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Military Operations Research Society (MORS) Oral History Interview

2016-21-02

Arthur H. Barber Interview (MORS)

Barber, Arthur H., III

<http://hdl.handle.net/10945/49247>



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INTRODUCTION

Oral histories represent the recollections and opinions of the person interviewed, and not the official position of MORS. Omissions and errors in fact are corrected when possible, but every effort is made to present the interviewee's own words.

Mr. Arthur H. "Trip" Barber, III, was Deputy Director of the Assessment Division in the Office of the Chief of Naval Operations (CNO) and served as the Navy MORS Sponsor from 2005 to 2014. In 2014 he was elected a Fellow of the Society (FS). The interview was conducted on February 27, 2015 in Burke, Virginia.

MORS ORAL HISTORY

Interview with Mr. Arthur H. "Trip" Barber, III, FS. Harrison Schramm and Dr. Bob Sheldon, FS, interviewers

Bob Sheldon: This is February 27, 2015 and we're here for a MORS oral history interview with Mr. Trip Barber. Please tell us your parents' names.

Trip Barber: My parents' names were Arthur H. Barber, Jr., and Mary Cobb Diggle Barber.

Bob Sheldon: Tell us about your parents and how they influenced you.

Trip Barber: My parents grew up in different places. My father grew up in Massachusetts and my mother in North Carolina. They met in North Carolina. I was born in Charlotte, North Carolina. My father was a civil engineer and served in the Army in World War II. He continued in the Army Reserve for the rest of a 20-year career. So there was some military influence in the house. My mother was relentless on education so I was in a different school every year from first grade through seventh grade—two schools some years. I skipped a grade one year because I was well past what the school was prepared to teach. She was relentless about pushing my intellectual limits.

Bob Sheldon: Why were you in different schools?

Trip Barber: My mother got mad at each school that I attended because they weren't pushing me hard enough or weren't educating me sufficiently. This was North Carolina so we're not talking superb schools. She kept looking for one that was (superb), so

I was in a different school every year. Then finally when I completed seventh grade in 1963, my parents decided that they had not lived adventurously enough and we moved to Baghdad, Iraq.

I thought that I had died and gone to hell, because Baghdad was not great. I wasn't in school for four years; I didn't go to school at all except for some homeschooling with my father. I tried to read every book in the US Information Agency library; all the classics of literature.

Bob Sheldon: What was your dad's job?

Trip Barber: He took a job as the chief engineer on the construction project for building the city hospital of Baghdad.

I missed all of middle school (junior high school). I came back to the tenth grade and fell in with my age group. I had been out of school for four years but missed three grades.

Bob Sheldon: Where did you go to high school?

Trip Barber: My father finally had enough of Iraq so he came back and took a job in Boston. But my parents wanted me to finish high school in my hometown, so I went back to Charlotte in 1967 with my mother and finished high school there.

Bob Sheldon: When you were in Baghdad, did you have a chance to travel around the Middle East?

Trip Barber: That's a long story. We had a variety of health problems in the family so we went back to the United States regularly. My mother was deathly afraid of airplanes so it was always on ships. In connection with the ship transit from Beirut back to the United States, we certainly saw a number of countries—not too many of them in the Middle East but most in the Mediterranean. I spent a lot of time on ships, which sort of oriented me toward the Navy. Different kind of ship, but still a ship. I was fascinated with the sea.

I finished high school and I was way ahead of my peers by virtue of not having gone to junior high school and wasting all those years and actually spending them productively. I did really well in high school.

Bob Sheldon: I'm guessing you did well in math and science?

Trip Barber: Yes, I did.

Bob Sheldon: Were those your favorite subjects?

Trip Barber: Yes, those were my favorites. I didn't dislike anything but those were

Military Operations Research Society (MORS) Oral History Project Interview of Mr. Arthur H. "Trip" Barber, III, FS

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my favorites. I was focused on going to the Massachusetts Institute of Technology (MIT). I can't remember a time when I didn't want to go there and study aero (aeronautical) engineering. That was my focus in my high school years to make sure I had a resume to support doing that and that's what I did.

Bob Sheldon: Your dad lived in Boston when you went to school there?

Trip Barber: Yes. My dad had commuted to Charlotte when I was in high school. As soon as I graduated my mother moved up to Boston, so when I was in college, my parents lived two miles away in the Prudential Center. I didn't live at home but I saw them regularly. They lived in Boston for a number of years after I graduated until they retired.

Bob Sheldon: How did you choose aero engineering as a major?

Trip Barber: I grew up in the middle of the space race. When I was six, Sputnik was launched. From that point on the space race was consuming America and a lot of kids in my generation grew up wanting to be astronauts, aero engineers, or related fields; I certainly was one of them.

Harrison Schramm: When did you build your first rocket?

Trip Barber: When I was 10. I never outgrew that and I'm still doing it. I was working on one this morning. I was fascinated with aerospace and I never considered going anywhere but MIT to study it because it has the best aero department in the world.

Bob Sheldon: Did you build model rockets in high school?

Trip Barber: I did. I built them in primary school. I built them when I was in Iraq. It was kind of hard to fly them without somebody firing back so I didn't fly too many of them over there.

Bob Sheldon: Did you build them from kits or from scratch?

Trip Barber: Both. And I still do that. That's been my hobby my whole life.

Bob Sheldon: Do you have a rocket club or something you belong to?

Trip Barber: Yes, there's a local rocket club and there's the National Association of Rocketry that I was the head of for a number of years.

Bob Sheldon: Besides your aero courses, did anything else happen that you particularly remember about MIT?

Trip Barber: I was in Navy Reserve Officers Training Corps (ROTC) when I was at MIT. I looked at all the Service branches and I wanted to serve my country. I had a draft number that was so high that I never would have been drafted, but I still wanted to serve because I had lived in a place that was totalitarian. It tends to make you value what you have here.

Bob Sheldon: What was your draft lottery number?

Trip Barber: 270-something. I wasn't going to get drafted. I looked at all the Services and decided that the culture and the people of the Navy were the group that I wanted to hang out with. I went into Navy ROTC on a contract. They did not have scholarships when I entered MIT; in fact that whole program was focused on graduating engineering duty officers. When I was there they began awarding scholarships and I was the first one to get a scholarship. They began commissioning line officers and I was the first one to be commissioned as a line officer. Since then they've become all line officers with lots of scholarships.

It's a big unit now—it was small then. ROTC was an important part of my life at MIT as was the rocket society where we spent a lot of time building and flying rockets. I was just at a convention this past weekend in Seattle with six of the people that I went through MIT with in the rocket society.

Bob Sheldon: Any other extracurricular activities, athletics or anything, while you were in college?

Trip Barber: I ran track and I also was part of a military fraternal society called the Pershing Rifles. I was the Commander of it, as a Navy guy. We had a commando unit that went out in the field a couple of times a month and spent the entire weekend in the bush playing soldier. I was the Commander of that too.

Bob Sheldon: What distance did you run in track?

Trip Barber: Two miles and I ran cross country also. I wasn't all that good at it but I still ran. It got me in a position where I was more physically fit and learned to love a sport and I continued it.

Bob Sheldon: Finishing up at MIT, then you were commissioned so you went straight into the Navy?

Trip Barber: I did. I had a four-year obligation. I tried a submarine cruise for my midshipman cruise and did not like it. I was on an SSBN and I had a 63-day submerged patrol out of Guam. They were having an Operational Reactor Safeguards Exam (ORSE) when they returned and they were just not having a good life. ORSE was the nuclear inspection of Navy reactors. They were nervous and they spent the entire cruise drilling on that.

There were no movies—you couldn't watch movies. Everybody's job was to study. It was really miserable. I decided I did not want to be in a part of the Navy where people were not having fun. My eyes weren't good enough to fly back them. It's correctable these days but it wasn't then. That left surface line and that's what I did.

Bob Sheldon: Did your aero background help you in that field?

Trip Barber: A technical background helps you in any career field in the Navy. I didn't use aero too much as my profession. I was a consumer of aerospace—I shot rockets as opposed to designing them. But it was useful—to be technically proficient in the Navy is a good thing.

Harrison Schramm: They didn't have Surface Warfare Officers School back then; you just reported straight to your first ship?

Trip Barber: That's correct. I graduated from college and a week later I walked on board the USS *Alacrity*, which was a former minesweeper that was in the process of being converted to pulling a towed array sonar to detect submarines. I was on board a ship as a division officer with zero training beyond ROTC and that was not a lot of training back then.

The MIT campus was consumed with anti-war riots and strikes, so we maintained a low profile. When we drilled, we drilled indoors because we attracted a large audience of mockers, catcallers and hecklers when we tried to drill outdoors. There was not a lot of specific training on how to run a ship.

And here I was. I walked on board and part of the crew had been pulled off to do Operation End Sweep in Vietnam—cleaning up the mines we'd laid there. The ship was undermanned. We got underway and I was an Officer of the Deck (OOD) in a week. This was scary because it was me and the Executive Officer

(XO) working "port and starboard" (alternating duty periods).

This is something you normally spend a long period of time to learn, but there were only five officers on the ship so you had to learn a lot. You learn lots of different skills as a division officer and as a professional if you have a very small crew, there's nowhere to hide. That was an eye-opening orientation to the real Navy. My chief was an alcoholic. My leading petty officer had been busted (reduced in rank) 12 times for drugs and had been to mast 12 times and we didn't kick people like him out of the Navy back then for drugs because he was too valuable—he had too many NECs (Navy Enlisted Classifications—specialty skills).

It was a pretty eye-opening experience. This was not the cutting edge of the Navy.

Harrison Schramm: Where was your ship home-ported?

Trip Barber: Charleston, South Carolina.

Harrison Schramm: Did you live on board the ship or did you have quarters?

Trip Barber: If you were on minesweepers back then, you rated a BOQ (Bachelor Officer Quarters) room. I had a BOQ room, which was good because minesweepers were miserable, rotten, smelly, and bug-infested. Then we deployed to the Mediterranean (Med) pulling a towed array sonar with another minesweeper that was similarly equipped and we found every Soviet submarine in the Med.

We heard them all. It was amazing. We had P-3s (maritime patrol aircraft) buzzing around us and it was a remarkable experience. I was shifted down to CIC (Combat Information Center) and I was an Ensign division officer controlling entire squadrons worth of P-3s and figuring out on-the-fly how to do target motion analysis and track submarines and locate them on passive bearings. It was just fascinating, so I think a strong technical background was really pretty important to being able to execute that kind of tasking.

Bob Sheldon: Could you put some timestamps on this?

Trip Barber: I graduated from MIT in 1973.

Bob Sheldon: And to Southeast Asia for how long?

Trip Barber: I did not go to Southeast Asia. The Vietnam War had just ended. Some of the

people on my ship's crew who had minesweeping experience when the ship had been a minesweeper were sent to Southeast Asia to be on the minesweepers that cleaned up the mines postwar. But the war was over.

Harrison Schramm: Do you have any strong memories of your Captain or XO from that time?

Trip Barber: My Captain was an alcoholic. He would regularly get the ship underway drunk. This was a pretty broadening experience for an Ensign. We pulled into Bermuda on the transit across the Atlantic and the crew basically behaved so poorly that we were ejected from Bermuda and told to never come back. But we sure found a lot of the Soviet submarines, and we were the talk of the Mediterranean because we were finding submarines that the surface ships had never seen.

I spent 18 months there and then sought a split tour to the "destroyer Navy"; to the commissioning crew of the third ship in the Spruance class. I joined the mainstream of the Navy at that point. But I went in with a tremendous amount of operational experience and leadership experience from being on a very small ship. So it served me well. And I had ASW (antisubmarine warfare) expertise, which really became the focus of my professional time at sea, on ships that did antisubmarine warfare.

Harrison Schramm: Was your second ship also in Charleston?

Trip Barber: It was in San Diego. We were a commissioning crew so we spent 18 months in precom (precommissioning). During those 18 months I made up for the "no SWOS" (I hadn't been to Surface Warfare Officers School) by going to the 25 or so different Navy schools of every type. I really built a much stronger professional background even really to what you get in department head school by taking all of those different one, two- and three-week courses. I had the opportunity fortunately at that point in my career to bulk up on some of the professional stuff that back then you just didn't get a chance to do very well.

Harrison Schramm: Can you talk qualitatively about life on board the minesweeper versus life on board the destroyer?

Trip Barber: Spruances were new, large, clean, modern, spacious, made of steel—not wood.

And they were not infested with cockroaches. They were the cutting edge of ship design back then so it was fascinating to be on a new ship, learn the combat system, and become proficient in all the systems on a big destroyer. It was a different lifestyle—with a much higher class of people. Precommissioning crews are always hand-selected, so it was just a remarkable crew. Everyone that was on there as a division officer went on to command a ship. That was a great experience.

I had a sort of bad lifestyle experience but operationally magnificent experience on my first ship. And then a great lifestyle experience on my second ship. I met my wife while I was sitting around in the BOQ in precom waiting for my ship to be commissioned, and we got married shortly after the ship was commissioned. When I finished the tour there in 1977, I could either have got out or taken orders to do something new.

I chose to take orders to the Naval Postgraduate School (NPS) at that point because I had seen two ships and a lot of the Navy life. I decided that although I had an engineering degree, the aerospace industry was not hiring when I graduated from college. There were just no jobs. It was picking up a little bit at the four-year point in the Navy, but I was liking the Navy. So I was in no particular hurry to get out and become a practicing engineer in place of being a Navy officer.

I liked being a Navy officer.

Harrison Schramm: What did you study at NPS?

Trip Barber: I wanted to study aero engineering but I wasn't a pilot so they wouldn't give me orders to that. I started bargaining with the detailer and he said basically "Double E (Electrical Engineering) or stay at sea." That's how I decided I was going to go study double E. I took one double E course at MIT—I did not like it. I got to NPS and I still did not like it. It was a really hard curriculum. But I studied hard and I was the number one person in the curriculum by some huge margin.

Bob Sheldon: A lot of math in your curriculum?

Trip Barber: Oh yes, four or five semesters of calculus. It's a little different math from ops analysis. It's much more differential equations, Fourier and Laplace transforms. There is some

stochastics and signal processing. But there's not as much probability and a lot more calculus than ops analysis. But I'm pretty good at math so that worked out okay. I worked hard and did well and found out at the end of the curriculum what I had not been told by the detailer. The expectation is if you go through a curriculum like that, you're going to become an engineering duty officer.

Well, I'd already been through that at MIT. I did not want to be an engineering duty officer. But when you come out of NPS at that point in a SWO's (surface warfare officer's) career, you go back to sea anyway. So I went back to sea. Really it did not become a factor until I was due for my first shore orders after three years at sea after NPS.

Harrison Schramm: What year did you finish NPS?

Trip Barber: I finished NPS in 1979.

Harrison Schramm: What was your thesis and what do you remember about your advisor?

Trip Barber: I designed from scratch a computer-based test-stand for rocket engines. I designed the mechanical elements using my aero background and designed the circuits and the computer system and wrote all the software in machine language—that was fun—from my double E background. I spent probably 1,000 hours building that thing to test small rocket engines. It worked great but it took me 1,000 hours of design, building and debugging, and everything else to produce. My advisor just signed the papers and left me alone, which is what I wanted and all I needed.

That was indicative of how NPS went for me. I never saw Monterey. I just saw Spanagel Hall and Bullard Hall and the lab and my classrooms. My wife tells me that Monterey is a great place. After visits that I've made since then, I agree with her. But I never would have realized it back then. It was just hard. Double E did not come naturally to me so I had to work very hard. But at the end of it, I had a master's in electrical engineering. I went back to sea and I was on a path where the Navy was expecting me to convert to engineering duty officer.

I even got a letter saying, "on reconsideration, wouldn't you like to be a NUKE (nuclear-power trained officer)?" I didn't even answer that one. I came due for shore duty orders in

1983, at the end of my department head tour on the destroyer where I did ASW—we were the test ship for the new SQQ-89 ASW system. I spent the entire three years chasing submarines with the towed array sonar and firing torpedoes at them.

I was the weapons officer. I probably fired 100 antisubmarine rocket (ASROC) rocket-assisted torpedoes. We would go down to the AUTEK (Atlantic Undersea Test and Evaluation Center) undersea range in the Bahamas for miniwars (exercises) loaded out with 24 ASROCs, 24 additional torpedoes (both over-the-side and helicopter) and a LAMPS (Light Armored Multi-Purpose System) helicopter. We'd come back empty having shot 48 torpedoes at submarines in live combat simulations. Really chasing each other around. It was marvelous. I had a great time.

When it was time for orders, I said to the detailer, "Okay, what does it take to not do a pay-back tour in electrical engineering? I'll go anywhere, whatever you need, whatever you want. I do not want to serve a tour in electrical engineering."

He said, "Well, go to the Pentagon and work in the programming division on the budget." "Okay, deal." That was the organization that we now call N80—it was called OP90 back then. But it's the programmers, the people who do the financial allocation of funds to build a "POM"—a program objective memorandum. It was detailed program planning, making the books balance, and learning the programs of the Navy.

Bob Sheldon: What was your military grade then?

Trip Barber: I was a Lieutenant Commander; I got early promoted to Lieutenant Commander in 1980, a couple of weeks after I walked on board the destroyer for my department head tour; and I think it was entirely due to the class rank I had at NPS because I had no sea time as a department head at that point. The Navy doesn't normally do that. That was kind of strange. I was a Lieutenant Commander my entire department head tour and that's the rank with which I went into the Pentagon. I went into the N80 "bull pen" to work for Rear Admiral Charlie Prindle—a P-3 guy, like his son Brian, who was (later) my boss in N81.

I worked for Charlie Prindle, who looked just like Brian Prindle. Unfortunately Charlie

Prindle died in office of cancer. I also worked for his successor, Vice Admiral Mike Kalleres.

It was fascinating work. That was in the heyday of the Reagan buildup. My boss would come down to the "Pooka" (Pentagon slang for cubicle) lane in the bullpen saying, "Okay, I've got \$10 billion to put somewhere, who's got an idea?" Reagan was just pouring the money on the Services to build them up. I was the weapons guy, so I was buying amazing numbers of weapons. I was given the task of figuring out how to dual source all of the production lines for all of our major weapons, so I ran a project to figure out how to find a second manufacturer to bring online and the Navy did it.

I had these great experiences during those two years there where I worked on stuff that led to the Navy spending billions of dollars and making big decisions. I worked for great bosses, with the best of people and a huge amount of job satisfaction. I liked it, unlike most people that go to the Pentagon and then whine about how they hate it. I did not hate it. I thought it was really rewarding, intellectually challenging work and I liked doing it and the people that saw me said I was good at it and they'd like me to come back and do it again sometime.

Harrison Schramm: Where were your spaces physically located when you had that first Pentagon job?

Trip Barber: I was on the fourth floor, D ring, 7th corridor—I don't remember the room number. The Navy has moved counterclockwise one wedge since back then in the course of the Pentagon renovation compared to where we were then.

Harrison Schramm: Did it look kind of the same and have the same kind of feel that the Pentagon has now, or was it significantly different?

Trip Barber: Well, the Pentagon went through that huge renovation since then. Did you have a chance to see any of the Pentagon corridors before the renovation?

Harrison Schramm: Yes, when I was here the first time I saw it.

Trip Barber: Yes, well that's how the whole Pentagon looked. It was grim, yellow, depressing, and old. We still used pookas and they were almost the same as the pookas that we use today. We had Wang word processors, and if

you wanted slides done you had to basically go down to OPNAV graphics and do some serious sucking up. You had to take some coffee—cans of coffee—and make a deal if you wanted the graphics in less than a week. So it was different.

It was not as dominated by PowerPoint, but we did use slides. They were just done with a simpler system, so "Gucci" graphics were not really an option unless you had serious amounts of coffee and were willing to go down to OPNAV graphics and get them done professionally by graphic artists. But it was fascinating work so I liked it a lot. When I went back to sea, I stayed in contact with the senior civilians that were part of that organization.

Irv Blickstein was one of those, and when it was time to come back to shore duty after my next tour, which was an XO tour on a destroyer in Norfolk, I called Irv and said, "Okay, what should I do next?"

He said, "Well, go to OSD PA&E" (Office of the Secretary of Defense, Program Analysis and Evaluation). But the detailer had already issued me orders to J8 so that was a little awkward. I tried to get out of the orders to J8—and I got some help. This was in 1987 right after Goldwater-Nichols had been signed into law. The Joint Staff had suddenly changed from being a backwater that only the failures sought duty in, to being a place where the frontrunners were required to have duty in order to be promotable.

It was a huge culture change that occurred, and I was the first wave of new people who were ordered in under the new culture and I couldn't get out of it. I went to interview with David Chu who was the head of PA&E and he said, "Yes, I'd like you to come work here." He made a call and the answer was "no". Which was odd because people didn't normally say "no" to Chu, but they did. So I ended up going to J8.

That was right after J8 had been created, so I was the first of the new generation of officers there that were upwardly mobile. I came into J8 Program and Budget Analysis Division—which was a good fit for my background. I had spent two years working in the details of Navy programming. I was the only person in the office with a background of actually knowing how to do this stuff.

Bob Sheldon: Were you a Commander at that point?

Trip Barber: I made Commander right after I got there. I was frocked. I had been selected but they did frocking back then so I was able to put it on in connection with reporting for duty in a Commander's billet. I was there in J8 on a three-year tour and because I knew what I was doing I was pretty quickly put into pretty interesting jobs and positions. I became the person who ran the whole Joint Staff's participation in the annual program review. As a Commander, I was telling rooms full of O-6s what to do and how to produce the papers that I needed.

I was building these enormous briefing books and personally briefing the Chairman of the Joint Chiefs of Staff on all the issues for program review every cycle. And then when the Chairman went over to testify to Congress—this was Admiral Bill Crowe—he took me with him. I was his backup person on budget issues.

This was really interesting stuff, it was another great experience in the Pentagon where because I chose this line of business of being in program and budget analysis, I was having the opportunity to do really interesting work for really senior people who seemed to appreciate it and I was having some influence on decisions. Positive feedback from a Pentagon experience is sort of a pattern here. If you go to the right jobs, then Pentagon duty can be quite rewarding and influential and that's the kind of jobs that I was able to get.

I got them because I asked for them—I wasn't trying to avoid them. If you try to avoid them, then you get the jobs that perhaps no one else really wanted. If you get aggressive and look for the ones that are really interesting, well who else is going to ask for them? At a certain point, people figure this out and they start asking for them but in the more junior ranks it's uncommon for people to ask for Pentagon duty, so I did and I got it.

Toward the end of my Joint Staff tour, the Cold War ended. Colin Powell became the Chairman. General Powell did not need as much prep as Admiral Crowe. Admiral Crowe did not like budget—he was a policy guy. He hated the budget in fact, so I was his crutch. I would brief him and he'd sit there—he had this odd habit of chewing Kleenexes. So I'd be sitting

there giving him a budget briefing and his eyes would be closed and the only way you could tell that he was awake was that every now and then he'd reach into his desk drawer, pull out a Kleenex and put it in his mouth and chew on it.

This is really disconcerting when you're giving somebody a budget brief. It was pretty memorable. It was very painful for him to go through this process, which is why I got so many opportunities because I made it easy for him and I took really complicated stuff and explained it in simple terms that he comprehended.

Bob Sheldon: What were the contentious budget issues in that era?

Trip Barber: I don't remember. The briefing books that I took in there were 300 or 400 pages. And he hated budget—so here comes this Commander with 300 or 400 pages. The first time we did that, I came in with a retinue. There were a bunch of issues and I had various people who had been producing papers on each of the issues and they were the experts on them. My theory was I'm going to run these experts through and they're going to brief the Chairman.

The Chairman said that would not be the case, so I had to go brief them all. Okay. My surprise—I was not really expecting that this was what I was going to have to do. I was able to do it and I did it quicker than the experts would have done which pleased the Chairman greatly, and I operated at a higher level with less detail, which also pleased him. So that was what I did from that point on.

Then Powell came in. I've worked for some really smart people, like Admiral Denny Blair. General Colin Powell was the smartest one. That guy was impressive at every level, just an awesome human being, leader, smart—an amazing guy. It was a real challenging experience to work for him. That was a different experience. He had worked as a White House Fellow in the Office of Management and Budget (OMB) so he didn't need a whole lot of help on budget stuff.

I could hit the high points much quicker and he would read the paper and he'd get it—a different kind of briefing. But the world was changing around us at that point. It was the end of the Cold War, so it was pretty clear that the budget was going to go down. The Services

were not interested in volunteering how to cut themselves in order to accommodate what was going to be a pretty clear peace dividend and budget reduction.

It was part of the job that I had to be familiar with just about everything. I was really familiar with how we did wargaming and analysis and all the other force structure work in different branches within J8. I was sitting around without much to do one day and I started noodling about how would you change the military and what would your theory be for how you would change the military to accommodate a big budget reduction?

I worked on it on my own for a few months and produced a product—not a thought piece, because I'd done a lot of calculations about how to price things. And I'd used a lot of work from the wargaming and force structure analysis and ops analysis divisions in J8. I had a pretty well worked out theory of how the military ought to be reshaped. Then I showed it to the Director in J8.

A day later I was up in the Chairman's office and I showed it to General Powell and that became the Base Force. He picked it up and thought of the name Base Force and made the Service chiefs do it. But it was what the US military did to reshape itself at the end of the Cold War. Nobody ever knew I did it. When you read the history of the Joint Staff of that particular thing—they actually wrote a history of it. My name is never mentioned. A whole bunch of colonels and generals are mentioned. They had essentially nothing to do with it other than to not get in the way.

Bob Sheldon: How did you come up with the ideas for the Base Force?

Trip Barber: I made it up. I looked at what the world situation was, figured out what I thought the US military needed to do, used the analytic capabilities of the Joint Staff to figure out what kind of military it would take. I mean, I got down to the company level (Army) of our force structure. I had to learn Army force structure in great detail to figure out how many people the Army needed to have in order to do that. I did the same for the Marine Corps and earned a lifelong set of "bulls eyes" from the Marine Corps for saying that they really only needed to be 150,000. There are Marines who still remember I did that.

So that was how my Joint Staff tour ended, producing that. I ended up briefing it around a lot. I took it over to the OMB and briefed it to the senior leadership there. I briefed it to lots of the senior leaders within the Department of Defense. In fact the day I left the Joint Staff to go back to sea and Command, they had a big farewell party for me.

I went over and had lunch and they were serving champagne—so I had a couple of glasses of champagne. And I came back to the Pentagon and was told that at 5:00 that evening, I had to give a briefing on the Base Force to the entire assembled senior staff of the OSD Comptroller organization. And after that I could detach from the Joint Staff that evening.

Bob Sheldon: One of your best briefings ever?

Trip Barber: Yes, well I sobered up. So the Joint Staff tour was pretty exciting. I had a great time.

Bob Sheldon: When did that end?

Trip Barber: It ended in 1990.

Bob Sheldon: Just before Desert Storm.

Trip Barber: Yes. I went into the command pipeline as Desert Storm was going on. I got to watch it on TV. I went off to my command—USS *Deyo*—a Spruance class destroyer. All of my sea tours after the original minesweeper were on Spruance class destroyers. I was on the commissioning crew of the third one—USS *Kinkaid* (DD 965). I was on the USS *Moosbrugger* (DD-980) as a department head. I was on USS *Stump* (DD-978) as an XO.

Then I was on USS *Deyo* (DD-989) as the Commanding Officer (CO). Every one of those ships was doing test and evaluation (T&E) on ASW systems until I got to *Deyo*. *Deyo* was a fully mature Spruance where every space had been filled, every system had been installed; it had Tomahawks (Sea launched Surface-to-Surface Missiles); it had the Classic Outboard SIGINT (Signals Intelligence) system. Every space was just stuffed with equipment, whereas the initial Spruance I had served on in 1976, most of the spaces were empty.

Bob Sheldon: You talked about T&E—did you monitor the T&E activities on the ships you were aboard?

Trip Barber: Yes, I was the director of the ship's participation in T&E on USS *Moosbrugger*.

Bob Sheldon: Did you watch the data gathering?

Trip Barber: Yes. I wasn't working with the engineers. I was working with the crew to learn how to use the new systems and then to run the demonstrations, the test and trials, and then eventually free play exercises to prove whether they did or didn't work. There was a civilian data-collection staff on board. My job was to train and operate the crew to use the systems and the data collection staff collected the data around what we did.

Harrison Schramm: Just for completeness, where was *Deyo* home ported?

Trip Barber: She was in Charleston.

Harrison Schramm: Did you deploy to the Gulf?

Trip Barber: I took command on a deployment in the Mediterranean. Desert Storm had ended and we were out there, and basically the rest of the fleet had come home. Most of the fleet had surged there for the war. *Deyo* had not surged. We were in the group that went out and had to relieve the people who fought the war. So we got to have the party. We did the grand tour of the European North Atlantic Treaty Organization (NATO) ports and got to celebrate the victory.

We were the only Tomahawk shooter in the Med to sort of keep a lid on Saddam Hussein with the threat of Tomahawks. It was our job to be the Tomahawk shooter on patrol in the Med and to enjoy the victory celebration. We had a great deployment, all in the Med.

Harrison Schramm: Which of those ports in the Med is your most memorable as a "good port"?

Trip Barber: I took command in Cannes (France) across the 4th of July. There was a major celebration—first of the victory, second of US/French friendship, and third of the 4th of July. We marched in formation in uniform down the streets of the city with color guard and everything with the crew. The guy I was relieving said, "You take that one. I'm not doing it." So I had a pretty good first port visit when I was the PCO (Prospective Commanding Officer).

They didn't really get any better than that. They were all pretty good but that one was tops. Like I said, it was the postwar victory celebration so that was not an arduous deployment. Subsequent to that when we came home I had a couple of counter-narcotics patrols down in

the Caribbean. I got a fair amount of operating time on *USS Deyo*. And then all command tours end.

It was time for orders again. I wanted to go to the war college—I ended up at Army War College (AWC) for a variety of reasons, which ended up being a pretty good experience. That's in farm country in Pennsylvania.

Bob Sheldon: What year were you at Carlisle?

Trip Barber: I entered AWC in 1993 and graduated in 1994. I got orders to N81—I really didn't know what that was but it was in the N8 and they worked on programming stuff. I said, "Okay, send me in, coach."

Bob Sheldon: What grade were you at that time?

Trip Barber: I had been selected for Captain at the end of my command tour and put it on at AWC so I arrived in N81 as a Captain. I found that Bill Owens had been the N8, and he had just left to become the Vice Chairman of the Joint Chiefs of Staff. He had established this phenomenally complicated assessment process that had joint mission area and support area assessments. I forget their names but they were functional area assessments by warfare area. There was this elaborate process of assessments going on and N81 was leading the comprehensive assessment of the Navy program. As part of that there were a number of major briefings that N81 produced.

I was the 812 deputy branch head. The actual branch head was a Senior Executive Service (SES) civilian named Bruce Powers who gave me free rein. I was running a good piece of N81 within a few months because I knew what I was doing and the assessment process was kind of what I had been doing in the Joint Staff. It was a pretty large effort that drew on people from throughout all of N81 and also throughout the Navy to produce these assessments. We would produce assessment briefings that were in the custom of the time.

Remember, this was a legacy from Bill Owens, and Bill Owens had apparently an infinite bladder and an iron butt because he thought an eight-hour meeting was just fine. His method of achieving consensus was to feed people fluids and not let them take head breaks until they agreed. He could take it and most of his counterparts couldn't. He achieved victory or

consensus bureaucratically by a variety of techniques. He had founded a process where the expectation was the briefs were long and senior leader patience was infinite and there was no detail too small to be covered.

This was not good training really for the way that N81 operates. Somehow or other, I became the briefer for all of those and I was the sole briefer for eight hours—500 slides covering an assessment of every dimension of the Navy program from aviation depot maintenance to undersea warfare to C4ISR. I had to learn so much in the process of assembling those assessments of how are we doing and what programmatic adjustments we could make to do better at the expense of cutting what to pay for it.

This is kind of what an N81 does today and has always done. But I walked into a situation where for whatever reason, the custom was that there would be one briefer, the briefs were going to be very long, and the decision was that I would be it.

Bob Sheldon: You had people working for you giving you enough information that you were comfortable briefing those eight hours' worth of details?

Trip Barber: Yes. It was essentially the same thing as an O-6 in N81 as I ended up doing when I came back as the SES deputy division director. Back when I was there as an O-6, the most senior SES who was there as "associate director" (it was Bob Hallex at the time) was a technical director only. He ran contracting or whatever—I don't know. I never had anything to do with him. He was not influential in shaping our assessment output products and the Admiral was generally clueless. Bruce Powers was there as my direct SES boss under him and he was a very good mentor who gave me essentially carte blanche to go make things happen. It was a great experience and a huge opportunity and really rewarding professionally. I did that for four POM cycles; I was there three years and eight months.

I just happened to catch the timing right to get four cycles in each of two three-and-a-half-year tours. I had long tours in the Pentagon in these kinds of jobs accumulating an awful lot of run time and experience. The audiences that I would brief would be 200 or 300 people.

The culture back then was that all of the admirals gathered together and they listened to

somebody brief for eight hours. It's remarkable. We don't do that anymore. I don't think it was a good use of everybody's time. But for the person who was stuck putting together and doing those briefings, it was just an amazing educational experience.

Bob Sheldon: Was that brief in the Pentagon proper or the Navy Annex—where would you put 200 people in the room?

Trip Barber: I'm trying to remember where the spaces were. We couldn't find a single space in the Pentagon that we could do that, so we would go to some offsite location—various different conference centers. And then upon completion of the multihundred-person briefing which was at the one-star, two-star level, we would take it on the road and get on an airplane and fly to Hawaii and brief it at PACFLT (US Pacific Fleet). Get on an airplane and fly to London and brief it to NAVEUR (US Naval Forces, Europe), and take a helicopter down to Norfolk and brief it to LANTFLT (US Atlantic Fleet) back then.

NAVEUR wasn't so big, but at PACFLT and LANTFLT, the audience there was 100 people. And it was an all-day brief. So you'd brief the same thing repeatedly.

Bob Sheldon: Did you have to field contentious questions?

Trip Barber: Oh yes, people were furious. Our job was to say things as they were, not as they wished they would be and we had to tell people that your program is ugly. And we really shouldn't do this anymore and we need money to go and do this other thing that you didn't want to do. It's the same drill that N81 has customarily done—that's the job. To use analytic techniques to find the best places to spend a finite number of dollars and tell people why you believe that and show the proof and take the hostile shots back in terms of "I don't agree with you."

The difference was that back then we didn't have a strong analytic capability within the Navy, so it was more assessment than analysis. We had only a modest number of studies that we did ourselves and we thought of the topics ourselves. Everybody else had their studies too so there were a lot of dueling analyses of "my study is better than your study."

That made it a little more sporting to convince leadership that the N81 position was superior.

I learned a lot from that experience of how you structure an analysis, how you do analysis that's persuasive. And I don't just mean doing the study itself; how do you organize yourself bureaucratically so you're in a position where the work when you do it is persuasive and effective and influential.

The way I ended up operating when I was in N81 was based on experience learned over lots of tours doing things that didn't work out very well. And taking a lot of slings and arrows from people that were irritated and in some cases with justification that perhaps what we had done was less than perfect or less than complete and we hadn't considered all the relevant viewpoints.

It was very educational. Back then N81 was smaller than it is today. And really it was only the 812 branch that produced these briefings. We drew on support and parts of the briefings were produced by other groups within N81 but when it came time to build the briefing it was N812 and there were eight of us so it was tough work. We would pile the pizza boxes up at night. By the end of an annual cycle there would be a pile of empty pizza boxes taller than a human. The metric by which we tracked the difficulty of an individual POM cycle was the height of the stack of pizza boxes. There were a lot of late hours and weekends associated with how we operated then. I learned a lot from that too.

I was able to take those kinds of lessons when I ultimately came back as a deputy in N81 and get us off that mode of working all night. If you organize yourselves correctly and use people the right way, there's no need to work all night in most jobs at the Pentagon.

Bob Sheldon: Any stellar people you worked with at that time?

Trip Barber: One of my strong action officers was Doug Biesel who made Flag in the submarine force. He was probably the strongest of them. But N81 was not a place like N80 where people go as a touchstone on their way to Flag. N81 did not have a strong track record of people going through and going on to Flag. Some do but it's not as pervasive as it is in N80, so back then you didn't get as many superstars, but they were good people and a number of them had OA (operations analysis) degrees.

But not many—N81 has varied over the years in its emphasis in having a degree in OA. Basically at that point it was, I wouldn't say inadvertent, but it was not a priority so we probably had a handful but it wasn't very many. That was another thing that I changed when I became the deputy there. We were going to get OA degrees there, and wanted people who have them, so we upped the percentages by quite a bit, but back then it was a very small percentage. It was basically people on their first Pentagon tour who had to learn this stuff on the job.

Bob Sheldon: From the Pentagon, what was your next job after that?

Trip Barber: I screened for Major Command Ashore—so I went on to command the Navy Amphibious Base at Little Creek, Virginia. That was fun. I was there four months and then the phone rang and I was told that I was going to be detached from duty and sent to Naval Station Norfolk to take command and to merge Naval Station Norfolk with Naval Air Station Norfolk into a single base. We were in the process back then of doing regionalization of shore facilities from individual bases doing everything on their own to where all the services and functions were regionalized across the whole region. Individual base COs became the program managers for a particular function for the whole region, and they didn't own some of those functions on their own base.

It's a different theory. It's what we're doing still today. I was there at a time of great change and arrived aboard at Little Creek at the time that began. I was the functional area manager for the police and fire for Hampton Roads so I figured out how to do that—that was entertaining to learn the culture of cops and firemen. I got that regionalized and did pretty well at it. I got picked then, based on that exposure, by Admiral Reason to be the CO of the Naval Base and to do the one really hard thing that was part of regionalization which was to disestablish Naval Air Station Norfolk as a separate base.

The Naval Station and the Naval Air Station were two separate bases on the same base. There was no fence between them. On one side of the base is the Air Station with a big airfield. It's run by Naval Aviation and they have their culture. Then over here are the piers and its Naval Station, and it's run by SWOs and they have their

culture. They fought with each other and they did everything differently between the two of them. They puzzled the hell out of their tenants because when you cross the street, the service delivery was different. Really? Why? The two bases' staffs didn't like each other, didn't get along, had fundamentally different cultures and I was told to take charge and merge them.

So I did that.

Harrison Schramm: What year was that?

Trip Barber: That was 1998 through 1999.

Harrison Schramm: That would be around the time that I was reporting for my first sea duty squadron at HC-6 in Hangar LF-59 (Onboard Naval Air Station Norfolk).

Trip Barber: Yes, that was a lot of fun. As a SWO I took command of the Naval Air Station—which the Naval Aviation uniformly hated seeing. And then five minutes later ordered the flag hauled down and that was the end of Naval Air Station Norfolk.

Bob Sheldon: How did you resolve the conflicting priorities between the aviation side and the surface side?

Trip Barber: Team building—I just said, "Okay, whichever one does it the best, that's the way we're both going to do it now." I made sure that the staff ended up with department heads that were about 50 percent from Naval Station, 50 percent from Naval Air Station. I picked the best ones between them. I went to visit every single air squadron and every single tenant command on the Naval Air Station. I also visited every single ship and there were 80 ships home ported at Naval Station Norfolk—five carriers.

I had lunch with the wardroom (officers) and talked to the crew of every ship, the same with every air squadron, and I did something for everybody. No matter what their number one gripe was, I fixed it if I could. Some of them were unfixable so I had to do something smaller. But where I could do something, I would do something so they knew I was listening. When you do that you get over a lot of suspicions that people have about what your motives are, "Oh, you're a SWO, I don't trust you."

Because the Naval Air Station COs had been C-12 pilots they got a chance to go flying. And their priority was "let's go fly." They were awful at running a base. It wasn't hard to beat that. I quickly convinced the air squadrons that having

a SWO CO was better than what they'd had before and it worked out. It was dramatically more efficient and it just resolved a lot of petty things that had been going on at that base for 60 years. That was a fun tour and it came to an end when I got a phone call from the Vice Chief of Naval Operations—Admiral Don Pilling—saying I want you to come be my executive assistant (EA) in two weeks.

That was the end of that. Admiral Pilling had been a Flag Officer at various ranks in the N8 organization during my time as an action officer at various ranks. Irv Blickstein—who I mentioned earlier as an SES—was his deputy at N8. Once again there was this conspiracy to take people who know how to do the stuff we do in the Pentagon with program and budget, and recycle them into payback, repeated tours of doing it. N8 doesn't do that well anymore; it sort of died out when Pilling departed the service and Irv retired from Navy SES.

But at the time that I was there, there was a deliberate recycle program to keep bringing back the people who do it well, give them the next chance at the next pay grade up to do it well again. So Admiral Pilling brought me back to be his EA.

Bob Sheldon: How many stars did he have?

Trip Barber: He had four stars—he was the Vice Chief. His hope was that I would make Flag but I didn't. At the end of my tour he retired and I said, "You know, the next thing I need to do is the Quadrennial Defense Review (QDR)." I had been actually in the Pentagon for all of them from the beginning if you count the Base Force as one and the Bottom-Up Review as one—they weren't technically. But effectively by virtue of what they did, they covered the same material that is covered in what we now call a QDR.

The first QDR by that name officially was 1997 and I was there for that in N81. The next one was 2001 and the Navy QDR was going to be handled by a special group detailed for one year to serve under a Flag Officer detailed for that purpose, serving as a team within the N8 organization called the N8 QDR division. That Flag Officer was Joe Sestak. I was his deputy for the QDR 2001—and that was quite an experience. Joe Sestak was a very smart person. He earned a PhD at Harvard and he was a driven man, relentless, brilliant, hard driving, and utterly

remorseless to his staff. He was in fact brutal to his staff. He was charming to his superiors and abusive to his subordinates. That QDR was quite the experience to be his deputy, because we had about 30 people on the team and I was sort of the buffer between them and Joe Sestak. By the way, he was a SWO and actually, until I worked for him, he was a friend; as a social companion he was a great guy.

When you were his subordinate, not so much. I didn't know that about him until I was his deputy. But we still remain on pretty good terms and he was not abusive to me, so I was really trying to moderate his behavior to the staff, and I talked to him privately about it. Of course he was incorrigible about his personal behavior being abusive to people and driving them to work all night. But I would run him out of the office at midnight or so and I would stay all night to finish the projects that he wanted with a small number of staff as opposed to everybody that he wanted me to keep.

I really ameliorated the abusive behavior to the best that I could for the staff and we produced amazing results out of that QDR. That was when Donald Rumsfeld came in with Steve Cambone—who was his "man." He was not in an official office but the guy that sat outside the Secretary of Defense's office. Every Secretary of Defense has his guy who is his hatchet man.

They came in bent on enforcing transformation—whatever that means. That was the term. "Rods from God," bombs from space, whatever was going to make current forms of military art obsolete. We would use pervasive intelligence, surveillance, and reconnaissance (ISR) and kill them with precision weapons—all wars would be won that way.

They had already decided that eight carriers was about all that the Navy really needed. In the QDR team we said the Navy will have no less than 11 ships at the end of the QDR and we already know their names. It's USS *Nimitz*, USS *Vinson*, etc., the names of all 11 carriers. And at the end of the QDR that's what we had. Sestak and the team and I were absolutely and shamelessly relentless in our ability to build briefings that substantiated analytically the case for aircraft carriers, and proved their utility both from history and from campaign analysis.

We wouldn't get on people's calendars. Sestak and I would go into their office, and basically

just barge in and give them briefings. Sestak was just shameless and pushy about this. But I learned a lot from the experience. There is no such thing as too fast in the Pentagon. If you get a job, do it now. Do it right now. In fact if you have to work all night to do it now, then do that. It's just amazing how effective you can be if you're quick. I should say if you're quick, eloquent and accurate—but he did not care about the accurate part. That was my job. I made sure we were never "not accurate" and he made sure that we were eloquent. We had sort of a truce agreement that we would never say stuff that was wrong as long as I gave him stuff that was right as quick as he wanted it.

That was pretty much the deal that we had and we were just amazingly effective. And at the end of the QDR, we had the 11 carriers. That was not how it looked like it was going to turn out at the start. He made a second star out of that. I got a Distinguished Service Medal, which is an unusual military award for an O-6.

But we did amazing stuff. And we certainly whipped ourselves hard to do it and whipped our staff hard. I still remain in contact with most of the people that were in the QDR staff with me. We have a shared bond of endurance in the face of that kind of pressure. We did well for the Navy. That was probably the hardest QDR that there has been in terms of direct straight up challenge to Navy. Others have had the ritual challenge of, oh, aircraft carriers are so obsolete.

But on that one they had come in and they had already made their minds up what the answer was and they were going to shift all that money to hyper-velocity whatever from space but they couldn't figure out the programmatic to make them happen. It turned out well for us. And I retired at the end of that. I was at my 28-and-a-half-year point

Bob Sheldon: What year was that?

Trip Barber: 2001. My retirement date was 1 January 2002. The QDR basically was over right before 9/11. I was in the Pentagon on 9/11 in the QDR spaces, and then the QDR report got a hasty rewrite to adjust to the new sudden emergence of a new different kind of war right at the very end. But essentially all the analytic work and all the programmatics were done by 9/11. We were in the QDR spaces on 9/11 and

watching TV and saw the World Trade Center got hit by an airplane. We thought it was an awful accident. Then we saw it got hit with another airplane.

Okay, this is not an accident. And then the building (Pentagon) shook. And we knew we'd been hit and we knew what had done it.

Bob Sheldon: What space were you in for the QDR?

Trip Barber: I was one-and-a-half wedges over from where the airplane hit. You could feel it and the smoke eventually drove us out but we weren't engulfed in the fire or anything. Then I went on terminal leave not too long after that.

Bob Sheldon: What was your first job post-retirement?

Trip Barber: That was interesting. I did a bunch of job interviews having no expectation that I would stay around Navy because I just didn't think I would. I didn't want to be a GS-something-or-other pushing papers in the Pentagon, not doing anything particularly influential. I went out on the job market to all the different companies that did defense consulting and the federally funded research and development centers (FFRDCs): RAND and CNA (Center for Naval Analyses). I got job offers from every one of them. It was just a question of, "Okay, who do I really want to work for?"

I was working my way through that intellectually and doing some more interviews to see who do I like, whose culture do I like and looking at the salaries. And then I got the call saying, "We have a plan here," from Navy. It was from Ken Miller who was the SES deputy N6/N7 (Warfare Requirements and Programs). The Navy staff has gone through lots of reorganizations over the years. At that time Vern Clark had decided that the N8 organization—which Owens had founded and had the platform sponsors in it, and all the people who own ships and airplanes and buy them—was too powerful and it should be split. The N8 would handle money only and the N6/N7 would be established to handle all the platforms—the surface warfare, air warfare, submarine warfare, and so forth.

That divergence—that split—had happened shortly after Vern Clark took over as CNO and right around the time I retired. So there was this new organization called N6/N7

and they established an integration division called N70 and they were just standing it up. It was a relatively small division. Rear Admiral Dan Bowler was the head of the division and they needed a deputy.

Ken Miller, the N6/N7 three star's deputy, called me and said, "We want you to be the deputy in this new N70 as an SES civilian. This is a new billet." I said, "Okay, that sounds pretty interesting." So I turned down all the job offers and took that one. I became an employee of CNA for nine months from January through September of 2002 working in N70 awaiting the approval process. This was a new SES billet, and it's hard to create new SES billets because there's a fixed number and to create a new one means taking away another one. I was approved and was sworn in as an SES in October 2002.

That was the beginning of my career as an SES, which then lasted 12 years.

Bob Sheldon: You never really interacted with CNA-proper on Seminary Road?

Trip Barber: I was there once. Yes, I went over there to sign some paperwork and become an employee of CNA and I spent three hours there—I think. I went back to the Pentagon and that was the last time I set foot in CNA as an employee. Subsequently, after I came over to N81, I became the COTR—the Contracting Officer's Technical Representative—responsible for CNA contracts. I had a close and intimate relationship with CNA starting then. But at that point, I had no other relationship with them. I spent three hours there.

Bob Sheldon: Did you have to go to any charm schools for your SES training?

Trip Barber: I went to the new Flag Officer/SES orientation program that is a two-week orientation program that all new Flags and SESs go to. I was spared from my job for enough time to go to that grudgingly, and then back into the chains and get back to work. I never went to Capstone, APEX (an Office of Personnel Management (OPM) program for new SES) or any other extended education or training. The swearing-in process was I went over to the Navy Annex and some GS-5 pulled a US flag on a little stick out of her desk and said, "Okay, raise your hand." [Laughter]

There was not a lot of formality associated with it. It was not one of those feel good things.

It was basically, "We're going to ride you hard and we're not going to take any breaks from work here."

Harrison Schramm: At what point in your career did you think, "Hmm, maybe I'll wake up one day and be the Navy's senior analyst." Did you ever think that this might happen for you as you were coming up?

Trip Barber: No, I didn't really have that specific aspiration. I admired the SESs that I had worked with. I always thought of them as the "Sea Daddys." They were the guys who were there who knew how things worked that you could go to and figure out how to get things done. And when you were ready to come back to the Pentagon and you wanted to know where you should go that would be interesting and useful, you'd call them. Because the Flags change—I mean they rotate. Everybody else rotates, but the SESs stay there. I came to respect them a great deal.

There were a number of them that I felt that way about—Irv Blickstein and Matt Henry being among them. But they were always just sort of up there. I never visualized myself as being in that role, although that's how I ended up. I admired them a lot and I really thought that what they did was impressive and they were the people that actually made the staff work.

Harrison Schramm: Now the majority of our work is contractor supported—at what point did that shift over? Was that gradual or was there a culminating event?

Trip Barber: It progressed over time as OPNAV's size was reduced and the surrounding bureaucracy from the PPBE (Planning, Programming, Budgeting, and Execution) process increased. Money was eventually added to the system to buy labor, in place of the government people that might have done it. But the labor requirements had gone up and the number of government people had gone down. To address the mismatch between those two that grew over time, money was added as a lubricant.

The money bought services, which eventually became contractors and the expectations of the complexity of the work that you would do grew over time. Frankly it reached the point where it is today where it's just not realistic to expect officers who are coming in from the fleet—who may or may not have an OA degree—to figure

out how to run six DOF (degrees of freedom) models of missile intercept and similar things. That's just the entering standard of the quality and depth for the work that's expected.

It takes years to figure out how to do that and you don't have years to learn how to do that on your typical officer's tour. It's just a combination of factors that led to where we are today. There's more of a story today. I'll try to do that as we go through some of my progression here in my SES career. But the amount of money that became available for contract staff became quite large.

Bob Sheldon: When did you start picking up the jargon of the ops analysts?

Trip Barber: To some extent even in my first Pentagon tour, because in that first Pentagon tour one of my collateral duties was to run the Non-Nuclear Ordnance Requirements (NNOR) process—that big OA process by which the Navy calculates how many munitions it needs. Back then, N80 was responsible for it and I was the Lieutenant Commander in N80 who was the weapons programmer and that was my job. They used these big linear program models that I had to learn all about.

I had two jobs and there were two sets of my duties. One was a weapons programmer. The other was the fleet operations programmer. So I had to learn how to program the amount of money that was needed for the fuel and spare parts and so forth to our ships; there was just no particular explanation, other than experience, for why we put the amount of money that we did against those lines. I had to invent a model that estimated how much money it actually took to run the Navy's ships.

I had to build that model on a computer program in my office. That's ops analysis. To me it was just writing a computer program. I know how to do this. Frankly the math is easier than electrical engineering (EE)—easier than MIT. It's just a little different. I didn't have some of the jargon but I knew most of the things at the Pentagon level that you did. The kinds of things that you learn how to do in the graduate program in OA are not typically the same kinds of things that you do to execute the tasks in the Pentagon. The Pentagon lives on Excel. Basic calculations—and I knew how to do those from engineering.

Really from my very first tour I was doing calculations for quantities required and the price of those quantities. Certainly in J8 I did a fair amount of that as well, particularly building the Base Force. And then when I got to N81 as a Captain, Branch Head, of course, I arrived at an organization where the culture was ops analysis. And I fell in on it. Now the way that the Navy officer classification system works, with proven subspecialties, my experience in the programming business was called ops analysis.

The broad category of officer specialty that is ops analysis includes people who do programming. And people who do straight models are also classified as OA. I had an OA subspecialty by proven performance in financial programming.

Bob Sheldon: Was it a P-code?

Trip Barber: It's not a P-code if you don't have a graduate degree—it's an S-code. I had S-code in ops analysis because of my programming time, so it's all the same in the broad definition of that broader officer subspecialty code; programming and ops analysis are the same thing. They've diverged from that now—the people who are in N80 are largely classified as financial managers but back then it was ops analysis. I thought OA was cool; I liked this stuff.

The N8 organization under Bill Owens was gathered in what had previously been three-star platform sponsor "barons" and made them two stars subordinate to the N8. This made N8 a gigantic organization that was not only the financial managers but also the owners of all the platforms and all those requirements in one mega-organization that his mega-brain was capable of running. Vern Clark came aboard as CNO said, "I don't like this. That's too much power for one person. I think the Navy has been broken and I don't like it, so I'm going to change it." So he split the platform sponsors off in a new organization called N6/N7—merged them with the N6 which is the C4I organization. He did that right as I retired.

This led my organization to be the N70—which was the integrator of that N6/N7 organization with all the platform sponsors that I discussed previously. N6/N7 produced Sponsor Program Proposals (SPPs) that got merged by the N8 organization into an overall Navy

POM. I was down in the N6/N7 organization as an integrator and a programmer. I had to build an SPP and brief an SPP. We also had our own analysis capability because Admiral Clark mistrusted the N8 so much for whatever reason.

CNO Clark also split out the manpower accounts (N1) and readiness accounts (N4), took them away from the N6/N7, and gave them to the N1 and N4, respectively. But I still had a pretty huge amount of the Navy's money—almost all of the Navy's procurement budget. And we had our own analysis shop. N81 was doing analysis as well and it pleased Admiral Clark to have competing analysis—he called it "creative friction." I won't repeat what I called it because you'd have to excise it from the transcript.

It was not pleasant to be at the point of friction. He enjoyed having battling briefings between N70 and N81 on the direction we should go. He made it even more special by making Joe Sestak N81—the guy who liked to tell eloquent stories and was not troubled if they're not accurate. He used N81 to create analysis that substantiated the story he wanted to tell that sounded really good. And I was in N70 saying basically, "That is crap. That's not true. That's not correct. Where did you come up with that?"

We had these briefing battles. I would be the briefer. Sestak would never engage me in a head-on debate—he'd lose and he knew it. So he'd send his O-6s to do the counterpoint brief in front of CNO. This amused Admiral Clark. He thought it was great. I did not. The people in N81 were treated the way that he treated the QDR team in 2001. They worked all night, they produced 2,000-slide briefs with hyperlinks and they worked relentlessly. He would change briefings and make people work 48 hours straight. The briefings were amazing on their graphics and eloquence. And the morale of N81's people was in the basement because they were being forced to do things that were simply not true (and they knew it) to produce answers that sounded good. Those were the stories that Sestak wanted to tell CNO, that he believed. The N81 people were not feeling good about life because they knew what they were doing was intellectually dishonest, and

they were being abused in the process. Sestak was Admiral Clark's hero, so he got promoted.

I was at the other side of the table in these debates. And we tried to carve out lanes. At the staff level, none of us liked it. Nobody in N81, and nobody in N70 liked it, and we tried to work out lanes where we'd agree that, "Okay, you do this and I'll do that. We won't fight." But there were still points where we overlapped because we were forced to and we had briefing battles.

It was not a good experience and not efficient. After I'd been in N70 two-and-a-half years, Admiral Sestak got promoted to be the N6/N7—my new boss. When he was announced as the N6/N7, I went to my boss and I said, "I quit. I'm leaving. I'm never working for this guy again, ever, and you can't make me because I'm a civilian now so I'm out of here." They said, "No, wait a minute. Don't do that. Don't be rash. Let's work on this."

They went off and worked on it, and the deal was announced that the day Sestak became N6/N7 and put on the third star, I would leave N6/N7 and take over as deputy in N81. The previous deputy in N81—Greg Melcher—fleets up to be the acting N81 until the Flag Officer came in. Sestak walked in the door; I walked out the door. I went over to N81 and found a train wreck. And he went over to N6/N7 and commenced to abuse the staff there in the same manner that he abused the N81 staff except that he was abusing admirals now, not O-6s. And Admiral Clark apparently thinks this is all good.

My first Flag boss in N81 was Sam Locklear—he arrived after two or three months. He said that we have to go off and have an off-site and figure out how to heal and how to get back to being normal human beings who don't produce deceitful analysis and can regain our self-respect. Sam Locklear is a marvelous leader of human beings. We embarked on the healing process and the rebuilding of self-respect of N81. But we're still at odds with N6/N7. And then Admiral Clark's tenure played out and Admiral Mullen came aboard as a CNO in 2006—Admiral Clark had a five-year tour.

Admiral Mullen came aboard having been the Vice Chief and having cautioned Admiral Sestak—the three-star—to quit abusing his staff

and quit doing the things that he was doing. Sestak did not change his behavior, so Admiral Mullen called all the Flags and SESs together, "I'm here. I'm CNO today." At the end of the meeting, he pointed to Sestak and said, "Follow me back to my office." And he fired him.

Life got better after that. I'm told—I wasn't there—that the N6/N7 staff was called together by the next senior officer who was put in charge—Rear Admiral Mark Edwards—and he announced that Sestak had been fired and there was a standing ovation among them that went on for five minutes. That's a sad commentary on a person's leadership skills. Admiral Mullen recognized that having a separate N6/N7 and an N8 was not efficient or effective. And he commenced to merge the two.

At that point I was N81B still trying to maintain lanes between N70 and ourselves. And it was announced that the two organizations—the N6/N7 and the N8 would be re-merged. Therefore, N70 would be disestablished and the people in it would be reallocated and the people in it who did analysis got reallocated to N81. N81 grew as a result of that.

Then there was the money thing—the merger also merged the budgets for doing analysis—purchasing analytics services. N70 had a budget for this that came to N81—N81 also had a budget for it—and Sestak had jacked it up dramatically when he was there. He put it in the POM and he got current year re-programming to cover his requirements and tools until the POM showed up. Well, the POM showed up right about the time he left.

N81 now had an influx of money from the POM that Sestak had created, and another influx of money from N70 that I had created. We merged the two pools of money, merged the two workforces and suddenly N81 became pretty large and really affluent—a lot of money to buy analytic services. It became quite the engine of capability with a larger number of people.

Bob Sheldon: Approximately how much growth?

Trip Barber: About a one-third growth. I don't remember the numbers because there was another merger that happened later. I'll get to that in a few minutes. We ended up with 110 people when both mergers were over. When I served in N81 as a Captain, we were about

50 people. N81 had become quite a bit larger and the expectations of what they will do had become much greater as well.

When we merged N70 with N81, we had to agree on what some business rules would be because we did not want to have competing analysis again. But sponsors who own programs need analytic support to make good decisions. N81's culture had been, up through Sestak, "We'll study what we please. If you're interested that's great, but it's what interests us that matters. We know everything—we are N81 and we are the *honest brokers*."

I did not like that term. If I am the honest broker, who are you? The dishonest? That's not who we are, so don't ever say that. But that was very much the attitude in N81. We are the honest brokers; we are smarter than everybody else. And we'll go study what interests us and we'll stick it in your ear and we'll surprise you with the results. You can imagine how well received that was.

Of course everybody else who has programs that need analytic support is going to go do their own analysis because first, is N81 even going to do it? And second, are they going to trust it if N81 does? The answer to both of those is "no." That's a recipe for creating continued conflicting analysis and chaos and frankly inefficiency. But to do anything else implies that N81 has a different behavior model. And I had to figure out what that behavior model was.

Certainly working with Sam Locklear helped me shape that. But mostly this is just the result of what I learned overseeing different models that didn't work and of learning lessons of how all these things didn't work. And saying, "Okay, well don't do that. And don't do that other thing that didn't work either." So what does that leave? Okay, you have to try this. At least, if you do this and it doesn't work, it'll be a new mistake. Maybe it'll work. But I know all these other things that have been done before didn't work and here's why so let's not do that. That's pretty much how the business rules came to be created for the N81 as we know it today—from the lessons of hard knocks of all these other experiences of things that didn't work.

The fact was at this point that all the analytic capability of the Navy was concentrated in N81 and all the money to do analysis was

concentrated in N81. As a result they had to have the culture of, "We will do your analysis for you and you can trust us and we will not surprise you with it," or the system was just not going to work. Sponsors would go off and, without an analytically trained staff, they would find money and buy analysis and it would not be good but it would be theirs.

To prevent that happening, I made up the rules that N81 runs by today, which is that we are your analytics service provider. The term I inherited from Sam Locklear is "excellence without arrogance." That's who we are. We're here to serve all. We will not surprise anybody with the work that we do. It will all be done openly within classification limits, obviously. But no surprises. That doesn't mean that you get to control it or that it'll be consensus, but you will not be surprised and your viewpoints will be reflected in the work, and if we're wrong we'll admit it and we'll change what we did.

N81 as a service provider, as opposed to N81 as the honest broker and secret keeper, was really the paradigm shift that I made. But really, whoever was in that job would have had to do it or the staff model that the Navy had gone to at that point just would not have worked. Now it is 2006 and we were operating under Admiral Mullen in the model of a single "uber N8" and that's all good. And then the 2007 QDR came along and they established a QDR team—again. This is the standard model of how a Navy QDR team works, stand up for one year then disestablish.

The 2007 QDR team did a good job and N81 provided analytic support to them as we always do. The CNO—this time it was Admiral Roughead—found that, "Oh, I've got this team here that works directly for me." That QDR team was called N00X and it reported directly to CNO as opposed to reporting to N8—bad idea. So CNO had this private staff of 30 people—bright people—doing his bidding. And he didn't have to go to N8 to ask them to do his bidding. When the QDR ended he said, "I'm going to keep this group. I like this." Here we have this N00X of 30 people doing analysis. Really? I thought we got over that.

There is no N6/N7 but now there is an N00X that works directly for CNO, and then there's N81 supposed to be the analytic service

provider. They're doing their best in N00X to not keep a secret but CNO holds things closely, so this was not a good scene. There wasn't the same level of friction there had been between the old N6/N7—N70 and N81 but there was still some friction. Admiral Roughead valued his ability to have some independent work done. Also, the N8 wasn't necessarily as responsive and wanted to see the stuff that N81 did before it went to CNO and that slowed it down and CNO didn't like that.

Now we have a N00X operating semi-independently, somewhat in conflict with N81. They have their own staff and they have their own budget. Then Admiral Greenert came aboard as the CNO in 2011. He got advice from the CNO Executive Panel—Irv Blickstein was on the CNO Executive Panel—he's retired as an SES by now. And Irv said, "You know, this is dumb. You shouldn't have a N00X that's this big. You should merge them into N81."

I've known Admiral Greenert since he was a Lieutenant Commander. He and I served together in N80. When I was the 812 branch head, building these "uber briefs," he was the 801 chief programmer receiving them and using them to build a POM. He and I were O-6s together and good friends. He invited me in for a private meeting before he became CNO. I said, "This N00X stuff has to stop. You've got to disestablish them and just give their work to us in N81." He came aboard and that's what he did. We had an offsite with the N00X crowd and worked out the details amicably; then we inherited most of them and their money and their missions.

They had a few other missions that they were doing that were in addition to what N81 had been doing. They had been doing briefings for CNO called Futures. They were responsible for the ASW "Cross Functional Team" and a few other things. We inherited all those missions with the people and with the money. N81 had 110 people and a gigantic budget and there was nobody left on the playing field to do any form of analysis for the Navy at the headquarters level except N81.

Frankly, that's much easier to explain to people than all the other, "We do this but they do some of it too," and then you try to explain what the business rules are that sort this out. You just can't. Now there is only one analytic

service provider in the Navy headquarters. There is only one budget and N81 has a culture of customer service in addition to a culture of where they're double-hatted as 00X. There they can work directly for CNO if there is something special that CNO wants done, which is fairly rare but not zero for Admiral Greenert.

That was sort of the end state of how N81 got to be as big as it is, with all the money that it has, with the very broad range of missions it has, ranging from producing emerging threat briefings and futures briefings for CNO to running the NNOR process—the Non-Nuclear Ordnance Requirements process—to running the ASW Cross Functional Team to doing campaign analysis to doing all force structure analysis. All that is ultimately accumulated into one place, in N81.

Bob Sheldon: Could you talk about the nature of those 110 folks—how many are civilian versus military, how many ops analysts?

Trip Barber: Yes, it was about 70 military and 40-some civilians (including maybe eight contractors—secretarial and computer information technology (IT) types). At some point in there, we had shifted from a model where civil service billets were rare in OPNAV, and went through this big rigmarole in about 2012 where if people are doing work that is inherently governmental, they should be government people. Therefore, we're going to grow the official civilian billet structure of the OPNAV staff and reduce the number of contractors. And we'll save money because the civilians are cheaper—which they are.

While I was the deputy in N81, we went from having 10 government civilians to having about 35 government civilians all due to insourcing jobs that had been done by contractors that, frankly, was inherently governmental work. We went through that transition while I was a deputy in N81 to one of leading a staff where the civilian part is almost all government service civilians. And when we hired people in the new government billets, we hired people that had degrees in ops analysis or equivalent.

We also imposed a requirement on the military detailers to send us officers who were graduates of the NPS OA curriculum. We get first rights of refusal on graduates and we won't interfere with the progression of their career if they really need to go do something else to be

promotable. But all else being equal, if they need a shore staff tour, that would be us. We raised the number of the military that have OA degrees to about 20 out of 70.

You may ask, "Why isn't it 70 out of 70?" Well, fighter pilots don't get OA degrees by and large. But you still need some fighter pilots in your organization. You need Marines in the organization, but the ones we were offered never were from the group of Marines with OA degrees yet we still needed them for their operational experience. And we need all these different Navy designators from medical service corps to supply corps to whatever, only a couple of which actually send people to the OA curriculum at NPS. We needed people for their professional background in their particular specialty, but in many specialties you can't go to NPS to get an OA degree, so that professional background trumps the OA degree. By and large in the surface line, you have every expectation that you can get upwardly mobile OA-degreed people to fill the billets. In aviation you can get people who are helicopter or maritime patrol pilots or naval flight officers with OA degrees but not fighter pilots.

The aviators may or may not be upwardly mobile. And the submarine community, you can't get very many at all. But you need submariners in N81. So you just have to put together a work force that has enough OA degreed people but also the right mix of professional war-fighting skills to be able to do effective analysis. I think I've recounted pretty much the history.

Bob Sheldon: Is the analysis that you're doing supporting mainly Navy at the Pentagon level or do you support OEF (Operation Enduring Freedom) and OIF (Operation Iraqi Freedom) kinds of analysis as well?

Trip Barber: It's not current year analysis. The purpose of doing analysis in N81 is to inform budget and force structure decisions for the future Navy. Every now and then we would get dragged into some form of current year analysis because the fleets don't have a very robust analytic capability by and large, although PACFLT has a decent one. But by and large that was not our preference.

The Chief of Naval Operations has nothing to do with operations. He does not run

the operating force of the Navy. He buys the future Navy. N81 is there to serve the CNO in his job of shaping and buying the future Navy. That's the nature of the analysis that's done there.

Bob Sheldon: Has your time horizon changed over the years—how far into the future are you doing analysis to support?

Trip Barber: 20 years into the future by and large—no more than 20 years. But you can't just do a couple of years because you're making decisions on acquisition programs that are going to go into research and development (R&D) and then procurement and not fielded for 10-plus years and not complete buying out their inventory for 20 years. That's really the focus. It can't be current year because current year is already paid for.

Bob Sheldon: One of the problems you've talked about in the past is the compartmentalized special access programs (SAPs)—how to analyze those between the Services. Any further comments on that?

Trip Barber: For the work we did in N81, we were appropriately cleared for Navy work. I was cleared for most of the Air Force programs. I was aware of them and I made sure that we didn't do anything that was dumb with respect to what I knew they could do but I couldn't tell anybody what they could do. I guided our analysis to make sure that it was done with due regard for Air Force SAP capabilities. But the ability to integrate their SAP capabilities and ours in a single analytic framework was sort of the "holy grail" of program analysis and not really achievable at the individual Service level. It's potentially achievable at the OSD level and the Joint Staff level—I think the Joint Staff has made some efforts in that regard.

OSD makes efforts episodically but the whole joint analytic process is just broken. Cost Assessment and Program Evaluation (CAPE) has not done a good job of managing it from my perspective. Periodically there would be joint analytic activities where there would be a team that was looking at a subject at the SAP level—the next generation bomber or the next whatever. But it was always subject specific. It was not pervasive across the whole joint force of what's the whole range of capability for the future at the analytic level. The SAP-level joint

analytic stuff was only confined to individual programs.

Periodically I would be brought in as the duty Navy hostage in one of those for the next generation "whatever." I would be the Navy person read-in to the Air Force stuff and brought in so I was aware of what they were doing. Every now and then I would get to bring one action officer in there with me but we never got to that point where we could take that information and integrate it into our modeling in N81.

When we did team campaign analysis with Air Force A9, our work had slightly different rules than they used. But both of us designed our participation in widely distributed campaign analysis with due regard to what each of us knew separately about our separate Service SAP capabilities and at the top I was aware of all of them. We made sure that the team and the Air Force counterparts at the SES level were aware.

We tried to orchestrate the dual-service campaign analysis process so that it was coordinated. But I can't say that it was a fused and integrated process at all levels of classification. I wish it could have been but there were just too many administrative impediments.

Bob Sheldon: You talked a lot about campaign analysis, the modeling and simulation, the mix of that compared to spreadsheet analysis. Has the mix of the kinds of techniques evolved over the decades you've been there?

Trip Barber: We do a lot more of it. We did not do campaign analysis when I first arrived in N81 as a Captain in 1994. We began the process of developing campaign analysis while I was there on that tour. It became mature after I left and had become fully developed when I came back as an SES. The business rules that I established in N70 and that I took to N81—they were the business rules for the whole Navy—were that we are going to design the Navy on the basis of campaigns. We're going to use four campaigns to do it. Each of them is a defense planning scenario campaign. I can't name the adversary countries at the unclassified level but you know who they are—it's the usual suspects and the fourth one is the Global War on Terror or whatever it is you call what we do around our world every day of influencing, shaping, and chasing bad guys short

of a force-on-force, nation-state versus nation-state war.

There are the four campaigns and we do campaign analysis of all of them, and all mission analysis has to be grounded in those campaigns. If you're going to do mission analysis of a mission area, the concept of operations (CONOPS) that you use to do that mission analysis has to be extracted from one of those campaigns. Through the process of doing those campaigns, you adjudicate what the correct role is for surface and air and submarine and Air Force and Navy because they're joint campaigns.

You sort out who is the best to do particular missions because you play it out in the campaign—if that wasn't the right choice, you lose. Go fix it and go back and iterate the campaign until you have a successful campaign. And then that defines what it is that each type of platform and each warfare specialty area really needs to be able to do and how well they need to be able to do it. The metrics of success at the mission area are referenced back to the campaign and you only need to be as good at each, such as ASW, as it takes to win the war; you don't have to be perfect at ASW. Now if you are really bad at ASW, you put at risk success in the whole war. That's not good enough—that's "red" (on a red-yellow-green stoplight chart). But if you're good enough at ASW that the war progresses, even if you're not as good as you wish you could be, then that's still "green." That doesn't go well with sponsors who want to be perfect at each of the areas because it's their programs. So there's a tension between the sponsors and N81 over that framework of reference.

The sponsors would call all of our mission areas red because in no case do we meet all requirements. When N81 surveys the Navy through the lens of campaign analysis we may see that one mission area is red, and that one is red because the campaign is truly at risk. But others are green; we did fine. Okay, we lost some things but we had margins of acceptable losses and they were not huge but they weren't zero. And that's good enough. We're not going to spend more money there to make that better, because this area that's red is really hurting and it puts the whole Navy at risk and we've got to fix that.

That framework of campaign analysis was one that really I invented and imposed so

therefore campaign analysis gets a lot more weight in Navy than it used to get, and we tend to take it a lot more seriously. People pay really close attention to it and participate in it enthusiastically because they know what it means. So yes, we use campaign analysis more than when I first started in that job. Interestingly enough, the OSD's staff went in the opposite direction, largely due to Christine Fox's aversion to it and disestablishment of campaign analysis in her organization when she became the director of OSD CAPE. The other real change in N81 is the amount of analysis that we did that went up with the budget, but it went up because we became the sole service provider.

The sponsors all have tons of analysis that they need to have done to decide what their future programs should be. They were doing it on their own previously, sometimes by ripping off Program Executive Officer (PEO) acquisition program money and just spending it under the table. Well, we stopped all that. But the work still has to get done by somebody, and N81 is the service provider for it. All that workload that was previously distributed throughout the staff, and in many cases done semicovertly, has now landed on N81 making the place a lot busier. There is a bigger budget and bigger staff, but a lot of work.

It's work that others were doing poorly somewhere out there, and they're no longer allowed to do it even if they did it well. It has to get done at N81. As a result the whole workload and level of activity at N81 has gone up quite a bit over my tenure starting in 1994.

Harrison Schramm: Do you have a favorite book about analysis? If someone said, "Hey, I want to get into analysis, I'm thinking about this as a career, do you have a book recommendation?"

Trip Barber: No, I don't read books about analysis.

Harrison Schramm: Do you have a favorite book not about analysis?

Trip Barber: Honestly, OA books put me to sleep, so no I don't read those kinds of books. My reading interests are a lot more diverse than just ops analysis. I read lots of other things—I read a lot about defense strategy and policy. My job as the deputy director in N81 was to make sure we analyzed the right things with the right teams and my job was really to be the

scout. You've heard me say this since I got to the organization that the Admiral and the deputy are there to be the scouts to go out and find the work that matters—the issues that matter. And figure out what techniques you should use to set the problem up and approach it.

Let the staff figure out what tools to bring to bear, but they've got to bring them to bear on the right problems that matter to somebody. And you've got to do it early enough that the detailed work that's done—meticulously—is completed at a time when the decision is going to be made and the information is needed. Because if the information isn't available when the decision is going to be made, the decision is still going to be made.

My focus was much more on finding the right issues, making sure that we were after the right problems and not on the technique we used. I learned enough about the techniques that if somebody was using something wholly inappropriate, I would detect it. But the proficiency level on the staff of N81 was such that I very seldom found people picking the wrong technique, but they would regularly pick the wrong issues if I didn't keep them on the right course based on what CNO was interested in. Much of my job was not to be the expert on technique, but to be the expert on what to study.

Bob Sheldon: You decided to retire last year. Was that the right time in your life to retire?

Trip Barber: Well, I'm still employed. I work four days a week for one of the companies that used to be one of our contractors and that I came to know well and like. You're eligible to retire from civil service when you reach age 62 if you have at least five years of service; earlier than that age it takes many more years of service. But when you turn 62, with five or more years you can retire. I went 10 years straight doing the N81 job—12 as an SES doing essentially the same work if you count my N70 time. And there was no end. I tried to request a change within Navy and the answer was basically "no, you're too good at this and you're too valuable so no, you've got to keep doing this." The only way not to do that anymore was to retire.

In my retirement speech, I said that it's really important for people who are in positions like the one I was in to leave before they burn out, before they lose the fire and the enthusiasm

that makes us effective. If you're not effective, you may end up getting told that you must retire. But if you're still effective, you need to leave before that is no longer true. I've seen quite a number of civilians who didn't figure that out and were just there enjoying the job. It was about them, they were getting so much pleasure out of the work.

But from the perspective of people outside, you're a dead man walking. You were no longer effective; you were a robot. You have lost the fire, you just don't see it yourself anymore. You have to leave before that happens and I thought that I was about at that time. I actually retired on my 63rd birthday. I did stay one year longer because there was stuff to be finished. I had a conversation with CNO about not leaving him high and dry too early in his tenure.

I'd been having conversations for the past five years with the guy who succeeded me—Chuck Werchado. He was deliberately grooming himself for the job, going through a series of jobs that were the right jobs to give him the broad experience necessary to do the N81B job. He and I had been talking about when he could leave the job—the last one he was in before he went to N81—executive director of the submarine force. He said he really couldn't leave Admiral Connor high and dry back when I was turning 62. He needed to stay with Admiral Connor another year and I had some things that I had to finish as well.

We agreed mutually that the right time was this past summer, and he was in a logical place in his progression where he could be available. I was still short of burnout but I could see it coming and I said, "You know, this is the time. This is the time to go do this."

Bob Sheldon: I want to backtrack in time and bring you through your involvement with MORS. What was your first interaction with the MORS community?

Trip Barber: I may have gone to an event or two when I was a Captain in N81. But it didn't cross my consciousness that much. I think I went to one symposium. When I got to N81, I was determined to build this community of ops analysis in the Navy and to make N81 the home of ops analysis. I took it really seriously that we were the community sponsor and we have responsibilities; we are going to live up

to those responsibilities to supervise the NPS and bring people from NPS who graduate from there in OA deliberately into the N81 as a matter of priority. Then I implemented significant professional development activities for people who didn't have OA degrees. I just felt it was my responsibility to be the patron of OA in the Navy, because it needed a patron.

MORS is just part of that portfolio logically. I embraced MORS wholeheartedly because of that responsibility I felt that I had to be the patriarch of OA in the Navy for that position. N81 did not have that feeling toward ops analysis when I was there as a Captain. It was not built into the culture as strongly as it is now. Going to MORS was not a big deal back then, and I made it a big deal when I came to N81.

Bob Sheldon: As a MORS Sponsor, what's your view on the changes of MORS and how it's evolved over the years with the changing reporting structure within MORS and the funding structure?

Trip Barber: I contributed Navy funds to MORS. I forget what the Navy share was, maybe \$80,000 per year. Each of the major Services had a share we contributed. That gave us a role in oversight as a Sponsor, including in-depth involvement in the MORS finances and business model and everything. It was a little frustrating, because in my hobby of rocketry I was the president of the National Association of Rocketry. I was running an organization larger than MORS as a volunteer with a member-driven organization, and I had lots of experience running that kind of an organization.

I was watching how MORS runs itself, and the volunteer leaders of MORS don't have any clue how to run an organization, really. If it weren't for the Sponsors, and for the one trained professional staff person (Susan Reardon currently), this organization would have folded because having a new president every year is destabilizing. It's an organizational model that struggles to succeed. But MORS was funded enough by government Sponsor money and it had a comfortable business model of we're going to have meetings and people are going to pay to come to them. They will have rewarding experiences and we don't have to work real hard and this model generates enough cash that we can just keep going.

Then life changed when we had the scandals around town about government people misusing government money to go to ridiculous meetings that obviously were nothing like you'd see at a MORS event, unfortunately. The whole business model that MORS was comfortably operating in died and that brought a real crisis to MORS—a financial crisis that really had to make them rethink the whole model by which that society operates.

I was there in part of that discussion. I was throwing in a lot of my experience in running a different association as part of the discussions, which is why I took such a significant role in those discussions. I think MORS is better, sharper focused, coming out of that than it was before. It's not as comfortable and they struggle a lot more to make ends meet and unfortunately, it is still way too difficult for government people to come to these meetings. The government is still not fully recovered from the evil acts of the organization—whatever it was. I forget which three letter organization screwed it up for everybody.

But that's the way life works in the federal government. Somebody screws it up for everybody else by doing something that is just stupid with poor leadership and no supervision and then everybody is guilty and the rules are applied universally to people who were not guilty and were not doing that and that's what happened with the whole set of strictures on government people attending meetings and conferences. That has made the whole model by which MORS operates not function very well. My perspective has been that this should be a member-driven organization to a greater extent. People should want to belong and you should service the members and they should feel that they are getting a real value for their dues.

The rocketry association I ran was entirely based on member dues. If you didn't please the members, they'd walk and you'd die. We were completely focused on delivering services that delighted the members. And MORS isn't. MORS is focused on getting money from Sponsors and they run big meetings and everybody enjoys the meetings, but listening to the members or even bothering to recruit members has been not part of the business model. And they

still struggle with that. I still think that aspect of how MORS operates reflects clinging to the past where the business model is that we run conferences and people will come to them.

Bob Sheldon: You were selected by MORS to be a Fellow, to be inducted this coming June. Your comments on that?

Trip Barber: Fellows are old people—oops. [Laughter]

I really didn't expect that honestly, because I don't have a degree in ops analysis. I haven't been a volunteer in MORS running MORS events. My paradigm of MORS Fellows is that they are people who have OA degrees, do professionally credible things in MORS and then are volunteers doing lots of volunteer work for MORS, and they earn it that way. I really hadn't thought that a government Sponsor could earn it—really, I'm just doing my job. I was putting a lot more of my heart than just doing my job into MORS, so maybe that's why they did it. I'm really committed to making MORS succeed and I've pushed them really hard.

The Navy owns the contract for MORS, so I had the unfortunate privilege or responsibility of being the person to go get the contract for MORS and to have all the government Sponsors give MORS money. I got a lot more intimately involved in the details of MORS and probably had more MORS work than any Sponsor typically has to do. I'm trying to think of the justification of why somebody would pick me to be a MORS Fellow. It was a surprise. I had no expectation that that would occur—it was an honor. Like the people there, it's so important to our community that we have an organization like that where we can all meet. And what I get out of it is not so much the presentations, it's the conversations that occur in between them.

It's tremendously valuable to be at a place where all these other people are and have a chance to talk to people and find out what they're doing. And every now and then there's an interesting presentation that doesn't get in the way.

Bob Sheldon: In your rocketry, do you study Werner von Braun and other historical aspects of rockets?

Trip Barber: Yes, I've read about them. I have not focused so much on rocketry history. I'm aware of it. This convention that I was just at this

past weekend, one of my classmates from MIT was there. He was an astronaut, flew the shuttle four times. I went to see him fly three of the four times; I was down at the Cape watching him take off. I was down there for Apollo 15. I am a big enthusiast of the space program and a consumer of its history.

Harrison Schramm: What's the biggest rocket you have ever shot?

Trip Barber: Personally—70 pounds, eight feet tall. It sits in my garage. I've got a picture of it if you want to see it!

Harrison Schramm: How high did that end up going?

Trip Barber: 5,600 feet—it's a gigantic motor. I was flying it on an East Coast launch site where if you go much higher than that you're in danger of decorating a tree somewhere. If you fly rockets out west, you can put a much bigger motor in it than that and it'll go much higher. But I do rocketry most often at the "finesse" end of the spectrum, small rockets with very fine craftsmanship. I'm a member of the US team that goes to the world rocketry championships every two years.

I just came back from the 2014 championships in Bulgaria where we fly much smaller models. They're 500 mm long, they weigh maybe 10–20 grams. They don't go very high, but it's based on performance. I actually won

a medal at this year's championships; I was the first American to win a medal in six years at one of these things. That's at the opposite end of the size spectrum, but much higher on the finesse.

Bob Sheldon: You're at SPA (Systems Planning and Analysis); what kinds of things do you work on now?

Trip Barber: I'm the chief analyst. They've not had one before, so we're trying to figure that out. They invite me in on all the analytic projects to look at what they're doing and tell them whether it looks good or not good or whether they could do it better, or the way that they're presenting it to the customer is the best way it could be done. I'm still under the ethics limitations that I can't represent back to the Navy until July 2015. So my ability to directly work with the customer and execute projects is pretty limited here initially.

SPA does work for other people than just Navy, but the biggest customer is Navy and I can't directly touch Navy yet. I have to just look at stuff and not go to meetings. That will change but currently I'm involved in a number of the projects there as a senior advisor. It's not very stressful, but that's OK. When you've been operating at the pace that I've been operating at for the last 42 years, to not operate at that pace anymore takes some getting used to.