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Perspectives on Global and Regional Security and Implications for Nuclear and Space Technologies

U.S.-Brazil Strategic Dialogue Phase II Report

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PASCC

PROJECT ON ADVANCED SYSTEMS AND CONCEPTS
FOR COUNTERING WEAPONS OF MASS DESTRUCTION



Perspectives on Global and Regional Security and Implications of Nuclear and Space Technologies:

U.S.-Brazil Strategic Dialogue, Phase II Report

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October 2014

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**U.S. Naval Postgraduate School
Center on Contemporary Conflict
Project on Advanced Systems and Concepts for
Countering WMD**

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The Naval Postgraduate School Center on Contemporary Conflict (CCC) is the research wing of the Department of National Security Affairs (NSA) and specializes in the study of international relations, security policy, and regional studies. One of the CCC's programs is the Project Advanced Systems and Concepts for Countering WMD (PASCC). PASCC operates as a program planning and implementation office, research center, and intellectual clearinghouse for the execution of analysis and future-oriented studies and dialogues for the Defense Threat Reduction Agency.

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Executive Summary

In August 2014, the Naval Postgraduate School's Center on Contemporary Conflict hosted an off-the-record dialogue between U.S. and Brazilian officials and experts on the role of strategic technologies in each country's perceptions of global and regional security. Following from the 2012 PASCC-sponsored U.S.-Brazil dialogue, this meeting expanded the scope of discussion beyond nuclear weapons and disarmament to examine factors affecting mutual perceptions of nuclear, space, and missile technologies. The dialogue aimed to increase mutual understanding of: 1) the ways these advanced technologies are perceived, developed and managed in the United States and Brazil; 2) the regional and global security threats that arise from these capabilities; and 3) the means for cooperation on managing the negative implications of these technologies, both at the inter-governmental and civil-society level. The meeting brought together active and former high-level defense officials with academic experts to address these issues. The meeting produced an exceptionally rich, open, friendly and frank discussion that succeeded in increasing understanding of each side's strategic concerns and identified some practical steps for bilateral cooperation.

Key Findings

The central challenge in the relationship is distrust among policymakers, based on perceived hypocrisy regarding each other's stated commitments to international rules and norms and actions that appear to undermine or ignore them. In Brazil, elite perceptions of hypocrisy are underpinned by a general societal mistrust regarding U.S. motives, based on Cold-War dispositions to favor those opposing U.S. intervention and hegemony in Latin America. In the United States, on the other hand, Brazil is far less visible in the policy community and broader society as an important actor in the Western hemisphere or globally. On nuclear nonproliferation and disarmament, U.S. participants viewed as hypocritical the Brazilian refusal, despite Brazil being a party to the Nonproliferation Treaty (NPT), to adhere to the Additional Protocol of the global NPT. Brazil instead prefers a bilateral arrangement with Argentina. U.S. participants also found Brazilian claims to support the principles of nonintervention, human rights and democracy to be contradicted by their government's

silence on external interventions in Ukraine, Syria, Honduras, Libya and elsewhere. Brazilians, for their part, viewed as hypocritical the U.S. support for a voluntary code of conduct for outer space, rather than a legally binding treaty to ban the use of weapons in outer space, as well as U.S. support of nuclear side-deals with new nuclear states, such as India. Brazilian participants generally viewed the U.S. government as only selectively adhering to international agreements and rules. They placed a priority on nonintervention over human rights and democracy.

In addition, the two sides have different worldviews with respect to security and foreign policy issues, a set of domestic bureaucratic and structural issues that impede relations, and a general lack of domestic expertise and awareness of the other party. Brazil has a defensive posture, focused on dissuasion and regional stability, while the United States has long had a forward, and genuinely global orientation to international security. For the United States, nonstate actors are increasingly viewed as central threat to international peace and security, while for Brazil, the focus remains on states. Brazilian foreign and defense policy is driven largely by its belief in egalitarian sovereignty and the principle of autonomy in foreign and domestic policy. The United States, in contrast, views itself in a global role of containing threats to stability. Despite its regional orientation in foreign and defense policy, Brazil desires to be global player. Domestically, participants discussed the political environment that impeded Brazilian ratification of bilateral agreements and U.S. pursuit of multilateral treaties. Scandals, such as the Snowden revelations of NSA surveillance of the Brazilian President's communications, significantly heightened Brazilian distrust. Bureaucratic and political interests in both countries have preserved defense weapons programs, including the Brazilian nuclear-powered attack submarine and the U.S. F-35 fighter, despite the lack of a clear military or cost-benefit rationale for them. Brazilian participants emphasized the relative youth of their foreign and defense institutions, noting that the Ministry of Defense and civilian unified command of the branches of armed forces are merely fifteen years old. Both sides acknowledged the fundamental lack of awareness of the other country, compounded by the dearth of Brazil scholars in the United States and of U.S., international relations, and security experts in Brazil.

Regarding the international nuclear nonproliferation regime, it became clear that national exceptionalism and the two countries' different views regarding non-state actors shape both countries' views of the effectiveness of the regime and its implementation. Despite disagreement regarding the efficacy of the NPT, both sides did agree that new safeguard arrangements are necessary given changing technologies. Brazilian participants view the NPT as fundamentally flawed, as it enshrines a nuclear hierarchy that is at odds with Brazil's adherence to egalitarian sovereignty. As a result, Brazil opposes ratification of the Additional Protocol of the NPT until the nuclear weapons states (NWS) make progress towards disarmament. Brazilian participants view ABACC as a better instrument than the NPT. U.S. participants noted that progress on disarmament has been hampered not by the United States, but by other NWS, and that Brazil's preference for ABACC contradicted its stated commitment to global governance. U.S. and Brazilian experts agreed that technologies to improve nuclear safeguards were evolving and that a productive dialogue could be undertaken to ascertain how to improve on the existing ABACC and IAEA safeguards.

Brazil's nuclear submarine program produced considerable debate among the Brazilian participants. Brazilian scholars challenged Brazilian officials to provide a more compelling argument for the program, saying it lacked a sound rationale and a transparent cost-benefit assessment. The nuclear submarine program and Brazil's stated desire to master the nuclear fuel cycle also produced discussions about U.S. concerns regarding nuclear latency and proliferation to nonstate actors. Brazilian participants argued that Brazil should not be placed in the same category as other countries capable of "breaking out" of non-nuclear weapons status, given Brazil's hundred years of peace with its neighbors and its constitutional prohibition on non-peaceful uses of nuclear energy. Brazilian participants rejected the U.S. penchant for creating such categories. Ultimately, the discussion over nuclear submarines did not clarify the strategic rationale for the program, other than to suggest that prestige might be a central factor in Brazil's calculations.

There is improved potential for productive collaboration in space, according to U.S. and Brazilian experts. Brazil-U.S. cooperation on space issues dates back to the 1950s. Changes in U.S. space policy towards an emphasis on multilateral cooperation bring the United States

closer to Brazil's preferred position. Prospects for commercial collaboration are good, existing military-to-military contacts continue, and there may be opportunities to resume U.S.-Brazilian cooperation on the International Space Station. U.S. experts noted, however, that Brazil would need to make choices regarding its preferred space partners. The U.S. opposes the draft treaty on banning weapons in space, as it lacks prohibitions on anti-satellite testing and means for verification. Brazil on the other hand, prefers this Russian-Chinese initiated treaty, as it desires to have legally binding instruments rather than the European Union's voluntary Code of Conduct on Outer Space Activities. Possibilities for cooperation in the UN Committee on Peaceful Uses of Space (UNCOPUOS) are perhaps brightest.

Participants concluded with a discussion of how to build a community of experts versed in U.S.-Brazilian relations and security issues. A number of structural and cultural impediments have yielded a tiny group of people in both countries who are knowledgeable on these topics. Few Americans know Portuguese or have motivations to learn it, while few Brazilians know English or have studied in the United States, and even fewer have an interest or expertise in security issues. Brazil has only in the past fifteen years begun to develop international relations curricula at universities and to establish think tanks devoted to foreign policy and security issues. In the United States, Brazil is not the object of separate study in the way that China or Russia is, but is generally viewed as part of Latin America, rather than in its own right. Participants suggested that increased investment in scholarly exchanges would be very beneficial, as well as expanded interaction between civil society actors in both countries. Participants stressed the continued need for bilateral dialogue on security issues, such as the present one, and offered a number of suggestions for constructive engagement on nuclear safeguards and nonproliferation and disarmament.

Introduction

In August 2014, the Naval Postgraduate School's Center on Contemporary Conflict hosted an off-the-record dialogue between U.S. and Brazilian officials and experts on the role of strategic technologies in each country's perceptions of global and regional security. Following from the 2012 U.S.-Brazil dialogue, this meeting expanded the scope of discussion beyond nuclear weapons and disarmament to examine factors affecting mutual perceptions of nuclear, space, and missile technologies. The dialogue aimed to increase mutual understanding of: 1) the ways these advanced technologies are perceived, developed and managed in the United States and Brazil; 2) the regional and global security threats that arise from these capabilities; and 3) the means for cooperation on managing the negative implications of these technologies, both at the inter-governmental and civil-society level. The meeting brought together active and former high-level defense officials with academic experts to address these issues. The meeting produced an exceptionally rich, open, friendly and frank discussion that succeeded in increasing understanding of each side's strategic concerns and identified some practical steps for bilateral cooperation.

Brazil's growing importance as a regional and global leader and its potential contributions to global nonproliferation require investigation of what strategic problems Brazilian leaders believe they face and how these affect U.S. interests globally and regionally. Brazilian elites have considered Brazil to be a significant player on the world scene since the establishment of the Republic in 1889. Despite participating as the only Latin American state in World War I and with Mexico in World War II, Brazil has never achieved international stature equivalent to its self-image.¹ Today it is far closer to major power status than at any time in its history. With the sixth largest economy in the world as of 2012², stable and predictable democratic politics that address the needs of the poor without recurring to demagogic

¹ "New Directions in Brazilian Foreign Relations," Woodrow Wilson International Center for Scholars, Washington DC, September 28, 2007.

² "Brazil 'overtakes UK's economy'," BBC News, 6 March 2012. Accessed on May 28, 2012 at <http://www.bbc.co.uk/news/business-17272716>.

populist policies, vast energy reserves, and a significant scientific community, Brazil has laid the groundwork for achieving major power status. This explosive development has been accompanied by steady investment in defense that will soon provide Brazil with the kinds of capabilities needed to influence international affairs using the full spectrum of state power.

As Brazil's influence increases, the potential implications for US national defense will only intensify. Brazil has the material potential for major power status based on some traditional indicators (economic profile, population, natural resources, and size). Based on its existing nuclear program, deep-sea oil exploration, and implementation of large-scale remote sensing networks in the Amazon (SIVAM), Brazil is clearly capable of implementing state-led technology projects, including those associated with technologies useful for WMD.

Unwilling to depend on others for technologies fundamental to its national defense, Brazil requires foreign companies that wish to sell in Brazil to produce in partnership with Brazilian companies, thus ensuring transfer of technological know-how. In a recent example, Brazil's comprehensive arms deal with France requires French contractors to help Brazil build the shell of nuclear-powered submarines.³ It is also pursuing significant international cooperation on space technologies.⁴ Through such means and others, Brazil in the future will become a significant source of defense-related and dual-use technologies. Such capacity makes it important to understand where Brazil's growing capabilities will lead it with regard to international arms control and nonproliferation and the use and control of strategic technologies.

Brazil has the potential to significantly strengthen or undermine international arms control and nonproliferation, both as a country with advanced technological capacity and significant deposits of uranium and thorium, used in the production of fissile materials. Brazil is one of the few countries thought to have mastered much of the nuclear fuel cycle, and it is able to

³ "Brazil's Submarine Import and Export Behavior," NTI, April 20, 2011. Accessed on May 28, 2012, at <http://www.nti.org/analysis/articles/brazil-submarine-import-and-export-behavior/>.

⁴ Nicolas Peter, "The changing geopolitics of space activities," *Space Policy* 22.2 (May 2006): 100-109.

export advanced nuclear technologies. Although it has voiced support for nuclear restraint and disarmament, it is not clear what role Brazil will seek to play with respect to nonproliferation. Brazil has collaborated on global non-proliferation issues and joined the Missile Technology Control Regime in 1995 and the NPT in 1998. Yet it remains critical of the NPT and especially, the Additional Protocol (AP) (which it has refused to sign).⁵

It is important that the United States and Brazil continue to build understanding of each other's strategic perspectives to promote a more stable, resilient, and transparent strategic relationship and nonproliferation. This goal has taken on new urgency in the wake of President Obama's commitment in his April 2009 Prague speech to strengthening the global nonproliferation regime and moving toward global nuclear disarmament. The importance of strategic dialogues was emphasized in the April 2010 Nuclear Posture Review Report.

Although the U.S.-Brazil relationship has historically been cordial, within the region, Brazil has already demonstrated opposition to core U.S. policies, for example, its leadership of the regional opposition to the U.S.-Colombian anti-drug trafficking and terrorism partnership. Brazil has been critical of U.S. policies on narcotics control, democracy promotion, combating terrorism, and the broader U.S. policy in the Western hemisphere. Brazil has traditionally viewed the existing international order as unequal and unfair, and it seeks status as a permanent member of the UN Security Council through enhanced leverage in South-South and BRICs groupings.⁶ Under President Lula da Silva's leadership, Brazil sought to actively enhance and promote its influence on global affairs, including on negotiations over Iran's nuclear program. Bilateral relations were positive initially under the administration of President Dilma Rouseff, only to be frozen in the wake of the Snowden affair. As such, the 2014 dialogue was an effort to investigate what may help re-launch a positive bilateral relationship by discussing some of the key strategic issues between the two countries.

⁵ Fred McGoldrick, "Limiting Transfers of Enrichment and Reprocessing Technology: Issues, Constraints, Options," Belfer Center for Science and International Affairs, Harvard Kennedy School, May 2011.

⁶ Lima and Hirst, "Brazil as an Intermediate State," 25, 35-36; Joe Leahy and James Lamont, "BRICs to Debate Creation of Common Bank," *Financial Times*, March 20, 2012.

Challenges in the U.S.-Brazil Relationship

The central challenge in the relationship is distrust among policymakers, based on perceived hypocrisy regarding each other's stated commitments to international rules and norms and actions that appear to undermine or ignore them. In Brazil, this is underpinned by a general societal mistrust regarding U.S. motives, based on Cold-War dispositions to favor those opposing U.S. intervention and hegemony in Latin America. In the United States, on the other hand, Brazil is far less visible in the policy community and broader society as an important actor in the Western hemisphere or globally. In addition, the two sides have different worldviews with respect to security and foreign policy issues, a set of domestic bureaucratic and structural issues that impede relations, and a general lack of domestic expertise and awareness of the other party.

The U.S. side views the distrust between the two countries as “counterintuitive,” in the words of a former senior Pentagon official, as Brazil and the United States have so much in common, such as support for democracy and human rights. President Obama came into office with a new vision of relations with Latin America that would not focus on the war on drugs or on counter-terrorism. Instead, the United States would focus on international institutions. These aspirations gradually foundered as a result of the perception that Brazil was uninterested in working with the United States on western hemisphere issues; instead Brazil was more interested in creating a sphere of influence in South America and limiting U.S. re-engagement of the region. While bilateral relations at the operational and tactical levels were moving forward, the U.S. side felt that, at the strategic level, Brazil believed that its international leadership had to come at the expense of U.S. leadership. Brazil's refusal to criticize Russia over Syria, for example, generated confusion and distrust. According to a former senior U.S. defense official, the very top U.S. national security leaders are concerned with a small number of national security issues: managing relations with Russia and China, threats posed by North Korea and Iran, and threats posed by terrorist organizations such as the Islamic State and its offshoots. Relations between the United States and Brazil generally do not fall into these categories, and therefore are handled by regional experts, except when they relate to this very short list of security issues. On these issues, the former official stated,

“it’s a zero-sum game, if you side with them, you are opposed to us. And that feeds into all the bilateral issues that normally would be able to be worked out.”

Given its adherence to the democracy clause that forms part of the OAS, Mercosur, UNASUR charters, the U.S. administration expected Brazil to assume a leadership role in a number of hemispheric events, including the constitutional crises in Paraguay and Honduras, and countering threats to democracy in Venezuela. Brazil’s inaction left Washington “baffled,” according to one former senior defense official. The bilateral relationship, for this reason, had become stuck even before the Snowden revelations about U.S. government surveillance of Brazilian President Rousseff. The United States and Brazil have created the architecture to work through a whole array of technology transfer issues, but these agreements are awaiting approval by the Brazilian legislature. This architecture, according to the former U.S. Pentagon official, “will open the floodgates for more collaboration,” once it is approved on the Brazilian side. However, according to this official, cooperation has descended into a vicious cycle of distrust where, because the United States cannot carry through on all of the technology transfer, Brazil perceives the United States is not interested in Brazil playing a leading role, and the Brazilian congress therefore sees little reason to ratify the agreements that would make this technology transfer possible. The U.S. government, in turn, perceives that Brazil is not serious about the bilateral relationship.

From the Brazilian side, participants highlighted three areas of U.S. behavior that contributed to distrust: U.S. interventions; the U.S. reaction to Brazil’s negotiations with Iran; and the Snowden revelations that the U.S. government was monitoring the Brazilian president’s communications. The foundation of Brazilian foreign and defense policy is grounded on sovereignty and nonintervention. U.S. commitments to interventions for humanitarian reasons, including democracy, are viewed negatively. The U.S. is seen as having a penchant for intervention that not only violates international law but worsens the situation it was intended to improve. According to a Brazilian participant, “the perception is that the U.S. would only use international institutions when it was convenient.” American participants countered that the United States is interested in seeing Brazil assume more responsibility in shaping the political-security environment, yet they see hypocrisy in Brazil’s

position on Russia, as Brazil claims that it supports sovereignty and non-intervention, and yet its silence on Ukraine contributes to Russian interventionism.

While the Brazilian participants highlighted their government's commitment to international rules and norms, they admitted that in many cases, geopolitical calculations were a determinant of Brazilian perspectives and policy. A senior defense official stressed that Brazilian policymakers have a long memory in this regard, giving the example of the perceived U.S. desertion of its Argentine ally during the Falklands/Malvinas war. Participants highlighted that when Brazil had assumed a leadership role in negotiations with Iran that led to the Tehran Declaration, the negative U.S. reaction was seen as a betrayal, which had created significant distrust. As one senior official said, "one of the reasons why the Brazilian side is now silent on other crises has to do with this. We will think twice before taking risks, as on the last occasion, the result was not positive." Brazil now views its international leadership role as promoting global governance by ensuring economic growth and social equality. The Brazilian participants stressed that the U.S. government did not realize how serious the Snowden revelations were in Brazil. The political fallout was very significant for Brazilian policymakers, especially as many have a residual empathy for Russia left over from the Cold War.

Both sides expressed considerable interest and hope that bilateral relations would improve, and suggested that change might come following the October presidential elections in Brazil. U.S. participants noted that bilateral relations are improving, and high-level visits were resuming. The U.S. administration believes, regardless of who wins the Brazilian presidential election, that, "we need to get back to the pre-Snowden period."

The following sections summarize seven panel discussions.

I. National Interests in Global Security

The two countries have very different perceptions of both the nature of global security problems, and the instruments for managing them. The two sides also have different views regarding the importance of non-state actors accessing strategic technologies and of nuclear weapons. Brazil has a much more state-centric view of global security, while the United States increasingly sees non-state actors, particularly international terrorists, as a major threat. Brazil also views global security through a more regional lens, while the United States clearly views itself as a global leader.

Brazil's vision of global security is based on the assumption that states are the main actors on the international stage, and that their activities are and should be governed through international norms and institutions, according to Brazilian officials. Brazil's primary national security aim is its independence, both territorially and in foreign and defense policy. As a senior defense official put it, "strong, Brazil will be in a position to say NO when it has to say NO." Its constitutionally derived foreign policy principles include equality between states and peaceful conflict resolution. These principles guide defense policy. As one senior Brazilian defense official commented, it is not enough to base global security on the "idea that if we want peace, we have to prepare for war. The Brazilian perspective is that if you want peace, you also need to prepare for peace. You need to invest in the institutions that will promote peace." This view of global security privileges states and multilateral rules over unilateral action and such sovereignty-intrusive norms as Responsibility to Protect (R2P). Participants made clear that Brazil wants to be seen as a global player.

Given its peaceful regional environment, Brazil's National Defense Strategy is driven by its national development goals, and defense is viewed as a means to protect and uphold Brazil's national development. Brazil's strategic and regional security interests are defined as national, South American, and the South Atlantic (or South-South), including the west coast of Africa (see Figure 1). Threats to global security are first viewed as stemming from the behavior of states, and secondly, from the erosion of multilateral institutions and rules (often resulting from state actions). Brazil military supports UN-sanctioned military operations when its capacity allows it to, as in the case of the UN peacekeeping operation in Haiti, and the UN

Interim Force in Lebanon, in which a Brazilian admiral commands the Maritime Task Force whose flagship is a Brazilian frigate.

Brazil views the global strategic environment through the framework on international and regional treaties, including the NPT and its commitment to full elimination of nuclear

Figure 1. Brazilian Security Interests



weapons, the South Atlantic Peace and Cooperation Zone (ZOPACAS) and the Union of South American Nations (UNASUR). Brazil's official policy is that strengthening South American integration and relations among Amazonian countries reduces the possibility of conflict in its strategic environment. One mechanism to pursue these

goals is through UNASUR's South American Defense Council. Participants stressed that this Council is not a traditional alliance but a consensus-building mechanism for consolidating South America as a zone of peace and democratic stability and creating a South American defense identity. Brazilian officials also emphasized the need to make the NPT more effective through reform and a greater focus on nuclear disarmament.

Militarily, Brazil insists on its defensive posture and underlines that its forward-leaning, global posture occurs via its diplomacy. Its National Defense Policy highlights the need for national autonomy in three strategic technologies: space, cyber, and nuclear. In this context, the discussion turned to the nuclear sector, and Brazil's stated aim to become self-sufficient in the operation and maintenance of nuclear submarines. Its objectives are to master the nuclear fuel cycle, nuclear propulsion, and the design and construction of a number of nuclear submarines. It currently has an agreement with France to develop and deploy one

nuclear submarine by 2023. According to senior Brazilian defense officials, these aims are purely defensive. Brazil's primarily military aim can be said to be dissuasion, via the denial of sea access, defense of Brazil's distant sea border, and discouragement of force concentration.

Brazilian officials emphasized that limited resources resulted in Brazil's primarily regional security focus. However, they stressed that, "Brazil wants to be a global player." Brazil, they said, views global security issues as being mandated by the United Nations, and Brazil invests such efforts within its economic means. Geopolitics also come into play, as Brazilian participants stated that Brazil recognizes it has more weight in South America and the South Atlantic. Much of Brazil's efforts at the global level do not take place in the realm of security, but in those of development and economics.

In sharp contrast to the largely regional view of security offered by Brazilian defense officials, former U.S. defense officials underscored the genuinely global nature of U.S. security interests and the centrality of nuclear weapons to them. Nuclear weapons since World War II have been "considered essential to U.S. national security to deter nuclear attack, assure allies, protect U.S. interests and ensure U.S. superpower status," according to a former senior Obama administration defense official. This continued through the end of the Cold War; it was only in 2007-2008 that key national security figures (Henry Kissinger, George Schultz, William Perry, and Sam Nunn) argued that U.S. military superiority meant that the United States would still be secure in a nuclear-free world and the United States should reduce and ultimate end reliance on nuclear weapons.

President Obama embraced this goal when he entered office. According to the panel speaker, he pursued it through four mechanisms. The first was "resetting" relations with Russia, and ratifying the New START Treaty. Second was to begin dismantling nuclear arsenals; progress on these two has halted owing to the very negative turn in U.S.-Russian relations. Third, President Obama wanted to strengthen the IAEA, to increase its funding, and ensure that it would be very difficult for a North Korean scenario to be replicated. This aim has not been achieved. Fourth, the President wanted to secure fissile material so that terrorists could not access them. On this count, there has been modest progress in the global

nuclear security summits in 2010, 2012, and 2014. The 2010 Nuclear Posture Review reflects this concern in its recognition that the key threat to American security is no longer from the major powers, and that the real threat is WMD terrorism.

Currently, there is a lot of rethinking of these four pillars of nuclear disarmament, because some of the ideas now seem naïve. Since President Obama announced the Prague agenda, every nuclear country except the United Kingdom and France have increased spending on their nuclear arsenals. This suggests that there are major problems ahead with respect to disarmament. While nuclear weapons remain key to U.S. national security, preventing proliferation is also key, according to a former senior defense official. Missiles have been the key to delivery of nuclear weapons and precision-guided conventional weapons. U.S. policy with respect to missiles, according to a former senior defense official, is “unquestionably hypocritical,” in that the United States focuses on improving our missile technologies but preventing their spread to anyone else. The U.S. interest in missiles is primarily on regional defense, particularly involving Iran. Missile technologies will remain a key ongoing instrument in U.S. national security.

It became clear as early as the late 1950s that space was a key domain for intelligence, surveillance and possibly warfare. Today, space is a new domain for strategic competition, according to a former senior U.S. defense official, with many countries, including Brazil, India and Japan, now involved in space for commercial purposes. This participant emphasized that the Obama administration had engineered a fundamental shift in U.S. space policy—away from a focus on dominance towards a concentration on cooperation. The current administration’s space policy emphasizes that space is competitive (in the commercial and nation-state senses), congested (with more than 20,000 objects in space now orbiting the earth, logistics are much more complicated), and contested (the Chinese are well aware that the U.S. depends on full operation of our space capabilities, and have therefore developed and tested anti-satellite weapons). This former official underscored, however, that these new technologies can be in the hands of individuals and small groups, not just states: “government is losing its grip on the control of innovative technologies used for military purposes.”

2. National Perspectives on Regional Security

Flowing from the different views on global security, the discussion revealed that both sides have very different perceptions of regional threats and modalities for managing them. U.S. participants discussed the changing U.S. understanding of regional and global threats after the end of the Cold War. Some argued that the Cold War model of strategic stability via nuclear deterrence had led to a period of strategic incoherence in the 1990s, based on conflicting views on the nature of the strategic environment, and an over-inflation of the threat environment. During this period, some argued that the U.S. faced a clash of civilizations, others that liberal democracy was leading to the “end of history,” still others that we were watching the end of the state in the developing world, and another perspective suggested that global integration was occurring through economic globalization. At the same time, technological change generated a revolution in military affairs that led many American experts to declare that new conventional weapons could be used as a strategic instrument, leading to defense strategy being defined in terms of “capabilities-based planning.” This debate was replaced after the 9/11 terrorist attacks with a new paradigm, in which “the war on terror replaced the war on the red menace.”

His conclusion is that the United States is still the dominant stabilizing actor globally: “the world’s oceans are almost completely free of any major violence. The U.S. Navy has played an important role in this.” In response to Brazilian participants’ suggestions that the United States no longer had the willingness or capacity to lead, U.S. participants rejected this, pointing out that despite the recent financial crisis, the United States remains in a position of global primacy, and that the Obama administration, far from withdrawing from world politics, was acting from a pragmatic realist perspective, refusing to be drawn into conflicts that are not vital security threats. “It seems that from a narrow, realist perspective, the United States has the largest stake in the orderly functioning of the international system. We need to reinvigorate the institutions that have helped to manage stability. NATO is a classic example.” In the view of the U.S. participants, more emphasis needs to be placed on U.S. diplomacy in managing international and regional security issues.

Brazil, according to Brazilian participants, has long viewed itself as a rising power in a multipolar world and wants to increase its autonomy via regional integration. “Brazil wants to be perceived as more of a global player,” according to one senior official. Brazilian elites perceive that there is a transition underway today toward a more multipolar world that is beginning to structure states’ behavior and create a window of opportunity for Brazil play a larger role in terms of norm-setting.

Brazil, according to an Brazilian expert on regional cooperation, has pursued a greater role through two paths: operational contributions to peacekeeping and peaceful conflict resolution, such as the nuclear deal it and Turkey brokered with Iran; and strengthening the United Nations through direct participation in normative debates and opportunities and supporting the use of truly regional organizations to settle conflicts. This is a rebuff to NATO involvement in “out-of-area” operations. Recent examples of Brazil’s norm-setting agenda include the concept of “responsibility while protecting” (RWP) to temper the R2P norm, and Brazil’s promotion of Internet governance in the wake of the Snowden affair. Brazil is in alignment with Russia and China on some aspects of global governance, such as RWP in Syria, and that in peacebuilding, security concerns must be balanced with development issues.

Brazil has a deep concern with recent U.S. and Western interventions, which are seen as ineffective and lacking attention to their spillover effects. It was clear from the Brazilian participants that they viewed the United States as an eager intervener in regional conflicts, despite U.S. participants’ statements that the U.S. is a “reluctant warrior,” and that the Obama administration had been dragged into several regional conflicts through the actions of its allies. Because of this misperception, Brazilian participants see themselves as on the opposite side from the United States on the intervention in Libya, Russian intervention in Ukraine, and Israeli actions on Palestinian territory. Brazil “is a former colony and there is lingering resentment from [U.S.] intervention during the Cold War” in the form of U.S. support for the military dictatorship. As a result, “there is a deep distaste” for the perceived tendency of Northern actors to view these conflicts as black or white. Brazilians view post-Cold War interventions and support for post-communist liberal democratic state-building

efforts as counterproductive. Brazil views U.S. behavior as unilateral interventionism that contravenes the UN Charter in a heavy-handed and trigger-happy approach, especially since the start of the war on terror. Brazil instead advocates that the UN and regional organizations play a proactive role in mediating regional conflict; it does not wish for NATO to reinvent itself with a strong role in policing non-European conflicts.

Two challenges, according to Brazilian participants, constrain Brazil's approach to international and regional security. The first is a lack of resources. Operationally, Brazil is constrained in its ability to act. This should lead to a greater focus on normative tactics. The second challenge is that, in the opinion of a Brazilian expert on regional security, Brazil is unrealistic in thinking that regional organizations are able to be the leaders on regional issues, because they often lack the capacity, as in the example of piracy in the Gulf of Guinea. There are also limits to the extent which it is in the interests of a large democracy to follow the norm-blocking and norm-setting that is being done by Russia and China.

Participants debated the efficacy of regional institutions. U.S. participants suggested that Mercosur was a failure, while Brazilian participants disagreed, believing that while Mercosur had not made progress economically, politically it was an important regional institution. Brazilian participants viewed NATO as contributing to unilateral interventions that produced negative and destabilizing consequences. In contrast, Brazilians saw ABACC as an example of a regional organization that outdid its international counterpart, the IAEA, in terms of efficacy. U.S. participants strongly disagreed on the role ABACC had played in ending the long-standing Argentine-Brazilian rivalry, stating that Argentina had "collapsed from within." Brazilian participants on the other hand viewed the peaceful end of this rivalry and the creation of ABACC as proof of Brazil's unique soft power in using peaceful means to end conflict. As previously mentioned, UNASUR is viewed as a proto-security community. The BRICS (Brazil-Russia-India-China-South Africa) grouping cooperates on concrete economic interests; to date there is little normative consensus among them.

3. Domestic Political Interests and Strategic Technologies

In the discussion of the domestic political context for decision-making regarding strategic technologies, three themes appeared. First, policymakers in both countries view their countries as exceptional, and as deserving of exceptions from the international rules and institutions that they support. Second, mutual support for international rules and institutions entails a role in ensuring enforcement. Third, the two countries have fundamentally different domestic political interest and expertise in security and foreign policy issues. All three significantly shape mutual perceptions in ways that complicate the bilateral relationship.

A Brazilian defense expert affiliated with its parliament presented the perspective of the Brazilian National Congress and population. He reminded the participants of the well-known aphorism, “Brazil is not for beginners.” Despite being constitutionally established as a parliamentary republican system in 1988, Brazil is in fact a presidential-parliamentary system, established through the 1993 popular referendum. As a result, the workings of Brazilian democracy involve the forty-plus political parties participating in government. The Brazilian Congress has a very prominent role in Brazilian politics. This shapes the powers of the executive in ways that can slow legislative action. There is no system for the President to push through legislation, as there is in the United States. All bills must go through both houses of Congress. This includes any international agreement that requires expenditure of public funds in order to be implemented and any bill related to the development of the defense industry. The political implications are that legislation can easily be halted or speeded along, based on the actions of a small number of legislators. In contrast to the U.S. Congress, according to the Brazilian expert, the Brazilian Congress and populace have no interest in foreign policy issues, except in rare circumstances. The Brazilian Congress, in his view, does not understand national defense issues; they are not seen as interesting or politically important, unless an issue, such as the Snowden revelations, arises. Brazilian society, especially its Congress, needs to be convinced to discuss the topics of strategic technologies, such as nuclear, space, and missiles. The civilian-led Ministry of Defense, Brazilian officials emphasized, is still a young institution, one that is only fifteen years old, and has been evolving during that period. Other Brazilian officials emphasized that Brazil has a different political culture, one that does not single out countries that may become

threats, and does not divide the world into black or white, but rather into a lot of greys. Its emphasis is always on the peaceful resolution of conflicts.

According to the Brazilian legislative expert, there are insufficient contacts between the two countries. There are few U.S. experts on Brazil, while there are many U.S. specialists on Russia and China. There is a great need for more Track II dialogues and civil society interchanges. Brazilian society has a love-hate relationship with the United States. Anything dealing with the United States, such as the Snowden affair, is blown out of proportion. This is not true of events occurring in other countries, only the United States. There are very few experts on defense and intelligence issues in Brasilia.

Brazil, according to this expert, is the only Western BRICS country and the only one that shares common values with the United States. Brazil has been a great partner to the United States in the past and can be again. This interlocutor stressed, however, that, “Brazil must be understood in a relationship with respect and in a cooperative mode. ... We must not be seen as a younger brother or just another Latin American state, or we will have problems.... We should play as equals, and not just as that ‘exotic country’ in South America.” The United States should recognize that “we are simply realists. We are not going to compromise our relationships with other countries over human rights violations.” Brazil has more common interests with Russia than with Ukraine. The human rights issues there are an issue between Russia and Ukraine, not a Brazilian concern. The same applies to Syria, according to this specialist. “We don’t like Assad, but the Brazilian position is that it’s the best option we have now. It’s important for you to know how Brazil works.” Another Brazilian official stressed that there has been a gradual political maturation among the Brazilian political elite that has produced a fundamental cross-partisan consensus on Brazil’s general path of development, one that should lead foreign observers to neither overreact or underestimate Brazil’s international position and its steady pursuit of its national development.

A former U.S. government official provided the U.S. counterpoint on the domestic public mindset regarding international security issues. He stressed that the United States “means well, has a lot of capacity, but doesn’t always go the right way.” Three factors underpin this

mindset in his view. The first is that the U.S. public believes that the United States is different and special. It is comfortable with the idea of American exceptionalism, and with military intervention because “we’re good people, and we believe it’s in the best interests of ‘those’ people.” The U.S. public has become much more comfortable with military displays in public life over the past twenty years, especially after the 2001 terrorist attacks.

A second factor is that the U.S. public for two generations had a Cold War mentality that accepted that the United States must take a global role as leader of the free world. The public now, however, is no longer comfortable with global leadership, and “no longer wants this responsibility.” Brazilian participants questioned whether the United States retains a vision of the international agenda, suggesting that the United States is today merely responding to a series of crises, rather than leading. U.S. participants responded that this was an exaggeration. Currently, the United States is drawing down from two wars; it remains committed to maintaining an open international economy.

The third factor is the role that the institutionalization of the military-industrial complex has played in U.S. domestic politics. It is deeply ingrained in each state’s economy, and it will keep trying to sustain itself. These forces influence nuclear and strategic policy and planning. With respect to the U.S. nuclear triad, one participant estimated that the United States will need to spend at least \$1 trillion to modernize it over the next thirty years. The U.S. Air Force controls the bombers and land missiles, while the U.S. Navy is pushing for a new generation of nuclear submarines. Despite the sea-leg of the triad being the most stabilizing strategically, there is resistance from what is called the ICBM Caucus in the U.S. Congress, made up of the congressmen from three states where ICBMs are located. Meanwhile, the Defense Department is unable to cut certain systems, such as the F-35, that it does not want. This is because of congressional resistance since the F-35 is being built in several states. A U.S. participant compared the U.S. F-35 program to the Brazilian nuclear submarine program, a comparison a senior Brazilian defense official accepted. A former U.S. official argued that very often such domestic political issues impede the practice of empathy in each other’s governments. While one side may perceive that the other is “trying to stick it to us,” what, in fact, drives decision-making are domestic issues. The more both countries’ policy

makers are able to empathize, through understanding the domestic factors shaping perceptions and decision-making, the better both will be able to address issues of concern.

4. Nuclear Technologies and Nonproliferation

The conversation shifted to assessments of U.S. and Brazilian perspectives on nuclear technologies and the international nonproliferation regime. Despite common definitions of unconventional technologies, it is unclear whether there is room for significant cooperation between the two countries on nonproliferation. One of the most promising areas may be on the issue of nuclear safeguards.

While the United States and Brazil define strategic weapons in the same way, they have different positions on the international nuclear nonproliferation regime and on nuclear terrorism. The United States' official policy is to deny anyone access to unconventional weapons, as well as ballistic and cruise missile technologies. There has been a significant shift in U.S. focus to preventing non-state actors from acquiring nuclear materials. In practice, according to one U.S. expert, nonproliferation of nuclear weapons is the top U.S. priority, with missile proliferation the lowest. There have been noticeable exceptions to official U.S. policy to promote nonproliferation, in particular: removal of sanctions against Pakistan for its nuclear programs after the 9/11 terrorist attacks, the U.S.-Indian nuclear deal, the U.S. agreement to allow the Republic of Korea to extend the range of its missiles, and Israel's nuclear program. The U.S. expert argued that these exceptions were driven primarily by geopolitical concerns, but economic and domestic political interests also played a role.

In general, according to this participant, three considerations drive U.S. policy on strategic technologies. First among them are realist concerns. These drive the United States to limit the size of the nuclear club of nations in order to preserve its status and influence over its allies; in addition, the United States holds onto nuclear weapons because it gave up its chemical and biological weapons programs. Genuine security concerns regarding rogue states and transnational terrorist organizations prompt the United States to retain nuclear weapons, as does the desire to protect its conventional forces. The second set of

considerations stem from the United States' tradition of supporting liberal internationalism in the form of international organizations and nonproliferation agreements. The United States has traditionally desired to create and build up international norms and multilateral institutions; this tradition is being threatened by a domestic political division over the benefits of international laws. The third driver of U.S. policy is less important, but it is the desire to avoid nuclear war and prevent the use of chemical and biological weapons. It is an aspirational goal that repeats itself in U.S. history and prompts the United States to seek arms control treaties and to engage with nuclear powers in South Asia, as well as to episodically favor disarmament. There is a sense in the United States that the multilateral treaty process may be dead. As a result, there has been a proliferation of nonproliferation arrangements (such as the Nuclear Suppliers Group, the Australia Group, MTCR, Global Partnership, Proliferation Security Initiative, Nuclear Security Summits, and UNSCR 1540) that do not go through the full treaty institutionalization process. These seek to enforce the NPT regime, rather than broaden it to more countries. As a result, this U.S. expert did not foresee much scope for deeper cooperation between the United States and Brazil on nonproliferation. Some future options for collaboration might include bringing Brazil into the Global Partnership as a donor, building on the experiences of regional organizations, and joint studies of how to make nuclear disarmament feasible.

On the Brazilian side, a Brazilian expert argued that, while there is plenty of hypocrisy in the U.S. position on nonproliferation and disarmament, Brazil itself is not blameless in this regard. In particular, he argued, Brazil needs to provide a better rationale for its positions on three issues: the Additional Protocol of the NPT; Article 6 of the NPT; and its pursuit of nuclear submarines. This discussion produced an intense debate among the Brazilian participants.

With respect to the Additional Protocol, which Brazil has not signed, the expert stated that Brazil resents the pressure to sign it, the implication that it must do so in order to be viewed as a responsible nonproliferator, and comparisons with other non-signatory states, such as North Korea and Syria. Brazil views itself not only as a responsible nonproliferator, but as the co-architect of a regional nuclear agreement with Argentina and the Four-Party

Agreement among Brazil, Argentina, the IAEA and the United Nations, that are superior to the Additional Protocol. It furthermore feels that these achievements have not been given due recognition. Brazil also believes that adherence to the Additional Protocol might compromise its accomplishments with Argentina. According to this expert, this has become a fairly rigid position, one reinforced by the perception that Brazil is being dictated to and “treated as a child.” The problem is that Brazil’s position also affects the IAEA’s relationship with Argentina, which would like to sign the Additional Protocol. This expert suggested that a solution may require a novel approach, perhaps in the form of a different institutional mechanism, in order to move forward. Such an arrangement might involve an amendment of the Four-Party Agreement or creating a different instrument that deals with the uncovered issues. According to Brazilian participants, such movement would require waiting until after the 2014 presidential elections.

The second issue on which Brazil needs a better rationale, according to the Brazilian defense expert, is serious progress on Article 6 of the NPT. Serious progress, in his view, requires addressing both the four nuclear weapons states (NWS) that are not party to the NPT, as well as the Article 6 obligations of NPT nuclear weapons states (the United States, Russia, China, France, and Great Britain) to make progress on disarmament. Brazil’s attitude has been that the NPT NWS must disarm. Yet, Brazil’s position is inconsistent, in this expert’s view, as it does not ask the same of the non-NPT NWS. Brazil has been particularly irritated by the special treatment India received (in the form of the U.S.-India nuclear deal), yet it has not focused equally on India and the United States in terms of criticism. Furthermore, many of the problems of implementing the thirteen steps outlined in the 2000 Nuclear Review Conference Final Document are associated with Russian and Chinese actions, not the United States. Step 7 of the Final Document (requiring ratification and implementation of START II and START III) “is dead,” according to this Brazilian expert. More ambitious progress on the thirteen steps requires engaging the NWS, particularly Russia and China. This expert recommended that a new venue or instrument that brings together the United States, Brazil, Sweden and perhaps the other BRICS countries be created to revise the thirteen steps and refocus issues to account for non-NPT NWS.

The third issue on which the Brazilian defense expert argued that Brazil needed a more convincing argument is that of nuclear submarines. This expert argued that Brazil not only lacked a compelling rationale for such submarines, but that the cost accounting for the program was nontransparent. This led to a debate among the Brazilian participants regarding the nuclear submarine program, as well as Brazil's desire for nuclear energy independence. The discussion revealed that there is little public knowledge of the Brazilian nuclear propulsion program, nor is there clarity on the full costs or rationale for the program. On one side, arguments were based on presumed cost advantages of a nuclear submarine program over air-independent propulsion subs, as well as Brazilian desire for independence in the production of nuclear fuel. A representative statement on this side of the debate, was that "a nuclear submarine is important for our national defense. If we want to be constructive, when it comes to U.S.-Brazil cooperation, it is important to accept this reality." On the other side were arguments that the rationale for nuclear submarines did not correspond with the predictable costs associated with building, operating, and maintaining such a fleet, as well as the decommissioning and disposal costs of nuclear waste generated. A Brazilian academic challenged the officials present to provide a detailed cost calculation and strategic rationale for the program versus other systems: "There is a lack of transparency, not because of bad will, but because procedures are not clear or established, particularly in terms of how this accounting has been made.... It is important, because if the rationale doesn't make sense, people will try to identify other explanations, and those explanations might not be benign." In conclusion, a senior Brazilian defense official stated that nuclear submarines "will place the defensive navy at a different level. If we wanted power projection, we would have aircraft carriers. But [nuclear submarines] are a Brazilian Navy decision, and the Navy won't stop them, unless there is some political decision to change." The official "wants to go forward to make sure that the United States doesn't see this as a threat."

5. The United Nations, IAEA, and Safeguards

Regarding the international nuclear nonproliferation regime, it became clear that national exceptionalism and the two countries' different views regarding non-state actors shape both countries views of the effectiveness of the regime and its implementation. Despite

disagreement regarding the efficacy of the NPT, both sides did agree that new safeguard arrangements are necessary given changing technologies.

A U.S. specialist on nuclear security spoke on U.S. perspectives regarding nonproliferation and disarmament, peaceful development of nuclear energy, and the nuclear safeguards regime. He presented the national, bilateral, multilateral and international tools for managing nonproliferation and disarmament. At the national and bilateral level, the U.S. toolbox includes: sanctions, security assurances, security assistance, 123 agreements (under section 123 of the U.S. Atomic Energy Act) for peaceful nuclear cooperation, WMD and counter-terrorism defense, and the use of force. With respect to the peaceful development of nuclear energy, bilateral cooperation in this sphere most commonly takes the form of 123 agreements, while at the international level, the United States focuses heavily on the IAEA. It provides twenty-five percent of the IAEA's regular budget, while Brazil contributes one and a half percent, according to this specialist. The United States also gives half of the funds making up the IAEA Voluntary Fund.

The United States under President Obama has been a strong supporter of the IAEA and the safeguards regime, according to the U.S. expert. This is a change in policy from the Bush Administration. The United States, unlike other NWS, has voluntarily placed its own nuclear civilian materials under safeguards. The United States also favors continuous improvements in the nuclear safeguards regime. With respect to Brazil and nuclear safeguards, this specialist argued that the Quadripartite Agreement that Brazil is party to is "good but old. Safeguards are evolving." He suggested that while Brazil rhetorically supports global institutions, it "defects to 'regional' ones when it's convenient." He urged his Brazilian counterparts to reconsider its objections to the Additional Protocol (AP). Argentina does not object to the AP, so this is a Brazilian issue, not a regional one. As the U.S. expert put it, "global governance requires compromise by individual states. The International community overwhelmingly supports the AP." A Brazilian former official disputed that Argentina wants to join the AP, and said that in Brazil, it is the national Congress that objects to the AP. While Brazil is not presently the object of U.S. nonproliferation attention, according to the U.S. expert, it is in the minority with Russia and a handful of other countries that oppose the

AP. The current, generally pro-Brazilian view held by Americans may change, according to this expert, and it is important to negotiate now before views harden over this issue.

The Brazilian perspective on regional safeguards and nonproliferation was presented by a former high-level official. In his view, bilateral and regional initiatives are the most effective means for achieving nonproliferation and disarmament. He argued that nonproliferation requires attention both to motivations and barriers; too much attention to barring proliferation may in some circumstances increase a country's motivation to acquire nuclear weapons. Lack of trust among neighbors is a key factor promoting proliferation. He pointed out that overcoming that lack of trust was important in the creation of ABACC and the resolution of the Argentine-Brazilian rivalry, as well as in the South African case. In his view, "we don't see proliferation as something that Brazil can do much about. We think that the ball is in the U.S.' court, not in Brazil's court," as most disarmament has been bilateral. Brazil intends to develop peaceful nuclear power and nuclear propulsion. Brazil, in contrast to the rest of the ten largest economies, does not need nuclear weapons owing to its peaceful regional environment; however, he suggested that Brazil alone among these countries did not have complete control over nuclear weapons and the nuclear fuel cycle or access to weapons-usable nuclear material. On this point, he was challenged by U.S. participants, who rejected his claim that Germany and Italy "shared" control of nuclear weapons with the United States, rather than being under a U.S. nuclear umbrella. No U.S. ally can launch a U.S. nuclear weapon. The Brazilian former nuclear official said a similar list could be drawn up with respect to nuclear submarines, on which "only the vanquished countries in the Second World War do not have nuclear submarines." Brazil, he stated has a right to pursue nuclear submarines and nuclear fuel cycle technology, as these pursuits are perfectly legal under the NPT. With respect to the AP, the former official said that Brazil would not sign the AP in the short-term future, but it would apply special safeguards. On the issue of safeguards, the former official was in agreement with the U.S. specialist that safeguards are evolving. In the former official's view, ABACC's safeguards need to be improved to assure that non-declared nuclear materials are covered, in a non-intrusive manner. He suggested several methodologies for improving ABACC safeguards: the development of environmental sampling methods; application of safeguards on nuclear submarine fuel; and other non-intrusive methods.

The presentations produced a debate about the rationale for comparing Brazil with other countries that have a latent nuclear-weapons capacity, owing to their knowledge of the enrichment process, and Brazil's opposition to the AP. This debate revealed deep differences in the way U.S. and Brazilian participants view the global nonproliferation regime's efficacy and legitimacy. On the U.S. side, participants reiterated that, while Brazil is not currently associated with nuclear technology or weapons by most in the United States, there are people who will compare Brazil to other countries such as Iran, Japan and South Korea, that have enrichment capacity. Brazil's capacity "will create a suspicion where one does not have to exist," in the words of one U.S. former official. "Most Americans," he continued, "don't appreciate the sovereignty imperative" in Brazil and other post-colonial countries; to foster a broader-based cooperative relationship with the United States, he argued, "we need a strong compelling voice like Brazil's in the nonproliferation treaty process. You are increasingly part of the problem by trying to be distinct." Another U.S. expert stated that "you can't blame others who make this accusation, because there is a list of countries that won't sign the Additional Protocol, and you are on the list." One U.S. participant highlighted that the U.S. government was structured in ways that enhance this viewpoint, as there are functional and regional bureaus in the U.S. executive branch; in the regional bureaus, officials will have a comprehensive view of Brazil, but in the functional agencies, "you care about the international architecture and who is a friend or ally in supporting that architecture and who is an outlier."

Brazilian participants responded that Brazil is prohibited by its 1988 constitution from pursuing non-peaceful uses of nuclear energy. "There isn't a single member of the Brazilian parliament that will defend WMD... This should differentiate us from countries such as Pakistan and India." Brazilian participants were emphatic in the face of some U.S. participants' concerns that the constitution could be changed or misinterpreted, asserting that the 1988 Constitutional ban on nuclear weapons was permanent; they argued that the consensus that led to this ban was the only item of the 1988 constitution that had complete unanimity at the time. U.S. participants suggested that, "the purpose of the international regime is to try and avoid these kinds of arguments about "we are different so we should have an exception. Brazil has had seven constitutions...." Some Brazilian participants suggested that it was alright for Brazil to be an exception in terms of adhering to the AP.

Other Brazilians disagreed that Brazil was asking for an exception, but rather that Brazil viewed the NPT and AP differently—not as an architecture into which states should be forced; rather states should be viewed as members of a global community who need to be persuaded that a regime is fair. Brazil’s position is that “we have to treat states equally. This is not the reality of the NPT.” In this Brazilian defense official’s view, it is a mistake to “deal with Brazil thinking not in terms of improving the global governance system, but in terms of just one more actor that needs to fit into the global architecture that has been designed by the United States and the other global WMD owners, a framework that has been proven not to function to inhibit proliferation.” In this view, the nonproliferation treaty not only does not work to stop proliferation, it “has no legitimacy and is not perceived to be fair,” and it should be replaced by a more horizontal treaty, along the lines of the Chemical Weapons Convention (CWC).

A U.S. expert rejected this claim, stating that the NPT “is arguably the most effective national security treaty in the world. The rate of proliferation has declined in every decade since the 1990s. No treaty has been more effective. We have a strong correlation between the number of inspectors and reductions in proliferation.” In the U.S. view, if Brazil wants to join the global community, Brazil should join the AP. Another U.S. participant argued that, from the U.S. perspective, it was most concerned about nonstate actors and nuclear weapons. U.S. concerns about nuclear latency, therefore, are not just about a state going nuclear, but just having the capabilities that could get into the hands of nonstate actors. “The analogy most appropriate for Brazil is Japan. ... It’s not that we think you are a rogue state, we are concerned when our friends and allies have technologies that could destabilize the region or get into the wrong hands.” Brazilians responded that most Brazilians view the pressure on Brazil to join the AP through an economic lens, as a U.S. effort to restrict the market for nuclear fuel; the BRICS are discussing nuclear energy cooperation, primarily for market reasons. In response, Brazilian participants accepted that Brazil maintains a state-centered view of international security and global governance, and that its policy has not given as much attention to nonstate actors as it should.

6. Space and Missile Technologies

There are improved prospects for U.S.-Brazilian cooperation in space, according to participants. The fundamental shift in the nature of U.S. space policy from dominance to collaboration has shifted the U.S. position to be more in alignment with Brazil's view.

Brazilian foreign policy, in the opinion of a senior Brazilian defense official, attempts to strengthen global institutions on the one hand, but owing to limited financial capacity, Brazil believes that maintaining regional stability is one of the signature contributions it can make to international security. Brazilian space policy must be viewed in the broader context of Brazil's transition to civilian control of the military and the unification of the military branches under centralized civilian control. The second factor affecting Brazil's space policy is the relationship between security and promotion of national development. The three strategic technologies highlighted in Brazil's National Security Strategy—nuclear, space and cyber—are viewed as tools to help Brazil acquire as much autonomy as possible.

With respect to the space sector, the central idea motivating Brazil's policy is the monitoring and control of territory. This focus is seen as a means of promoting interoperability of Brazil's military forces, which prior to the transition to civilian control each held disparate threat perceptions. An example is SISFRON, a space-based reconnaissance system in which the technology will be used to integrate military capabilities on the ground, enhancing information-collection and mobility of the armed forces of Brazil and its neighbors. This system should be ready by 2020. Formal treaties with Brazil's neighbors will establish the usage and sharing of this system, which in some cases allow for hot pursuit of fighters across borders. Another example of Brazil's approach to promoting cooperation in space is the China-Brazil Earth Resources Satellite (CBERS) program, Brazil's space-based collaboration with the Chinese government, primarily on environmental monitoring.

With respect to global governance and bilateral relations, the defense official made the following points. For Brazil, space technology is viewed as the key to integrating Brazil's military forces; this is deeply linked with its cyber programs. Brazil is deeply concerned about the possible weaponization of space, and views this as an "unbearable" outcome. China's

anti-satellite test “raised eyebrows” in Brazil, as a cause of considerable concern, and was seen as a “message to the United States.” Brazil wants to create a set of rules to prevent the weaponization of space. The sense of urgency surrounding this issue is increased owing to the risks arising for peaceful uses of space from orbital crowding and debris. According to the Brazilian defense official, there is a great deal of room for bilateral cooperation with the United States on space issues.

From the U.S. side, an expert on space issues agreed that there are improved prospects for bilateral cooperation on space issues. In his view, the most important problem with respect to space is that of limited governance. Some of the most significant governance challenges in space are crowding, military space activities, and the lack of any comprehensive arms control. Nationalistic policies are not solutions for these 21st century space challenges; instead, countries are going to need to learn how to cooperate. There is an urgent need to develop space situational awareness and the systems that support that information in order to reduce the chances of collisions. This expert noted the long history of U.S.-Brazilian cooperation on space technologies. These date back to 1958, with cooperation in space tracking, followed by U.S. launches from Brazilian facilities in the 1960s and in the 1990s. In 1996, the U.S. and Brazil signed a landmark agreement for International Space Station (ISS) cooperation and astronaut training; this amounted to a \$125 million Brazilian contribution to the ISS, and a Brazilian air force officer was selected for U.S. astronaut training in 1998.

Brazil, however, failed to meet its commitments to NASA regarding the ISS agreement owing to budget difficulties. Brazil instead turned to Russia, which soured the relationship with NASA. Earlier problems have also led to misperceptions in the U.S.-Brazilian space relationship. Brazil did not join the 1987 MCTR until 1995, and cooperated on nuclear and missile technologies with Syria, Iraq, and others. Brazil has also decided as part of its South-South cooperation strategy to develop the CBERS program, which is now seeking to launch its fourth satellite, after the failed launch of the third. Despite these problems, however, the expert stated that relations between the United States and Brazil on space issues have generally improved since President Rousseff entered office, the Snowden scandal notwithstanding. Brazil has a positive image in the United States, particularly after the

successful 2014 World Cup and there is growing recognition in both countries that they have common interests as major powers. A recent change in U.S. export controls should make bilateral cooperation easier. There is good potential for military-military cooperation in the space field, and the two sides are examining ways of improving and expanding military ties.

Space can contribute to improved cooperation in a number of ways. The U.S. government has extended its cooperation with the ISS until 2024, which may provide an opportunity to resume cooperation with Brazil. More fundamentally, the U.S. government has changed its position on international space policy to be strongly supportive of international cooperation, according to this expert. This change is reflected in the 2010 National Space Policy and the 2011 National Security Space Strategy. The 2010 National Space Policy marks a significant shift from former U.S. policies, which during the Bush Administration had focused on efforts to overcome U.S. vulnerabilities in space and obtain dominance. President Obama, in contrast, recognizes space in the twenty-first century in the context of the evolving multipolar environment, one in which he believes the United States must begin to set a positive example and seek partnerships to promote safety and protect U.S. space assets. U.S. intelligence agencies and the military are seeking means to implement the guidelines for cooperation in the 2011 National Security Space Strategy regarding crowding, interference, and stability-enhancing measures.

The core notions in President Obama's space policy, according to this expert, are openness, partnership, and prevention of interference with satellites. The new U.S. focus is on space commerce and public-private partnerships, and there are prospects for U.S. commercial satellite launches from the Brazilian Alcantara site. With respect to security, the Obama Administration emphasizes space situational awareness, transparency, and responsible behavior. The latter is particularly of concern with respect to Chinese counter-space activities and anti-satellite weapons testing. The United States has done considerable outreach in terms of building situational awareness in space for partners; with respect to Brazil, such cooperation includes the Snap-3 satellite program, a low-Earth orbit program that will provide mobile communications to teams in the field, for example in the Amazon, that have difficulty accessing traditional communications.

There are differences in the U.S. and Brazilian philosophies regarding space initiatives of the major powers, as the experts noted. Brazil, but not the United States, supports the draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects (PPWT), proposed in 2008 by Russia and China. The U.S. concern is that the draft treaty does not ban the testing of anti-satellite weapons or provide any verification mechanisms. The U.S., but not Brazil, supports the European-initiated 2012 International Code of Conduct for Outer Space Activities. Brazil has not been favorable toward the Code of Conduct; it views the voluntary, as opposed to legally binding, approach as fundamentally flawed. A Brazilian defense official reinforced this point, stating that “it is better to have a treaty that is unfair than to have no treaty at all.” U.S. participants highlighted that the U.S. Senate is not willing to ratify a binding agreement, which is why the executive branch supports the voluntary approach.

Given that there was support from both Brazil and the United States for the 2012-13 UN Group of Government Experts on Space Transparency and Confidence Building Measures and the ongoing work of the UN Committee on the Peaceful Uses of Outer Space (COPUOS), there is a good opportunity for mutual cooperation, particularly on sustainability issues. The two sides agreed that they need to understand each other better when it comes to space security, and that there is room for progress. The United States recognizes that isolation on space issues does not serve its interests, and the recent National Space Policy represents this shift. It is much more aligned with Brazil’s space policy than prior U.S. space policies. Brazil, U.S. participants believe, must make some choices about which countries to partner with in space.

7. Deepening U.S.-Brazilian and Civil Society Engagement

The dialogue closed with a discussion of what can be done to expand understanding and cooperation between Brazil and the United States on strategic technologies, nonproliferation and disarmament, both at the government and civil society levels. Participants from Brazilian and U.S. civil society organizations emphasized a common theme of the dialogue: that the values—including democracy and human rights— shared among civil society in Brazil and

the United States run deep, and are not simply rhetoric. The two are “very natural partners,” in the words of a Brazilian civil society representative. Brazilian participants emphasized throughout the meeting that the United States is admired in Brazil, even while it is criticized. Similarly, U.S. participants noted that U.S. perceptions of Brazil are positive. A Brazilian participant noted that in researching bilateral relations for a Brazil-U.S. task force, the same issues have been on the agenda from the 1980s to today: energy, defense, narco-trafficking and multilateral goals. On these goals, both sides believe they should and could cooperate, and in his view, civil society should be the predominant actor. It is the only actor that continues to operate when official relations are frozen, as they were during the Carter Administration and again more recently. The key impediments to increased civil society engagement have been lack of expertise, and lack of contact and awareness.

A central obstacle to deeper mutual understanding and engagement is lack of expertise and extensive contacts on both sides regarding the other. One cause is that Brazilian civil society is much less developed in the areas of security studies and expertise. While there have been extensive connections between U.S. and Brazilian NGOs on environmental and indigenous rights issues, there has been much less contact on foreign policy and security issues. Brazilian participants stressed that the discipline of international relations (and think tanks devoted to them) is still a very young enterprise in Brazil, and that it is only in the past fifteen years that international relations departments have been established at universities and think tanks devoted to international relations have developed. This has meant that there have not been Brazilian counterparts in terms of foreign affairs think tanks until recently.

Another issue is the comparatively small number of NGOs in Brazil relative to the other BRICS countries. Most of the civil society engagement that has occurred has been commercial, with chambers of commerce facilitating interaction. It was noted that the only issues that the U.S. Congressional Brazil Caucus works on are trade issues, not those related to security or foreign policy. Both countries lack experts who focus on U.S.-Brazil relations. What expertise does exist in Brazil is disconnected from policy elites in Brasilia and foreign policy think tanks, which are generally located in Rio de Janeiro or São Paulo. A U.S. participant from a Washington think tank stated that this extends to the official level, as the

Brazilian embassy does not do much outreach in Washington, nor does Brazil have a lobbyist in Washington as most governments do.

The second impediment to improved relations is the dearth of mutual awareness between Brazilian and U.S. societies. Participants highlighted the singularity of Brazil as a Portuguese-speaking country in the Western Hemisphere. It is overwhelmed by far greater numbers of Spanish-speaking residents, given the relatively tiny Brazilian expatriate community in the United States. This is an artifact of the fact that Brazil is the least mobile country in the world, according to one participant. As one Brazilian participant explained, Brazilians are inward looking and there is a Brazilian aphorism that “If you are a Brazilian living abroad, you will suffer in your soul.” Few in Brazil speak foreign languages, while few in the United States know Portuguese. This hinders scholarly and other exchanges, though all participants welcomed the success of President Rousseff’s “Science Without Borders” program. There are even structural difficulties within Brazil for Brazilians educated abroad to have their degrees recognized domestically, and to the publication and presentation of theses in English or Spanish. There is also a legacy of anti-Northern and anti-U.S. sentiment in Brazilian universities left over from the Cold War. Given the Brazilian government’s focus on South-South relations, it is far easier for foreign affairs researchers to find grants for research on Africa than on the United States. On the U.S. side, Brazil tends to be subsumed under the category of Latin America. As a result, few U.S. think tanks or universities have specialists or centers on Brazil that distinguish it from among the Spanish-speaking countries in the hemisphere. Even in the recent spate of university initiatives on the BRICS, there are far more U.S. experts on Russia, China, South Africa, and India than on Brazil.

Despite these obstacles, participants agreed that the United States and Brazil are “natural partners across all the functional areas.” They suggested a number of ways to increase and maintain a community of expertise on U.S.-Brazilian relations in both countries. Both sides endorsed continuation of Track II dialogues such as this one. Other ideas included a joint program on improving nuclear safeguards and on what each country would like to see on each other’s nonproliferation and disarmament agenda. U.S. participants suggested working with the Brazilian Caucus in the U.S. Congress to improve its awareness of the depth and

breadth of security issues on the bilateral agenda and to work with U.S. foundations on promoting bilateral engagements on nuclear and strategic technology issues. Participants all agreed that the number of exchanges among research institutes, think tanks, and other civil society organizations should be increased. The U.S. government could seek to work with Brazil when working with the United Nations on peacekeeping, and in the Caribbean, where Brazil has established a very strong diplomatic presence. The United States might undertake cyber security training in Brazil, in particular for youth, as Brazil is home to a very large percentage of botnet-infected computers. Brazil needs to strengthen its official presence in functional areas such as nonproliferation and trade, and it could continue to use the BRICS moniker as a means to increase its profile on these issues. The visa regime between the two countries inhibits travel, and could be eased. Brazil, in the view of U.S. participants, should recognize that its pursuit of South-South cooperation is not mutually exclusive with improved relations with the North, and the United States in particular. “Developing contacts in the North could strengthen Brazilian civil society in a way that that Brazil is able to offer more to the South,” particularly by strengthening its “soft power” through sustaining an attractive development model. The participants concluded with the hope that the dialogue would continue in a biannual format, with the next iteration to take place in 2016 in Rio de Janeiro.

List of Acronyms

ABACC	Agência Brasileiro-Argentina de Contabilidade e Materiais Nucleares (Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials)
AP	Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards
BRICS	Brazil-Russia-India-China-South Africa Grouping
CBERS	China-Brazil Earth Resources Satellite
CWC	Chemical Weapons Convention
FMCT	Fissile Material Cutoff Treaty
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
ISS	International Space Station
NPT	Nonproliferation of Nuclear Weapons Treaty
NSG	Nuclear Suppliers Group
NWS	Nuclear Weapons State
OAS	Organization of American States
PPWT	Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects
R2P	Responsibility to Protect
RWP	Responsibility While Protecting
CTBT	Comprehensive Test Ban Treaty
MTCR	Missile Technology Control Regime
SISFRON	Sistema Integrado de Monitoramento de Fronteiras (Integrated Border Monitoring System)
SIVAM	Sistema de Vigilância da Amazônia (Amazon Surveillance System)
UNASUR/ UNASUL	<i>Unión de Naciones Suramericanas/ União de Nações Sul-Americanas</i> (Union of South American Nations)
MERCOSUR/ MERCOSUL	Mercado Común del Sur/Mercado Comum do Sul (Southern Common Market)

NATO	North Atlantic Treaty Organization
START	Strategic Arms Reduction Talks
UN	United Nations
UNCOPUOS	United Nations Committee on Peaceful Uses of Space
UNSCR	United Nations Security Council Resolution
WMD	Weapons of Mass Destruction
WMDFZME	WMD Free Zone in the Middle East
ZOPACAS	Zona de Paz e Cooperação do Atlântico Sul (South Atlantic Peace and Cooperation Zone)