally Brigade Combat Teams or “BCTs”). These overarching concerns would drive the Army’s approach to the concept—joining the ASBO while simultaneously criticizing the effort as wrong-headed—as well as the ideas it suggested within Air-Sea Battle.

New Leadership, Old Problems

By mid-2012, the Department and wider defense community was beginning to have a more serious and sustained conversation about China’s rise, A2AD, and America’s relative unpreparedness.¹² Yet, nowhere were the challenges of shifting Defense priorities towards these challenges starker than in Central Command, which continued to advertise the difficulties associated with de-emphasizing landpower and the Middle East. Just as Secretary Panetta was endorsing Air-Sea Battle, Middle Eastern instability would reach an inflection point in the wake of the late 2011 US withdrawal from Iraq. By early 2012, the Arab Spring movement was rearranging Mideast politics. Rulers had been forced out in four countries, and civil uprisings or major protests had erupted in another nine, including in several longstanding US allies.¹³ Simultaneously, the US withdrawal

¹⁰ (John Callaway 2021)

¹¹ (Interview 30 2022) Several interviews echo a similar point: (Norton Schwartz 2022; Interview 28 2022; Interview 47 2022)

¹² Note the publication data trends in Chapter 7

¹³ See (Feldman 2021)

from Iraq looked unsteady, and would prove untenable over the next three years, as ISIS demanded headlines for overturning both Iraq and modern standards of civilized living. By spring 2012, it was becoming clear the Arab Spring in Syria was metastasizing into a growing civil war.

The inability to stabilize matters in CENTCOM—a “strategic cul-de-sac,” to quote Bob Work—would continue to argue against the prioritization demanded by the scale and strategic significance of China’s rise.¹⁴ It would also create rationales for both CENTCOM and the landpower services to argue for resources and leadership attention, with an immediacy that the China challenge could not match. While China was more strategically important, the Middle East was ever urgent. Until the 2018 National Defense Strategy, the Department persisted in the argument that it could simultaneously manage both—perpetuating the strategy-resource gap that, in practice, had undercut attempts by several administrations to focus the US on East Asia.¹⁵ There remained a sizable portion of the Department which viewed China as a “future threat”—a vision that was not commensurate with either China’s rapid military modernization, US operational unpreparedness, and the strategic gravity of their intersection.¹⁶

Like Secretary Gates, Panetta’s memoirs suggest the strategic import of China’s rise remained far from central in his focus. Panetta’s memoirs mention Iraq 84 times, Iran 27, and China 23—falling below Korea at 35.¹⁷ The only line that suggests China’s importance is that “the US-China relationship will do much to shape the future of the Pacific and the world.”¹⁸ Yet, taken as a whole, one gets the sense of Panetta focused on managing important day-to-day interactions with the Chinese, but less on strategically preparing for, or altering, the course of the Pacific picture. While this reflects the Administration’s zeitgeist to not antagonize Beijing, there is nothing in the memoir to suggest the immediacy or serious strategic challenges associated with China’s rise. Like Gates, Panetta appears to view China as a future problem, framing China as one of a larger set of “challenges we could see forming on the horizon.” Regarding these challenges, reflecting the immense pressures facing the Department, he revealingly asks, “How then to respond to those challenges while also cutting spending?”¹⁹

¹⁴ (Robert Work 2021)

¹⁵ (Green 2017)

¹⁶ (David Ochmanek 2022)

¹⁷ (Panetta 2015)

¹⁸ (Panetta 2015, 443)

¹⁹ (Panetta 2015, 377)

New Naval Leadership

Forging a deeper and sustained focus on China’s rise, in the context of a perpetually unstable Middle East, divided leadership attention, and darkening budget picture would have required Herculean institutional efforts. To do so, American defense leaders would have to demand and justify painful decisions from the highest levels of American civilian leadership. Roughead, Schwartz, and Willard had, from their respective positions, pursued such an approach to China with the zeal of founders, initiating new and uphill efforts. Starting in late 2011, in relatively quick succession, they would rotate out of their leadership positions. Their replacements—Greenert, Welsh, and Locklear respectively—would not share the same passion for the Air-Sea vision as their predecessors. Nor would they share the historically rare personal bonds and trust that allowed Roughead and Schwartz to align their respective services strongly behind a shared effort. This is not, in itself, a critique of this new set of leaders. Further, as Gen Schwartz points out, chiefs of services operate under bounded rationality—they can only pursue a few “silver bullets” for their organization during their tenure. They must pick those carefully, investing their resources where they believe they can find success.²⁰ Yet, the relative unity of vision seen in early Air-Sea Battle would not survive these leadership transitions. Without such unity and energy, the Air-Sea Battle program would itself not survive the considerable and mounting headwinds—budgetary, geopolitical, and institutional—of 2012-2015.

These seminal changes began with the passing of the Navy from ADM Roughead to ADM Jonathan Greenert in September 2011. The consequences of this change would not be immediately apparent, as in the next month the Air-Sea effort would establish the ASBO and receive its Secretarial endorsement. It would also take time for Greenert to assemble his team and articulate his vision. Yet, there were initial signs. Gen Schwartz describes:

“The Air-Sea effort was a product of the relationship between the CNO and CSAF of the moment. ADM Greenert, for his own reasons, didn’t have the same commitment to ASB that Gary [Roughead] did. You have to remember that both ADM Roughead and I were Pacific Players. Jon Greenert didn’t seem to share that in equal measure. This was not one of his priorities when he came on board. I’m

²⁰ (Norton Schwartz 2 2022)

not being critical; he's the chief, and it's his prerogative. He didn't see ASB as high a priority as ADM Roughead did."²¹

Another Navy admiral agrees, noting Greenert—a submariner—brought a keen sense of the vulnerability of surface ships under A2AD, contrasted with the relative protection and efficacy of submarines.²² In this sense, his operational experience and approach was perhaps closer to that of a pure Maritime Denial. ADM Swift relates that, in addition to his considerable operational bona fides, “ADM Greenert was a budget guy, with deep experience there...clear eyed, pragmatic. ‘How do I get this budget all the way across the goal line, all the way through Congress?’...Greenert would have a hard time pushing a big POM change through at that time. And, Greenert largely knew it.”²³ American navalist Bryan McGrath also observes, “ADM Greenert took over as CNO with a different set of ideas. He was getting strong pressure from the administration to stay away from China hype and China heat. Air-Sea Battle wasn't his main area of interest. Simultaneously, the Administration felt like we must do this much more quietly.”²⁴ While not clear in late 2011, Greenert's subtle de-emphasis of Air-Sea would mark the inflection point in Air-Sea's internal strength, just as external conditions were darkening. This inflection point marks the particular role, noted in the theoretical lens and Rosen's scholarship, that senior military leaders play in military change movements.

Budget Control Act and Sequestration

As Greenert was taking over the American Navy, the budgetary impacts of the 2011 Budget Control Act (BCA) were also making first landfall. The 2012 budget would be cut by almost \$29 billion, with deeper cuts coming. While these impacts are well-documented elsewhere,²⁵ for efforts like Air-Sea Battle, they also held devastating institutional effects: diverting leadership and staff attention; generating uncertainty and attendant conservative fiscal decisionmaking; and forcing binary choices between current readiness and future investment. Regarding Air-Sea Battle, the

²¹ (Norton Schwartz 2022) Note that regarding Pacific experience, ADM Greenert had been 7th Fleet Commander, one of the military's most important positions in East Asia.

²² (Interview 3 2021)

²³ (Scott Swift 2022)

²⁴ (Bryan McGrath 2021)

²⁵ (Eaglen 2014)

BCA cuts and sequestration largely destroyed the Department’s appetite for innovation for at least three critical years (arguably more), while catalyzing Air-Sea’s interservice rivalries. The Air-Sea Battle program, as an attempt at near-term disruptive innovation, would never recover.

Most concretely, the combination of the 2011 BCA cuts and 2013 sequestration destroyed the budgetary space and breathing room for a significant innovation effort. Secretary Panetta describes, understatedly: “The BCA and sequestration were central to undercutting Air-Sea Battle. The constant threat of unpredictable budgets, combined with the continuing resolutions, undercut the kind of budgetary stability we needed to maximally pursue the Air-Sea effort... We literally could not conduct any kind of Air-Sea effort, unless we invested in systems, and in posture. We considered cutting back on a carrier, and after deep consideration, including consideration of Air-Sea Battle, thought the better of it.”²⁶ Sequestration’s sudden onset, a lack of deep Departmental preparation (see below), the demands of the Afghan war, and the growing instability of the Middle East all pointed towards preserving current readiness, and accepting risk in the “future force”—even if that future force was, in fact, needed in the short term. Continuing to envision China’s military rise as a future problem, while inaccurate, continued to make institutional sense for a Department that was heavy on ambitions, but becoming even lighter in resources.

Deepening the Wedge between Resources and Strategy

As introduced briefly in Chapter Two, much of sequestration’s broader impact is captured by Ochmanek’s concept of a “resource strategy gap.”²⁷ In this view, despite massive budgets, the nation’s defense strategy remains steadfastly more ambitious than the budget can support. This has echoes with Paul Kennedy’s historical work, suggesting that great powers’ strategic ambitions prove less elastic than their relative power. When a great power’s relative strength wanes, the result is a dangerous gap between a great power’s strategic ambitions and power, which proves difficult for it to acknowledge.²⁸ Indeed, Chapter Two described, during much of modern American military history, demand for military forces greatly outpaced supply, marked by a steady departure from the “two war standard.”²⁹ The results were—*are*—both strategic risk and

²⁶ (Leon Panetta 2022)

²⁷ (Ochmanek ... Warner 2015) For a more recent version, see (Bonds ... Norton 2019)

²⁸ (Kennedy 2010)

²⁹ (Kagan 2007) For a rich historical treatment of the two war standard, see (Mitre 2018)

consistent downward pressure on investment in innovation. Thus, as Barber notes, “distribution of risk” is one of the Department’s primary strategic activities: given that all areas identified by the strategy cannot be funded, leaders debate over where to “park risk” to preserve truly critical investments.³⁰ This tends towards a short-term bias; under conditions of relative scarcity, facing an acute risk during their tenure versus longer-term investment needs, acute risks will tend to win investment.³¹ This model goes far in understanding the Department’s consistent tension during this period between a stated desire to shift towards the Pacific, and consistent choices to remain engaged in the Middle East.

In this context, the BCA and sequestration cuts significantly amplified the existing American resource-strategy gap. Like all disruptive innovations, Air-Sea Battle already faced heady institutional, budgetary, and cultural barriers—particularly as a minority voice in a Department engaged in, and losing, two concurrent wars. Sequestration cast such futurist innovation efforts, necessarily risky when compared to orthodox investments, in a new light. More specifically, it removed the option of investing in current demands in the Middle East, while simultaneously innovating towards a Pacific future that, in many respects, had already arrived. The Department would take a predominantly “status quo” approach to BCA cuts, cutting budgets rather evenly across the military, rather than prioritizing towards any particular area—including capabilities to counter China’s rise.³² This decision—contradictory, given simultaneous Presidential assurances that forces for the Pacific would be prioritized—further underscores the culturally egalitarian nature of American jointness. In the end, cutting budgets evenly made great institutional sense. It avoided fights, preserved cultural cohesion, hedged risk, and avoided a rift between OSD and any service. The only problem was that it did not make sense strategically. Despite Presidential emphasis on the strategic primacy of the Pacific (see below), sequestration would ensure, in practice, that little changed.

Interviews with senior leaders illustrate the inner workings of BCA cuts and sequestration within the Department. To quote General Schwartz, “It was desperation. We were in the middle of two wars, losing kids on the battlefield daily, and we lost \$20B, something like that. We were struggling. Sequestration meant a lot of cuts, everywhere, to support the wars while absorbing the financial

³⁰ (Trip Barber 2022)

³¹ For an outstanding review of Defense risk management, see (Mazarr 2016)

³² (Singer, n.d.)

losses.”³³ As Bob Work relates, “Air-Sea Battle would have required some advanced systems, increases in R&D, increases in procurement. Once sequestration hit, there was no way to maintain the force, win the wars, and invest in disruptive technologies, all simultaneously.” In a similar vein, RADM McDevitt notes, “Sequestration forced people to keep building existing systems rather than the riskier investments of innovation. Not much money or confidence in ‘new starts,’ new programs. [For example, it] pushed the B-21 way back.”³⁴ Bryan Clark notes the effect sequestration would have on the trajectory of the Air-Sea effort: “The Secretary and OSD wanted to continue focusing on shorter range systems that were more useful in the wars. Because of the wars and sequestration, we weren’t changing the POM much. The idea of bleeding off money from the current wars to focus on new systems and approaches just didn’t have senior support. The wars really set the vision on the POM force, which then ASB just had to accept and work with.”³⁵ From within the Air-Sea Battle Office one officer noted, “Sequestration largely capped the potential for ASB to be a disruptive program to the POM. Still, the ASB ideas had merit as better ways to employ, position, train, and refine the POM’d force.”³⁶ As a result of sequestration, Air-Sea would move towards a more sustaining approach—how to better align the existing force, and identifying only the most pressing and safe innovations for investment.

Less appreciated than the raw budgetary impact was the degree to which both the 2011 BCA cuts and 2013 sequestration surprised the Department, which was unprepared. This included the Secretary himself. According to Work, the 2011 BCA cut was a “was a *big* surprise to Secretary Gates. He thought that if we demonstrated to [the President] and Congress before 2011 that we were serious about addressing the budget, through a big budget drill, they could get around it. He thought he had agreement from President Obama that DoD would be protected. He was angry. He felt betrayed by sequestration.”³⁷ For much of the American military, the threat of deep cuts had seemed more rhetorical than real. Such a move seemed so astrategic—out of tune with a nation and military that was both fighting a war and waking up to renewed great power competition—that Departmental guidance instructed the services to defer serious budgetary planning for sequestration.³⁸ This was not malfeasance; leaders invested finite staff time towards

³³ (Norton Schwartz 2022)

³⁴ (Michael McDevitt 2021)

³⁵ (Bryan Clark 2022)

³⁶ (Interview 3 2021)

³⁷ (Robert Work 2021)

³⁸ (US Government Accountability Office 2013)

what were considered critical area for national defense, and the possibility of actual sequestration seemed remote. In practice, this meant that after its onset, senior leader and staff time across the Department would have to be pulled off other tasks to shore up the BCA's budgetary and programmatic effects. Air-Sea had already been struggling against Mideast instability and a host of other issues for the Secretary's attention. Now, such investment—of senior leader time, as well as financial capital—was drying up, just as leadership changes mounted in the Navy and Air Force.

Catalyzing Interservice Rivalry

As described below, the BCA and sequestration also amplified interservice rivalry. As one officer in the ASBO noted, “When there was plenty of money in the budget, there wasn't that big of an interservice fight [over Air-Sea Battle]...When money is tight, the fight for dollars is *going to* happen. After sequestration, it did happen, and this stoked interservice rivalry. The services, for understandable reasons, started defending their TOA [budgetary share] and POM...The food fight for money made everyone pull back, and defend what they had. The tighter budget didn't foster an appetite for innovation, it fostered retrenchment and defense.”³⁹

In particular, the Army's fear of a severe contraction was amplified by the signs that a historically significant retrenchment was coming—now not just for landpower, but across American defense. Senior leaders, and Congress, would have to identify the “billpayers” for budget cuts. Further, from an Army perspective, sequestration was supposed to be “impossible.” Now, the impossible had occurred. Other sacred ideas now seemed newly suspect—including the traditional roughly even split in the American defense budget between the three major departments. What if—with China rising, budgets crashing, the President calling for a Pacific Pivot, the Secretary calling for Air-Sea Battle, and two unsuccessful land wars concluding—the longer-term solution for sequestration was a dramatically smaller Army?⁴⁰

In sum, as the remainder of this chapter details, the late 2011 BCA cuts mark an additional inflection point in the Air-Sea Battle movement. The “long shot” potential for disruptive innovation, or even a partially disruptive innovation, proved wholly untenable afterward. The heightened sense of competition over budgets also increased the interservice downsides

³⁹ (Interview 36 2022) Emphasis in original

⁴⁰ (Interview 33 2022)

surrounding Air-Sea, while simultaneously diminishing its near-term innovative potential. One can thus separate an “early” Air-Sea Battle from 2009 through late 2011 that focused on a mix of sustaining and disruptive innovation, and a “late” Air-Sea from 2012-2015 which narrowed to expanding the American conversation on A2AD, and improving the employment of the existing force. Ultimately, the Air-Sea program ended for many reasons—leadership changeover, resurgent instability in the Middle East and Eastern Europe, interservice rivalry, troubled external communications, and competing visions of jointness prominent among them. Sequestration, however, looms large in removing the conditions under which a united Air Force and Navy effort could have convinced the Department to rebalance towards China’s rise in something more than rhetoric.

A Pacific Pivot?

In many ways contradicting both the budget cuts and the status quo way in which they were distributed, the Obama Administration announced in October 2011 a “Pivot to the Pacific.” Due to protests from those being pivoted away from, this would soon be reframed as a Pacific “Rebalance.” Many observers, including the Chinese (see the Appendix), would assume that Air-Sea Battle was the military dimension of this Rebalance. It was not, despite the Administration’s efforts to, at least rhetorically, place Air-Sea under the new Rebalance.

The history of the Rebalance is well documented in other scholarship.⁴¹ Rhetorically, the Obama Administration’s move put Asia first in American strategy for the first time in two centuries.⁴² Secretary of State Clinton promised a rebalance of “substantially increased investment—diplomatic, economic, strategic, and otherwise.”⁴³ Militarily, Secretary Panetta announced an increase of the percentage of the Navy in Asia, from 55% to 60%.⁴⁴ Other military moves were to follow: posture changes, training, capacity building, engagements, and exercises.⁴⁵ More promising still, President Obama noted that any impending cuts to military forces would not come at the

⁴¹ (Tow and Stuart 2014) Much of my treatment of the Pivot draws from (Green 2017)

⁴² (Green 2017, 518–21)

⁴³ (Clinton n.d.)

⁴⁴ (Randy Forbes 2012b)

⁴⁵ (Berteau, Michael J. Green, and Cooper 2014)

expense of American's Pacific focus.⁴⁶ Concordantly, Secretary Panetta's January 2012 Defense Strategic Guidance prioritized developing capabilities for power projection against A2AD threats.⁴⁷ On paper, one could hardly write a better description of the purpose of the Air-Sea effort. America was prioritizing its preparation for great power competition broadly, and Asia specifically.

Yet, the Rebalance—given sequestration, interservice politics, and instability in the Middle East and Eastern Europe—would remain aspirational rather than real. Budgets were falling, and with them, the size and capabilities of US forces. As a tangible example, ship numbers were falling; budgetary projections foresaw a fleet of around 280 ships, far below the 350 ship fleet that informed Navy force design, as recommended by a 2010 Congressional panel.⁴⁸ As Michael Green notes, “60 % of a shrinking fleet was hardly reassuring.”⁴⁹ Despite presidential assurances, the egalitarian nature of the defense cuts directly undercut American capabilities in the Asia-Pacific, both for current readiness and future capability development. American military moves in the Pacific proved underwhelming. The Marines would rotate 2,500 personnel to Darwin, and the Navy would begin rotational basing of small numbers of Littoral Combat Ships—notoriously ill-suited for facing China—to Singapore. Yet, this hardly constituted a national-level strategic rebalancing.⁵⁰ Alongside a modest increase in wargaming and some exercise activity, military aid to the Asia-Pacific saw no substantial increase.⁵¹

For the Navy and the Air Force, despite the alignment with strategy, the Rebalance generated little tangible benefit for the Air-Sea effort. Instead, the Pivot stoked Army fears while creating some policy dissonance with OSD. Clearly, as demonstrated in previous chapters, Air-Sea Battle preceded, and was distinct from, any notion of a Pacific Pivot. Roughead and Schwartz relate, however, that OSD—one could say, by extension, the Administration—wanted to rhetorically leverage Air-Sea as evidence of substance in the Pivot. Roughead notes, “Senior civilian leadership wanted to show ASB as part of the Pivot, as proof that the Pivot was not just rhetorical... as proof we were doing something... There was a lot of pressure to publicize the ASB, to show it as part of the Pivot. When, what we in the USN and USAF were doing was analysis, hard decision

⁴⁶ (“Remarks By President Obama to the Australian Parliament” 2011)

⁴⁷ (Leon Panetta 2012)

⁴⁸ (O'Rourke 2016)

⁴⁹ (Green 2017, 522)

⁵⁰ (“Marine Rotational Force - Darwin” n.d.)

⁵¹ (Green 2017, 523)

making. My view at the time was if want to make Air-Sea Battle an information campaign, that's not where ASB is right now. Both Norty and I refrained from writing about it because we were too busy making it real, making it analytically rigorous."⁵²

Despite the call for a rhetorical linkage, the Administration would offer little of the substantive support that could have proved critical to sustaining the Air-Sea effort, both before the Pivot and after. Gen Schwartz relates, "OSD Policy tried to hijack ASB. They essentially succeeded... I use the pejorative term 'hijack' by intent. We interacted within OSD Policy at very senior levels. It would have been fine for them to use [Air-Sea Battle] as leverage in the larger policy context. But, far more importantly, I would have expected them to be more supportive of substance of Air-Sea, in the ways that they could have manifested: support for force structure, POM related support, R&D, posture, disposition. ASB was much more than a messaging exercise, and we needed it to be supported as such. We could have used some championing, some support. For example, consider the later Pacific Deterrence Initiative. That was long overdue, and was the kind of substantive move that would have helped with ASB when we needed it."⁵³ Schwartz concludes on the rebalance, "OSD Policy was still consumed by current events...It was unfortunate that there weren't voices and sufficient attention available within the Policy community to make the argument not for a 'paper pivot,' but a substantive pivot."⁵⁴

The record of the 2012 Pacific Pivot is thus decidedly mixed. On the one hand, the US belatedly had Presidential level acknowledgement of the centrality of China's rise, and the strategic prioritization that it would demand. The US was beginning to acknowledge, implicitly, that it couldn't meaningfully answer China's rise while continuing a status quo approach everywhere else, let alone doing so while decreasing defense investments. This represented progress. Yet, in other ways, the Rebalance was worse than no pivot at all. The Pivot made it seem like America was reacting to China's rise, rhetorically covering the lack of strategy without actually addressing it. By doing so, arguably, the 2012 Pivot cost the Americans more time, delaying a more substantive national-level reaction that would not begin until the 2018 National Defense Strategy. Reflecting on Air-Sea's relationship with the Pacific Pivot, Roughead notes lessons for American strategy more broadly: "One of our shortcomings is that we'll throw a bumper sticker out there before

⁵² (Gary Roughead 2022)

⁵³ (Norton Schwartz 2022)

⁵⁴ Ibid.

there is any “there there”...That’s very unhealthy. Strategies, and the technical means to execute those strategies, should be where we focus.”⁵⁵ The Pivot demonstrates the period’s dissonance between stated strategy—even as stated by the President—and its implementation, both in theater and in the Pentagon. What could have been—and, given rhetoric from the highest levels of the American government, should have been—a decision to prioritize efforts like Air-Sea Battle, proved instead to be overwhelmed by a combination of persistent crises in CENTCOM, shrinking budgets, and a habit of egalitarian jointness amongst the military services. The Pivot also sparked an uptick in interservice politics, particularly regarding the Army.

Interservice Dynamics: The Army and Air-Sea Battle

Colonel Jeff Hannon, serving in the Army’s strategy directorate, describes the Army’s darkening institutional picture in early 2012: “Sequestration and BCA only amplified [our] concern. The reasons are clear: we were coming off two troubled, large land wars. The Secretary echoed many in saying you’d ‘better have your head examined’ to initiate large-scale ground campaigns like that again. China was rising. The 2012 Defense Strategic Guidance was clearly pointing us that direction. We were pivoting to the Pacific. The budget looked to be seriously contracting. All of these pointed in a similar direction for the Army.”⁵⁶ As I document below, these factors spurred Army leadership into an almost myopic focus on maintaining its budget and end strength. This focus would define the Army’s relationship with most of the rest of the Department, PACOM and Air-Sea Battle included. I argue that Army leaders would thus view East Asia instrumentally—as a means of ensuring a large Army for America’s global interests, rather than best advancing American Pacific interests.

While the Army’s approach may appear parochial and cynical, it was driven by a set of sincere and widely held cultural beliefs about American defense. Army stakeholders believed the Department was at risk of fundamentally undervaluing landpower’s importance. As such, the Army would—once again—be too small when the nation demanded its service.⁵⁷ Such manpower cannot be rebuilt quickly when geopolitical events demand, as they did most recently after 2001. In the Army’s view, the inability to quickly build effective units was particularly true for the Army’s major

⁵⁵ Ibid.

⁵⁶ (Jeff Hannon 2022)

⁵⁷ (William Hix 2022)

combat forces, its BCTs, as opposed to its support elements.⁵⁸ These beliefs were buttressed by a widespread Army perception that the chances of war with China were exceedingly small, particularly when compared to the nation’s demonstrated proclivity for land conflict. This perception was, in turn, aided by a consistent Army underestimation of the strategic gravity of China’s rise.⁵⁹

The Army’s concerns were historically grounded, and reflect the persistent gap between strategy and resources referenced earlier. Consider, for example, Army reductions after the last troubled American counterinsurgency in Vietnam, or before the Korean War a generation prior. Unlike those wars, however, no “Fulda Gap” now justified a continued investment in a large Army. Most recently, and more painfully, this generation of Army leaders remembered OSD overruling the Army chief in 2003, arguing that technology would replace sizable land forces for the invasion of Iraq. They remembered going to war with too small a force, and seeing the bloody effects on their units and missions when that approach failed. As they became general officers, they were now writing letters to the parents and spouses of lost soldiers, as the Army continued to pay the bill for that mistake. Army leaders were committed to not repeating it. General Schwartz notes this sincerity of belief in his interactions with General Ray Odierno, the Army’s Chief. Odierno’s Army was losing soldiers almost daily, and contemplating cuts he believed would cost future soldiers’ lives, while endangering American success in future conflict.⁶⁰

Odierno’s tenure as Army chief was thus driven by a relatively singular focus of protecting the Army from dramatic cuts.⁶¹ He emphasized three numbers: the Army’s budget, end strength, and number of BCTs. To quote Hannon, “...Odierno’s message was ‘Change is coming; we need to push back at every turn.’ Additionally, I believe that some of the greybeards were telling General O, ‘Don’t let the Army shrink—you’ll never get those forces back.’ Air-Sea Battle, with its reliance on technology...was an unfortunate target of this Army institutional strategy in 2011 and 2012, and then the BCA and sequestration amped that pressure up considerably. This led to an approach that, in my estimation, amounted to, ‘The answer is 78 BCTs. What’s your question?’...The BCT became the coin of the realm.”⁶² The Army’s sense of threat from Air-Sea Battle grew

⁵⁸ (Interview 53 2022) (William Hix 2022)

⁵⁹ (Interview 53 2022)

⁶⁰ (Norton Schwartz 3, n.d.)

⁶¹ (Jeff Hannon 2022; Interview 53 2022)

⁶² (Jeff Hannon 2022)

precipitously after the Pivot and Secretary Panetta’s endorsement, which—according to Major General Bill Hix, Army 3/5/7 during this period—was viewed as both a serious budgetary threat and process foul.⁶³ Observing an internal Army meeting, one veteran defense reporter describes, “..no issue aroused more passion and anxiety than AirSea Battle. The collective attitude was an intriguing mix of envy and skepticism...”⁶⁴

For this combination of institutional reasons, the Army would not accept a supporting role in American Pacific strategy. It would, instead, make rather exceptional arguments to try to forge a role for large landpower forces in East Asia.⁶⁵ Here, the two competing visions of “jointness”—one placing primacy on battlefield effectiveness, the other on institutional equities—were on full display. The Air-Sea effort and PACOM acknowledged a role for landpower in the concept and in an A2AD fight, but saw that as a supporting role, emphasizing Army support units.⁶⁶ Multiple interviews with Army and Joint Staff stakeholders critique this approach—the prioritization of air and naval forces for a maritime theater—as “narrow,” and insufficiently joint.⁶⁷ The Army’s efforts to create roles for BCTs, in turn, spurred Navy and Air Force belief that the Army’s Pacific vision had little to do with operational realities, but was instead both parochial and discordant with national-level direction.⁶⁸ Moreover, the previous decade had rightly seen a prioritization of the Army, in contrast to joint egalitarianism and in keeping with the strategic demands of the time. Now that national attention was turning to maritime affairs, the Army’s call for “equal inclusion” as a principle of jointness seemed hollow. In a similar vein, Air-Sea members viewed the consistent Joint Staff calls for equal Army voice as reflecting not a cogent analysis of the Pacific operating environment, but rather a cultural belief in “jointness for jointness’s sake,” and a fear that Air-Sea Battle was making the Joint Staff concept development process look irrelevant.⁶⁹ To quote one senior officer, “The Army wanted to stop it, and the Joint Staff wanted to own it.”⁷⁰

⁶³ (William Hix 2022; Interview 33 2022; Interview 36 2022)

⁶⁴ (Sydney Freedberg 2012b)

⁶⁵ (Vincent Alcazar 2021; Jeff Hannon 2022; Interview 53 2022)

⁶⁶ (Phil DuPree 2021; John Callaway 2021; Vincent Alcazar 2 2022)

⁶⁷ (Interview 32 2022; Interview 33 2022; Interview 35 2022; William Hix 2022)

⁶⁸ (Jordan Thomas 2021; Vincent Alcazar 2021; Interview 45 2022; Interview 3 2021)

⁶⁹ (Gary Roughead 2022; Bryan Clark 2022; Gregory Harris 2022; Vincent Alcazar 2021)

⁷⁰ (Interview 28 2022)

Press reporting suggests the Army's sense of angst, and how it "mounted offensives against the concept."⁷¹ Taken as whole, the Army's actions stand as an example of how contemporary American interservice competition takes place in practice. They also demonstrate the depth and breadth of Army resistance to Air-Sea Battle. Hix and Hannon separately describe a four-pronged Army institutional strategy:⁷²

- Push Air-Sea Battle into the Joint Staff process through DoD fora. This was the Army's sustained, primary response to ASB.
- Join the ASBO and attempt to influence it. Find roles for BCTs and ensure no undue substitution of technology for manpower;
- Broaden the Department's A2AD conversation to include land warfare;
- Launch competing concepts that emphasize the need for robust landpower (e.g. Strategic Landpower generally, Gaining and Maintaining Access for A2AD).

The principal Army mechanism for this institutional strategy was candid disagreement in the senior meetings of the Joint Chiefs of Staff. These consist of "Tanks" (wherein the Chairman and Chiefs meet, typically alone), "Executive Committees" (only the Chiefs), and in "Ops Deps" meetings (Vice Chiefs or 3/5s). In these fora, joint issues are debated between the service's senior leadership; herein the Army would consistently hammer the message of Air-Sea Battle's lack of inclusivity and underestimation of landpower.⁷³ These senior conversations regarding Air-Sea Battle were professional and respectful disagreements among senior military officers, even if candid and heated in the exchange of views.⁷⁴ General Schwartz describes these meetings: "ADM Mullen, as [Chairman], had a rule for everyone around the table at the Tank... We can, and should, discuss directly and frankly in the Tank, and disagree. But no knife fights in public. We were all loyal to that..."⁷⁵ Schwartz and Roughead empathized with Odierno's position, reflecting the ideas

⁷¹ (Jaffe 2012) See also (Schanz 2013; Perry 2015b)

⁷² (William Hix 2022; Jeff Hannon 2022; Interview 53 2022) Note that Hix does not comment on BCTs specifically.

⁷³ (Jeff Hannon 2022; Interview 53 2022; Interview 28 2022)

⁷⁴ (Norton Schwartz 2022)

⁷⁵ (Norton Schwartz 2 2022)

of a resource strategy gap—that the landpower forces were indeed being cut too small for their mission, but that the Pacific picture was more dire still.⁷⁶

The Army would also pursue this strategy in other important Departmental fora: the Deputy Secretary’s “DAWG” and “DMAG” management meetings; OSD forums (e.g. Support for Strategic Analysis and CAPE Program Review); Joint POM development sessions; and inputs to the Chairman’s Risk Assessment and QDR.⁷⁷ General Hix relates, “There was a lot of ‘coming off the top turnbuckle’ as resources were potentially challenged given that an ASB program office was opened. Sometimes this got heated.”⁷⁸ In many of these forums, the Army appears to have employed an institutional “step down” tactic. According to one junior GO/FO officer, “They [the Army] would send a rank below meetings—sending an SES instead of a general, sending the Vice instead of the Chief [to the Chiefs’ ASB review]. You could never really talk to the Army’s real decisionmakers; they were firewalled off by sending deputies or a rank down...The Army representative would then repeat, vociferously, that this needed to be in the Joint Staff process. The Army would then fight on who wrote the concept, on what the name was, on whether it infringed on other existing concepts, etc.”⁷⁹

The Army also conducted external outreach regarding Air-Sea Battle. Army leaders and intellectuals—including H.R. McMaster—would write a series of articles in the open press, often with implied critiques of the Air-Sea concept’s substitution of technology for manpower.⁸⁰ To be clear, this is not nefarious; the purpose of such discourse is to exchange competing ideas. Navy stakeholders assume, given the stakes involved for the Army, that it also communicated its viewpoint directly to Congressional members with Army equities.⁸¹ Congressional members would, indeed, critique Air-Sea for not being sufficiently joint, and for being duplicative with Joint Staff processes; these would result in a 2014 GAO review of the level of inclusion for the Army and Marine Corps in the Department’s response to A2AD.⁸² Regarding Congress, perhaps most interestingly, an Army general would, despite not being on the witness list, muscle into to a 2013

⁷⁶ This reflects my summary of the general tenor of my conversations with Gen Schwartz and ADM Roughead, rather than a direct quote.

⁷⁷ (Jeff Hannon 2022)

⁷⁸ (William Hix 2022)

⁷⁹ (Interview 45 2022; Interview 28 2022)

⁸⁰ (H.R. McMaster 2013)

⁸¹ (Bryan McGrath 2021)

⁸² (Keck n.d.; “DOD Needs Specific Measures and Milestones to Gauge Progress of Preparations for Operational Access Challenges” 2014)

House Seapower subcommittee meeting on Air-Sea.⁸³ The Army's intent in the Seapower hearing appeared to be to demonstrate to Congress that the response to A2AD required all services, and that it was a joint partner dedicated to a common cause. The general's characterization of the Army's role in Air-Sea Battle to Congress did not square with the Army's lackluster participation in the ASBO and broader resistance to the concept.⁸⁴ Finally, while it is unclear how this occurred (and Air-Sea had many opponents), an internal Marine Corps assessment of Air-Sea Battle was leaked to the press, describing it as "preposterously expensive to build" and, if employed, resulting in "incalculable human and economic destruction."⁸⁵

The Army's Air-Sea Vision

Conceptually, the Army struggled to craft a Pacific argument that sufficiently boosted BCT numbers. Appendix B includes Army documents on Air-Sea Battle, most of which are previously unpublished, and which collectively give a sense of the Army approached the A2AD challenge. Some of these arguments were exceptional. They include envisioning BCTs seizing pipelines in presumably resistant Central Asian states, and most fantastically, threatening invasion of mainland China from Central and Southeast Asia (See Figures 6.1 and 6.2). The documentary sources, and interviews, demonstrate these were not "fringe" ideas, but rather, representative of the Army's institutional position regarding A2AD. Further, the Army pursued several initiatives regarding "joint forcible entry," i.e. the seizure of foreign territory to eliminate A2AD threats. Yet, it remained unclear how large Army forces like BCTS, transported via ships or transport aircraft, would penetrate A2AD defenses to do so. Finally, some of the Army's efforts in this regard, including operating Army attack helicopters off Navy ships, stoked tensions with the Marine Corps.⁸⁶


⁸³ (HASC Subcommittee on Seapower and Projection Forces 2013; Sydney Freedberg 2013)

⁸⁴ (Sydney Freedberg 2013)


⁸⁵ (Etzioni 2013a, 42)

⁸⁶ ("Army's Apaches Bring Fight to Maritime and Littoral Operations | Center for International Maritime Security" n.d.; Interview 53 2022)

Figures 6.1 and 6.2: Army Approaches to A2AD and Air-Sea Battle⁸⁷



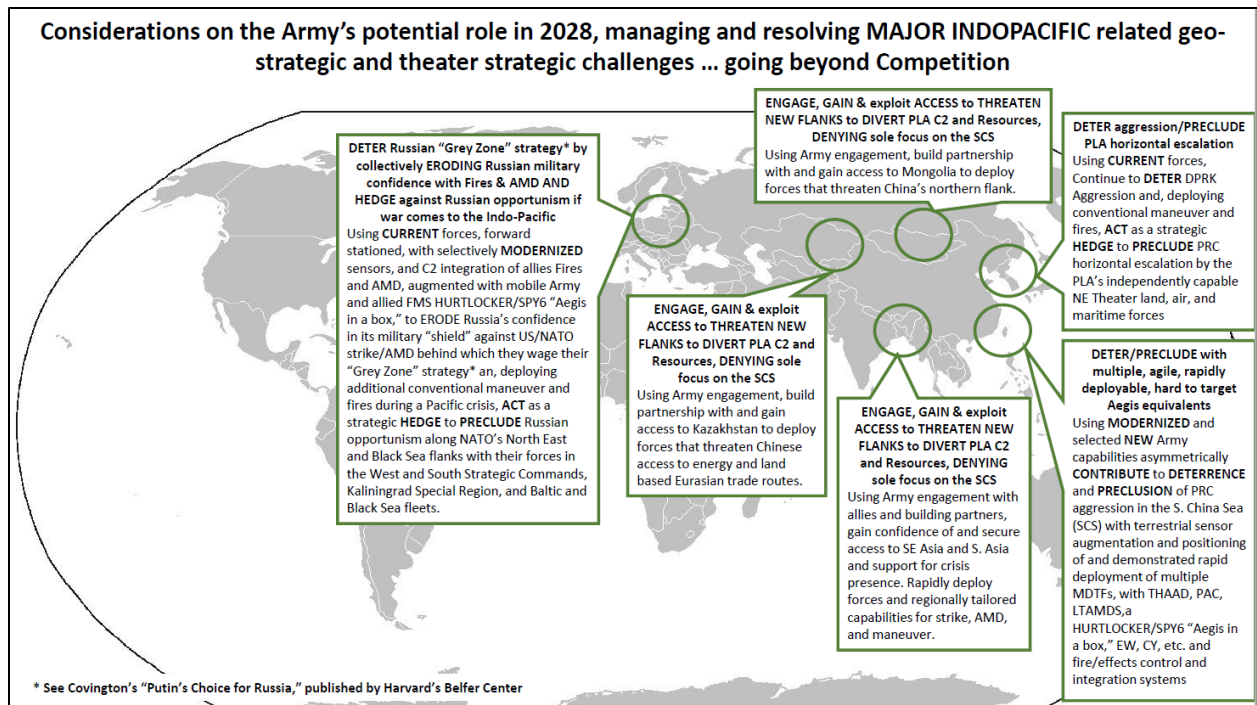
The Army's Role



<i>Setting Conditions for Success</i>	<i>Enabling Rapid Transition From Steady-State</i>	<i>Supporting Air-Sea Operations</i>	<i>Exploitation and Pursuit</i>	<i>Control and Stability</i>
<ul style="list-style-type: none"> • Provides credible land force to deter adversaries • Shapes the operational environment by providing a stabilizing presence (Regional alignment, building partner capacity, combined training, and multi-national exercises) • Theater air and missile defense assets protect critical infrastructure • Provides rapid counter battery fires • Provides early warning • Provides persistent point security protection • Builds partner capacity in order to foster mutual trust and confidence • Builds the capabilities of key partners • Conducts intelligence preparation of the environment • Provides theater logistics framework 	<ul style="list-style-type: none"> • Provides the capability to mobilize and deploy into austere areas of operations • Receives, stages, moves, and integrates people, supplies, equipment, and units, especially into austere areas • Conducts decentralized sustainment (logistics, personnel services, and health service support) • Provides new enabling capabilities to move forces within the theater via Army sealift • Employs a variety of Army aviation force packages from land and sea bases to counter adversary land-based or sea-based Area Denial systems • Decisively clears denied areas of anti-aircraft and anti-ship missiles and other systems • Builds partner capacity 	<ul style="list-style-type: none"> • Conducts forcible entry to quickly introduce maneuver forces and seize the initiative • Postures to exploit the access • Operates rotary wing aviation off naval platforms • Employs fires and other assets and from seabases • Protects naval and air lines of communication • Protects key naval and air bases • Conducts special operations • Conducts theater air and missile defense • Tactical missile systems capabilities provide rapid counter battery fires • Provides early warning • Provides persistent point security protection • Builds partner capacity 	<ul style="list-style-type: none"> • Conducts operations to pursue and neutralize threats to access to exploit success • Provides strategic staying power • Seizes, occupies and controls terrain • Controls and influences populations • Defeat s repositioning enemy forces • Denies the enemy sanctuary • Aids in reconstruction and consequence management • Conducts special operations • Theater air and missile defense to protect critical infrastructure • Tactical missile systems provide rapid counter battery fires • Provides early warning • Provides persistent point security protection • Builds partner capacity 	<ul style="list-style-type: none"> • Controls and influences populations • Supports civil authorities • Provides strategic follow-through • Shapes civil conditions • Works with civilian organizations, civil authorities, and multinational forces • Supports an interim government or transitional authorities • Helps maintain a safe and secure environment • Helps establish political, legal, social, and economic institutions while supporting the transition to legitimate host nation governance • Aids in reconstruction and consequence management • Conducts special operations • Builds partner capacity

The Army has a critical role before, during, and after a counter Anti-Access or Area Denial fight

⁸⁷ (United States Army 2013a; 2013b)



Among other issues, it remained unclear to other Air-Sea stakeholders, the Marines included, how the Army's large landpower forces could be meaningfully employed. Specifically, stakeholders cited a lack of clarity regarding how these forces would get to theater; what capabilities they would displace on limited lift when doing so; how much warning they would require to be mobilized and deployed; whether the President would authorize such deployments, let alone any land invasion of China or seizure of Central Asian territory; whether host countries would allow themselves to be an invasion's launching point; how these forces would fare operationally against a large PLA fighting on home turf; and how this would affect Chinese escalation calculus.⁸⁸ An anonymous Army stakeholder notes these concepts struck even Army officers as poorly considered, but there was no appetite for challenging the focus on finding roles to justify high BCT demand.⁸⁹

Relatedly, OSD's frustration with the Army's approach to the Pacific would lead them to commission CSBA to develop "Archipelagic Defense," a concept emphasizing Army antiship missiles and long-range fires as an attempt to create American and allied A2AD zones in the

⁸⁸ (Chip McLean 2022; Vincent Alcazar 2 2022; Interview 45 2022)

⁸⁹ (Interview 46 2022) Interview 53 made a similar point.

Western Pacific. When Krepinevich briefed a half dozen Army generals on the concept, they noted it would be difficult to get the Army interested, given the lack of roles for BCTs and tube artillery.⁹⁰

Taken together, these actions demonstrate that the Army took an instrumental approach to Air-Sea Battle specifically, and Pacific strategy more generally. They suggest the Army was motivated by both historical and recent misalignments between strategy and landpower resources, and similarly, the notion of substituting technology for manpower. Both pointed towards, in the minds of Army leadership, an Army too small for likely future conflicts. The institutional result, regarding Air-Sea Battle, was a “full court press” of resistance, across multiple mechanisms both within and outside the Department. In sum, Hannon’s summary of the period—endorsed by another anonymous senior Army stakeholder—appears apt: “The Army did not want to accept a supporting role in the Pacific, or the A2AD problem. Such a role wouldn’t answer its end strength/BCT problems... We could never make a credible BCT argument that justified the number of BCTs we needed... We couldn’t come up with roles in the Pacific that get the BCT count much higher than 45... There were a lot of places where we could help in the Asia Pacific and A2AD problem. Really deep thinking was possible here... We didn’t really do that thinking. Not with a mind for change, and not absent a focus on BCTs.”⁹¹

New Leadership

While the ASBO was facing rising external resistance from sequestration and organizational politics, it was also going through fundamental internal changes.

In February 2012, less than six months after Roughead’s retirement, VADM Clingan departed the Navy Staff to command US Naval Forces Europe. CAPT Brennan of the ASBO notes, “Once ADM Clingan left, the USN lost real energy and a dedicated champion for the effort. ADM Clingan left very quickly, pulled to EUCOM with little notice. Very little time from planning. It left a huge vacuum... you could start to see ASB lose steam. That was a significant inflection point.”⁹² Simultaneously, by the middle of 2012, it was becoming clear to insiders that ADM Greenert’s energy for Air-Sea was significantly less than Roughead’s, and his connection with Gen

⁹⁰ (Andrew Krepinevich 2022)

⁹¹ (Jeff Hannon 2022)

⁹² (Peter Brennan 2022)

Schwartz also lacked the uniquely shared vision and amity.⁹³ ADM Swift notes, “There was not really that connection to the core thinking and service actions after Roughead-Schwartz.”⁹⁴ Greenert had his own priorities, informed by a significantly darker budgetary picture.

Sympathetic to Greenert’s position, General Schwartz notes: “Each service has these kinds of crown jewels. The question becomes: do any of these efforts [like Air-Sea], have that kind of potential stature? That’s what Chiefs must decide....Are these good, prescient ideas tied to existential questions for the service?”⁹⁵ To be clear, Greenert neither actively opposed nor killed the Air-Sea program. Quite the opposite, he promoted it.⁹⁶ But against the headwinds Air-Sea Battle was facing—the Secretary still focused on the Mideast and Afghanistan; sequestration and budget cuts; internal resistance within the Navy and Air Force; bureaucratic resistance from the Army and Joint Staff; and troubled public communications—Air-Sea likely would have required top-tier investment from the Navy’s chief. It was clear as Clingan was departing that Air-Sea Battle would not be among Greenert’s “crown jewels.”⁹⁷

After Roughead and Clingan, 2012 would see two more seminal Pacific figures exit the stage. In March, ADM Willard would pass command of PACOM to ADM Locklear. Like ADM Greenert with the Navy, Locklear wished to chart a new direction. ADM Willard describes, “I focused deeply on strategy, relying on components to come together at the operational level of war. My successor chose to bring the PACOM command back to the operational level of war. Took the OPLANs from the components and instead brought up the plans to the COCOM staff level. He didn’t sustain the strategic view and bias that had been part of my staff.”⁹⁸

An anonymous senior figure in OSD also noted ADM Locklear’s relative single focus—in line with the Administration’s vision—on prioritizing peacetime interaction with China and avoiding antagonizing Beijing. “I can attest to this through repeated interactions with [ADM Locklear], on VTC [video teleconference] and face-to-face, where he was always consistently on the line that ‘We have to keep this in Phase Zero’ [i.e. peacetime interactions]...Thus, PACOM senior leadership was almost unfocused on the actual war plan or serious thinking about a war. As an

⁹³ (Interview 20 2022)

⁹⁴ (Scott Swift 2022)

⁹⁵ (Norton Schwartz 2022)

⁹⁶ For example, see (Greenert 2013)

⁹⁷ (Norton Schwartz 2022)

⁹⁸ (Robert Willard 2 2022)

example, at repeated meetings with the Deputy Secretary [Ash Carter], Carter would ask Locklear ‘What do you need to win the fight?’ Locklear would just answer with Phase Zero materials, for example \$1.5M for a new conference center, etc...”⁹⁹ Separately, Ochmanek notes the PACOM J5 being surprised at seeing the US lose a wargame in 2014, with the J5—the highest officer in the COCOM for strategy and wartime planning—commenting “This was the first time I’ve really been able to focus on the operational problems of actually fighting China.”¹⁰⁰ With the exit of ADM Willard and his PACOM strategic effort, the Department’s Pacific strategic and operational efforts had lost a rare—perhaps unique—locus of dedicated and deep strategic input on America’s Pacific future.

General Schwartz Exits

Finally, in August, Schwartz would pass the Air Force to General Mark Welsh. In his handover, Schwartz did not advise Welsh to prioritize Air-Sea Battle. General Schwartz explains: “The reality was that Air-Sea Battle at this point was already declining in salience, given Jon Greenert’s view. ASB, by that point, was not one of those things that I thought Mark Welsh should devote substantial capital to, relative to other matters, matters that were very important to the health of the Air Force.”¹⁰¹ Like Greenert, while he did not abandon Air-Sea Battle, Welsh did not prioritize its advance. Nor did he and Greenert enjoy the same personal connection and shared vision of their previous chiefs.¹⁰² Facing budgetary pressure, Welsh began refocusing the Air Force on protecting the penetrating bomber program against serious programmatic threat, continuing to manage the F-35 program, and investing what he could into longer-range munitions.¹⁰³ These reflected capabilities that Air-Sea Battle had helped push to the center of defense priorities, but Welsh pursued them more individually than through a holistic Air-Sea approach.

Thus, by late 2012, there was no senior leader actively championing Air-Sea Battle within the Department. ADM Swift describes, “After sequestration, the change of CNO and CSAF, the Secretary focused on Iraq and Afghanistan—It would be very hard for the CNO and CSAF to support ASB after these changes, because it has a high probability of failing. Thus, the Chiefs

⁹⁹ (Interview 10 2021)

¹⁰⁰ (David Ochmanek 2022)

¹⁰¹ (Norton Schwartz 2022)

¹⁰² (Vincent Alcazar 2021)

¹⁰³ (“SASC Hearing on the Impact of Sequestration on the National Defense” 2013)

can't invest in it. Now, the ball is rolling downhill...ASB is on the way to dying.”¹⁰⁴ Support within the service would follow the Chief's signal. A senior Navy leader noted that by early 2013, once it was clear the new chiefs were not robustly in support, “No flag-level commander would touch ASB. Flag level officers didn't want to be tethered to ASB. The one-stars who were put above this made sure that they had some distance from the office. They realized ASB was high risk to fail...The only exceptions to this were Admiral Fox and General Holmes.”¹⁰⁵ With the lack of senior champions, the quality of personnel in the ASBO would also begin to gradually fall, with the ASBO's hand-picked “high flyers” being replaced by officers that were available.¹⁰⁶

The senior push was gone, though the program was moving ahead on momentum against considerable and increasing headwinds. The ASBO would continue its work, and most importantly, the ideas would continue to be broadcast to an ever-wider segment of the defense community. This would happen by both the growing public discourse on A2AD and Air-Sea Battle, and within the Department through the continued outreach efforts of the ASBO. Indeed, some of its highest profile events, like the 2014 Valiant Shield exercise, lay in its future. Somewhat akin to a supernova, its most visible manifestations would take place after the core of the program had already died. Despite high profile exercise activity and ever-widening socialization of the anti-access challenge, as an attempt at near-term innovation, Air-Sea Battle had reached its apex by the middle of 2012. From then until its demise in early 2015, the program would slowly deflate, even as the conversation it helped catalyzed about America's Pacific problem continued to grow.

ASBO: Continuing Evolutions

Despite these environmental changes, the ASBO continued its work. While speculation about the China warplan and acquisitions continued to dominate the growing public debate, the more foundational work of operational integration, effects chains analysis, capability building, cooperative training, SAP alignment, and socialization of the A2AD challenge continued.¹⁰⁷ As shown below, Air-Sea Battle during this period, belying its scholarly critics, continued to consider strategic issues, and interact with PACOM, if in reduced form.

¹⁰⁴ (Scott Swift 2022)

¹⁰⁵ (Interview 28 2022) Interview 45 makes a similar point.

¹⁰⁶ (Interview 20 2022)

¹⁰⁷ (Jordan Thomas 2 2021)

The ASBO's External Outreach

In 2013, public debate of Air-Sea Battle would reach its peak (see Chapter Seven). As it did, the increasing public criticism of the CSBA concept created a growing communications problem for both the ASBO, and beyond them, the new Air Force and Navy Chiefs. One ASBO officer notes, “There were dozens of people writing in the public space, saying all sorts of inflammatory things about ASB – almost all of them completely wrong... They created real headaches, and pressure on the Chiefs... we had to add a couple of dedicated PA people, because we had to spend a lot of time reacting to these articles, and to help us react and prep our Chiefs when inflammatory articles came out.”¹⁰⁸ Another ASBO officer reports, “In the end, dozens of articles were published, slamming the ASB concept. Most of the writers didn’t know what they were saying, but ASB was a very hot topic in Defense at the time. So, it generated a lot of bad press—inaccurate, but still had to be addressed. We published a couple of articles out of the ASB office, but without an ability to publish the [classified] concept or really brief the work, those didn’t affect much.”¹⁰⁹

While there was a growing acknowledgement of the A2AD problem, debate about an Air-Sea solution continued to be focused on the CSBA concept, without an effective retort from the Department.¹¹⁰ In late 2012 even Representative Forbes, a strong supporter of Air-Sea, lamented “the Defense Department’s inability to clearly and concisely describe this project” and call for “a broader strategic communications plan to clearly articulate the AirSea Battle message to Congress, the defense industry, foreign allies, and potential competitors.”¹¹¹ The chiefs and ASBO would write several press pieces to attempt to defend the program, including the aforementioned public concept sketch in May 2013, and a Congressional hearing dedicated to Air-Sea Battle later that year.¹¹² Yet, operating under the same political and classification strictures as earlier attempts, these did little to alter the public Air-Sea debate. In retrospect, it seems likely the Chiefs would have had to be more candid about the Chinese threat, and loosen some constraints on discussing Air-Sea’s details (particularly regarding mainland strikes), if they wished to differentiate the

¹⁰⁸ (Interview 36 2022)

¹⁰⁹ (Interview 33 2022)

¹¹⁰For growing discourse on A2AD, see the data in figure 7.6 and accompanying analysis. For conflation, see (Forman 2014b)

¹¹¹ (Randy Forbes 2012a)

¹¹² (“Air-Sea Battle Doctrine: A Discussion with the Chief of Staff of the Air Force and Chief of Naval Operations” 1AD; Greenert 2013; Dupree and Thomas 2012b; HASC Subcommittee on Seapower and Projection Forces 2013)

program from the CSBA concept. Eventually, given their heavy duties, the ASBO largely abandoned the public debate, finding it not worth the effort.¹¹³

Within the Department, where stakeholders could get a better sense of the program, communications were better. That said, with the departures of Roughead and Schwartz, Air-Sea's institutional capital within the Department had diminished. The ASBO's internal outreach effort was "exhaustive and exhausting," continuing to socialize warfighters to the realities of mutual precision strike and anti-access warfare.¹¹⁴ This include three successive "Implementation Plans," which sought non-materiel opportunities to get the services moving towards better institutional cooperation and operational integration.¹¹⁵ ASBO officers report arguing less about whether the problem was real, as they did during the CDG, and more over the wisdom of Air-Sea solutions.¹¹⁶ By the end of 2012, not everyone agreed on the Air-Sea solution—far from it—but acknowledgement of the seriousness and immediacy of the A2AD challenge, and American unreadiness for it, was growing both within the Department and in public discourse.

Wargames, Exercises, and Strategic Issues

Two of the ASBO's primary means of simultaneously conducting outreach and testing Air-Sea Battle's operational utility were wargames and exercises. The Air-Sea vision was, unsurprisingly, central to the Air Force and Navy's "Title 10" games throughout this period, the services' premier games for force development. This continued to socialize and receive feedback from air and naval warfighting communities on the Air-Sea approach.¹¹⁷ Beyond these internal games, from 2012 through 2015, the ASBO participated extensively in a steady tempo of the Department's highest profile joint wargames. Many of these games incorporated civilian leaders, and focused on the effects of Air-Sea operational approaches on strategic issues of crisis stability, horizontal and vertical escalation, mainland strikes, nuclear risk, and conflict termination.¹¹⁸

¹¹³ (Interview 36 2022)

¹¹⁴ Email exchange with Vincent Alcazar

¹¹⁵ (Interview 36 2022)

¹¹⁶ (Interview 30 2022)

¹¹⁷ (Vincent Alcazar 2021)

¹¹⁸ (Vincent Alcazar 2021; John Callaway 2021; Gregory Harris 2022)

These include three RAND wargames with OSD CAPE and Policy between January 2013 and July 2014, which increased OSD support for Air-Sea’s conceptual and integration efforts.¹¹⁹ CAPT Callaway notes, “Wargames would stop if a situation became nuclear...But they wargamed frequently the Air-Sea escalation chain, trying to understand when, why, how, and where nuclear escalation might occur.”¹²⁰ An ONA-sponsored, CSBA-run “Protracted War” game explored Air-Sea Battle’s utility in a war where both sides faced heavy losses and expended their best munitions, but lacked sufficient political impetus to agree on conflict termination.¹²¹ A series of wargames at the Naval War College in the summers of 2013 and 2014 brought together senior leaders from all of the services, examining command and joint integration of Air-Sea approaches.¹²² The spring 2014 “IJSTO” wargames brought in the UK and Australia, incorporating realistic international inputs.¹²³

Beyond wargaming, the ASBO also continued its outreach with OSD and PACOM on Air-Sea’s integration with the Department’s broader strategy. As the ASBO revised the concept, it would flag strategic issues, create a hypothesis, and brief these to OSD and COCOM stakeholders for feedback.¹²⁴ Beyond interacting with OSD through Departmental wargames, the ASBO would also impact OSD Policy’s Departmental force development scenarios. This scenario-based planning and assessment constitutes OSD’s guidance to the services on their future force and respective POMs. While the details are classified, according to one of the central planners within OSD Policy, Air-Sea assisted OSD in elevating a China scenario as part of the OSD guidance and “yardstick” for judging the services’ force design.¹²⁵ The interaction with OSD over these scenarios was two-way, generating fresh guidance from Policy on improving Air-Sea Battle.¹²⁶ Similarly, a drumbeat of interactions with the COCOMs socialized and sought feedback on the concept.¹²⁷ The ASBO’s contact with PACOM, and its service components, remained particularly regular and deep.¹²⁸

¹¹⁹ (Gregory Harris 2, n.d.)

¹²⁰ (John Callaway 2021)

¹²¹ (Jan van Tol 2 2022)

¹²² (Gregory Harris 2022; Gregory Harris 2, n.d.)

¹²³ Ibid.

¹²⁴ (John Callaway 2021)

¹²⁵ (Jim Mitre, n.d.)

¹²⁶ (John Callaway 2021)

¹²⁷ (Vincent Alcazar 2021)

¹²⁸ (Jordan Thomas 2021; Gregory Harris 2022)

Conclusions: Air-Sea Battle's Inflection Point

Several points stand out from the history of Air-Sea Battle's middle period, from November 2011 to May 2013. This period stands as an inflection point in Air-Sea's history, as it moves from an attempt at disruptive innovation towards a sustaining one, and further towards its demise.

Contrary to Etzioni and other critics, the middle years of Air-Sea Battle show continued and deepening consideration of strategic issues, and continued engagement with the Department's Pacific strategy. Specifically, serious and strategically-focused wargaming augmented the ASBO's engagements with OSD Policy and PACOM stakeholders. The results of the Air-Sea effort continued to be briefed to senior OSD leadership, even as senior White House and Departmental direction began shifting towards the Asia-Pacific. As with Air-Sea's early period, the middle period of Air-Sea Battle does not exhibit "structural inattention" or a lack of strategic consideration.

Despite this shifting of leadership attention towards the Pacific, sequestration, instability in CENTCOM, and institutional politics would severely limit any substantive "Pacific Rebalance." Sequestration undercut any meaningful resources and institutional incentives for disruptive innovation, while catalyzing Air-Sea's existing interservice rivalries. The Army mounted a robust institutional campaign against Air-Sea Battle, assisted by the Joint Staff, and united with it in espousing an egalitarian form of institutional jointness. These findings, alongside those of sequestration, largely contradict Sapolsky and other innovation theorists positing budgetary tightening and interservice competition as the primary mechanisms causing military innovation. Instead, by the admission of stakeholders across the Department, these factors appear primary in structurally hampering Air-Sea Battle's potential for fostering a significant departure from the status quo.

The discord between the stated strategy of a Pacific Rebalance, and the realities of the Budget Control Act, exemplified and amplified the resource-strategy gap in American defense. Thus, despite Presidential directives to prioritize Pacific efforts, little prioritization occurred in practice. The Department would continue in the increasingly strained, and increasingly rhetorical, notion that it could both meaningfully answer China's strategic rise while simultaneously executing its traditional roles elsewhere. Regarding Air-Sea Battle, despite rhetorical alignment with the prioritization of the Pacific, Air-Sea not meaningfully integrated with, or supported by, the Administration's Pacific Rebalance. Instead, the Rebalance arguably stoked Army fears, while contributing little substantive support.

Simultaneously, a series of leadership changes across the Navy, Air Force, and PACOM significantly decreased institutional support for the Air-Sea effort. The effects would be gradual rather than sudden, but would still prove profound. Such effects suggest the power of individual personalities in innovation efforts, suggested by Rosen and Clark, as the effort dissipated as leaders of all three organizations took their commands in different directions. Organizationally, the creation of the ASBO itself changed the institutional character of the Air-Sea effort, arguably blunting its effectiveness. Air-Sea's external communications matters worsened. These troubles were, perhaps ironically, generated by the same public debate over A2AD that Air-Sea Battle had itself created.

Thus, 2012 saw the fatal blows to Air-Sea Battle as a program of disruptive innovation—sequestration, increased interservice and institutional resistance, and decreasing institutional energy from senior Navy and Air Force leadership. Yet, even as the program began its gradual decline, its central ideas—the importance of A2AD, the gravity of China's military rise, American unpreparedness for them, and partial solutions to that unpreparedness—were proliferating more quickly than ever, both within and outside the Pentagon.¹²⁹ More practically, while disruptive innovation proved untenable, there still was much that could be done in employing the existing force in more doctrinally novel ways. As demonstrated in the next chapter, this trend would continue: the Air-Sea Battle program would continue to die, as the American conversation on A2AD continued to grow.

¹²⁹ See the data on publication trends in the following chapter.

CHAPTER SEVEN: MORS ET VITA POST MORTEM: MAY 2013-JANUARY 2016

Air-Sea Battle's Gradual Decline

By early 2013, the Air-Sea concept had made progress on constituent parts of an American response to A2AD, fostered a better relationship between the Navy and Air Force, and advanced some key capabilities. For all the distance the Air-Sea Battle experiment had run over the preceding four years, the realities of sequestration, the weight of resistance within the Department, and public confusion about concept continued to grow.

Facing increased headwinds and slowly decreasing internal support, the Air-Sea Battle program would fade over 2013 and 2014. Yet, as described below, even as it dissolved, the conversation that Air-Sea Battle had helped hasten—on China's rise and America's response—would grow. This chapter charts that evolution. The first third covers Air-Sea Battle's institutional demise; the remainder examines the continuing effects of the ideas it introduced or popularized.

External Resistance and Strategic Contradiction

By January 2013, Air-Sea Battle's institutional costs to the Navy and Air Force were growing. Internally, as noted, sequestration spurred interservice resistance, marked by an Army campaign against Air-Sea Battle. The Arab Spring, and soon, the Russian invasion of Crimea, would provide new political capital for the landpower services to argue against cuts, and de facto to substantively prioritizing China's strategic rise.

While the A2AD debate was rising, the Navy and Air Force were shifting away from the more disruptive approach envisioned by Air-Sea Battle. The dissonance between a heavy argument for A2AD's severity and a "business as usual" POM did not go unnoticed by Congress. One Joint Staff critic of Air-Sea notes, "[The ASBO] had created an ASB monster on public affairs...When Congress started believing the ASB problem statement, they started questioning in why we would continue status quo investment in big POM platforms. Congress believed the problem, but not the POM-based solution that USN and USAF were now proposing. After ADM Roughead and Gen Schwartz had left, the conflict between the ASB and the POM became a real issue. This was likely a factor in USN and USAF wanting to kill the ASB effort, and push it over to the Joint

Staff.”¹ Greenert and Welsh can be forgiven for perceiving themselves on the horns of a dilemma: the same Congress calling the chiefs to the carpet over a lack of innovative approaches had gutted the funding upon which innovative efforts depended.

The contradictions between strategic ambitions and committed resources generated by a divided Congress would only grow in 2013. While Congress was pushing the Air Force and Navy for a more disruptive approach to the Pacific, it was simultaneously deepening the effects of sequestration. In March 2013, again taking the Department by surprise, sequestration would become law. The 2013 budget, already in continuing resolution, would be cut by almost \$45 billion, adding to the 2012 cuts of \$28 billion. For the remainder of Air-Sea’s life, in 2014 and 2015, the budget would be cut by another \$29 billion and \$13 billion, respectively.² The 2014 QDR would return the US military to a force size and composition roughly equal to that of Aspin’s 1993 Bottom Up Review—as Chapter Two argued, a force too small for the unipolar moment.³ This would be, arguably, the starkest example of the American resource-strategy gap: The US was now pursuing a strategic shift towards great power competition in the Pacific, alongside fighting in CENTCOM and rhetorically “bolstering” itself in EUCOM, while simultaneously cutting a total of over \$100 billion in the defense budget. The prospects for investment in serious Air-Sea Battle innovation was becoming increasingly distant. So, to, was the Pacific Rebalance. In 2014, in a breach of protocol, a senior Defense appointee would comment: “the Pivot is being looked at again, because candidly, it can’t happen.”⁴

The Joint Staff

Resistance to Air-Sea Battle from senior leaders in the Joint Staff was also growing and becoming more public. While there was a healthy working relationship at the O-6 level,⁵ across DoD fora Joint Staff leaders continued to press against Air-Sea’s multiservice process.⁶ The Army’s growing institutional campaign gave common cause and newfound weight to the drive for equality amongst the services. Both Roughead and Schwartz note that the Joint Staff was more dogmatic about

¹ (Interview 32 2022)

² (“Budget and Economic Data | Congressional Budget Office” n.d.)

³ (Mitre 2018, 16)

⁴ (Green 2017, 522)

⁵ (John Callaway 2021; Vincent Alcazar 2021)

⁶ (Gregory Harris 2022; Vincent Alcazar 2021)

equal inclusion between services than the Army—a considerable statement when one considers the Army’s consistency and use of methods like the aforementioned “step-down” tactic.⁷

As discussed in the conclusion, the Joint Staff’s resistance reflected more than a simple pursuit of institutional equities. The Joint Staff’s resistance instead reflected a foundational cultural belief in the rightness of egalitarian jointness. Multiple interviews with Joint Staff stakeholders attest to the strength of that cultural norm.⁸ This belief was informed by the mistakes and service parochialism that plague militaries generally, and from American military struggles with service parochialism throughout the 20th century.⁹ Institutionally, such norms define the Joint Staff’s organizational *raison d’être*, as assigned to them by Congress.¹⁰ “Jointness” was commonly understood as one of the American military’s key strengths, with Desert Storm as a crowing example—despite the fact that the AirLand concept underpinning that success was, as noted, a two-service collaboration. In this context, the Air-Sea Battle effort was the first innovation effort after the 1986 Goldwater Nichols Act to so publicly and prominently step outside both the process and cultural foundations of the Joint Staff. Even if only implicit at the time, doing so had larger implications than the Air-Sea concept itself. Were Air-Sea Battle to prove successful as a galvanizing principle for the American military, the Joint Staff’s continuing institutional relevance as well as its norms of egalitarian jointness would be shaken. In the Joint Staff view, that likely portended a return to the era of interservice organizational disconnection that preceded Goldwater Nichols.

The Joint Staff’s reaction is thus culturally and institutionally unsurprising. As early as Spring 2011, General Cartwright, the Vice Chairman, was urging ADM Roughead to bring the Army in more deeply.¹¹ Yet, while Army and Joint Staff calls for “inclusion” were becoming more vociferous, the Army was only halfheartedly participating in the ASBO. The issue at hand, for the Army and Joint Staff, was not inclusion, but equality. For both the Joint Staff and the Army, an effective Air-Sea concept was an institutional threat, and culturally dissonant. The Army and Joint Staff were going to fight it.

⁷ (Gary Roughead 2022; Norton Schwartz 2022)

⁸ (Interview 33 2022; Interview 32 2022; Interview 35 2022)

⁹ (Roman and Tarr 1998)

¹⁰ (Nichols 1986)

¹¹ (Gary Roughead 2 2022)

In May 2012, shortly after his retirement, General Cartwright would publicly state “Air-Sea Battle is demonizing China.”¹² That a senior military officer would publicly say so is revealing on several fronts. First, such a public rebuke is suggestive of the degree to which the Joint Staff and landpower services, to which Cartwright belonged, were resisting Air-Sea Battle. That resistance would only grow over 2013 and 2014, as both the public debate on Air-Sea Battle and the Army’s institutional campaign matured. Second, it suggests, perhaps obviously, how little the prohibition on naming China had convinced stakeholders that the Air-Sea concept wasn’t focused on the Chinese military. Certainly, such remarks from the nation’s second-highest ranking military officer made a mockery of the Department’s denials. Third, and most significantly, General Cartwright’s suggest the degree to which “avoiding antagonism” with Beijing had crowded out frank conversations about American military preparations—even within the military itself. Reflecting the Administration’s line, this view implied that significant American military reactions to China’s military modernization—a twenty-year Chinese effort, historic in its proportions, and specifically tailored at the Americans—were an affront. In sum, Cartwright’s comments suggest the prohibition on naming China was ineffective in warding off criticism, but continued to warp the Department’s conversation about the military dimensions of China’s rise.

Within the Pentagon, the Army’s burgeoning institutional campaign, combined with the Joint Staff’s steadfast resistance, increasingly represented a powerful institutional bloc. Throughout 2013 and 2014 the Joint Staff and Army would hammer a common message on Air-Sea, that the effort was a process foul by being insufficiently joint. From the perspective on one ASBO officer, “The Joint Staff became an extension of the Army staff.”¹³ Another officer noted that the Joint Staff and Army were “arm in arm.”¹⁴ At least two officers suspected collaboration on messaging and institutional tactics between the Army’s doctrine command and the J7’s Suffolk branch, both located in Norfolk.¹⁵ Another senior officer noted, “The landpower services, particularly the Army, and the Joint Staff, were solidly and consistently against ASB...They linked arms to resist ASB, and to turn it into a fully joint, equal representation concept.”¹⁶

¹² (Sydney Freedberg 2012a)

¹³ (Interview 6 2021)

¹⁴ (Interview 45 2022)

¹⁵ (Interview 28 2022; Interview 46 2022)

¹⁶ (Interview 28 2022)

The Army and Joint Staff arguments against Air-Sea Battle would receive additional steam from the 2014 Russian seizure of Crimea. General Stilwell, Joint Staff (J-5) Asia Director at the time, notes, “During this period, on the Joint Staff and beyond, CENTCOM was the focus. In 2014 and beyond, the Russia invasion of Crimea put EUCOM ahead of PACOM, too. The 2014 Crimea invasion really helped the landpower services argue against ASB...PACOM was considered a ‘10-year out problem,’ while CENTCOM especially, and after 2014, EUCOM, we felt like there were conflicts *right now* that demanded attention.”¹⁷ From the Army perspective, Hannon notes, “Crimea [was] almost gratuitously cited by the Army as an argument for maintaining end strength. Pointing at Crimea, at Georgia, at the Baltic States, trying to show the case for landpower.”¹⁸ So vociferous were the Army’s calls that, quite remarkably, President Obama came to the Pentagon twice in Spring 2014 to personally assuage the Army over budget cuts. The results were a \$5 billion bump for landpower, rhetorically labeled a “counterterrorism fund.”¹⁹

Contending Notions of Jointness

The tension between these two institutional approaches to jointness would be best illustrated by a comparison of Air-Sea Battle and the Joint Staff’s JOAC concepts. Both were admirably candid and sober in their unclassified descriptions of American unreadiness for A2AD.²⁰ Unfortunately, while such a comparison would be valuable, the substance of both concepts remains classified. Both concept’s unclassified descriptions are sufficiently vague to be of little comparative value.

Yet, the cultural mores regarding jointness can be gleaned from comparing their public documents. Both documents avoid any public acknowledgement of the differences between them.²¹ Revealingly, the Department’s 2013 Air-Sea publication studiously avoids any impression of a prioritization of air and sea capabilities over those of the landpower services. All service contributions are described in the same abstract verbiage. Even the domains themselves are described equally. This is remarkable when one considers that the concept is called “Air-Sea

¹⁷ (David Stilwell 2022)

¹⁸ (Jeff Hannon 2022)

¹⁹ Ibid. See also (Brannen n.d.)

²⁰ (“Joint Operational Access Concept” 2012; Haddick 2022, 112–15)

²¹ (Department of Defense 2013) In fact, the Air-Sea document is at pains to show its alignment to the Joint Staff, devoting a section to the point. Of the three quotes called out in the document, one is from Secretary Panetta, and the remaining two quote Joint Staff doctrine.

Battle,” and the vast majority of the likely battlespace with China consists of water. AirLand Battle contained no similar equality to the roles of naval forces. Moreover, both Air-Sea and the JOAC were centered upon operations from the “global commons,” a phrase repeatedly emphasized in both concepts. While land-based assets prove critical to projecting power from the commons, land is unique in the fact that it is almost always sovereign as opposed to a commons. In a concept focused on operating effectively in the global commons, one would imagine the actual commons—sea, space, air, cyber—would be the domains emphasized by the concept. Not so. All are, explicitly, equal.

In truth, within the Air-Sea Battle program, domains and services were prioritized. Figures 7.1 and 7.2 give the title slide and definition of Air-Sea Battle used in an internal DoD briefing. The brief clearly prioritizes air and sea capabilities, in dissonance with the 2013 concept document. The Air-Sea effort clearly was, as interviews Roughead and Schwartz note, focused on air and naval capabilities for deterrence and warfare in a maritime domain.²² Yet, the fact that the authors of the 2013 Air-Sea concept document felt unable to say so publicly is revealing. The document’s abstract character suggests the cultural strength of egalitarianism in the American conversation about joint warfare. The document is well written, when one considers that it couldn’t name China; couldn’t claim any service prioritization; couldn’t claim any domain prioritization; couldn’t reveal any meaningful detail; couldn’t address mainland strikes; and couldn’t assert any independence from the JOAC. Writing something akin to, “We seek to enhance our maritime warfighting capabilities; while all services have important roles, this places particular emphasis on air and naval forces” was, evidently, too far. The result, predictably, is a document that managed institutional risks, but did so by avoiding both clarity and serious intellectual exchange. Egalitarianism, like the prohibition on naming China, was warping the Department’s ability to have a frank and candid conversation about future warfare. More fundamentally, in effect, in 2013 an explicit Departmental effort to pursue integrated air and naval capabilities for maritime warfare was culturally taboo, an offense to jointness.

²² (Norton Schwartz 2022; Gary Roughead 2022)

Figures 7.1: Title Slide and Definition of Air-Sea Battle in PACOM Briefing²³



²³ (PACOM 2014)

Thus, Air-Sea Battle and the JOAC would continue in parallel, publicly friends but privately competitors. One senior Joint Staff stakeholder notes, understating the case, “There was a lack of alignment between the two efforts. There was almost a competitive relationship between JOAC and ASB, when it should have been complementary.”²⁴ Congress, ever watchful for anything that appears duplicative, was also skeptical about the wisdom of two parallel efforts.²⁵ At some point, the contradictions and tension between the Joint Staff and Air-Sea Battle would have to be resolved. The key question—for the concept, the American approach to preparing for the Pacific, and, to some extent, the cultural definition of jointness—was which would prevail.

ASBO: Losing Steam and Relevance (?)

As 2014 wore on, the quality of personnel assigned to the ASBO was also fading. ADM Harris notes, “The early phase and late phase are very distinct in terms of the success of the effort, the energy behind it, and the buy-in from the Navy and Air Force. ASB was a serious and sincere effort for about the first three years...Then, it starts to die, to lose steam, at the end of my tenure the J7 was really stepping in, the J8 was stepping in.”²⁶ By now, the ASBO becoming more egalitarian internally.²⁷ Trust had decreased between the ASBO officers, including, to some extent, the Navy and Air Force.²⁸

Yet, even if Air-Sea Battle’s Pentagon core was dying, the ideas it produced were still proliferating in the operational forces. In September 2014, Air-Sea would be the centerpiece of one of PACOM’s premier exercise, Valiant Shield. (see Figures 7.3 and 7.4). This would socialize 18,000 warfighters to their piece of Air-Sea Battle, focused on a scenario in the South China Sea.²⁹ Air-Sea Battle approaches would be the centerpiece of PACOM’s subsequent Valiant Shield exercises in 2015 and 2016, and Northern Edge exercises in 2014 and 2015, socializing and refining its ideas yet further.³⁰ In addition to its intellectual engagements through outreach and wargames, Air-Sea ideas were now being exercised on the proverbial “deckplates.”

²⁴ (Interview 32 2022, 3)

²⁵ (Keck n.d.)

²⁶ (Gregory Harris 2022)

²⁷ (Interview 1 2021)

²⁸ Ibid.

²⁹ (PACOM 2014)

³⁰ (Phil DuPree 2 2022)

Figures 7.3 and 7.4: Select Slides from PACOM “Air-Sea Battle and the Pacific” Briefing



VS14

15-23 SEP 2014 IVO Guam

18,000 joint force service members from 30 units, including 200+ aircraft and 19 ships (including 2 Carrier Strike Groups). Executed from Andersen AFB and Marianas Island Range Complex, Guam

Two photographs of military aircraft. The left photograph shows a single aircraft, likely a fighter jet, on a runway, viewed from a rear perspective. The right photograph shows a large formation of aircraft, including several large carriers, on a tarmac or runway.

Back in the Pentagon, however, the intellectual spigot was drying up. The effects of decreased senior investment, and ASBO's concordant downward trajectory, can be observed in changes to the ASBO's approach to the POM. Two officers in the ASBO note that the services started approaching the ASBO's POM impacts in a more parochial manner.³¹ The Service POM builders resisted subordinating their programs to "integration" if they didn't believe the other services would do so. Fewer deals could be brokered.³² One officer in the ASBO observes, "Each service largely focused on what it needed to do, without talking as much...with the other service, especially beyond the ASBO... Each service was trying to solve the pressing operational problem in a way that didn't sacrifice their service equities. They were trying to do both simultaneously...find a solution that deals with A2AD *and* is good for the service equities. Both services [e.g. the Navy and Air Force] would drag their feet on initiatives within the ASBO if the other service was going a direction they didn't like."³³ One officer describes that by 2014 Air-Sea Battle had become a "POM Christmas Tree:" "The services used ASB for the POM very selectively—not funding the ASBO's priorities, but cherrypicking from ASBO's list of needed platforms, thus using ASB's name to justify funding priorities."³⁴ Bryan Clark concludes, "Air-Sea Battle got twisted into a way to justify the current POM, rather than to change it. ASB got watered down."³⁵ The cohesion, trust, and appetite for disruption that marked the early Air-Sea effort were clearly absent by the Fall of 2014.

Interestingly, Chinese journal articles retrospectively noted as much, seeing American interservice politics as central to Air-Sea Battle's gradual dissolution. For example, a 2017 Chinese journal article would explain Air-Sea's struggle as "the branches have to abandon their own interests so they can reconvene to discuss how to 'play chess' better together."³⁶ A 2018 article by the prominent Chinese think tank CIIS observed the central role of interservice tensions in Air-Sea Battle's troubled trajectory.³⁷ PACOM's Dorman suggests, "China still doesn't see us as greatly

³¹ (Interview 8 2021; Interview 11 2021)

³² (Jordan Thomas 2021)

³³ Ibid.

³⁴ (Interview 8 2021)

³⁵ (Bryan Clark 2022)

³⁶ (Naiqian Zhang 2017)

³⁷ (Kang Jie 2018)

committed...Rebalance and Air-Sea Battle changed that for a moment, but when it didn't change facts on the ground, that concern over ASB dissipated.”³⁸

Coup de Grace

By late 2014, Air-Sea Battle had become an institutional weight for Greenert and Welsh. One officer describes Air-Sea's decline: “The interest level just slowly, almost imperceptibly, faded. The antibodies were strong. The articles in the press. Naysayers from within the services. The antibodies wore on the Service Chiefs. Our energy and excitement just diminished over time. I would call it “concept fatigue.”...The service chiefs were getting hammered with this, and they just got tired of it....Thus, their number one motivation was getting away from the name ASB.”³⁹ Multiple stakeholders note that the Air-Sea name had become “too hot.”⁴⁰ The Air-Sea movement was thus ripe for a coup de grace, which would come in the Fall of 2014.

Perhaps surprisingly, the Marine Corps would prove a catalyst for the Air-Sea program's dissolution. General Amos, the Commandant, informed Admiral Greenert that the Corps would recommend to Chairman Dempsey that the Air-Sea Battle effort be moved to the Joint Staff. In essence, in its unique position as a landpower service within the Department of the Navy, the Marine Corps was moving from an external neutrality to membership in the Joint Staff coalition. Col Chip McLean, a Marine present at the meeting, notes that it not confrontational, and revealingly, nor did ADM Greenert contest the point vigorously. McLean notes the Air Force was subsequently more angered than the Navy.⁴¹ Amos wrote a letter to Dempsey making the recommendation. Amos's candor with Greenert reflected the Corps' institutional approach in Air-Sea: opposing Air-Sea Battle, but without working clandestinely outside the Navy against it. Col McLean suggests the Corps' position was aided by the Army's more oppositional stance. “We did support the Army in pulling [Air-Sea Battle] into the J7 process. We helped with that, but we weren't grandstanding on those issues, and we didn't do so without telling the Navy. We let the

³⁸ (David Dorman 2022)

³⁹ (Interview 36 2022)

⁴⁰ (Bryan McGrath 2021; John Callaway 2021) (Interview 36 2022)

⁴¹ (Chip McLean 2022)

Army do that front line role, though, of organizational pushback.... we essentially blamed it on the Army—they were already arguing that point hard.”⁴²

The tensions aroused by the Air-Sea program would, finally, come to culmination in a subsequent meeting between the Chairman and Joint Chiefs in late 2014. To maximize candor, the culture of secrecy regarding Tank and Executive Committee makes it relatively rare to document these internal conversations. Indeed, at many Tank sessions, the Service Chiefs come alone, without so much as a notetaker. I thus quote this description at length from a Joint Staff leader, which I have corroborated by interviews with stakeholders from two other organizations.⁴³ Of note, the description also illustrates the degree to which many Joint Staff stakeholders perceived Air-Sea Battle as a parochial budgetary instrument:

“In that Tank, the CNO [Greenert] made a reference to Air-Sea Battle as the ‘joint approach’ to operating in an A2AD environment. The Chairman, GEN Dempsey, had previously been TRADOC and CSA, and had front row seat to the interservice robbery that was going on. Dempsey had deep reservations about Air-Sea Battle. The Commandant [Amos], similarly, had... a deep distrust for the direction of ASB. It appeared like a programmatic grab. After ADM Greenert’s suggestion of ASB as the ‘joint approach,’ Chairman Dempsey had heated words about that, and the level of true ‘jointness’ that ASB reflected. In the aftermath of this Tank, the attention focused on the JOAC as the DoD’s ‘joint approach.’ This resulted [in] a meeting in the Joint Staff the next week, focused on how we could mainstream ASB so that it becomes truly joint...Bob Work had moved from the Under for the USN, to the Deputy Secretary. He had been very big in pushing Air-Sea Battle. We thus had to think carefully about how to get ASB to a truly joint footing, away from a program focused on a couple of services. We held a service chief meeting to undertake the name change. The focus was not on operational matters, but was to solve this distrust that had developed through the services. In 2014, LTG Waldhauser [the Joint Staff J7] attended an Executive Committee on Air-Sea Battle. At this meeting, the Commandant said, ‘Whatever you call it, the name needs to describe what it is going to do.’ This is when ASB really started to transition to JAM-GC.”⁴⁴

⁴² Ibid.

⁴³ (Interview 45 2022; Chip McLean 2022)

⁴⁴ (Interview 32 2022).

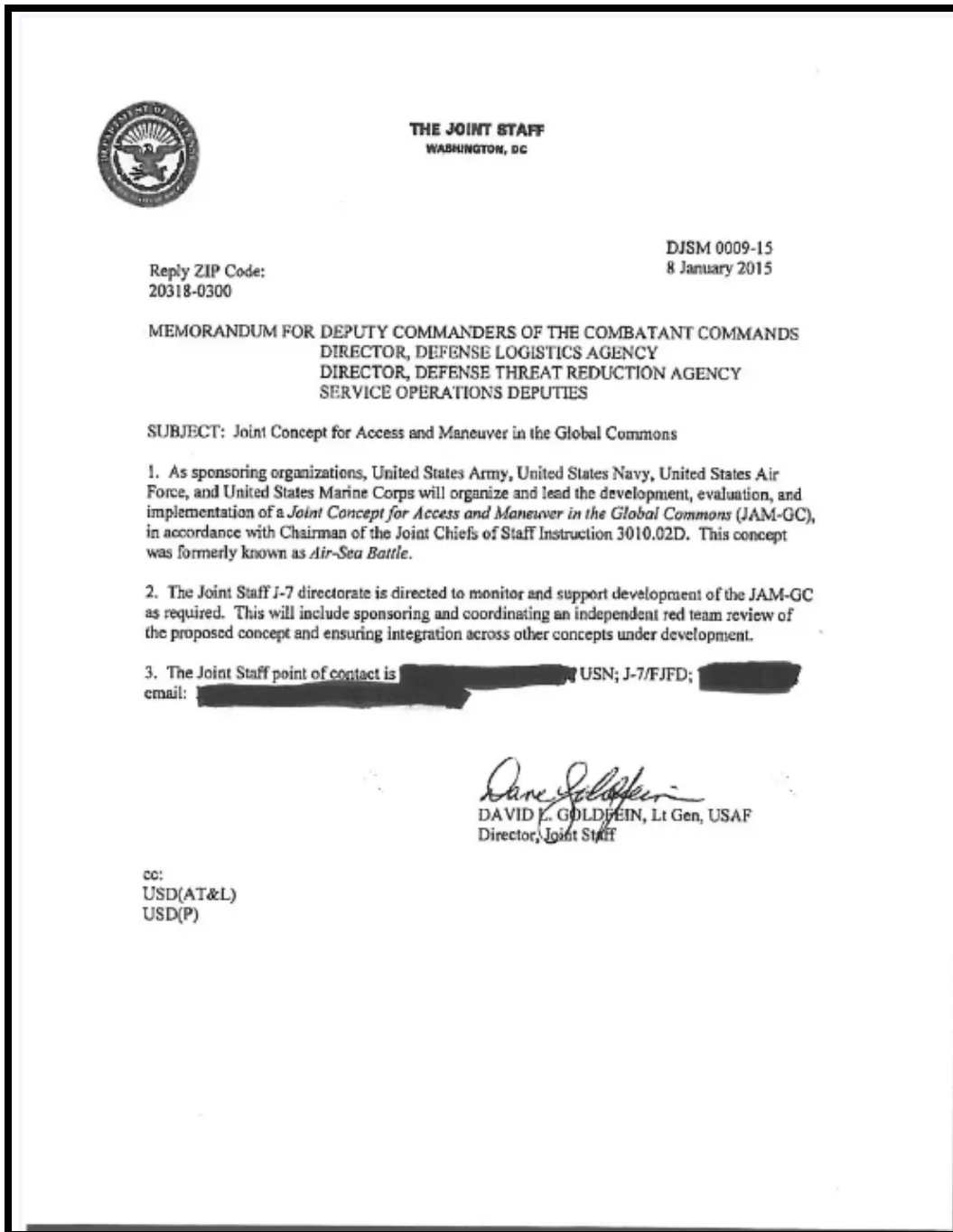
ADM Greenert and Gen Welsh would give way on Air-Sea Battle, contesting neither the name change nor the move into the Joint Staff.⁴⁵ The services each detailed staff members to the J7 to begin development of the new “Joint Access and Maneuver in the Global Commons” concept (JAM-GC).⁴⁶ In January of 2015, the Director of the Joint Staff, Gen Goldfein, would issue the official memo (see Figure 7.5).⁴⁷ Air-Sea Battle, as a program seeking disruptive innovation to refocus the American military on the China challenge, thus ended.

⁴⁵ (Interview 9 2021; Chip McLean 2022)

⁴⁶ (Interview 36 2022)

⁴⁷ (Goldfein 2015b)

Figure 7.5: DoD Memorandum Dissolving the Air-Sea Battle Program



The Transition to JAM-GC

Interviews with stakeholders on JAM-GC give differing opinions, and there is little public information available on the concept—almost certainly a reaction to the problems generated by Air-Sea Battle’s high profile. Indeed, far from the elegantly named operational concepts of the American past—Active Defense, AirLand Battle, the Maritime Strategy, Network Centric Warfare, and Air-Sea Battle among them—James Holmes quipped that JAM-GC “sounds like an obscure rap group.”⁴⁸

There was general agreement amongst the stakeholders that the central ideas of Air-Sea would remain—the move constituting a name change, a more inclusive process, and a new process owner, but not a conceptual pivot.⁴⁹ One ASBO officer notes:

“JAM-GC was not simply a rebranding of ASB. It was an improvement on ASB. It built on the ASB ideas. ASB’s important ideas remained in the document, but we had a lot of lessons learned about ASB’s problems from wargames that we corrected in JAM-GC. Integration, training, etc.—these were stronger in JAM-GC.”⁵⁰

Others involved with ASB and JAM-GC disagree, noting that as the Army assumed its equal role in the concept, the concept subsequently reached a “lowest common denominator.”⁵¹ On JAM-GC, Bryan Clark observed, “In the end, the Joint Staff advocated hard for involvement of the Army and USMC, and incorporation into JAM-GC. Now, it was a kind of least-common-denominator for all four services, where ‘everybody gets a trophy.’” With JAM-GC existing solely in the Pentagon’s classified channels, with little “road show” or public exegesis, it is difficult to know the concept’s merits. Certainly, as a rallying cry for moving the generational challenges of China and A2AD to the center of defense planning, the more obscure JAM-GC had no such goal or effect.

While we cannot observe the concept directly, we can observe that JAM-GC was an organizationally different animal from Air-Sea Battle, particularly Air-Sea from 2009-2012. It is worth viewing the transition to JAM-GC through two questions. First, what does the concept

⁴⁸ (Holmes 2015)

⁴⁹ (Interview 9 2021; Chip McLean 2022)

⁵⁰ (Interview 36 2022)

⁵¹ (Jim FitzSimonds 2021; Interview 32 2022)

say—what is the quality of its ideas? Second, what is its ability to enact change? By these measures, JAM-GC likely falls well short of Air-Sea Battle as an effective instrument of innovation.

Regarding conceptual quality, while we cannot know, JAM-GC’s egalitarian approach raises doubts. While the Army’s inputs to JAM-GC remain classified, it is difficult to envision them as significantly distinct from its documented inputs to Air-Sea Battle, and from the institutional imperatives the Army was pursuing during the period. As one flag officer notes, “When you make sacrifices to make all the services happy, you’re not going to have as strong a product in the end. You get a compromise, you get nothing that would challenge the status quo, rather than something that challenges how we are doing business and has the prioritization it needs. Two services can perhaps get something meaningful done together. Four—which is what the Joint Staff approach must be—and you will get the lowest common denominator—which is pretty low.”⁵² Regarding the ability to affect change, even if we assume a high-quality concept, JAM-GC’s institutional position also raises doubts about its effectiveness. As services retain authority over their doctrine, acquisitions, and POMs, such external joint solutions struggle to force a service to do anything it doesn’t wish to do. In addition to watering down the concept directly, a service can rather easily blunt or ignore a joint concept’s injunctions.⁵³ The services can explain that their desired POM force fulfills the joint guidance, and in any case, maintain the budgetary and Title 10 control to define their service doctrine and pursue their acquisition priorities. Indeed, a Joint Staff proponent praising JAM-GC rather damningly noted that there was not much senior leader interest in JAM-GC, but the joint process went much more smoothly.⁵⁴

Vita Post Mortem: Assessing Air-Sea’s Enduring Impacts

As 2016 dawned, like the American military of the 1990s, American preparation for a Pacific future was awash in contradictions. The most obvious was between the high rhetoric of the Pacific Pivot and aspirations of Air-Sea Battle, with their realization of emerging great power competition and belated calls for innovation. This was in dramatic discord with America’s shrinking defense budget, and a force roughly equivalent to the 1993 Bottom Up Review. Congress, in its divisions,

⁵² (Interview 28 2022)

⁵³ (Interview 28 2022; Interview 8 2021)

⁵⁴ (Interview 36 2022)

proved schizophrenic, slashing defense budgets with one hand, while demanding a stronger defense with the other.

Beyond the strategy-resource gaps, other contradictions loomed. China's military modernization was tailored directly at American military vulnerabilities, demanding frank discussion and serious military preparation. Yet, the Administration could not say as much, and nor could Air-Sea Battle, lest it be considered offensive. Militaries had prepared for contingencies since time immemorial; in 2013, doing so openly was taboo in Washington. Ironically, of course, the Chinese were doing the very thing—preparing militarily for the Americans, as they had at massive scale for over two decades—that Washington assumed they would be offended by. Moreover, all could see plainly that Air-Sea Battle was a reaction to China. Denying this didn't prevent offense; it instead prevented a frank conversation, even within the Department of Defense, while making the Department appear disingenuous. If the Chinese were offended, the object of offense was American primacy in East Asia. That primacy was a painful reality for Beijing long before 2013, but one that was steadily eroding.

At PACOM, there was a vital need to focus on the growing holes in American maritime warfighting and conventional deterrence. Yet, where PACOM should have been a central voice emphasizing American unreadiness for conflict, new leadership there joined the taboo, avoiding frank discussion about China's military challenge. ADM Locklear joined Washington in prioritizing the military-military diplomacy of "Phase Zero" (i.e. peacetime interaction). One senior OSD stakeholder notes, "...the combination of day-to-day routine, focus on Phase Zero, and the pressure not to demonize China resulted in a PACOM senior leadership that hadn't really focused on Pacific warfighting and the OPLAN...PACOM was almost solely focused on Phase Zero...Although this may not be the sole or primary cause, to some extent even PACOM was affected by the 'don't antagonize China' message, and Locklear was a channel for that."⁵⁵ Previously, ADM Willard's PACOM had been, arguably, the only instrument in American foreign policy that was charting a coherent and nuanced American Pacific strategy. With his exit, beyond high-level abstractions and the rhetoric of rebalance, it was not clear what the strategy was, or even more worrying, who was making it. It did not seem PACOM was doing so, which had, quizzically, returned to the operational level, but without focusing heavily on the warplans.

⁵⁵ (Interview 10 2021)

Domestically, there was a growing and welcome American conversation on China's generational challenge, which included a sobering diagnosis of American vulnerability to A2AD. This included Presidential prioritization of the Pacific balance of power, and the Department's seminal strategy documents emphasizing anti-access. Yet, this new conversation stood in stark contrast to old patterns of POM priorities, force deployment, and COCOM prioritization within American defense. Within the Pentagon, there was a desire to prepare for future conflict in a maritime domain, but an inability to prioritize such capabilities beyond the limits of falling budgets, the tyranny of the urgent, and institutional egalitarianism. The need to prioritize resources for great power competition in the Western Pacific—a prioritization badly needed given shrinking American defense resources and dramatic Chinese military growth—chafed against a cultural compromise that meant all services must remain equal, whatever strategic context or operational realities. The Americans wanted a new strategy, but couldn't bring themselves to have one.

Taken as a whole, America was late to recognizing the strategic and operational realities of China's rise. In retrospect, Washington's desire to keep from antagonizing Beijing, and to treat China as a responsible stakeholder, was both admirable and naïve.⁵⁶ Such prohibitions were prudent, if the central premise—that avoiding them would blunt great power pressures with Beijing—proved true. In the clarity of hindsight, it did not. Once Washington rhetorically recognized the gravity and immediacy of the challenge, the American military would join the race with a stutter step. Facing a generational challenge, what that race required was strategic prioritization of East Asia, bold investment in the relevant operational capabilities, and at least a steady budget with which to compete. What it received was a prioritization of the urgent over the important, shrinking investment, and a bland and convenient equality of capabilities therein. Rhetoric and resources remained alien to each other.

Air-Sea Battle was an attempt, albeit far from perfect, to stand against these trends. The Department needed a fresh look at capabilities, alongside an energetic approach to force integration and increasing the range and resilience of American forces. Air-Sea made that argument well, and was partially successful. While the Air-Sea program thus died, its ideas continued to proliferate in important ways. This is true in two respects. First, in diagnosis—

⁵⁶ (A.L. Friedberg 2022)

catalyzing an American conversation about China’s military power and A2AD; and to a lesser extent, in prescription—providing some enduring, if partial, means of addressing that challenge.

Catalyzing the American Conversation about China’s Military Power and A2AD

Air-Sea Battle catalyzed the widespread, mainstream American conversation about A2AD, a conversation that remains central to American foreign policy and defense strategy to the present day. To be clear, Air-Sea did not initiate that conversation. As noted, the roots of anti-access run deep, ONA’s thinking about the world of mutual precision strike predates Air-Sea by roughly three decades, and anti-access concerns were brought to the forefront of American defense policy by the 2001 QDR. Many in American defense accepted the A2AD challenge before Air-Sea Battle, even if misjudging it as a “future threat.” Yet, Air-Sea Battle marks the moment where the immediacy of China’s challenge was impressed upon the defense community, despite its myriad distractions, and that anti-access—and American unreadiness for it—became central topics in American defense discourse.

Several pieces of evidence support this conclusion. First, interviews across the defense community suggests the importance of Air-Sea Battle in significantly raising the profile of the anti-access debate. Beyond the program’s substantial outreach efforts, the high profile and “first principle” public debates which raged around Air-Sea Battle drove a new conversation around China and anti-access warfare. A Joint Staff critic observes, “ASB was instrumental to refocusing the Department on the A2AD problem set.”⁵⁷ The Army’s General Hix also acknowledges that Air-Sea Battle was “useful” in driving the military towards a better focus, if wrongheaded in its approach.⁵⁸ To quote PACOM’s ADM Swift, “ASB provided a structure, a foundation, a concept, that people could rally around that made people realize that we needed to change...It took ASB to ring the bell and force people to see the problem, and that status quo wasn’t going to cut it.”⁵⁹ Similarly, Bryan McGrath: “I believe ASB circa 2012-3 was immensely influential to helping change thinking, to create the idea that the Pacific theater needed particular air and naval attention. ASB was an intellectual red hot poker that stirred a conversation.”⁶⁰ Bryan Clark notes: “Air-Sea

⁵⁷ (Interview 35 2022)

⁵⁸ (William Hix 2022)

⁵⁹ (Scott Swift 2022)

⁶⁰ (Bryan McGrath 2021)

Battle advanced the conversation on A2AD especially. Krepinevich and others had first had the idea of A2AD, but Air-Sea Battle really brought it to prominence. The DoD wasn't really talking deeply about A2AD, or the problems that proliferating precision strike presented to our military, until the argument over ASB.”⁶¹ Elbridge Colby relates, “It was the first serious discussion of the growing military challenge from China. The Air-Sea debates brought that conversation, and the phenomenon of A2AD, to the forefront of US defense thinking.”⁶²

Air-Sea's effect on the American A2AD debate is also suggested by publication trends in professional foreign policy and military discourse. A review of Google Scholar publication data, charting how often the terms “anti-access/area denial” and “Air-Sea Battle” appear in professional and scholarly journals, suggests interesting points.

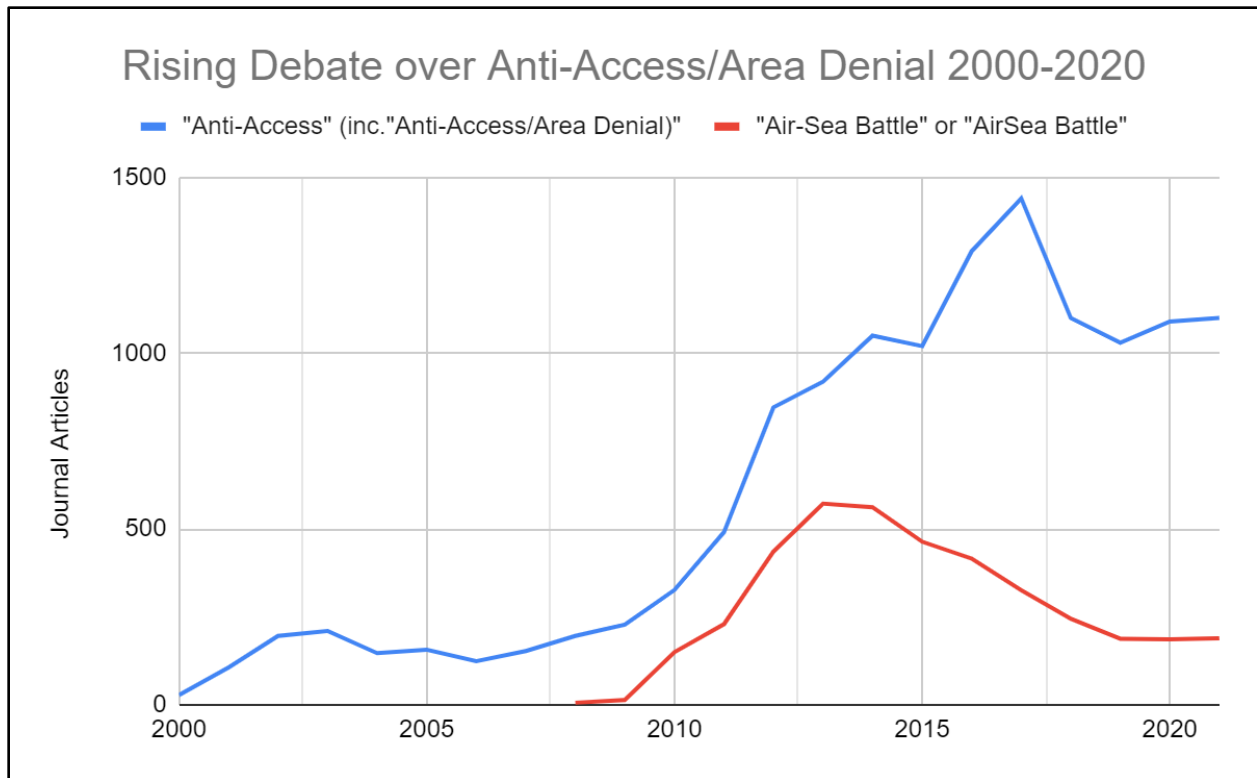
⁶¹ (Bryan Clark 2022)

⁶² (Elbridge Colby 2022)

Table 7.1 Publication Trends on “Anti-Access/Area Denial” and “Air-Sea Battle”

Year	Journal Publications including "Anti-Access"	Percentage Change	Year	Journal Publications including "Air Sea Battle" or "AirSea Battle"
2000	28		2000	
2001	106	278.6%	2001	
2002	196	84.9%	2002	
2003	210	7.1%	2003	
2004	147	-30.0%	2004	
2005	157	6.8%	2005	
2006	124	-21.0%	2006	
2007	153	23.4%	2007	
2008	196	28.1%	2008	6
2009	228	16.3%	2009	14
2010	327	43.4%	2010	150
2011	491	50.2%	2011	229
2012	846	72.3%	2012	436
2013	919	8.6%	2013	572
2014	1,050	14.3%	2014	562
2015	1,020	-2.9%	2015	464
2016	1,290	26.5%	2016	416
2017	1,440	11.6%	2017	326
2018	1,100	-23.6%	2018	245
2019	1,030	-6.4%	2019	188
2020	1,090	5.8%	2020	186
2021	1,100	0.9%	2021	189
TOTAL 2000-2021	13,248		TOTAL 2000-2021	3,794

Figure 7.6 Publication Trends on “Anti-Access/Area Denial” and “Air-Sea Battle”⁶³



Unsurprisingly, Google Scholar publication data suggests that rising interest in Air-Sea Battle and anti-access/area denial are correlated. From 2001, publications including “anti-access” grew by over 1,000%, reaching a peak in 2017, and remaining at high levels subsequently. Yet, the details are also suggestive. Professional and scholarly discourse on anti-access was comparatively low before Air-Sea Battle, including around the time of the 2001 QDR, 2003 CSBA report on A2AD, and 2007 RAND report on Chinese anti-access. Certainly, the shocks of 9/11 and subsequent insurgencies in Iraq and Afghanistan had much to do with the modest drop in anti-access discourse. Yet, rather than diminishing Air-Sea’s significance, this is consistent with the hypothesis that Air-Sea represented the return of American focus to great power military affairs despite the troubled limited landpower wars.

Anti-access thus received comparatively little attention in publications from 2000-2007. It started rising modestly in 2008, before rising dramatically in 2010, with its highest acceleration in 2011.

⁶³ Google Scholar Data, current as of 2 August 2022

Regarding Air-Sea Battle, the strong upward growth publications citing Air-Sea Battle began in 2009, driving to an apex in 2013. From 2010-2014, where discourse on anti-access had its highest acceleration and more than tripled, Air-Sea Battle represented roughly half of the articles on anti-access, and from 2012-2014, more than half. This can be observed visually by noting the area between the red and blue lines, which represents discourse about anti-access that is independent of Air-Sea Battle.

This data suggests several important points. First, the 2009 introduction of Air-Sea Battle in professional discourse predates the dramatic growth in A2AD publications seen in 2010. This suggests that, rather than a large public conversation around A2AD spawning Air-Sea Battle, Air-Sea Battle instead spawned the A2AD debates. Virtually every publication on Air-Sea Battle (Google Scholar notes almost 4,000 during this period) referenced the A2AD problem set, socializing that challenge to its readership.⁶⁴ Most importantly, while scholarly interest in Air-Sea Battle gradually eroded after 2013, publication results suggest that attention to anti-access endured. Indeed, as of this writing in 2022, A2AD and its related terms continue to be used regularly in defense discourse.⁶⁵

Taken alone, such correlations cannot “prove” that Air-Sea Battle drove the growth in American interest in A2AD. Yet, taken in conjunction with the ubiquity of the interview evidence, it certainly suggests Air-Sea Battle elevated “anti-access” into an enduring topic of contemporary American defense discourse. It is impossible to prove the counterfactual: anti-access discourse would likely have risen without the Air-Sea Battle impetus, as the Middle Eastern landpower wars wound down, and the balance of power in the Western Pacific continued to deteriorate. The key questions, of course, are when; how strongly; and how many key programs (like the Air Force’s long range bomber) would have been cut or delayed in the interim.

In any case, from 2009-2013, A2AD and the immediacy of China’s military challenge moved from a comparatively smaller discussion in select military circles, to Secretarial memoranda and the front pages of American military professional journals. By 2012, even lay publications like *The Economist* featured an article on A2AD, alongside articles in prominent academic, policymaking,

⁶⁴ Research on Google Scholar, conducted 2 August 2022

⁶⁵ For example, (Colom-Piella 2022)

and professional military journals.⁶⁶ Showing how firmly the term A2AD has entered foreign policy discourse, as of April 2022, *The Economist* was still employing it.⁶⁷

Half a Loaf: Progress Towards an A2AD “Solution”

As best as can be identified from unclassified documents and stakeholder interviews, Air-Sea Battle did not constitute a complete conceptual “solution” to A2AD or China’s military rise. Yet, in addition to forcing recognition of the A2AD challenge, Air-Sea Battle provided some concepts and capabilities that continue to influence modern American military operations and Pacific strategy. As McGrath notes, “ASB very much highlighted the problems in our ways of operating, ways that we could operate without just having ‘dominance all the time.’ To this day, the Services are attempting to work these problems, often conceptually and materially drawing from Air-Sea Battle.”⁶⁸ One can envision Air-Sea Battle’s enduring impacts in three dimensions: conceptual, institutional, and strategic. I cover these, and Air-Sea’s shortcomings, in succession below.

Air-Sea Battle’s Shortcomings

Air-Sea Battle likely fell short of a full “solution” to China’s A2AD defenses, both conceptually and in terms of Departmental implementation.

Conceptually, classification limits how deeply we can analyze the Air-Sea concept. Yet, taking the evidence as a whole and examining the unclassified concept sketch, several points stand out. Outside of mainland strikes, Air-Sea was valuable in its calls for better integration, resilience, deception, and decreased reliance on sanctuary. Regarding mainland strikes, Air-Sea Battle was correct in identifying the need for a deep strike capability as part of a differentiated set of options; given the fundamental unpredictability of the future, not having such an option represents a dangerous and hubristic gamble. As Frank Hoffman observes, a deep strike capability is a “necessary precondition” for forward presence in A2AD environments.⁶⁹ Yet, in considering conflict with China, the concept’s deep strike aspect still appears to struggle to overcome

⁶⁶ (*The Economist* n.d.)

⁶⁷ (*The Economist* n.d.)

⁶⁸ (Bryan McGrath 2021)

⁶⁹ (“The Simmering Pottage: Air Sea Battle and QDR 2014” 2013)

Haddick's critique. Namely, it remains unclear under how many scenarios an Air-Sea Battle approach could conduct enough mainland strikes to be operationally decisive—at least, against an adversary with the resilience and strategic depth of China—without generating the operational and strategic impediments that the critics of the CSBA concept focused upon.⁷⁰ Retaining the ability to conduct limited strikes presents options that would not otherwise exist. That is, *ceteris paribus*, an improvement. It is possible that, in some scenarios, Chinese leaders would choose not to escalate further. Yet, should they do so, it remains unclear how much “breathing room” from A2AD such limited strikes would generate. More than zero, but would this be sufficient? Particularly reflecting late Air-Sea Battle and its tether to shorter-range systems, FitzSimonds notes, “OTH [Over the Horizon] ISR is *the key* to any hope of long-range precision strike systems. A lingering question is whether blinding that sufficiently is actually achievable. ASB seems to be to blind the enemy, so that you can use your short range platforms. Not really a change to long-range precision strike platforms—more like ‘How can we use our short range platforms to do what we like doing?’”⁷¹ One can speculate the Air-Sea concept envisioned such an exquisite syncing of platforms across time and space that these limited strikes, and the limited windows they created, would prove operationally decisive. If true, reminiscent of ideas like Network Centric Warfare and Shock and Awe, such assumptions are questionable in the face of a thinking adversary and the inevitable fog and friction of war. Further, Air-Sea did envision a more disruptive innovation over time, moving to longer-range strike. Yet, FitzSimond's critique remains prescient regarding the more sustaining version of Air-Sea from 2012 to 2015, and given that the POM has not changed greatly, American defense to present.

Relatedly, one could argue that no amount of technology investment and elegant conceptual work can compensate for a force that remains too small and poorly postured to prove effective. Like Shock and Awe, concepts undervaluing mass prove brittle if and when their assumptions prove imperfect. In light of the PLA's massive and comparatively inexpensive missile magazine, one could argue Air-Sea Battle was an attempt to finesse away a resource-strategy gap in Pacific strategy, with the concept granting undue confidence. General Hix relates, “The problem of Cebrowski lives today, through ASB, into JAD-C2—networking as an efficiency drill. Networking can be very effective. Yet, efficiency can't substitute for mass...war, after all, is terribly

⁷⁰ (Haddick 2022, 117–20)

⁷¹ (Jim FitzSimonds 2021)

inefficient.”⁷² Bob Work notes, “Smaller units were able to achieve outsized effects using PGMs. That changes when you reach technological parity. When both sides have precision strike, the question of mass comes back into play... The Chinese can engage in missile attrition warfare, in a way that we can’t, because they have such a deep magazine.”⁷³ Elbridge Colby agrees, framing American defense policy as “seeking to compensate for a deteriorating strategic balance with technology. [We] are still doing that. But, remember, the Chinese have technology too...The notion that technology is central to the US way of war is a bit misplaced. WWII, the Civil War—what we had was mass.”⁷⁴ As a critique of Air-Sea Battle, this can be taken too far; Congress sets the limits on mass, and the Air Force and Navy certainly weren’t asking for less of it. The services ask for what they want, but fundamentally work with what they are given. Yet, while representing an improvement on the US military’s capabilities as they stood in 2008, it remains unclear whether Air-Sea Battle could adequately address the yawning capacity gaps facing the United States military in the Western Pacific.

Regarding implementation, one could look at force size, capability, and posture as markers for substantive innovation. As I demonstrate below, while there has been some recent evolution on these fronts, the effects remain limited compared to the changes that early Air-Sea envisioned. As Greenert and Welsh returned their services to a more POM-sustaining orientation, while Air-Sea’s ideas continued to proliferate, the pace of Departmental change slowed. Ochmanek relates “ASB got the problem right. It did raise a new conversation in this direction...The fundamental DoD problem remains—we haven’t seriously changed the POM force to reflect the realities of A2AD generally, or China specifically.”⁷⁵ Roughead relates, “Without the dual commitment to sustain ASB, we’ve lost some time. It was a good template, but we lost a decade of momentum. I was very encouraged by Air-Sea Battle, but in my view, it didn’t get sustained.... For example, we wanted low observable strike UAVs off a carrier deck. That still hasn’t happened, in over a decade. We could have transitioned to, I think, the beginnings of the hybrid air wing, but we lost a decade in doing that.”⁷⁶

⁷² (William Hix 2022)

⁷³ (Robert Work 2021)

⁷⁴ (Elbridge Colby 2022)

⁷⁵ (David Ochmanek 2022)

⁷⁶ (Gary Roughead 3, n.d.)

Air-Sea Battle's Enduring Conceptual Impacts

Despite falling short of a full conceptual solution, Air-Sea Battle identified several constituent parts of a solution that continue to be central to modern American military thought.

Prominent among these are a widespread recognition of the inability of the American military to “operate from sanctuary,” as it had in conflicts from at least 1990-2011. Compared to the longstanding understatement of airbase and carrier vulnerability, contemporary American military praxis largely works off Air-Sea’s premise that military forces must be prepared for a “fight to get to the fight, and a fight to stay there.”⁷⁷ Air-Sea’s emphasis on temporal pressures pushed the Department away from its habits of logistical “iron mountains” and luxuriant time for in-theater training prior to operations. That forward air and naval forces must be robustly ready to “stand in” under significant attack, and that all forces must prioritize operations under contested logistics and compressed timelines, continue to be accepted premises in American defense discourse. Similarly, Air-Sea’s concordant focus on pre-integrated forces, and on generating and leveraging cross-domain synergy, remain central—if still aspirational—in American defense planning.⁷⁸ So, too, does Air-Sea focus on “kill chains” (including becoming the title of a widely read and respected book in 2020) and calls increased employment of long-range strike.⁷⁹ Indeed, multiple services, including the Army, are now competing to demonstrate how they fulfill the long range strike mission.⁸⁰ Air-Sea was also helpful in convincing a wider set of stakeholders of the vulnerabilities of American dependence on its space-based C4ISR architecture, and the need for a more resilient and redundant approach. As one officer notes, “ASB started that...You need operational integration as well as resilient basing, logistics, comms, C2, etc. Everyone believes that now, and realizes these things will be challenged – must be fought for. That basic problem and solution was introduced in contemporary dialogue by Air-Sea Battle. *We realized being really good air forces and navies individually was not going to be enough, given the size of the challenge.*”⁸¹

Future American operational concepts, across the services, would echo these constituent parts of Air-Sea Battle. As Tangredi notes, “Following the strategic shift in focus to ‘great power [authoritarian] competitions’...DoD is today essentially recreating many concepts of the ‘Air-Sea

⁷⁷ (Vincent Alcazar 2021)

⁷⁸ (Congressional Research Service 2022)

⁷⁹ (Brose 2020)

⁸⁰ (“Military Services in High-Stakes Tussle Over Long-Range Fires” n.d.)

⁸¹ (Interview 36 2022)

Battle’ effort—albeit under the rubric “joint.”⁸² Clearly, such concepts have diverse intellectual antecedents; it is an overstatement to say Air-Sea Battle created them. That said, they represent reactions to the A2AD challenge which Air-Sea brought to the forefront of American defense. Further, many echo points that were first generated, substantially updated, or widely popularized by the Air-Sea concept and its debates.

For example, Air-Sea Battle’s emphasis of cross-domain synergy, backed up by progress on Navy-Air Force integration, transferred directly into the current American concepts of “Multi-Domain Operations” and “JAD-C2.”⁸³ Similarly, one can see Air-Sea’s focus on airbase vulnerability and contested logistics within the Air Force’s Agile Combat Employment concept.⁸⁴ The Navy’s drive for Distributed Maritime Operations reflects Air-Sea Battle’s fundamentals for operating within A2AD threat ranges.⁸⁵ Regarding naval airpower, RADM Harris notes, “To this day, some of the best training for CSGs in terms of CONOPs for A2AD have come out of Air-Sea Battle and its debates.”⁸⁶ As evidenced in Figure 7.7, as recently as 2022 the US Navy was referencing enduring Air-Sea Battle programs and capabilities in its concept development.⁸⁷ Most broadly, and most distant from Air-Sea Battle, the current American conversation regarding maritime denial in the Pacific draws from the Air-Sea debates.⁸⁸

Figure 7.7: Navy Staff Instruction: Mission, Functions, and Tasks of the Office of the Chief of Naval Operations, pages 1 and 11.

⁸² (Sam Tangredi 2022)

⁸³ (Stafford 2021; Norton Schwartz 2022; Jordan Thomas 2 2021)

⁸⁴ (US Air Force 2021)

⁸⁵ (Gregory Harris 2022)

⁸⁶ Ibid.

⁸⁷ (Michael Gilday 2022)

⁸⁸ (Elbridge Colby 2022; E. A. Colby 2021)



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, DC 20350-2000

OPNAVINST 5450.352B
DNS-3
9 Mar 2022

OPNAV INSTRUCTION 5450.352B

From: Chief of Naval Operations

Subj: MISSION, FUNCTIONS AND TASKS OF THE OFFICE OF THE CHIEF OF NAVAL OPERATIONS

Ref: (a) 10 U.S.C. §5032
(b) DoDD 5100.01 of 21 December 2010
(c) U.S. Navy Regulations, 1990
(d) OPNAVINST 5400.44A
(e) OPNAVINST 5400.45

1. Purpose. To publish the mission, functions and tasks of the Office of the Chief of Naval Operations (OPNAV) under authority of references (a), (b) and (c) and per reference (d). This revision updates lead organizations of strategic tasks and should be reviewed in its entirety.
2. Cancellation. OPNAVINST 5450.352A.
3. Mission. Under the authority, direction and control of the Secretary of the Navy (SECNAV) and Chief of Naval Operations (CNO), OPNAV must establish policies, provide sufficient resources and ensure combat-ready naval forces to enhance U.S. maritime capabilities through all domain access, forward presence, power projection, deterrence, sea control, maritime security and humanitarian assistance and disaster response.
4. Scope and Applicability.
 - a. The function of OPNAV is to assist SECNAV in carrying out his or her responsibilities and is composed of: the CNO; Vice Chief of Naval Operations (VCNO); Director, Navy Staff (DNS); Deputy Chiefs of Naval Operations (DCNO); Director, Naval Nuclear Propulsion Program (CNO N00N); Director, Naval Nuclear Weapons Program (CNO N00NW); Chief of Information (CNO N09C); Commander, Naval Safety Center (CNO N09F); Judge Advocate General of the Navy (CNO N09J); Director, Naval Criminal Investigative Service (N09N); President, Board of Inspection and Survey (CNO N09P); Director, Navy Analytics (CNO N09X); Surgeon General of the Navy (CNO N093); Chief of Navy Reserve (CNO N095); Chief of Chaplains of the Navy (CNO N097); Department of the Navy (DON) Deputy Chief of Information Officer (CIO) - Navy (DDCIO(N)); and other members of the Navy, U.S. Marine Corps (USMC) and civilians assigned to or detailed to OPNAV.

to the joint information environment and advocate for the cyber security of Navy data residing on or transiting through contractor network and systems. (CNO N2N6)

(2) ISR. Provide governance for collection, analysis and production of ISR programs, including policies concerning the protection of intelligence sources and methods as detailed in Executive Order 12333 and DoD Manual 5105.21, volume 1, of 19 October 2012. (CNO N2N6)

(3) Navy Space Strategy. Develop, coordinate and disseminate Navy space strategies, plans and policies and coordinate with the Navy Space Team national security space community. Develop space-related resource recommendations and fund designated Navy space acquisition programs. (CNO N2N6)

(4) Tactical Exploitation of National Capabilities Program (TENCAP) Activities. Conduct congressionally-mandated TENCAP research and development activities to leverage nation technical means and intelligence community resources to meet fleet capability gaps. (CNO N2N6)

(5) Climate Change. Develop policies, metrics and tools to provide ongoing evaluation of climate change and its potential strategic and operational impact to national security. Align Navy efforts to incorporate climate change considerations into applicable instructions and standard business practices. Develop new scientifically and risk based methodologies to manage the effects of climate change on Navy operations, missions and readiness. (CNO N2N6)

(6) Navy Insider Threat Program. Develop policy to deter, detect and mitigate the insider threat operating against Navy programs, information, networks, systems and operations. (CNO N2N6)

(7) Navy Strategies, Plans and Policies. Develop and disseminate Navy strategies, plans and policies for homeland defense, conflict deterrence, crisis response, defeating aggression, maritime security, confronting irregular challenges, strengthening partnerships, providing humanitarian assistance and disaster relief, oceans and Arctic policy, continuity of operations, nuclear weapons global employment, naval and joint operations integration and Navy Title 10 and CNO-interest war gaming and innovation. (CNO N3N5)

(8) Navy Strategic Concepts. Develop long-term strategic concepts that state objectives of the future force, guide force development decisions and inform the POM. Oversee and assess the implementation of Air-Sea Battle concept initiatives and actions across the doctrine, organization, training, material, leadership and education, personnel and facilities spectrum to include: all domain access, deterrence, sea control, power projection and maritime security. (CNO N3N5)

(9) Navy Strategy Subspecialty. Serve as the major area sponsor for the naval strategy subspecialty, its associated education programs and provide management and oversight of the naval strategist cadre. (CNO N3N5)

The landpower services' operational concepts were also affected by Air-Sea's A2AD diagnosis and some of its constituent ideas. General Hix observes, ““Much of the MDTF [Multi-Domain Task Force, a current Army unit and operational concept] thinking came out of our intellectual work from the Air-Sea Battle experience.”⁸⁹ Krepinevich notes that “Archipelagic Defense” is a direct descendent of Air-Sea Battle, seeking ways to meaningfully include land forces.⁹⁰ The Army's drive for long-range precision strike—a belated shift away from a monofocus on BCTs—echoes Air-Sea Battle's A2AD diagnosis and call for greater long-range strike. Every Marine I interviewed noted Air-Sea's impacts on the Corps' recent tectonic shift in operating principles. Col McLean describes, “ASB was absolutely seminal to current USMC thinking about the Pacific. EABO [Expeditionary Advanced Base Operations] was created out of Air-Sea Battle.”⁹¹ Most distantly, even the Chinese military appears to be conceptually influenced by Air-Sea Battle. Analysis of Chinese-language discourse demonstrates that major journals were still publishing about Air-Sea Battle as late as 2020.⁹² Indeed, in 2020, the widely-read Journal of the Naval University of Engineering, noted the PLA's continued vulnerability to Air-Sea like approaches.⁹³ PACOM's David Dorman notes the Chinese, borrowing from and extending Air-Sea Battle ideas, have launched their own “Air-Space Battle” (空天一体) concept.⁹⁴

Taken together, these contributions represent a conceptual sea change in the American approach to, and conversation about, modern high-end warfare. To be clear, contemporary American concepts draw from diverse sources, many of which predate or are distinct from Air-Sea Battle. Further, the American response is partial and incomplete. It is, however, oriented towards the right strategic and operational challenges, and has some encouraging—if slow—conceptual progress. The fact that defense concepts continued to evolve advertises Air-Sea Battle's shortcomings; unlike AirLand Battle, Air-Sea did not constitute a coherent solution that the defense community widely embraced. Air-Sea Battle thus cannot be called the “parent” of these contemporary concepts, let alone the single parent.

⁸⁹ (William Hix 2022)

⁹⁰ (Andrew Krepinevich 2 2022)

⁹¹ (Chip McLean 2022)

⁹² (Naiqian Zhang 2017) (Chen Ye 2020)

⁹³ (Chen Ye 2020)

⁹⁴ (David Dorman 2022)

Yet, zooming out, the lineage from and through Air-Sea Battle illustrates an evolving conversation about future warfare, of which Air-Sea Battle was a particularly influential inflection point. The force of 2022 is intellectually distinct from a world in which American forces could easily deploy to theater; build “iron mountains” therein; operate from sanctuary; pursue joint deconfliction more commonly than synergy; and focus rather solely on the intricacies of short-range power projection—i.e., the world before Air-Sea Battle. Air-Sea called out the inadequacy of such an approach, and in broad terms, sketched what a better world would look like. In so doing, it changed the course of the American conversation on future warfare.

Air-Sea Battle’s Institutional Impacts

In addition to its conceptual contributions, Air-Sea also advanced several institutional and programmatic efforts that continue to present. One can argue, convincingly, that insufficient progress has been made on these fronts. It is difficult, however, to argue that no progress has been made, or that this progress does not broadly conform to the Air-Sea prescription. As Work relates, “We’re talking about ASB style capabilities in the POM—now, in 2021. These first came up in ASB.”⁹⁵

Programmatically, while the actual POM recommendations of Air-Sea Battle remain classified, we can infer broad areas of investment from the concept itself, and specific programs through the stakeholder interviews. Broadly, ASB’s calls for increased investment in undersea autonomous vehicles, long-range stealthy platforms, long-range precision munitions, and redundant C4ISR systems have all seen sustained increases in funding in subsequent POMs. Most prominent is Air-Sea’s aforementioned support for the B-21 program. Roughead notes several other areas of programmatic impact, “Because of ASB, we... created an entire community, not just cyber warriors, that was integrated around information dominance. One of the other positives: we didn’t go down the DDG-1000 route, which would have pleased the Chinese immensely. We were able to resurrect airborne electronic attack (EA) as a key capability... This was good, because the Air Force was not going in that direction, towards greater EA... ASB put in place a program to modify the Virginia-class SSN with payload modules. [It also] sustained investment in air and missile

⁹⁵ (Robert Work 2021)

defense.”⁹⁶ In addition, some Air-Sea programs remain in place, but are highly classified.⁹⁷ RADM McDevitt notes that Air-Sea’s progress on advancing and integrating SAP programs remains “fiercely relevant, particularly in countering enemy ISR. All of this work is highly classified and thus not heard much, which means people think Air-Sea Battle was a flash in the pan...ASB didn’t go away, it just went underground...There is so much of the Navy that the public doesn’t see. This greatly affects strategic communications for programs like Air-Sea Battle.”⁹⁸

Beyond the POM, despite not reaching the high points seen under Roughead and Schwartz, Air-Sea’s institutional rapprochement between the Air Force and Navy endured. This point can be overstated—the relationship has improved, but the enduring institutional amity envisioned by Roughead and Schwartz has not manifested. Yet, Trip Barber, notes, “The ASB process significantly reconciled a longstanding ‘war’ between the USN and USAF. I’ve been part of that dynamic for a long time. The “carrier vs airbase debate”—budget contest, low trust...Air-Sea Battle was a turning point in that relationship...That tighter relationship remains...the cultural landscape changed greatly.”⁹⁹ Similarly, before Air-Sea Battle, the Air Force had essentially no ability—nor interest—in striking maritime targets. Nor did the kinds of datalinks between Air Force and Navy platforms, exhibited in the Libya operations of 2012, exist before the program.¹⁰⁰ The expansion of both efforts, while nascent, began largely with Air-Sea Battle.

Contributions to the US Strategy Development

Finally, Air-Sea Battle’s diagnosis of the China challenge contributed to changes in American defense strategy. Secretary Panetta observes, “So much of the focus since WWII had been on Europe and the Middle East, and as China continued to grow, it was clear that we had to think seriously about how we would confront an aggressive China. Air-Sea helped us do that.”¹⁰¹ More specifically, interviews with the principal authors of the 2018 National Defense Strategy, which moved the American military towards prioritizing great power competition, speak to a “lineage” running from Air-Sea Battle to 2018’s strategic shift.

⁹⁶ (Gary Roughead 2022)

⁹⁷ (Gregory Harris 2022; Vincent Alcazar 2022)

⁹⁸ (Michael McDevitt 2021)

⁹⁹ (Trip Barber 2022)

¹⁰⁰ (Vincent Alcazar 2021)

¹⁰¹ (Leon Panetta 2022)

Specifically, after Air-Sea Battle’s launch and its ensuing debates, the Department would launch the Strategic Capabilities Office (August 2012), Defense Innovation Initiative (November 2014), Advanced Capabilities and Deterrence Panel (November 2014), and Third Offset (November 2014).¹⁰² These sought to improve the American military’s readiness for great power competition, reinvigorate innovation, and improve its ability to diagnose strategic and operational challenges. Collectively, these stand as indicators of the Department moving off its previous lack of strategic prioritization—simultaneously “prioritizing” the Mideast, Europe, counterterrorism, counterinsurgency, and the Pacific¹⁰³—towards a prioritization of China. Many would be spearheaded or overseen by prominent Air-Sea thinker and advocate Bob Work, as he moved from Undersecretary of the Navy to Deputy Secretary of the Department in May 2014. While a deep review of these programs is beyond the scope of this history, Work relates, “All of these are part of the same direction. These weren’t products of the ASB concept. But they *were* products of the debate that ASB initiated, of the problem that it brought to the forefront of defense attention...ASB is the beginning, the match, striking that fire.”¹⁰⁴ As noted earlier, while the details remain classified, Air-Sea directly impacted OSD’s force planning scenarios, helping mark China as a “pacing threat” for US force development. After the closure of the ASBO, Army Colonel Hannon relates, “[Deputy Secretary] Work and the Vice Chairman had come to an agreement, in the Summer of 2015, to galvanize the Department’s resourcing to focus on the pacing threat – China. In my mind this was a realization of the Department animating the concepts that came out of Air-Sea Battle”¹⁰⁵ As the Administration changed in January 2017, a considerable amount of intellectual and institutional groundwork had been laid for the 2018 strategic shift.

Regarding the 2018 National Defense Strategy, it should remain clear that there are fundamental differences between such a strategy and an operational concept. Such concepts are subordinate to, and far more narrowly focused than, national-level strategic guidance. Further still, like operational concepts, strategies have many collective “parents,” depending how far back one wishes to look. That said, Elbridge Colby, DASD for Strategy and a principal leader in drafting the 2018 Strategy, relates the following: “A direct intellectual link between Air-Sea Battle and the 2018 NDS exists in two forms. First is the importance of Air-Sea Battle in socializing the American

¹⁰² (Gentile ... Jensen 2021)

¹⁰³ (Dews 2017)

¹⁰⁴ (Robert Work 2021)

¹⁰⁵ (Jeff Hannon 2022)

defense establishment to the problem of China's rise and its seriousness. ASB was the first time we really faced the problem directly, and as a 'now' problem instead of a future problem. Second, the Strategy's ideas about confronting China directly, about meeting China's military rise directly, and conversations about how we would do that, and came from Air-Sea Battle. Taken together, without Air-Sea Battle, US strategy would almost certainly shift towards great power competition eventually, but you wouldn't have seen that shift in 2018. We needed Air-Sea to ring the bell on the seriousness and immediacy of the challenge, and to start a conversation on how we solve it."¹⁰⁶

¹⁰⁶ (Elbridge Colby 2022)

CHAPTER EIGHT: CONCLUSIONS

This thesis asked how, as a response to a rising China and A2AD, the American military sought to innovate its warfighting doctrine. To focus the research, the thesis examined two research questions.

1. What institutional and ideational factors explain the formation, evolution, and dissolution of the Air-Sea Battle attempt at conceptual innovation?
2. Was Air-Sea Battle, as claimed by Etzioni and other scholars, untethered from oversight and antithetical to American Pacific strategy?

Drawing from the preceding chapters, this conclusion addresses these questions in succession. It then examines what this research suggests regarding contemporary American military innovation.

The Formation, Evolution, and Dissolution of Air-Sea Battle

Guided by military innovation theory (see Chapter 2), this section addresses the first research question, describing the institutional and ideational factors that best explain Air-Sea Battle's historical progression. Summarizing the new primary source evidence from the preceding chapters, this section addresses the substantial lacunae exist in our historical understanding of Air-Sea Battle's origins, development, and dissolution. I also summarize Air-Sea's enduring impacts and address the thesis's alternative hypotheses.

Origins and Early Air-Sea Battle

As described in Chapter 3, Air-Sea Battle's intellectual origins stem from civilian intellectuals in the "futurist" camp of American defense. Specifically, from the late 1970s to the early 2000s, ONA, and later CSBA, identified an emerging threat of "mutual precision strike," bearing significant operational and strategic implications. This reflected the perennial contest between maritime access and anti-access, but with anti-access forces augmented by RMA technologies, enabling longer range reconnaissance and precision weapons. This theoretical anti-access threat gradually shed doubt on the longevity of the current American "theory of victory" regarding major

air-naval conflict. In particular, the modern denial threat targeted American dependence upon sanctuary operations, short-ranged tactical aviation, long deployment timelines, and consolidated posture. While this threat was identified in intellectual circles, within the Department, 1990s “transformation” largely led elsewhere. Dramatically reduced budgetary share translated into interservice competition, which in turn engendered a parochial underestimation of the threats to American forward posture and carriers. The 1990s set many of the conditions with which Air-Sea Battle would have to contend: a tether to consolidated basing and short-ranged platforms, a yawning gap between strategy and resources, and overconfidence in precision strike airpower chief among them. The early intellectual work on A2AD thus pointed towards the need for a new theory of victory for maritime power projection, yet a new theory remained largely inchoate, as the American military focused on diffuse “transformation.”

As described in Chapter 3, by the early 2000s, Chinese military modernization was swiftly turning this theoretical threat into a reality. PLA expansion specifically and intelligently targeted American operational dependencies, funded by history’s largest sustained modernization program. This was reflected in American strategy as early as the 2001 QDR. Yet, while the Chinese military threat was acknowledged in principle, the American response was muted in practice. The threats of A2AD and China’s rise were largely considered “future issues.” This was due to several factors. Primary, of course, were the demands of the ongoing wars in Iraq and Afghanistan. Second was successive Administrations’ “responsible stakeholder” approach to China, which prioritized avoiding security dilemma pressures by not antagonizing Beijing. This was aided by consistent policymaker and intelligence community underestimation of PLA modernization, particularly their ability to target airbases and aircraft carriers. Late recognition of these threats was further aided by Air Force and Navy cultural and institutional reticence to address their operational vulnerabilities. This is understandable, as both services’ existing theory of victory represented a record of successful operations, and extensive sunk costs across platforms, training, organization, and culture. Thus, over the 2000s, full recognition of the China challenge developed slowly—in increasing contrast to the China’s rapid military growth.

It was in this context, and from these intellectual roots, that Air-Sea Battle originated. Military leaders were central to the founding of Air-Sea Battle, and would remain so through its development and eventual dissolution. As described in Chapter 4, ADM Roughead and Gen Schwarz initiated the Department’s Air-Sea program in April 2009. In contrast to previous chiefs

in either service, both brought deep Pacific experience into the Pentagon. Fundamentally, Air-Sea Battle was driven by an increasing American awareness of the threat presented by Chinese military modernization. Schwartz and Roughead were prominent in bringing the immediacy and seriousness of that threat into the core of the Department, and translating it into action. Both focused on reorienting their services towards this challenge, and breaking the aforementioned longstanding operational habits targeted by China's A2AD approach. In marked contrast to previous practice, rather than engaging in interservice competition over the emerging mission space, Roughead and Schwartz drove the Air Force and Navy towards institutional and operational integration. The early Air-Sea vision focused on both sustaining and disruptive innovation: better employment of existing shorter-range forces in the near term, and initiating the development of innovative capabilities for the long. Reflecting approaches from Farrell's scholarship, Roughead and Schwartz initiated a conscious campaign of internal cultural change, aiming to socialize the operational core of both communities towards a new threat and new way of war. Both services significantly increased their collaboration and mutual transparency, even as such cooperation remained less than total.

After Roughead and Schwartz initiated the effort in April, in July 2009 Secretary Gates further directed the Air Force and Navy to pursue their Air-Sea Battle initiative, with 2010 QDR direction following. He did so based on a suggestion from Bob Work, the Undersecretary of the Navy, who wished for secretarial blessing of the Air-Sea effort. While this gave it such blessing, throughout its life, the Air-Sea program would struggle for active Secretarial support. Gates's overriding focus remained on the immediate land wars in Iraq and Afghanistan, in many ways orthogonal to the high end, maritime-oriented Air-Sea Battle. While providing oversight and strategic inputs, civilian leaders had limited roles in driving the Department's Air-Sea Battle program after its initiation. Some played important roles in the program, particularly ONA and think tank veterans entering the Obama Administration in 2009. These represented a minority of senior civilian leaders pushing for greater recognition of China's strategic gravity and immediacy. This helped create venues for the Air-Sea effort to socialize the Department to the seriousness of the A2AD threat and potential Air-Sea solution. Yet, reflecting intra-service models of military change, in Air-Sea Battle civilian leaders were not central to reaching into the military to drive doctrinal and acquisition choices. Rather, senior military officers—Roughead and Schwartz, and the rare accord between them—were the most significant factors driving and shaping it. Reflecting Builder, both service chiefs could have slow-rolled the Secretarial directive, competed for mission space, or argued their

current force plans—with additional funding—were the best answer to the new threat. In contrast, they drove an effort of doctrinal rethinking, institutional collaboration, and cultural change.

As described in Chapter 5, while CSBA provided seminal intellectual input to Air-Sea Battle (and to American recognition of China’s military challenge more broadly), from early days, the Department’s program differed substantially from the CSBA concept. De-emphasizing CSBA’s mainland strike campaign, the Department’s effort focused on developing integrated air-naval capabilities for modern maritime warfare. To make the case for change, this included substantial outreach to the defense community regarding the A2AD threat, and the inadequacies of the American military’s “sanctuary” approach. Despite these distinctions, throughout its life, the Department’s Air-Sea program would be conflated with the CSBA concept, generating considerable resistance. The program’s inability to communicate effectively—the strictures on naming China, the secrecy of its details, and its own flawed communications strategy—contributed greatly to this end. Externally, Air-Sea catalyzed a prominent debate in scholarly and policy discourse, focused on the emerging threat A2AD and proper American response. This debate socialized wide swaths of the American defense community to the seriousness of China’s rise and A2AD, even as the Department’s actual Air-Sea program remained opaque.

Institutional and Cultural Challenges

In developing Air-Sea Battle, Roughead and Schwartz eschewed the established Joint Staff channels of egalitarian conceptual innovation, finding them intellectually and institutionally compromised. Thus, even as it initiated a ferocious debate outside the Department, the bilateral Navy-Air Force effort ignited substantial cultural and institutional antibodies within it.

As described in Chapter 6, culturally, the Air-Sea effort challenged the existing norms defining contemporary American “jointness.” At root was the question of whether “jointness” should center on operational collaboration on the battlefield—allowing prioritization of the maritime domain and the air-naval capabilities it demanded—or center on presiding norms of institutional egalitarianism, which eschewed such prioritization. These two contending conceptions of jointness would define much of the Department’s internal struggle over Air-Sea Battle.

Institutionally, the Air-Sea effort threatened the equities of both the landpower services and the Joint Staff. Interservice competition with the Army reflected the Army’s growing sense of

institutional risk, as the US attempted to shift from its troubled landpower wars towards the maritime Pacific. Regarding the Joint Staff, Air-Sea Battle effort was the most prominent joint innovation effort since Goldwater Nichols to step outside the Joint Staff's formal concept development process. Imagining a world in which Air-Sea Battle proved as impactful as AirLand Battle before it, this would bring much of the Joint Staff's continuing institutional relevance, and the cultural norms underpinning it, into question. The Air-Sea program thus existed in an institutional environment marked by both organizational competition and cultural egalitarianism. The Army and Joint Staff formed a de facto organizational bloc, which pursued an effective institutional campaign to undercut the Air-Sea effort. The Marine Corps, in its unique position as a landpower service within the Department of the Navy, quietly opposed Air-Sea Battle to naval leadership, but not openly.

As described in Chapters 5 through 7, contrary to many of its scholarly critics, the Department's effort was tethered to, and supportive of, American Pacific strategy. The PACOM commander, ADM Willard, had initiated a robust and nuanced strategic effort, considering Air-Sea Battle "elemental" to supporting it. The Air-Sea programs own significant consideration of strategic questions was buttressed by routine external outreach, incorporating the COCOMs, OSD-Policy (including Undersecretary Flournoy), and defense intellectuals. Secretary Panetta attested to the centrality of Air-Sea Battle in OSD's Pacific planning at the time, in addition to his own review of the effort. Public and scholarly misunderstanding of Air-Sea's relationship with strategy reflects the program's troubled communications strategy, and its aforementioned conflation with the CSBA concept. As detailed in the Appendix, Chinese-language sources suggest the Chinese took Air-Sea seriously, which PACOM leveraged to buttress American deterrence credibility. Yet, Chinese sources do not reflect significant concern over Air-Sea Battle's escalation potential.

Late Air-Sea Battle and Dissolution

In July 2011, Secretary Panetta endorsed the Air-Sea Battle concept. Panetta's endorsement accompanied a reorganization of the effort, moving beyond the Title 10 authorities of its parent services to create a joint "Air-Sea Battle Office," with greater landpower participation. By this point, Air-Sea Battle had registered a substantial impact. It had proven instrumental in taking the American conversation about A2AD and China's rise from a minority voice regarding a "future" threat, to the mainstream of defense discourse and Secretarial endorsement.

Air-Sea Battle was a sincere attempt at disruptive innovation until mid-2012. As described in Chapters 6 and 7, the program would gradually dilute, facing increasing institutional headwinds and slowly dissipating internal support. The Air-Sea effort dissolved for several reasons. Most important, externally, were the resource-strategy contradictions exacerbated by the 2011 Budget Control Act and 2013 sequestration. These cuts generated a conservative institutional response, prioritizing both near-term threats and an egalitarian distribution of losses amongst the services. Such an approach undermined the budgetary space and leadership appetite for significant and disruptive air-naval innovation. Open-ended budgetary losses also heightened Army institutional fears, and concordantly, its resistance to Air-Sea Battle. The budget cuts of 2012 thus mark an inflection point in Air-Sea's history, vastly diminishing its disruptive potential while galvanizing interservice competition.

While daunting, these conditions might have proven at least partially surmountable for a significant American military response to China's rise in the early 2010s. However, efforts to pursue such a focus failed to secure sustained senior leader support. Reflecting the resource-strategy gap, from 2011-2015, American defense policy operated intellectually under the belief the US could simultaneously undergird Mideast stability, win in Afghanistan, bolster deterrence in Europe, conduct extensive counterterrorism efforts, revamp the nuclear deterrent, prepare for China's generational challenge, and perform its myriad other duties, all while substantially cutting budgets. In practice, for Secretaries Gates and Panetta, the urgent challenges of CENTCOM and EUCOM consistently outweighed rebalancing investment to prioritize China's rise. Given these forces, the White House's highly publicized "Pacific Pivot," while a welcome rhetorical prioritization within American strategy, changed little in practice. Despite policymaker claims attempting to link them—and Chinese perceptions otherwise (see the Appendix)—there was no meaningful connection between the "Rebalance" and Air-Sea Battle. Civilian support for Air-Sea Battle remained chiefly rhetorical, rather than the substantive senior advocacy needed to spur a more rapid American military response to China's rise.

Facing such external headwinds, key leadership changes between September 2011 and March 2012 at PACOM, and most importantly within the Navy and Air Force, decreased Air-Sea Battle's internal support. At PACOM, ADM Locklear, reflecting the zeitgeist of not antagonizing Beijing, de-emphasized PACOM's war planning effort to focus on military diplomacy with China. This weakened PACOM's link to Air-Sea Battle. Most impactfully, changes in command of the Air

Force and Navy initiated a slow cascade of decreasing internal support. Namely, amid budgetary turmoil, when it became clear in early 2012 that ADM Greenert would not pursue Air-Sea Battle as aggressively as Roughead, Schwartz adjusted the Air Force's prioritization of the Air-Sea effort. Reflecting themes from Builder and Huntington, Air-Sea Battle might have continued a robust life within its parent services and their relative monopoly over doctrine and heavy influence on acquisition, if the chiefs continued to be committed. Yet, as Welsh took the Air Force in August, senior officers in both services noted that while their chiefs were outwardly supportive of Air-Sea Battle, they were no longer "gung ho." Support among the admiralty and general officers thus similarly waned. By 2014, with external conditions worsening, internal support waning, and Air-Sea's disruptive potential diminished, the Air-Sea effort was dying. In late 2014, Marine Commandant Gen Amos informed ADM Greenert the Corps would oppose Air-Sea Battle. Subsequently, after a heated exchange over the meaning of "jointness" between Chairman Dempsey and ADM Greenert in a meeting of the Joint Chiefs, Air-Sea Battle was transferred to the Joint Staff at the outset of 2015, becoming the more obscure and fully joint "JAM-GC" concept. The Air-Sea Battle program thus ended.

Assessing Air-Sea Battle's Importance

As an attempt at near-term disruptive innovation, the Air-Sea Battle effort largely failed. Unlike its AirLand namesake, it neither became formal American doctrine, nor constituted a conceptual "organizing principle" around which American defense would coalesce in subsequent years. Yet, as detailed in Chapter 7, Air-Sea Battle had several significant impacts on the American military that endured after its programmatic close. These can be grouped into two categories: diagnosis and prescription.

Air-Sea's largest enduring impact was its diagnosis of the operational environment and work to evangelize the immediacy and gravity of Chinese power, the operational challenge of A2AD, and American military unreadiness for great power competition. To be clear, the American military has still not wholly reacted to that diagnosis. But, in Air-Sea Battle, the threat of Chinese anti-access moved from an underestimated "future" concern to the center to the center of American defense strategy. Regarding China, this thesis's interviews with central stakeholders in the 2018 National Defense Strategy demonstrate that Air-Sea Battle was seminal to initiating the American refocus from unipolar concerns to China's rise. RADM McDevitt observes, "After decades of

relative stability, A2AD represented an inflection point in both American seapower and the changing geopolitics of Asia. Air-Sea Battle was America’s first answer to both...It was a huge historic moment for American seapower...Air-Sea Battle was the first moment we acknowledged that a great deal of our assumptions about power projection and seapower broke. It was a significant and understudied inflection point in American naval power.”¹ Vickers similarly observes, “We lost some time. ASB returned us to the focus we had in the 2001 QDR. The Navy just didn’t believe it before ASB. They didn’t believe the threat...And the Navy went down some goofy paths—the ‘Thousand Ship Navy,’ i.e. ‘if I make port calls everywhere, the world will be right and peace will emerge.’ Air-Sea Battle is the first time since the Cold War that the Navy refocused themselves on a real combat challenge.”²

Through Air-Sea Battle and the debates it generated, American thinking about modern high-end warfare moved from misplaced confidence to a general recognition of American vulnerability in a world of mutual precision strike. As demonstrated by the publication trend data in Chapter 7, Air-Sea Battle catalyzed the mainstream American conversation about A2AD, a conversation that remains at the center of American foreign policy and defense strategy to the present day. Within the debates surrounding Air-Sea Battle, the American defense community refreshed first order questions about great power politics, deterrence, escalation, and power projection.

Air-Sea Battle thus hastened the American response to China, despite occurring concurrently with two wars, geopolitical instability in the Mideast and Europe, and successive Secretaries of Defense who were focused elsewhere. It did so despite budgetary sequestration and fractious internal politics. It did so despite significant resistance—including within the Navy and Air Force—to its message that the American military required serious change. It did so despite an Administration that not only underprepared militarily for China’s rise, but discouraged candid conversation about such preparation. Air-Sea Battle was not perfect, and the American responses to Chinese military power and A2AD remain incomplete. Yet, far from being merely a “buzzword,” despite substantial headwinds, Air-Sea Battle was a crucial vehicle by which American defense attention moved from unipolar concerns and towards the realities of great power competition. America’s response to China’s rise was belated and remains incomplete. Without Air-Sea Battle, it would have been more belated still, and almost certainly less robust. Arguments from the period against

¹ (Michael McDevitt 2021)

² (Michael Vickers 2022)

Air-Sea Battle that downplayed the seriousness of China's rise, and American military unreadiness for it, have not aged well.

Regarding prescription, while imperfect and incomplete, Air-Sea Battle presented a suite of concepts and capabilities that shaped, and continue to shape, American defense. Secretary Panetta observes, "The importance of the Air-Sea approach was clear in the Pacific, and frankly, in a potential conflict with Iran...The ASB effort was absolutely important to our ability to look at this big picture. It was critical to understanding how we might navigate the mix of threats, allies, ambitions, and resources in the Pacific."³ As noted, Air-Sea Battle was "elemental" to PACOM's strategy and central to revising OSD's force planning scenarios.

As described in Chapter 7, Air-Sea had several prominent flaws. Yet, as Chapter 7 also details, current American operational concepts—including those of the landpower services—orient towards the A2AD challenge Air-Sea successfully proselytized, and incorporate several of its core conceptual elements. These include Air-Sea's call for increasing focus on prewar integration; distributed force packages operating from less consolidated posture; longer-range strike; and force resilience. As one example, several Marines cited the centrality of Air-Sea Battle to Gen Berger's changes to the Corps' fundamental warfighting doctrine. The Air Force, which previously had little capability nor institutional interest in maritime warfare, remains engaged in air-sea integration. Individual programs initiated by Air-Sea Battle also continue. Most prominent programmatically, Air-Sea had a key role in protecting the Air Force's long range bomber program, now considered central to American Pacific strategy. Gen Schwartz notes, "Things could have been far worse. On LRS-B [the long range bomber], Secretary Gates wanted to see the end of that effort as well. But, after discussions with us, he gave way. It was a close call...Imagine today if we didn't have the LRS-B funded and developed. We would in a far worse position in the Asia-Pacific, far more dire."⁴ Finally, while not reaching the heights seen in Air-Sea Battle, the improved institutional relationship between the Navy and Air Force has endured.⁵

ADM Swift, PACOM J3 during Air-Sea Battle, summarizes this succinctly: "Air-Sea Battle provided a...concept that people could rally around, that made people realize that we needed to change. In essence, it was right that there was a problem, but not entirely right in its prescription.

³ (Leon Panetta 2022)

⁴ (Norton Schwartz 2022)

⁵ (Trip Barber 2022)

Ideas like Maritime Denial were more useful, but it took Air-Sea to ring the bell and force people to see the problem, and that status quo wasn't going to cut it.”⁶ In sum, the American military of 2022 is intellectually distinct from a world in which American forces believed they could easily deploy to theater; build “iron mountains” therein; operate from sanctuary; pursue joint deconfliction more commonly than synergy; and focus rather solely on the intricacies of short-range power projection—i.e., the world before Air-Sea Battle. The American military has not solved these problems. It has, however, acknowledged them, and begun the long process of military innovation to address them. Air-Sea Battle represents only part of that evolution—but an important part. As ADM Roughead concludes, “I would say that ASB was valuable work, interrupted.”⁷

In essence, Air-Sea's history suggest that during this period neither the orthodoxy nor the futurists held a monopoly on operational vision. The futurists were right about precision strike regarding its ability to produce outsized effects, as evidenced by the historically lopsided casualty counts of Desert Storm. They took this good argument too far, in undervaluing mass, and in overstating precision strike's utility in politically complex conflicts. The high promises of the transformation camp dismissed much previous thought about war, to terrible effect. Among the many casualties of the Iraq War, one could include proper preparation for China and the world of mutual precision strike. The orthodoxy, however, lost the balance between the existing conflicts and looming geostrategic challenge of China's rise, mortgaging innovation for shorter-term priorities. In so doing, it both “lost the wars we were in,” while providing China roughly an additional decade of distance run. More fundamentally, the orthodox position was overconfident in the ability of the legacy force to operate under mutual precision strike and anti-access conditions, dampening the prospects for disruptive innovation. Air-Sea Battle was a continuation of the futurist position, but took a far more conservative and strategically nuanced position than that of 1990s transformation. In contrast to transformation's vision of lopsided victories over inert adversaries, Air-Sea Battle held a deep respect for the PLA, incorporated strategic context into its operational development, and acknowledged that any conflict would feature heavy losses on both sides.

⁶ (Scott Swift 2022)

⁷ (Gary Roughead 2022)

Historical Conclusions: Primary Factors in Air-Sea Battle's Historical Development

This thesis sought to identify the institutional and ideational factors that best explain the formation, evolution, and dissolution of Air-Sea Battle. As described above, many factors impacted Air-Sea Battle's historical evolution. However, based on the historical research summarized above, two factors appear particularly central.

First, paralleling Rosen's and Builder's scholarship, Air-Sea's history demonstrates the central role of senior military leaders in driving conceptual innovation. Prior to 2009, the institutional and doctrinal approaches of the Air Force and Navy to the China threat reflected the traditional approaches of each service, and little institutional collaboration between them. Intellectually, the ideas of A2AD and China's rise had been circulating for over a decade, and featured in the senior civilian documents—the QDRs—directing military change. Substantive change begins, however, in April 2009 with Roughead and Schwartz. The chiefs' initiative predates the Secretarial directive, which the chiefs could have readily slow rolled or leveraged to support the services' traditional approaches. Secretary Gates, indeed civilian defense leadership generally, was consumed by the wars in Iraq and Afghanistan and the budgetary environment. They were not driving Air-Sea Battle, particularly within the Air Force and Navy; they were pushing in largely the opposite direction. Similarly, the institutional collaboration between the previously antagonistic Air Force and Navy begins in 2009 from the uncommon accord between Roughead and Schwartz. The centrality of senior military leadership is further suggested by the departure of Roughead and Schwartz, which resulted in an erosion of the internal support needed to sustain doctrinal innovation through bureaucratic headwinds. Air-Sea as a program likely could have sustained, in reduced form, within its parent services as long as the accord between the two chiefs endured. When it did not, there was little counterforce against the external factors of Secretarial lack of support, budgetary restriction, and organizational competition.

As noted, Air-Sea Battle's largest contributions to changing the American military were ideational. Ideas, however, are not enough. The rise of A2AD to a position of prominence in the American defense conversation did not begin with ONA or CSBA, though this is where the ideas originated. These ideas expanded with the onset of Air-Sea Battle, as it became clear that they may have the programmatic, budgetary, and doctrinal heft of the Navy and Air Force behind them, rather than QDR admonishments or ideas from think tanks. These ideas became central to American defense when two service chiefs put the institutional and cultural weight of their services behind them.

Senior military leadership was thus central to both the rise and fall of Air-Sea Battle. Given that both chiefs described the existing approaches of their services as inadequate and launched a robust campaign to change them, neither chief could be meaningfully characterized as “conservative.” To be clear, both worked within constraints—neither could readily mortgage their existing force structure, organization, and human capital for radical alternatives, and nor was there enough evidence and analysis to justify doing so. Neither was advocating a “revolutionary” new approach. Radical change, from the organizational context of 2009-2015, would have been both institutionally impossible and intellectually reckless. They were, however, innovators. A more rapid Air-Sea innovation movement likely needed sustained senior civilian leadership investment—and Air-Sea would almost certainly have had more robust effects with such Secretarial or Congressional prioritization. Within the constraints presented to them, and facing decidedly difficult external conditions, Roughead and Schwartz still changed much regarding the intellectual direction of American defense. Their case suggests both the power and limits of senior military leaders in driving contemporary American military change. Military leadership alone may not be sufficient for innovation success, but given the service monopolies they command, it is very likely necessary.

Second, Air-Sea’s history demonstrates the importance of budgetary cuts and organizational politics as external variables affecting the speed and scope of innovation movements. Contrary to the expectations of interservice theory, such competition and budgetary cuts did not structurally drive innovation in this case, but were instead among its largest inhibitors. Regarding Air-Sea Battle’s historical evolution, the budgetary cuts of sequestration pressed both civilian and military leaders into zero-sum choices between current conflicts and military innovation. Budgetary reductions and uncertainty both cut the resources available for innovation efforts, and decreased the institutional incentives to innovate. They also invigorated interservice competition; given the intervening role of the Joint Staff, this is perhaps better framed as organizational competition. Greenert and Welsh could have kept Air-Sea doctrinal development alive within their respective services, but budgetary and interservice factors capped its potential for near-term, disruptive innovation. This stands in marked contrast to the two most successful innovation movements of the last four decades—the post-Vietnam American and ongoing Chinese military modernization—both of which were undergirded by significant budgetary support.

Taking these two factors together, Air-Sea Battle's history thus suggests how the roles of senior military and civilian leaders function in contemporary American innovation movements. Military leaders, particularly the chief, stand at the center of a service's internal formation of operational concepts. They therefore determine much of the character of innovation, and its expression in doctrine and acquisition. Even if the concept's core ideas come from outside the service, senior military leaders are the gatekeepers for what a service embraces, slow rolls, or rejects. They are, as Rosen demonstrates, the arbiters of the "new theory of victory." Civilian leaders, in contrast, largely control external variables. They struggle to convince or command a military service to rally behind an innovative idea, but shape the organizational climate and budgets that innovation movements depend on. They can push resources behind an innovation, and help ameliorate organizational impediments and undercutting, through a combination of budgets, robust and clear strategic direction, and advocacy. While these external variables control much of an innovation movement's potential pace and scale, without the service's internal work, there is no "new theory of victory" to pursue.

In sum, this history suggests Air-Sea's history was, fundamentally, the product of the interaction of the two chiefs navigating challenging internal and external conditions. Internally, both had to culturally and intellectually convince internal constituencies of the merits of their new theory of victory. Externally, they faced myriad challenges, most prominently budgetary shortfalls and organizational competition. Roughead and Schwartz desired near-term change, but could not achieve this without budgetary space and Secretarial mandate, either of which could have catalyzed Air-Sea Battle while dampening the climate of organizational competition. Roughead and Schwartz also sought longer-term change, by convincing their services and the broader defense community of the immediacy and strategic significance of Chinese anti-access. In this, paralleling Farrell's notions of planned change, they were more successful.

Addressing Alternative Hypotheses

Chapter 2 identified several suggestive hypotheses regarding Air-Sea Battle's history. This section examines alternative historical readings. Each illuminates some aspects of Air-Sea Battle, but falls short of full explanation.

One could argue that Air-Sea Battle was a think tank “fever dream,” pressed onto recalcitrant military services by civilian leaders. There is some merit to this perspective. ONA and CSBA played vital ideational roles, and the influx of their alumni into the Obama Administration in 2009 gave Air-Sea Battle institutional push while creating socialization opportunities. Institutional collaboration between Roughead’s Navy and Schwartz’s Air Force was less than total. Greenert and Welsh eventually tired of Air-Sea Battle, and did not robustly contest its move to the Joint Staff. The services did not, ultimately, shift their POMs deeply towards disruptive investments in the near term.

Yet, this explanation ignores several key pieces of evidence. Roughead and Schwartz’s initiation of the Air-Sea effort predates Gates’s July 2009 directive. Far from a civilian push, the program suffered more from a lack of Secretarial support than overweening civilian pressure. In contrast, multiple stakeholders cite the sincerity with which Roughead and Schwartz pushed internally for disruptive innovation. There is little record that civilian appointees in the Navy or Air Force played central roles in driving or shaping Air-Sea Battle. Further, as noted, Roughead and Schwartz could have easily “slow-rolled” Gates’s directive on Air-Sea Battle, competed with each other institutionally, or argued that their current POM best supported Air-Sea Battle. These remain far more common institutional reactions than those seen in Air-Sea Battle, particularly given Gates’s primary focus on the current wars. Roughead and Schwartz did the opposite, formulating a new theory of victory, investing substantially in cultural change, seeking disruptive changes to their POM, and building unprecedented levels of institutional accord between previous budgetary rivals. Such efforts entailed facing substantial headwinds, perhaps most importantly from within the Navy and Air Force themselves. The fact that institutional collaboration was less than “total” does not detract from the substantial growth Air-Sea initiated; “total transparency” appears an unrealistic standard. Haun’s explanation of Air-Sea’s dissolution being partially driven by the Air Force and Navy not wishing to deeply disrupt their POMs is correct for 2015, but does not account for the disruptive approach of early Air-Sea Battle. Greenert and Welsh’s eventual dissolution of Air-Sea Battle does not diminish the sincerity of the Roughead and Schwartz effort, and further, was heavily influenced by sequestration and institutional politics.

One could also argue that Air-Sea Battle was a parochial budgetary ploy by the Air Force and Navy. In this view, it was less a sincere attempt at doctrinal innovation and more of a buzzword or externally-facing marketing instrument. This view also has some merit. Interviews with both

leaders suggest that they felt the missions that civilian leaders charged their services to fulfill were beyond the resources allocated to them. Certainly, neither service was interested in initiatives that did not justify greater air-naval investment. Given the likelihood of flat budgets, this would likely come from cuts to the landpower services. Previous efforts by both the Air Force and Navy to argue their centrality to counterinsurgency rang hollow as parochial plays.

Yet, such a reading of Air-Sea Battle is partial at best. Like the “civilian push” theory, it ignores the sincerity with which Roughead and Schwartz pursued internal institutional and cultural change, investing substantial time and capital against entrenched interests. That the landpower services were not included as equal partners stems from the natural prioritization of capabilities in a maritime domain (or land domain, for that matter), and shortcomings in the Joint Staff’s egalitarian approach to innovation. The parochialism critique itself reflects egalitarianism, equating any effort at domain prioritization as “parochial.” Moreover, the years since Air-Sea Battle’s closing have largely shown the wisdom of its approach. This is noted by the 2018 National Defense Strategy and subsequent Air Force and Navy investments. Beyond this, even the landpower services later acknowledged the importance of A2AD and adjusted their concepts, often incorporating pieces of Air-Sea Battle. The logic and enduring value of Air-Sea Battle in highlighting the immediacy of China’s military challenge, and American unreadiness for A2AD, show Air-Sea Battle as something more than a “parochial budget play.”

One could also argue that the US would have reacted to China’s rise and A2AD’s importance without Air-Sea Battle. This almost certainly true. The key questions, however, are when such a reaction would occur, how robustly it would be pursued, and what further deterioration of air and naval capabilities would occur in the interim. It is not difficult to imagine, given the substantial headwinds and Secretarial attention elsewhere, an American response that was both significantly later and more muted. For example, America’s Pacific picture would be darkened considerably if it had indeed followed Gates’s advice to “trade equipment for soldiers,” curtailed the B-21, or more significantly cut investment in the research and development programs now central to American competition with China. The picture would be similarly darker had Roughead and Schwartz also used China’s rise to advocate for simply “more,” rather than also arguing for “different.” Similarly, it is not hard to imagine China’s rise stoking continued interservice rivalry between the Air Force and Navy, rather than driving them towards integration. Had the Navy and Air Force pursued the response through the Joint Staff, it is likely the Army’s obsession with

protecting end strength and the Joint Staff's embrace of egalitarianism would have produced a far milder American response.

Perhaps the most common scholarly reading of Air-Sea Battle is that it was an operational vision that dangerously disconnected from American strategy. I address this perspective in the following section.

Air-Sea Battle's Strategic Suitability

Addressing the second research question, this section examines whether Air-Sea Battle, as critics assert, was antithetical to, and/or untethered from, broader American Pacific strategy.

Specifically, it responds to assertions by Etzioni and other scholarly critics that Air-Sea Battle lacked proper civilian oversight, lacked strategic consideration, and was dangerously escalatory. In so doing, it responds to two prominent gaps in the academic literature. Scholarly proponents and critics of Air-Sea Battle offered deeply divergent opinions on the strategic veracity of Air-Sea Battle. Yet, they did so abstractly. Such debates introduced little or no primary source evidence on how the Department's program approached strategic issues, focusing instead on the strategic implications of the CSBA concept. Similarly, scholars debated mightily on whether Air-Sea generated extensive escalation pressures for Beijing, but introduced no primary source Chinese material to evidence such claims. This thesis demonstrates, through new primary source evidence on both counts, that while imperfect, the DoD program was more strategically tethered, nuanced, and effective than present scholarship appreciates.

To be clear, the academic critiques of Air-Sea Battle were thoughtful and valuable. They constitute vital points in the debate over the proper American response to China's rise. These scholars argued, convincingly, that America's response must be strategically nuanced, and rigorously subordinate operational means to political ends—as was so painfully absent in “Shock and Awe.” These are valid, and valuable, points. Further, the Department's troubled communications strategy did little to clarify its strategic considerations, nor differentiate itself from the CSBA concept. Critical scholars—particularly Hammes, Rovner, and Etzioni—responded to that ensuing information vacuum. Yet, the deeper primary source research presented here demonstrates that scholarly critiques of Air-Sea Battle's strategic dissonance are incomplete and largely inaccurate.

Air-Sea Battle's Consideration of Strategic Context

As demonstrated in Chapters 4 through 7, from its inception and throughout its life, the Department's Air-Sea effort included deep consideration of strategic context. Air-Sea Battle was an operational concept, of course, and not a strategy. It provided an operational vision to support strategic outcomes, and drive requisite tactical capabilities. Yet, from the outset, the Department's Air-Sea effort was cognizant of its potential to create an operational instrument that would prove strategically unusable. It deeply considered the decision calculus of national level leaders, and their demand for nuanced and graduated military options. Thus, in conceptual development and extensive revision, through a regular drumbeat of external engagement and strategic wargaming, the Air-Sea concept incorporated considerations of strategic issues: alliance management; conventional deterrence; crisis stability; graduated escalation chains; likely constraints from national level leadership; the meaning of "victory" amongst nuclear adversaries; and conflict termination. This included a focus on the political utility of Air-Sea's military means during peace and war, informed by outreach to OSD Policy, PACOM, and academics (Thomas Schelling and Eliot Cohen).

The Department's effort was, itself, critical of the CSBA concept's mainland strike campaign as operationally, budgetarily, and strategically unworkable. Every leader and from the Department's Air-Sea effort interviewed for this thesis emphasized this point. The DoD's concept thus consciously avoided a dependence on significant mainland strikes, focusing more on integrated capability development, maritime strikes, and other means of "blinding" ISR and achieving force protection. The DoD concept advanced a "deep strike" capability, seeing the lack of such a capability as granting the Chinese decisive operational sanctuary, limiting options (particularly if China was pursuing mainland strikes on allied bases in the Western Pacific), and ultimately damaging both conventional deterrence and escalation management. Yet, in practice, this consisted of a limited and graduated set of mostly coastal strikes, designed to create local time-space windows from which US forces could limit Chinese power projection. The appendix's Chinese-language sources suggest the Chinese defense community took Air-Sea seriously, continuing to write about it to present. Yet, as Friedberg predicted, there is little indication in

Chinese military discourse that Air-Sea Battle represented dangerous escalation or warranted a nuclear response.⁸

Tether to Pacific Strategy and Civilian Oversight

As demonstrated in Chapters 4 through 7, Air-Sea Battle strongly and directly supported American Pacific strategy during this period. Etzioni claims there has been no “proper review of the United States’ China strategy and the military’s role in it.”⁹ There is some truth to this. The Obama Administration professed a pragmatic approach that took a dim view of extensive strategizing. The national-level China strategy operated under a “conengagement” approach (a portmanteau of “containment” and “engagement”) that remained vague in practice. Yet, as detailed in Chapter 5, under ADM Willard, PACOM’s strategic thinking during Air-Sea’s early period was robust, nuanced, tethered to the Administration’s guidance, and vetted at the Cabinet level. Reflecting Clausewitzian approaches, Willard’s strategy was attuned to the intertwined political nature of peacetime military competition and potential wartime exchange.

Regarding Air-Sea Battle, ADM Willard and Pacific Fleet Commander ADM Swift strongly attest to the value of the Department’s Air-Sea program, calling it “elemental” to this strategy. This was underscored by the substantial two-way interaction between PACOM and the Air-Sea Battle program. To be clear, Air-Sea Battle hardly held a monopoly on PACOM’s thinking about potential conflict. In keeping with the Department program’s focus on rationalizing capability development and integration for A2AD, Air-Sea capabilities were seen as crucial “arrows in a much wider quiver.”¹⁰

In sum, the Administration articulated an overarching, if vague, strategic approach to China of engagement and hedging. From this foundation, PACOM forged a supporting regional strategy that passed senior civilian review. The Navy and Air Force, in deep and routine interaction with PACOM, designed Air-Sea capabilities and concepts that supported that strategy. The Air-Sea program was thus demonstrably nested to strategy, even if one argues that strategy was vague or incorrect.

⁸ (A. Friedberg 2014, 89, 94)

⁹ (Etzioni 2013a, 37)

¹⁰ Interview with ADM Willard, pg 1-4; Interview with ADM Swift, pg 2.

Etzioni claims Air-Sea Battle's lack of strategic consideration was in large part due to "structural inattention" from senior civilian leadership. As detailed in Chapter 2, part of Etzioni's critique—particularly his expectation of White House inputs into Air-Sea Battle—represents a misunderstanding of operational concepts. There is also some truth to his critique, insofar as more Secretarial attention to China's rise would have indeed been welcome. Yet, even if one believes Air-Sea should have received more civilian review, the "structural inattention" critique is inaccurate.

Specifically, this thesis demonstrates that Air-Sea had regular interaction with OSD-Policy, up to the Undersecretary level. Undersecretary Vickers bluntly observes, "The critique that ASB was disconnected from civilian oversight is garbage."¹¹ While the effort struggled for Secretarial attention, it was directed by, reviewed by, and endorsed by successive Secretaries of Defense. Secretary Panetta saw the concept as central to American near- and long-term planning for East Asia. It was also part of the senior civilian vetting and red-teaming associated with two Quadrennial Defense Reviews. Air-Sea regularly wargamed strategic issues in some of the Department's highest venues, with civilian white cells and academics exploring issues of crisis stability, escalation management, and conflict termination. These facts bely assertions, from Etzioni and other scholars, that the Air Force and Navy developed Air-Sea in relative isolation, divorced from strategic guidance, internal strategic consideration, and civilian review.

Etzioni argues Air-Sea Battle, representing US preparation for a war with China, marks a "momentous decision."¹² To some extent, the decision was "momentous," but for precisely the opposite reasons Etzioni advances. Militaries routinely prepare for contingencies, particularly against near-peer adversaries with which they have differing interests and potential flashpoints. Consider, for example, the Interwar American "Color Plans," which included preparations for a potential war with Britain.¹³ Doing so is not "momentous." What is instead historically surprising is how much the US *did not* prepare for war with China from 2001-2010, allowing Beijing an additional decade to advance its intelligent and targeted modernization plan. Etzioni's comments further reflect the zeitgeist that preparing militarily for contingencies with China—in response to

¹¹ (Michael Vickers 2022)

¹² (Etzioni 2013a, 37)

¹³ (Ross 2013)

Beijing’s two decade preparation of historic proportions, tailored towards American military vulnerabilities—was inherently offensive.

In sum, Air-Sea Battle presented a far more strategically nuanced approach to China’s rise than present scholarship has appreciated. This is true in two respects. Internally, the Department’s program deeply and continuously considered strategic issues, including routine outreach and extensive wargaming. Externally, it was aligned to American Pacific strategy and had proper civilian oversight, taking guidance from iterative conversations with PACOM and OSD.

Implications for Contemporary American Military Innovation

This section examines what Air-Sea Battle’s history suggests regarding broader themes in contemporary American military innovation and evolving Sino-American military competition.

Aligning Innovation to Strategy

While Air-Sea Battle was guided by national and regional strategic guidance, this history raises troubling questions of the broader American relationship between operational innovation and strategy.

As detailed in Chapters 6 and 7, the Air-Sea case suggests American strategic and operational development occur in the context of a marked gap between resources and strategy. As Ochmanek and Bonds both note, despite massive budgets, the nation’s defense strategy remains steadfastly more ambitious than such budgets can support.¹⁴ This perspective finds parallels in Kennedy’s deeper historical work, suggesting great powers’ strategic ambitions prove less elastic than their relative power. When a great power’s relative strength wanes, the result is a dangerous gap between a great power’s strategic ambitions and its relative power, which policymakers struggle to acknowledge.¹⁵ Indeed, as Kagan and Mitre’s historical scholarship demonstrates, the post Cold War period witnessed a steady dilution of the “two war standard,” as strategic demand for American military forces increasingly outpaced operational supply.¹⁶ As exemplified in Air-Sea’s

¹⁴ (Ochmanek ... Warner 2015; Bonds ... Norton 2019)

¹⁵ (Kennedy 2010) My own experience as DASD for Readiness echoes this.

¹⁶ (Kagan 2007) For a rich historical treatment of the two war standard, see (Mitre 2018)

history by the near simultaneity of sequestration and the Pacific Pivot, the results were—*are*—strategic risk and increased interservice competition. This perspective goes far in explaining the American’s repeated rhetoric of prioritizing the Pacific, yet difficulty in doing so.

Regarding conceptual innovation, as demonstrated in cases like Shock and Awe—and, arguably, Air-Sea Battle—resource-strategy asymmetries can warp innovation movements. This is true both organizationally and conceptually. Organizationally, in the gap between strategy and resources, each service can advance a cogent—and largely accurate—argument that it is underfunded for the missions asked of it. As demonstrated by the Army’s response to Air-Sea Battle, such gaps often catalyze interservice competition. Conceptually, strategy-resource asymmetries encourage a belief that elegant concepts and technological advancement can substitute for mass, allowing a smaller (*i.e.* cheaper) force to meet national strategic objectives. As Trip Barber observes “The belief that with hyper precision we can still dominate, in the face of an adversary’s mass—that idea still dominates the Pentagon.”¹⁷ Whether precision strike capability can substitute for mass depends on the character of the conflict and the adversary. Sometimes, in politically simple conflicts against outmatched opponents, as in Desert Storm, they can. In many others, as in the pained 2003 invasion of Iraq or facing the enormity of Chinese defenses, they cannot. Facing a Chinese adversary operating near its coast with similar technology and far greater mass, American approaches like Air-Sea Battle or Maritime Denial may indeed make the best of a bad situation—but prove inadequate to overcoming fundamental disparities between resource commitments and strategic goals.

Air-Sea’s history also suggests the contemporary American military struggles to guide operational innovation consistently with strategic input. Air-Sea Battle’s relative success in this regard was built on exceptions to the norm. The concept was relatively unique in the degree to which it incorporated strategic considerations. Doctrinally, conceptual development is supposed to occur in a “strategic vacuum,” thus maximizing operational creativity.¹⁸ The critiques of Etzioni, Echevarria, and others are valuable in noting the inadequacy of such an approach for potential conflict between nuclear adversaries. Moreover, Air-Sea’s history suggests that it is not clear where deep regional strategy occurs in the modern Department of Defense. ADM Willard was an exception in his elevation of PACOM’s thinking to the strategic level, which subsequently

¹⁷ (Trip Barber 2022)

¹⁸ (Staff 2017, 1.:7–9)

returned to the operational level after his departure. Indeed, COCOMs are typically focused on “fighting tonight,” rather than deep strategic direction. The services will typically take a parochial approach to such questions. The Joint Staff could do so, but is egalitarian in nature and has little institutional power over service doctrine or acquisitions. OSD Policy arguably should be the center of such activity, but during this period was typically focused on shorter-term priorities, and proves similarly limited its ability to shape service force development. In sum, neither the external strategic guidance, nor internal strategic consideration, seen in Air-Sea Battle are structured to repeat themselves with any regularity.

Finally, in the American case, a lack of clear national strategy itself further complicates the innovation process. Innovation efforts like AirLand Battle addressed a single, clear, and widely-accepted threat. AirLand’s planners faced comparatively less institutional resistance to arguing the Soviet’s Fulda Gap challenge was central to American national defense, demanding prioritization and investment. In contrast, given the lack of an overriding threat in the post Cold War period, America has largely pursued a hedging strategy—being “pretty good” at all forms of warfare, without emphasizing one. Hedging makes the prioritization of strategic challenges and resources—needed to overcome the high barriers to innovation—more difficult. Air-Sea Battle, as the “1.0 version” of America’s military reaction to China’s rise, failed to achieve such prioritization.

Whither American Jointness?

The “hedging” approach to American strategy is undergirded by powerful cultural and institutional norms of service egalitarianism. Air-Sea’s history suggests these factors can further complicate attempts at strategic prioritization and innovation.

As described in Chapter 7, the Air-Sea and Joint Staff approaches to “jointness” were almost diametrically opposed. At root was whether modern American jointness prioritized operational efficacy on the battlefield, or institutional egalitarianism between the military services. The former allowed for prioritization between services and domains. The latter focused on dampening competition between the services through eschewing exactly such prioritization. As early as Spring 2011, General Cartwright, the Vice Chairman, was urging Roughead to bring the Army in more

deeply.¹⁹ Yet, as noted, when the Army was included in the ASBO, it hardly participated. While the Army was halfheartedly participating, Army and Joint Staff calls for “inclusion” were simultaneously becoming more vociferous. This suggests the central issue between the two conceptions of jointness was not inclusion, but equality. The Army didn’t want inclusion and the contribution of its supporting elements; it wanted equal voice. Specifically, it wanted to bolster the number of BCTs. Given the evidence in Chapter 6, there is little reason to believe it would not have used Air-Sea Battle to do so. The Joint Staff didn’t want a blend of joint capabilities tailored to a maritime domain; it wanted institutional equality. For both the Army and Joint Staff, the obvious solution was Joint Staff institutional control and structured egalitarianism. Air-Sea Battle thus sparked a fundamental tension during this period between the prioritization demanded by a non-hedging strategy, and presiding institutional and cultural tendencies towards egalitarianism.

In the Air-Sea case, the Joint Staff’s resistance reflected both institutional and cultural imperatives. Jointness is the institutional *raison d’être* and cultural north star of the Joint Staff. Institutionally, Air-Sea Battle questioned the relevance of the Joint Staff, advertising a potentially more effective means of multiservice doctrinal innovation. Culturally, the Joint Staff’s resistance reflects a foundational belief in egalitarian jointness. This approach to interservice politics is historically informed by the litany of parochial faults in American warfighting prior to the 1986 Goldwater Nichols Act, which invested the Joint Staff as the guardian of modern American jointness.²⁰ Interviews with Joint Staff stakeholders attest to the sincerity and relative ubiquity of this belief, and the sense that domain prioritization constituted a cultural “process foul.” The depth of this belief is suggested by a quote from a Joint Staff senior leader:

“If someone described the Pacific as maritime and air centric, that’s immature thinking on the problem. Whoever said that doesn’t really understand the Pacific...How would one know how to create asymmetries across domains if one did not look at all the options available?... [Viewing the Pacific as maritime and air centric] appears parochially focused rather than trying to solve a problem with all tools and options available.”²¹

This brings the differing views into sharp relief. Is the Pacific an air and maritime centric theater? In the Air-Sea view, it is. In Joint Staff view, it is not. In this view, envisioning the Pacific as an

¹⁹ (Gary Roughead 2 2022)

²⁰ (Nichols 1986) (Roman and Tarr 1998)

²¹ (Interview 32 2022)

air and maritime domain—it is, after all, mostly water and air—runs afoul of the egalitarianism demanded by modern American jointness. Tangredi makes a similar observation, “If such cultural norms had existed during the time of Mahan, he would have been harangued as ‘woefully neglectful in not including coastal artillery as a major component of seapower.’”²²

The Joint Staff’s egalitarianism was, in many ways, both understandable and even admirable. It solves a difficult institutional question: how to craft a common strategic direction, given the uncertainties of the future and the divided institutional equities that must be reconciled?²³ The Joint Staff’s contemporary answer was, in essence, democratic. While avoiding fights, this approach also nested well with a hedging strategy, within which a unipolar US believed it could “do everything.” Short of the immediate needs of a current war, the question of what to prioritize was answered by not prioritizing anything at all.

Yet, while solving one set of problems, egalitarianism generates another. The egalitarian approach to both strategy and innovation efforts forecloses options and blunts meaningful change in several respects. Strategically, egalitarianism diametrically opposes the prioritization upon which most strategies depend.²⁴ Eschewing prioritization is theoretically possible for a 1990s American hegemon. Now facing a China that is economically larger than the Soviet Union, across a maritime environment, such prioritization will remain central to translating smaller American defense investments into a larger strategic impact. Regarding innovation, an egalitarian approach gives equal voice to services in conceptual development. This presents two problems. First, conceptually, services can—and do—ensure their equal share of emerging concepts, with a weather eye to budgetary impacts. As demonstrated by the Army’s efforts to get large landpower formations into American Pacific strategy, this can create a tendency towards a “least common denominator” approach to innovation. At some point, war imposes a heavy tax on such satisficing. Second, the Joint Staff lacks authority over budgets, acquisitions, and service doctrine. Thus, in addition to watering down a concept itself, the services can largely ignore or explain away Joint Staff missives, protected by their Title 10 monopolies.

²² (“Jointness Versus Strategy: How Joint Ideology Distorts U.S. National Security” 2022)

²³ (Drezner, Krebs, and Schweller 2020)

²⁴ David Fautua, “The Paradox Joint Culture. (Out of Joint),” *Joint Force Quarterly*, (2000): 81; Seth Cropsey, “The Limits of Jointness,” *Joint Force Quarterly*, no. 1 (Summer 1993): 72–79; Michael Vlahos, “By Our Orthodoxies Shall Ye Know Us,” *Joint Force Quarterly*, no. 2 (Autumn 1993): 108–10; Bryan McGrath, “The Unbearable Being of Jointness,” *Proceedings - United States Naval Institute* 136, no. 5 (2010): 40. Sam Tangredi, *Anti-Access Warfare: Countering Anti-Access and Area-Denial Strategies*, (Annapolis: Naval Institute Press, 2013), 18.

During this period, the Joint Staff was ultimately successful in defending joint egalitarianism from the Air-Sea challenge. This raises an important question. AirLand Battle was the most successful modern American conceptual innovation. Coming before Goldwater Nichols, AirLand paralleled Air-Sea Battle in allowing two services to innovate outside the wider joint community, and in prioritizing battlefield realities over organizational egalitarianism. In the world after Goldwater Nichols, can the US repeat the kind of incisive conceptual leap seen in AirLand? Can two services, in their Title 10 authorities, join to solve a significant problem in their shared domain? The Air-Sea Battle experience suggests they cannot. Legally, there is no limitation on such activity. Yet, in practice, the period suggests that two services pursuing a significant change together—one with significant budgetary implications—would likely be met by the cultural sense of a process foul, and the ample institutional instruments by which services can ensure joint equality. In this sense, the US may have become its own jailer with respect to the strategic and operational prioritization demanded by China’s rise. As American strategy shifts towards the Pacific, will these strategic demands overcome cultural and institutional egalitarianism? Put differently, if strategic hedging cannot last, can joint egalitarianism?

In sum, the question of whether American jointness remains unanswered. Neither egalitarianism, nor the parochialism that preceded it, appear optimal. In practice, the current institutional structure presents leaders considering multidomain innovation with a choice. Had Roughead and Schwartz followed the Joint Staff process, Air-Sea Battle likely would have unleashed fewer institutional antibodies, but precisely because it threatened no equities—i.e., it was not an innovation. Stepping outside of joint process protects ideas, but promises an institutional fight should such ideas prove convincing enough to disturb the egalitarian balance. In an era where the US is both focused on “cross-domain synergy,” and identifies a maritime competition with China as its primary focus, the contested meaning of “jointness” will remain central to both American military strategy and innovation efforts. While speculative, Air-Sea Battle may prove a first salvo in reimagining American jointness, as American strategy moves from broad hedging to a focus on competition with China.

American Military Innovation’s Temporal Dilemma

Air-Sea Battle’s history suggests innovation will be difficult, contested, and likely require substantial time. To quote Deputy Secretary Work, “We literally had the mandate to do this in

the QDR, signed by the Secretary of Defense, and spearheaded by two of the four service chiefs. We still couldn't get it through.”²⁵

As noted in the theoretical framework, innovation initiatives like Air-Sea Battle imply substantial risk and disruption. Regarding risk, what if the “new theory of victory” is wrong about the character of future warfare? Regarding disruption, innovative disruption may improve military performance in the long term, but deteriorates military readiness and mastery in the short.²⁶ Leaders considering innovation movements must therefore confront a set of first-order questions. Are the proposed changes profound enough, and high confidence enough, to justify writing off sunk costs and disrupting the military's combat readiness? How would we know? How can we build sufficient consensus within the military to drive a quorum—both for the need for change, and for our particular innovation? These questions are likely difficult for any military to answer with full confidence. In the contemporary American context, the aforementioned lack of strategic clarity and cultural bent towards egalitarianism make them more so.

The risks associated with innovation are not simply theoretical. The track record of contemporary American military innovation is littered with the wreckage of technologically ambitious innovation attempts that resulted in expensive failures. This is true for platforms: the Army's Future Combat System, the Navy's Littoral Combat Ship and DDG-1000, and the troubled F-35 stand as prominent examples, among others. It is also true for operational concepts. As shown in Chapter 3, the 1990s zeal for “transformational” concepts created several strategic and operational problems, most painfully in Iraq, and most importantly with respect to China. The history of modern American military innovation during this period is thus not one of universal and overweening conservatism in the face of innovation's risks. Frequently, a lack of patience to temper innovative ambitions has spawned bad programs and bad operational concepts. This history suggests “innovation” is not an unalloyed good, nor conservatism a universal bad.

To navigate these first-order questions without undue risk militaries to undertake sustained commitment over extended timeframes. No matter how promising, prospective innovations require extensive analytical work to challenge assumptions, refine concepts, determine

²⁵ (Robert Work 2021)

²⁶ This dilemma also applies to joint operations. Every hour taken from mastering one's particular craft to incorporate joint training equates to less mastery; given a finite training calendar, a balance must be struck between domain mastery and joint integration.

technological feasibility, and understand their holistic effects (i.e. across the DOTMLPF). Organizationally, innovation requires some challenge to the status quo, which means disturbing established interests and budgetary allocations. This requires senior leader time and engagement, to convince key internal and external stakeholders of the validity of the proposed innovation. Finally, it takes time to design and acquire new platforms or materiel, test their engineering and performance, and reorganize units, doctrine, personnel, and training to the new conceptual approach. These steps are often recursive—lessons learned from the deckplates, exercises, or production lines necessitate rethinking original assumptions. They also prove crucial to differentiating an intelligent “new way of war” from an impertinent gamble. Without them, an innovation movement might fail, or worse still, succeed—but only in driving deleterious change.

How, then, should military leaders proceed? If senior military leaders are vital to innovation movements, as this thesis (echoing much scholarship) suggests they are, this presents leaders with a temporal dilemma. Namely, there is a significant asymmetry between the time required for significant military change and the shortened leadership tenures of the senior American military officers required to drive it. Given the barriers to innovation above, successful peacetime innovation likely requires at least a decade to mature—often much more. The tenures of senior leaders in the American military—generally about four years, but often much less for key positions below the chief—make such sustained effort difficult to achieve. For this reason, “buzzword” programs occur throughout the history of contemporary American doctrinal innovation, often not surviving the transition of their senior leaders. No longer can a Rickover command a community long enough to personally drive and assure significant change. Leadership transition serves as a brake, for better and worse, on much innovation behavior.

Innovation’s temporal dilemma presents senior American military officers with two broad options for innovation, which are not robustly explored in scholarship about American military innovation. Senior leaders can attempt to expedite an innovation, attempting to drive it through during their tenure. As evidenced by the Navy’s Littoral Combat Ship and Army’s Future Combat System, this expedited path risks allowing underdeveloped ideas to enter the force too quickly.²⁷ Alternatively, senior leaders can focus on vetted innovation. The second path echoes some aspects of Farrell et al’s notions of planned cultural change. This requires committing substantial time and

²⁷ (Pernin ... Sollinger 2012; O’Rourke and Congressional Research Service 2018)

capital to convincing the community of stakeholders of the merits of their proposed innovation, knowing these stakeholders will outlast the senior leader's tenure. The service's senior officers below the chief hold strong influence over current doctrine, budgets, programs, and training. They will be key to the process of vetted change outlined above, synchronizing changes across the major communities and activities of the service. This community of senior officers can also slow roll a chief's innovation movement, and is the likely source of the service's next chief. Given service power over doctrine and acquisitions, winning the internal fight is necessary even if not sufficient. Put differently, without convincing internal constituencies of the validity of the new theory of victory, there is little prospect for surviving leadership transition. If successful, service leaders can keep an innovation movement alive until external conditions (budget, senior leader support) allow for greater investment and more rapid progress. This "long approach" allows a more vetted attempt at innovation, but takes time, and risks failure if the senior leader proves unable to convince key stakeholders before leadership transition.

In Air-Sea, rather than acting solely on fiat, Roughead and Schwartz invested heavily in socializing Air-Sea's ideas with the key internal and external constituencies that would outlast them, from junior warfighters to senior. As demonstrated in Chapter 7, while the program died shortly after Roughead's departure, its ideas did indeed diffuse into the American military. In sum, while it took considerably more time and remains a "work in progress," the intellectual content of Air-Sea Battle outlasted, and proved more consequential, than the Air-Sea program itself. This underscores the importance of ideas to military innovation, as they survive and evolve well beyond individual leadership tenures and discrete innovation movements.

Reconsidering "Buzzwords"

As noted, operational concepts like Air-Sea Battle are the central intellectual engines of American innovation. Such ideational factors often appear as derivatives in more structural explanations of military change.²⁸ Air-Sea Battle's history highlights their importance, echoing themes from the innovation scholarship of Kuhn, Rosen, Clark, Pullan, and Farrell. While structural factors indeed create powerful incentives for innovation, the intellectual content of innovation matters. The

²⁸ (Lock-Pullan 2005)

decision to innovate, its timing, and most fundamentally, its character are deeply contingent on particular military leaders and the ideas they embrace.

Rosen's "new theory of victory" represents the most prominent ideational factor identified by innovation scholarship: "An explanation of what the next war will look like and how officers must fight it if it is to be won."²⁹ Air-Sea Battle and its attendant diagnosis of A2AD exemplified Rosen's new theory of victory. Regarding the character of the next war, Air-Sea Battle argued, convincingly, that it looked neither like Desert Storm nor the 1996 Taiwan Strait crisis, for which the American military was optimized. Instead, it looked like A2AD. Regarding how to fight it, Air-Sea argued that the US would have to fight differently, hiding always within an enemy's fires, emphasizing smaller and more distributed force packages at greater distances, and exploiting windows of temporary—rather than ubiquitous—command of the commons. These ideas, contested and in the minority before 2008, are now central to American defense planning. As noted, intellectually, the American military of 2022 is not the American military of 2008. Air-Sea Battle mattered—not primarily in terms of material innovations, but in terms of the ideas it spread.

This kind of impact remains underrepresented in military innovation scholarship. In particular, if new theories of victory are indeed important to the direction and character of military change, they obviously do not emerge *tabula rasa*. As Long notes, there is no "immaculate military innovation."³⁰ Instead, the ideas that are central to operational concepts and doctrinal innovation emerge out of an intellectual context. More concretely, they are products of a military's intellectual culture—its conversation about future war. As demonstrated by the strength of Boyd and Warden's innovations, their expression in AirLand Battle, the flawed continuation of these ideas in "transformation," and the partial correction of Air-Sea Battle, operational concepts are part of an intellectual lineage. New theories of victory, in this sense, depend vitally on the past, even as they challenge it. This conversation about future war—played out in white papers, exercises, wargames, wardrooms, and professional journals—constitutes the intellectual DNA informing and shaping military change. It forms the intellectual context and wellspring from which "new theories of victory" emerge and are debated. Each of these innovation efforts marks an important

²⁹ (S. Rosen 1991, 20)

³⁰ (Stulberg, Salomone, and Long 2007, 14)

inflection point in the American military's intellectual culture, drawing from previous ideas and affecting future ones.

This perspective reframes our understanding of “buzzwords,” from temporary and ineffectual fads, to inflection points in a wider conversation about future conflict, the progress and quality of which can matter greatly for military change. Not all are equally impactful or long lasting. Buzzwords indeed come and go, frequently promising more than they deliver. Yet, viewed in toto, they are the waypoints in the evolving conversation about future warfare, upon which the character of military change will vitally depend.

Returning to Air-Sea Battle, this perspective allows us to view Air-Sea Battle in a different light. The primary mechanism by which Air-Sea Battle initiated changes in the American military was through changing this conversation about future war. Air-Sea Battle successfully challenged the previous American theory of victory, even as it failed to fully replace it. In so doing, it reframed the American conversation about war to a new problem. To quote Ochmanek, Deputy Assistant Secretary for Strategy during this period, after Air-Sea Battle, “you started getting planners in the Pentagon to realize they had *a qualitatively different problem* that they were planning for.”³¹ The American military of 2023 appears now to accept the centrality of China and A2AD, but is still struggling—intellectually and institutionally—to fashion a proper response. Yet, this is meaningfully distinct from the American conversation of 2008, wherein prioritizing China and doubting American power projection remained minority views.

Air-Sea Battle, as a buzzword, died. Yet, before it did so, it constituted a change in American military thought, framing new problems while suggesting new solutions. As demonstrated in Chapter 7, subsequent American developments—from the 2018 NDS to even the operational concepts of the Army and Marine Corps—would draw heavily from the Air-Sea inflection point. This perspective on Air-Sea further challenges the veracity of consequentialism's dualist notions of “success” and “failure” in military innovation. While not a fully encapsulated case of “successful innovation,” Air-Sea Battle hardly seems a “failure.” Generalizing from the Air-Sea case, the space between “success” and “failure” matters for military change, in ways that remain underexplored in military innovation scholarship. Innovation “success” often stands on the shoulders of earlier failures and “buzzwords,” which constitute the vital intellectual feedstock by

³¹ (David Ochmanek 2022) Emphasis mine.

which militaries interpret and debate changes to their strategic, operational, and technological environments. Innovation, in this sense, is less sudden and discrete instances of brilliance, but rather a product of an intellectual context, shaped by inflection points in its process of ideation and debate. Air-Sea Battle was one such inflection point in the American return to great power competition—an important and underappreciated one.

Conclusions

The American Pacific picture continues to evolve, in ways that are naturally unpredictable at the time of this writing. Perhaps the American military will go a different direction, and more hopefully, perhaps Sino-American relations will improve. Perhaps other exogenous events, like 9/11, will pull American defense in new directions. Alternatively, perhaps, as ADM Foggo suggested in early 2023, the US military will go “back to the future,” and “resurrect” Air-Sea Battle as a centerpiece of American conventional deterrence.³² In any case, as it is for any work of contemporary history, it is impossible to fully appreciate the historical significance of Air-Sea Battle without knowing what future years will bring. Even for future historians, while deterrence failure is obvious, proving deterrence remains impossible. If deterrence is successful, one can never prove the counterfactual—whether deterrence would have held without this or that military development. Distinct from victory having “a thousand fathers,” in deterring war, victory largely goes unacknowledged. Like AirLand Battle and the Soviets, Air-Sea’s greatest victory would be to never be employed.

Whatever coming years bring, the Air-Sea Battle period represents a pivotal moment for American air and seapower, the American military, and Sino-American relations. Against considerable headwinds, it shifted American thinking about national defense, in ways that in the 2020s appear far more prescient than its critics acknowledged. Considering Air-Sea’s evolution in retrospect is reminiscent of Icarus in Jack Gilbert’s poem “Failing and Flying.” Most accounts of Icarus are terrestrial in nature, focusing dismissively on his death. In contrast, Gilbert notes, “Everyone forgets that *Icarus also flew*... I believe Icarus was not failing as he fell, but just coming to the end of his triumph.”³³ Air-Sea Battle died. Yet dying, at least in this perspective, is distinct from failing.

³² (James Foggo and Steven Wills 2023)

³³ (Jack Gilbert 2005)

APPENDIX: CHINESE REACTIONS TO AIR-SEA BATTLE

China's reaction to Air-Sea Battle remains a key gap in our understanding of this period. Scholarly critics of Air-Sea Battle argued strenuously that Air-Sea Battle would engender Chinese escalation, particularly mainland strikes. Advocates argued that Air-Sea would deter the Chinese, and that such escalatory pressures were limited. Neither side drew upon Chinese-language discourse to evidence these conjectures. Building off Swaine, this thesis incorporates sixteen previously untranslated military journal articles, think tank reports, and speeches to do so. It also draws from interviews with American engaged in military diplomacy with the PLA, as well as China experts at PACOM and OSD.

While the “Pacific Rebalance” drew considerable commentary on both sides of the Pacific, I can identify only one scholarly source conducting primary source research on China's reaction to Air-Sea Battle. This is Swaine's 2013 article on Chinese reactions to the Rebalance, which included scant coverage on Air-Sea and, occurring in 2013, could not cover the entire period.¹ Chinese official statements and English-language articles framed Air-Sea Battle as “destabilizing” and evidence of a “Cold War mentality.”² Yet, as noted by Dave Dorman—a Chinese-speaking expert at PACOM who interacted with the PLA on military issues, Air-Sea included—there is often considerable distance between Chinese-language internal conversation and the outward facing, English language discourse.³ While the former is a venue for internal debate, the latter functions as propaganda and strategic messaging. How, then, did the Chinese defense community perceive Air-Sea Battle?

Strategic Aspects

One of the clearest findings from these sources is that, despite DoD claims of to the contrary, Chinese stakeholders believed Air-Sea Battle (空海一体战) was targeted at them.⁴ Beyond some “plausible deniability,” it is therefore doubtful the Americans avoided antagonizing Chinese stakeholders by removing China from their Air-Sea discourse. It is more likely that the removal caused the Americans to appear disingenuous. To quote Dorman, “The opinion [that naming China in ASB would

¹ (Michael Swaine 2012)

² (Michael Swaine 2012, 7)

³ (David Dorman 2022)

⁴ Jing Chen, Xingshan Song, Zen Cheng, Jiang Guoping, Liu Peng, Chen Ye, Yang Bing. (Jing Chen 2011; Zen Cheng and Wudong Cheng 2015; Guoping Jiang 2012; Xingshan Song 2015; Peng Liu 2010; Chen Ye 2020; Jieming Hu, Meichu Guo, and Yang Bing 2011)

antagonize them] is far too simplistic. The notion that ASB was not directed at China—it was clearly directed at China. They saw US actions directed at China way before ASB...In their view, ASB was about China, about breaking through China's A2AD. It didn't matter what we were going to say—they would just dismiss that as propaganda.”⁵

Further, many Chinese stakeholders perceived Air-Sea Battle as part of a broader, longstanding, and comprehensive American strategy to contain China.⁶ To quote a 2011 article from one of China's premier defense academies, “Air-Sea Battle is in an overarching strategy to...contain China's rise and ensure U.S. interests in the Asia-Pacific region.”⁷ Similarly, Swaine notes that as of 2013 Chinese sources tended to overstate the scope and significance of Air-Sea Battle.⁸ Swaine's scholarship includes two respected PRC analysts describing Air-Sea as “the fulcrum and theory foundation for directing the strategic transformation of the US, and the eastward shift of the gravity center of US global strategy.”⁹ While my research demonstrates that the “Pacific Rebalance” and Air-Sea Battle were largely disconnected (see Chapter 6), Chinese stakeholders did not perceive them as so. In this, Swaine notes Chinese civil-military parallels to AirLand Battle and the containment strategy of the Americans towards the Soviets.¹⁰ To quote Dorman, “The Chinese discussion saw ASB as a supporting part...of the overarching US strategy towards China. They saw ASB connected to the TPP [Trans-Pacific Partnership] as supporting pillars of the Rebalance, this all being part of a containment strategy.”¹¹

Given the Chinese perception of a containment strategy and the transformation rhetoric of the early Bush administration regarding “transformation,” it is unsurprising that Chinese sources welcomed American distraction towards the “War on Terror.” A 2003 speech the Director of Renmin University's Center for American Studies, Shi Yinhong, noted, “The shift of the American strategic center to East Asia and the West Pacific, which began in Clinton's second term, has been significantly hampered. In this sense, China can finally breathe a sigh of relief...the benefit to our country is if we

⁵ (David Dorman 2022)

⁶ Zen Cheng, Jiang Guoping, Liu Peng, Zhang “Ernie” Erchow, Yang Bing (Zen Cheng and Wudong Cheng 2015; Guoping Jiang 2012; Peng Liu 2010; Erchao Zhang 2012; Jieming Hu, Meichu Guo, and Yang Bing 2011)

⁷ (Jieming Hu, Meichu Guo, and Yang Bing 2011)

⁸ (Michael Swaine 2012, 8)

⁹ (Michael Swaine 2012, 8)

¹⁰ (Michael Swaine 2012, 8)

¹¹ (David Dorman 2022)

make good use of this opportunity...”¹² Chinese sources tended to view Air-Sea Battle as evidence of the long-expected return of American attention after their dalliances in counterinsurgency.¹³

The potential for focused American attention on China that Air-Sea portended, beyond any of its particular operational elements, was arguably the concept’s most worrisome aspect. To quote Dorman, “The most important takeaway from Air-Sea Battle for the Chinese was the notion that, after a long period of lacking focus, the US might be turning its attention to China.... *There was a level of interest in ASB unlike anything that I had seen previously.* It was totally driven by the notion that ASB was evidence that the US was going to refocus hard on China, on Asia, and make significant changes to their forces, posture, and thinking. You can’t see ASB in Chinese terms without seeing it as totally tied to the whole of the US containment strategy in Asia. The timing of ASB turned out to be right, even if it was disconnected from the Rebalance. (emphasis mine)”¹⁴ Similarly, Ochmanek recalls Chinese reporting at the time that suggested, “The US is waking up to the threat. [of A2AD]”¹⁵

Mainland Strikes, Escalation, and Arms Races

Regarding mainland strikes, there is little to no evidence in these sources that Chinese stakeholders found mainland strikes to be exceedingly escalatory. There is remarkably little commentary on the issue, particularly when compared to the Pacific Rebalance more broadly, or to Air-Sea’s operational aspects more specifically. It seems clear from Chinese writings, particularly on a “blinding campaign,” that many Chinese stakeholders believed mainland strikes were likely in a significant Sino-American conflict.¹⁶ These documentary findings are generally consistent with interview evidence. General David Stilwell, then an Defense Attaché stationed in Beijing, noted that Air-Sea and mainland strikes were rarely, if ever, mentioned by the Chinese:¹⁷ Dorman, who interacted with Chinese military counterparts on Air-Sea Battle, relates a similar absence: “It [mainland strikes] wasn’t as large an issue for them. The Army having anti-ship missiles or being involved in directly defending Taiwan had a much larger Chinese focus than mainland strikes. [There was] intense Chinese attention towards US joint operations...I don’t see evidence...of the notion that [they believed] a) the Americans would

¹² (Yinhong Shi 2001)

¹³ (David Dorman 2022)

¹⁴ (David Dorman 2022) David Dorman

¹⁵ (David Ochmanek 2022)

¹⁶ (Jing Chen 2011)

¹⁷ (David Stilwell 2022)

never strike the mainland, it is not a credible threat, or b) mainland strikes would represent a severe escalation of a Sino-American conflict.”¹⁸

Official Chinese discourse, and English-language Global Times articles, labeled Air-Sea Battle as “destabilizing.”¹⁹ Chinese public discourse has, however, labeled many phenomena as “destabilizing,” including the desire of the US to get more involved in the region broadly.²⁰ Elbridge Colby relates the following from an informal diplomatic meeting with the Chinese in Beijing: “The Chinese brought up Air-Sea Battle with former PACOM Denny Blair, telling him ‘You are planning for war with us with your Air-Sea Battle.’ Blair replied, ‘Then, I guess you’re ‘planning for war’ with us through your ‘counterintervention’ concept. It’s no big deal. Of course, we’re both prepared for contingencies—this is what states have always done.’ I [Colby] thought this was a much better and clearer approach to communications [with the Chinese] than the “never name China” approach.”²¹

Similarly, Western critics of Air-Sea noted its potential for stoking an arms race, widely citing an English-language statement by PLA Colonel Fan Gaoyue: “If the US military develops Air-Sea Battle to deal with the [PLA], the PLA will be forced to develop anti-Air-Sea Battle.”²² This may be true, but China’s historically-singular military modernization began in earnest over a decade before Air-Sea Battle. In this light, arms race pressures in the Western Pacific had long been occurring; the US had simply missed most of them during their early period, while focused on its landpower counterinsurgencies. Further, the argument of Air-Sea Battle spurring an “arms race” does not fit well with Chinese language sources suggesting almost wholly the opposite—that China seize upon American distraction in its War on Terror as a window of opportunity to increase its expansive military modernization effort.

Operational Aspects

In addition to signaling renewed American attention on China, Chinese sources suggest that the PLA also took Air-Sea’s operational aspects seriously. As I describe below, while Chinese sources show

¹⁸ (David Dorman 2022)

¹⁹ (“US Needs More Nuanced Strategy in East Asia - Global Times” n.d.)

²⁰ (Times n.d.)

²¹ (Elbridge Colby 2022)

²² (Eric Sayers and Gaoyue Fan 2011)

differing opinions on the extent of the Air-Sea threat and how to counter it, these sources suggest the Chinese viewed Air-Sea Battle as significant “new thinking” on A2AD.²³

Specifically, Chinese sources appear particularly attuned to Air-Sea’s impact on space, cyber, and ISR areas.²⁴ Regarding space, one article notes “[Air-Sea Battle] is not only an inheritance of previous combat theory, but is also a more targeted, realistic, and operable theory. It may be the first theory in world military history to give full play to the power of modern space combat.”²⁵ Their potential vulnerability to a “blinding operations” was the most frequently mentioned operational element in these sources.²⁶ A 2010 article from the *Journal of Contemporary International Relations* observes, “The report envisages that once the conflict breaks out, the US military will immediately carry out ‘blinding operations’ to paralyze the command and control system and combat network of the PLA, destroy the ability of the PLA to target...[This] will be extremely beneficial for the US military for reacquiring or enhancing maritime freedom of movement in a wide area.”²⁷ There was a more general sense in some sources that Air-Sea Battle would exploit PLA weaknesses, with Air-Sea’s C2 improvements facilitating faster operational decisionmaking.²⁸ For example, a widely-read policymaking journal noted in 2012, “[T]he U.S. military has put forward and perfected the theory of Air-Sea Battle. The existing combat system of the military poses a great challenge...Our combat capability in full-dimensional space is far inferior to that of the United States. We should adhere to asymmetric strategic thinking to subdue the full spectrum of advantages that the U.S. military seeks.”²⁹

Interview evidence on senior naval engagements paints a similar picture. ADM Roughead met with some frequency with his Chinese Navy counterpart, ADM Wu Shengli. Roughead relates, “ASB was driving the PLA crazy. The Chinese kept trying to pull out of me—‘What is Air-Sea Battle?’ [ADM Wu] thought it was jointness on steroids. Jointness really intimidated the Chinese military. They realized we could mass power and effects in a joint way was beyond what anyone had ever seen before. They thought ASB was an expansion of that.”³⁰

²³ (David Dorman 2022)

²⁴ On space and cyber, see Zhang Erchao and Chen Ye (Erchao Zhang 2012) (Chen Ye 2020)

²⁵ (Guoping Jiang 2012)

²⁶ Chen Ye, Peng Liu, Fang Hongliang, Pei Ying, Jing Chen (Chen Ye 2020; Peng Liu 2010; Hongliang Fang 2014; Pei Ying ... Longgang Zhai 2012; Jing Chen 2011)

²⁷ (Peng Liu 2010)

²⁸ Chen Ye, Ji Hongliang, Jing Chen (Chen Ye 2020; Hongliang Ji 2016; Jing Chen 2011)

²⁹ (Pei Ying ... Longgang Zhai 2012)

³⁰ (Gary Roughead 2022)

Some Chinese sources also suggest Air-Sea Battle demonstrated broader American advantages in conceptual innovation. Zhongping Song, one of the most influential military commentators in China, noted in 2015. “Although just a theory brought up jointly by the Air Force and the Navy in 2009, the Air Sea Battle doctrine has become the guide to the rapid expansion of the US armed forces. We can conclude the US is the world’s most powerful military not only because of its supremacy in weapons and technologies, but also its constant drive to innovate its command strategies. These reasons allow the US to maintain its lead in the global race of military reforms.”³¹ Song later suggests that ASB describes the future of air-naval warfare, and that the Chinese should tailor their own version of the approach.³² The widely-read journal “Science and Technology Vision” journal agreed, noting that Air-Sea Battle is the direction militaries are headed.³³

The Chinese Air-Sea Battle discussion also caveated their concerns and contained several dissenting views. At the strategic level, in 2011 a major defense journal related greater trepidation over blockade: “This report believes that in a long term conflict, blocking Chinese maritime trade is more effective than a full scale war against the PLA [as implied by Air-Sea Battle].”³⁴ Operationally, Jiang Guoping argued that the American capabilities successfully demonstrated on “smaller states” would not prove as effective against China, given its immense geography and more capable military.³⁵ Two other articles highlighted the technical barriers to interoperability.³⁶ Presciently, two questioned whether the US could sufficiently overcome interservice rivalries to pursue ASB (see below). Finally, two sources conveyed confidence that while Air-Sea targeted PLA vulnerabilities, China could respond by developing new weapons to target American satellites, bases, and carriers.³⁷

Conclusions on Chinese Perceptions of Air-Sea Battle

The largest misperception in Chinese discourse on Air-Sea Battle was the belief a coherent grand strategy of containment guided a “Pacific Rebalance,” which was aligned to and supported by efforts like Air-Sea Battle and the TPP. Chinese language sources show surprising prescience on significant

³¹ (Zhongping Song and Zhaohui Wang 2015)

³² (Zhongping Song and Zhaohui Wang 2015)

³³ (Zen Cheng and Wudong Cheng 2015)

³⁴ (Jing Chen 2011)

³⁵ (Guoping Jiang 2012)

³⁶ (Peng Liu 2010) Also Fang Hongliang.

³⁷ Pei Ying, Yang Bing (Pei Ying ... Longgang Zhai 2012; Jieming Hu, Meichu Guo, and Yang Bing 2011)

areas of Air-Sea Battle. Echoing Kagan, a major Chinese journal noted that Air-Sea likely marks a return to threat-based planning rather than capabilities based, which could prove more difficult for China.³⁸ Several journals argued, perhaps drawing from Western press reporting, that interservice tensions within the American military would likely blunt the Air-Sea effort. As early as 2011, a major Chinese journal noted “The realization of integrated operations among the services is easy to propose but difficult to do. The individualism among the branches is still prevalent, and the disputes over the interests of the branches are difficult to eliminate... It is clear to see that there are infighting between the various military interest groups of the U.S. military.”³⁹ Another major journal observed in 2011, “The competition and contradictions between the services have become more and more deeply rooted. Eliminating inter-service conflicts, ‘stitching’ the gaps between the services, and completing the integration of service capabilities have become the key issues to be solved urgently for the U.S. military to build an Air-Sea integrated combat force.”⁴⁰ Interestingly in light of Gen Berger’s later changes to the Marine Corps, a 2012 article advised watching Marine Corps operating concepts as a bellwether of American seriousness for substantive change.⁴¹ These sorts of insights lead Dorman to conclude that “Chinese public analysis of ASB in their journals was much more sophisticated than our own... A rich Chinese discussion—the richest I have seen on any military topic, before or since.”⁴²

In sum, Chinese military discourse wrestled presciently with Air-Sea Battle’s strategic, operational, and institutional dimensions. While it is difficult to “prove” Air-Sea Battle’s effects on American conventional deterrence credibility, the Chinese took Air-Sea Battle seriously. If deterrence relies upon a credible threat and a credible will to use it,⁴³ many Chinese thinkers saw an increased threat from Air-Sea, particularly its ISR, cyber, and space dimensions. For their part, the Americans sought to leverage China’s sense of vulnerability regarding Air-Sea Battle. According to one senior leader in OUSD Intelligence, “I can’t speak to it at the unclassified level, but there was good work on how we were communicating to the Chinese about Air-Sea Battle. The Chinese were worried by ASB.”⁴⁴

Conversely, these sources suggest that the US avoidance of mentioning China did little to dampen a widespread Chinese belief that they were its target. Nor is their evidence from internal Chinese

³⁸ (Michael Swaine 2012, 7–8)

³⁹ (Jieming Hu, Meichu Guo, and Yang Bing 2011)

⁴⁰ (Huang Hui and Yongbo Yan 2011)

⁴¹ (Erchao Zhang 2012)

⁴² (David Dorman 2022)

⁴³ (Rhodes 2000)

⁴⁴ (Interview 20 2022)

discourse that mainland strikes heralded dramatic escalation. Regarding Western scholarship, Chinese language sources suggest simply labeling Air-Sea Battle as escalatory, destabilizing, or conducive to arms races falls short of painting the full Sino-American dynamic. Considering these sources as a whole, one gets the impression—with some notable divergence—that the Chinese military felt the Air-Sea program was an intelligent reaction to their A2AD system. As described in the conclusions of this thesis, the Chinese continued to write and think about Air-Sea Battle’s ideas after the program’s conclusion. This includes examining incorporating similar Air-Sea approaches for the PLA, particularly regarding “space control,” in which Chinese ideas drew from, and went beyond, those expressed in Air-Sea Battle.

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