



NPS IN THE NEWS

Weekly Media Report – Oct. 12-18, 2021

Further reproduction or distribution is subject to original copyright restrictions.

SGL:

[Stavridis, Arquilla Discuss Technology Disruption, Geopolitics, Leadership During NPS' Latest Virtual SGL](#)

(Navy.mil 15 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

(NPS.edu 15 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

Retired Navy Adm. James Stavridis spoke virtually to Naval Postgraduate School (NPS) students, faculty and staff about technological warfare, the effects of a changing geopolitical environment, and how today's junior officers can develop into tomorrow's brilliant leaders during the latest virtual Secretary of the Navy Guest Lecture (V-SGL) moderated by NPS Distinguished Professor Emeritus Dr. John Arquilla, Oct. 12.

EDUCATION:

[National Security Agency Turns to NPS to Support Cyber Summer Internship Program](#)

(Navy.mil 12 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

(NPS.edu 12 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

As cyber operations gained prevalence as a national security imperative, the National Security Agency (NSA) organized the National Center of Academic Excellence (NCAE) in Cybersecurity program to develop cohesive and collaborative educational programs with community colleges, colleges and universities that provided core competencies and standards, ultimately supporting the development of talented cyber professionals for a broad swath of federal agencies.

FACULTY:

[New Approaches in Prediction Models Shines Light on Numerical Analysis](#)

(NPS.edu 14 Oct 21) ... Javier Chagoya

NPS Distinguished Professor Frank Giraldo's recently released text, "An Introduction to Element-based Galerkin Methods on Tensor-Product Bases," provides the theory, analysis and application of Galerkin methods developed through years of research on improved weather and ocean prediction models.

[General Anthony Zinni \(Ret.\) on Wargaming Iraq, Millenium Challenge and Competition](#)

(CIMSEC 18 Oct 21) ... Mie Augier and Major Sean F. X. Barrett

This is the second part of our conversation series with General Anthony Zinni, USMC (ret.) on leadership, strategy, learning, and the art and science of warfighting. Read Part One here. In this installment, General Zinni shares his experiences with wargames, Desert Crossing and Millennium Challenge 2002 in particular, and discusses how the differing objectives of service chiefs and combatant commanders manifest in wargames. Gen Zinni then touches on the U.S. military's overreliance on technology and draws parallels from the business world to inform approaches to great power competition... Dr. Mie Augier is Professor in the Graduate School of Defense Management, and Defense Analysis Department, at NPS. She is a founding member of NWSI and is interested in strategy, organizations, leadership, innovation, and how to educate strategic thinkers and learning leaders.



ALUMNI:

[Bryan P. Long, PE selected the NAVFAC EURAFCENT Civilian Engineer of the Year](#)

(DVIDS 19 Oct 21) ... Lisa Woodbury Rama

Naval Facilities Engineering Systems Command, Europe, Africa and Central Commands (NAVFAC EURAFCENT) proudly announced Bryan Long, Utilities and Energy Management (UEM) Branch Head, Public Works Department (PWD), Rota, Spain as the NAVFAC EURAFCENT Civilian Engineer of the Year for 2022 in an email sent by Capt. Joseph D. Harder III, Commanding Officer, on Oct 13.

Long, a NAVFAC employee since 2003, is a 2018 **Naval Postgraduate School** graduate with a Master of Science in Systems Engineering and 2003 Washington University graduate with a Master of Science in Environmental Engineering.

[New Jersey native, U.S. Navy Captain Sharif Calfee, discusses command at sea](#)

(DVIDS 16 Oct 21) ... Mass Communication Specialist 1st Class Rawad Madanat

A native of Toms River, N.J. and Fernandina Beach, Fl., U.S. Navy Capt. Sharif Calfee is the son of a Navy Seabee, and grandson of an Army vet, and the current captain, or commanding officer of the U.S. Navy warship USS Shiloh (CG 67), which is forward-deployed overseas at the U.S. Naval base in Yokosuka, Japan with a crew of 400 sailors. His duties and responsibilities include the performance of the warship and all the personnel who are assigned to it... Calfee earned master's degrees in Computer Science (Artificial Intelligence concentration) from the U.S. **Naval Postgraduate School** in 2003 and Public Policy (International Affairs concentration) from Princeton in 2019. He previously served as captain of the U.S. Navy warship, USS McCampbell (DDG 85) an Arleigh Burke-class guided missile destroyer, seven years ago, which was also forward-deployed to Japan. His career eventually led to his assignment as captain of the Ticonderoga-class guided-missile cruiser USS Shiloh (CG-67), who's mascot is a stinging hornet, in reference to the "Hornets Nest" where the fighting was most fierce during the Battle of Shiloh.

[MCHD's Dr. Lee B. Smith travels to Chernobyl to augment radiation training](#)

(WVNews 18 Oct 21)

Dr. Lee B. Smith spent five days in late June, dosimeter in hand, measuring radiation levels both inside the former Chernobyl Nuclear Power Plant in Ukraine and the surrounding area, known as the Exclusion Zone... That has meant sending staff members to Oak Ridge Institute for Science and Education (ORISE) in Oak Ridge, Tennessee. Also, Dr. Smith just completed Radiation Emergency Preparedness, a yearlong training at the **Naval Postgraduate School** in Monterey, California.

UPCOMING NEWS & EVENTS:

October 25-29: [Center for Executive Education NSLS Seminar](#)

November 16-19: [Center for Executive Education SPEAR Workshop](#)



SGL:

Stavridis, Arquilla Discuss Technology Disruption, Geopolitics, Leadership During NPS' Latest Virtual SGL

(Navy.mil 15 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

(NPS.edu 15 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

Retired Navy Adm. James Stavridis spoke virtually to Naval Postgraduate School (NPS) students, faculty and staff about technological warfare, the effects of a changing geopolitical environment, and how today's junior officers can develop into tomorrow's brilliant leaders during the latest virtual Secretary of the Navy Guest Lecture (V-SGL) moderated by NPS Distinguished Professor Emeritus Dr. John Arquilla, Oct. 12.

Stavridis began the V-SGL cautioning the audience about how the military's overreliance on advanced technology could leave it vulnerable to massive disruption, often by technology that is already proven and readily available.

"Our greatest strength is often our greatest vulnerability, and we know that in life, in our personality and the way we interact with others," said Stavridis. "As we look at technology and our growing dependence on it, we ought to bear in mind that there is always going to be another turn of the wheel and that the degree to which we become completely captive of a particular technology can lead us to doom."

To demonstrate his point, Stavridis brought up the lessons learned from the 1415 Battle of Agincourt where 30,000 French knights clad in plate armor—what they thought was the greatest military technology at the time—fell to King Henry V's 7,000 longbowmen. The French's overreliance on heavy armor slowed them down on the muddy battlefield as British archers rained on them approximately 75,000 arrows per minute.

"Dependence on a new technology like cyberspace, artificial intelligence, or nanotechnology will enable you to move forward," continued Stavridis. "But does it create an Achilles' heel? Often it does."

Turning to geopolitical power, Stavridis referred to his book "Sea Power: The History and Geopolitics of the World's Oceans" to discuss how the oceans, and countries' control of them, shape their own power in relation to allies and rivals. He referred to foreign correspondent and geopolitics expert Robert Kaplan's book "Asia's Cauldron: The South China Sea and the End of a Stable Pacific."

"'Asia's Cauldron' brings up the image of a big pot bubbling like 'Macbeth' with the witches around it," described Stavridis. "As the fire burns around the edges of that cauldron, dangerous things happen. The South China Sea is this enormous cauldron with China, Taiwan, the Philippines, Vietnam, Thailand, Malaysia, and a little corner of Australia. It would be difficult to create a greater hot spot in global geopolitics than the South China Sea."

As the South China Sea may gradually boil, Stavridis also predicted that the Indian Ocean could potentially be a geopolitical hot spot as countries gain a vested interest in the ocean's untapped resources. He also noted that India lies in the middle of China's planned "One Belt One Road" initiative. How India reacts to that initiative could tip the geopolitical balance of power.

"[Authoritarianism and democracy] are two central nodes on this map, and right in the middle is India," reiterated Stavridis. "Where India ends up on this curve is going to matter. Who knows how this is going to play out over the next 50 years, but I bet on India being fractious and difficult in the many challenges they face, and will come this way [supporting democracy]. Assuming this is true and noting that India is the world's largest democracy, it's going to have this big role in world affairs."

Giving the audience several things to think about, Stavridis turned to the importance of reading to broaden the mind and improving the critical thinking of future leaders.

"I want to focus on reading and leading because I think the two go hand-in-hand," said Stavridis. "The reason for that is that every time you pick up a book, you're entering a simulator. You are putting yourself in the center of a completely different universe that you're normally in the middle of. Fiction or nonfiction, where it becomes a simulator is when you say to yourself, 'What would I do now?'"

The books that he encouraged leaders to have on their shelves would encourage them to think about what would they do in the book's predicament, such as Harper Lee's "To Kill a Mockingbird." He asked



the audience if they could step in and do the right thing at an enormous risk to themselves, like Atticus Finch.

Stavridis concluded the V-SGL by fielding questions from NPS students like Air Force Maj. Nicholas Underwood, who is currently studying issues of technology strategy in NPS' Defense Analysis program. Underwood asked how one could tell when a service becomes over-dependent on advanced technology.

"I think there are some tippers that come before those points, and they have to do with how we use training exercises and simulations," responded Stavridis. "I think there's an important element of going into exercises in simulations where we deliberately withdraw our capability, then see what the results look like and see if we can overcome that sudden blinding of the elephant. Hopefully you will then avoid an Agincourt moment and realize beforehand if you've lost the technological edge."

While cautioning about an overreliance on technology, he recommended several research areas when NPS Graduate School of Defense Management student Air Force Capt. John Espinosa asked what graduate students should research, or have a situational awareness of, to get ahead in geopolitical knowledge.

"I think artificial intelligence is going to determine a great deal of how the world moves over the coming decades," replied Stavridis. "Artificial intelligence, I think, is going to have tactical, operational and strategic impact in ways that are difficult to discern right now. Cyber is also important. There will never be another conflict that does not have a significant cyber component in it. I think biology such as human performance enhancement or human life extension is underrated.

"Where they kind of come together is what is sometimes called the Singularity," continued Stavridis. "This is the idea of a merging of biology, artificial intelligence, bioengineering, and nanotechnology. I've listed some individual technologies, but what really matters is our ability to synthesize and understand how they fit together and how the sum will be greater than the addition of several parts."

Stavridis acknowledged NPS' capabilities while answering Marine Corps 1st Lt. Emily Hastings' question about creating leaders that share Stavridis' desire for leaders who embody character through discipline as well as promote creativity and innovation.

"Your question brings us back to the Naval Postgraduate School, where we've talked about technology, knowledge, and driving research to find the right answer," said Stavridis. "But alongside it, and this is the power of NPS, are the fundamental issues you raised in your question, which are about leadership and risk. I think the ability to balance those three things and then harness it with technology is really the key to creating the kind of leaders we want.

"I think that under the leadership of retired Vice Adm. Rondeau and with extraordinary professors like John Arquilla, students like all of you and all of those listening in this community have a place where you can pursue those and be part of this marvelous synergy that occurs when you harness both of those streams of human endeavor," he concluded.

[Stavridis, Arquilla Discuss Technology Disruption, Geopolitics, Leadership During NPS' Latest Virtual SGL > United States Navy > News-Stories](#)

[Stavridis, Arquilla Discuss Technology Disruption, Geopolitics, Leadership During NPS' Latest Virtual SGL - Naval Postgraduate School](#)

[Return to Index](#)

EDUCATION:

National Security Agency Turns to NPS to Support Cyber Summer Internship Program

(Navy.mil 12 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

(NPS.edu 12 Oct 21) ... Mass Communication Specialist 2nd Class Tom Tonthat

As cyber operations gained prevalence as a national security imperative, the National Security Agency (NSA) organized the National Center of Academic Excellence (NCAE) in Cybersecurity program to develop cohesive and collaborative educational programs with community colleges, colleges and



universities that provided core competencies and standards, ultimately supporting the development of talented cyber professionals for a broad swath of federal agencies.

One of the NCAE programs, the Center for Academic Excellence in Cyber Operations (CAE-CO) program is a highly technical, interdisciplinary, higher education program grounded in computer science, computer engineering, and electrical engineering disciplines, all core strengths of the Naval Postgraduate School (NPS).

Part of this broader effort is the CAE-CO Summer Intern Program, a 12-week, intensive program to give students a deeper understanding of the offensive and defensive technologies protecting computer networks and infrastructure around the country, and how they are integrated through real-world scenarios and applications.

The CAE-CO Summer Intern program is an outreach program for students studying cyber operations at NSA-designated universities, supporting the National Initiative for Cybersecurity Education and furthering the goal of broadening the number of people capable of supporting a cyber-secure nation. Given the university's deep expertise in these relevant disciplines, the NCAE turned to NPS subject matter experts, and their knowledge and experience of cyber operations, to provide courses and materials for the CAE-CO internship program.

"NPS has supported the CAE-CO Summer Intern Program at NSA for probably seven or eight years by providing them with lectures and labs," said NPS computer sciences and computer engineering Professor of Practice George Dinolt, who coordinated with the NSA, NPS faculty, and CAE-CO participants for a recent CAE-CO program session. "This is a well-received program that identifies schools as cyber centers of excellence and in specific cyber operations disciplines."

Some of NPS' course materials for the CAE-CO program deals with evolving applications of cyber operations in areas such as network traffic analysis, exploitation development, digital forensics, cellular and mobile analysis and other cybersecurity courses.

"NPS has been one of the leaders, especially in the cyber operations field, in providing materials to other universities and in encouraging other universities to do this kind of work," Dinolt continued. "We're in a unique situation suitable for it because we have access to classified resources as well as unclassified resources."

When the COVID pandemic made the teaching environment difficult, NPS stepped up to host a group of 24 students on campus during July to provide more in-depth, on-site instruction as part of their CAE-CO program.

"For the students, this was their first major contact with NSA," added Dinolt. "Part of what the NSA is trying to do with its internship program is give the students a good reflection of the opportunities that they will have. Coming to NPS was their opportunity to interact with people at NPS and with people at NSA. The students seemed to be very enthusiastic at the end of the five weeks."

While NPS hosted participants of the CAE-CO program, it is not the university's only partnership with the NSA on cyber education. A longstanding effort with the NSA's National Cryptologic School has provided NPS graduate coursework to more than 2,000 NSA, U.S. Cyber Command, and 10th Fleet employees in cyber warfare, cyber systems, and wireless security.

NPS' successful initiative to provide students with on-site instruction, in addition to its ability to provide course material on an increasingly important and dynamic topic, demonstrated its capabilities of current and future collaborations with the NSA.

"Our reflection upon NPS is great," wrote Jason Smith, NCAE program director. "The summer was a great collaboration for two missions to come together and show the interns effective communication among the Department of Defense."

[National Security Agency Turns to NPS to Support Cyber Summer Internship Program > United States Navy > News-Stories](#)

[National Security Agency Turns to NPS to Support Cyber Summer Internship Program - Naval Postgraduate School](#)

[Return to Index](#)



FACULTY:

New Approaches in Prediction Models Shines Light on Numerical Analysis

(NPS.edu 14 Oct 21) ... Javier Chagoya

NPS Distinguished Professor Frank Giraldo's recently released text, "An Introduction to Element-based Galerkin Methods on Tensor-Product Bases," provides the theory, analysis and application of Galerkin methods developed through years of research on improved weather and ocean prediction models.

Naval Postgraduate School (NPS) Distinguished Professor Frank Giraldo, Chair of the NPS Applied Mathematics department, recently released his latest textbook, "An Introduction to Element-based Galerkin Methods on Tensor-Product Bases." The comprehensive textbook is written to help students and professionals solve problems using Galerkin methods.

"The book is designed to give sufficient theoretical background for the reader to understand the mathematics behind these methods, but the main emphasis is on writing algorithms and using them for specific applications - hence the subtitle of 'Analysis, Algorithms, and Applications,'" said Giraldo. "There are a number of 'projects' in the book designed for this very purpose. In addition, there is sample code on my Github webpage with code given in two different computer languages, Matlab and Julia."

Feedback from students and postdocs motivated Giraldo to introduce an additional segment to support students in coding structure.

"The book was originally meant to be a standard math textbook, but based on this feedback from students, I added the algorithmic part which really helped the students be able to write useful code," he said.

Giraldo says he tried to make the resource as broadly useful as possible, rather than tying it to one specific discipline. As long as someone can write a differential equation, then the book can show you how to approximate the governing laws of any field on a computer. Giraldo points out while there are several books on Galerkin methods, his book shows how to unify various Galerkin methods that were considered to be different by the scientific community.

"I not only present them in the same book but also show how algorithmically they can be developed in a unified piece of software," said Giraldo. "The Non-hydrostatic Unified Model of the Atmosphere (NUMA) developed in my group is based on this idea, and now, the Navy Environmental Prediction System Utilizing the Numa Core [NEPTUNE] model used by the Naval Research Laboratory, expected to become the U.S. Navy's weather prediction model in 2023, uses this idea.

"These methods, thanks to the book, are also being used in South Korea in their new weather prediction model and we are now developing ocean models based on this idea," Giraldo added proudly. "This approach to solving partial differential equations has been well received."

[New Approaches in Prediction Models Shines Light on Numerical Analysis - Naval Postgraduate School \(nps.edu\)](#)

[Return to Index](#)

General Anthony Zinni (Ret.) on Wargaming Iraq, Millenium Challenge and Competition

(CIMSEC 18 Oct 21) ... Mie Augier and Major Sean F. X. Barrett

This is the second part of our conversation series with General Anthony Zinni, USMC (ret.) on leadership, strategy, learning, and the art and science of warfighting. Read Part One here. In this installment, General Zinni shares his experiences with wargames, Desert Crossing and Millennium Challenge 2002 in particular, and discusses how the differing objectives of service chiefs and combatant commanders manifest in wargames. Gen Zinni then touches on the U.S. military's overreliance on technology and draws parallels from the business world to inform approaches to great power competition.

What are some of the challenges to organizing effective wargames?



Zinni: When I was at Quantico, we started going through a phase where everybody was into board games and tactical decision games, and that sort of thing became really popular—parallel to maneuver warfare development. I came away with several impressions. I think gaming was more valuable at the lower levels, at the tactical level, maybe lower operational level. I think there you can construct the game in a way at the division level or below where nobody is promoting anything, and you can design games to learn specific things and bring out specific points. As you go higher up, I found there was too much in the way of service politics and other things that were injected into the games.

There are a lot of assumptions about capabilities that belie reality or truths and other factors. For example, I found that when playing with the Army after they first introduced the Apache helicopter, you couldn't shoot down an Apache helicopter. No matter what you did, that was impossible. They were defending the program, and they wanted to build it up.

When I was a two-star, I was in charge of the Marine Corps side in a game we used to do with the Navy every year. The game was more designed to showcase what capabilities we wanted and really focus on things where Navy-Marine Corps cooperation was needed to gain the capabilities, either because of the way they had to be employed or because of the way budgets work. It usually ended up being kind of a swap meet. We had to find compromises because the budget wouldn't support everybody's wish list. When we went through the massive Millennium Challenge games with Joint Forces Command, I watched how the games became more designed as proofs of capabilities—preordained proofs of capabilities—rather than—as much as they advertised it—open testing, having a real willingness to fail, and all that.

If somebody talks about a game, I am usually highly suspicious about what the purpose is, who is designing it, and who is sponsoring it. To me, that is critical. The other thing I found in gaming is the intelligence guys always present you with the indestructible, undefeatable enemy. They love to do that. You must overcome that to an extent.

What are some of your experiences that showed the value of wargaming?

Zinni: When I was Commander-in-Chief at U.S. Central Command, we were on-and-off bombing Iraq when Saddam did not cooperate with the UN inspectors. At that time, if Saddam didn't cooperate, President Clinton immediately wanted to pull the UN inspector out and hit Saddam. It always worked. Saddam brought the inspectors back in, so President Clinton gave us the okay on anything we wanted to target, basically, you know, make it painful. Since we knew these opportunities arose, we didn't just want it to be haphazard targeting. We deliberately targeted air defense systems. Although we couldn't plan on when he didn't want to let inspectors in or when he'd give them a hard time, we had a systematic way of taking down his air defense systems when these events occurred, and we were very successful. President Clinton OK'd us bombing downtown Baghdad and taking down his intelligence headquarters and a couple of other things. It was called Operation Desert Fox.

Gen. Anthony C. Zinni, USMC, Commander-in-Chief, U.S. Central Command, briefs reporters at the Pentagon, Dec. 21, 1998, on his assessment of Operation Desert Fox, a four-day bombing campaign against Iraq. (DoD photo by R. D. Ward)

Saddam knew when the inspectors left, he was going to get hit. In the past, we always had to bring a few things in before we could launch strikes. One particular time, Chairman of the Joint Chiefs GEN Shelton asked me, "Could you do something so that virtually, as soon as Richard Butler (who was the head of the UN inspection team) is out, you go?" And we did. The battle damage assessment was phenomenal. Four days of strikes. The targets were really large ones. We usually used either the Swiss or the Polish embassy in Baghdad to give us feedback. Well, suddenly—and I'll get to the gaming piece of this—they started saying, "You guys have to know what you are doing here because this last set of strikes really shook the Iraqi government. The normal hostile rhetoric afterward was gone. They were shocked by the targets you hit, and there are all kinds of rumblings on the street." We were even getting some feedback that there were some Iraqi generals talking about taking out Saddam if those kinds of strikes continued, and giving feelers to our allies, too.

The next thing that happened, I got calls from both Jordan and Kuwait saying they were getting this feedback, too. Their worry was that if we struck the government to the point that it was overthrown, or hit a target that shut down communications or whatever, they could see major uprisings and then massive amounts of refugees streaming across their borders. I got asked by the national leadership of both



countries: What's your plan if this happened? What's your plan for massive refugee outflows? What's your plan for a government that totally collapses, which it could from your airstrikes, and the country becomes a mess? I realized that our war plans were only designed to take out the Republican Guard and take down the military structure. There was nothing in our war plans, or in what we were directed to do, that talked about the post-kinetic period. I thought I could do my job—take out the military—in less than three weeks. But who would be in charge of rebuilding Iraq or creating a new government?

I sent a request up through the chain to the Department of Defense and Department of State asking who had the aftermath plan. I had a feeling it was going to be a total mess. We needed a post-kinetic plan that meshed with our military plan. Well, the answer we got is no one was thinking about this. I asked if we could do a study on what Iraq would look like if the government collapsed, or if we had to go in and take out the military. What kind of Iraq would we find? The State Department, CIA, and all the intelligence organizations agreed to be involved, and my chief of staff said, "Let's contract a study." We went to Booz Allen (BA), and the BA people recommended we do a wargame instead of a study because as we discovered things, what we were really after was: what are our options, what should we do? You should put yourself in a position where you have to make those decisions, so you know what kinds of decisions are necessary. Only a game can generate that.

I committed to a couple of weeks up in Washington so we could go through this. We did it, and it is now declassified. It was called Desert Crossing. We went through the game, and I was frankly shocked at what everybody's consensus was—that when we went into Iraq to take down the Republican Guard, that wouldn't be very difficult at all. The problem we would have, even with the forces we had in our war plans, which was overwhelming force and which Rumsfeld threw away, was what happened after that. My intention was to get control of everything right away. The one thing I learned in places like Somalia and elsewhere is if you lose momentum, it is hard to get it back.

Unfortunately, the results of the wargame were that this place was going to come apart like a cheap suitcase. I went back to the State Department and DoD and said, "Okay, we looked at this, and this is what we see happening." And by the way, everything out of that wargame is exactly what happened when we did go in later. This wargame was in 1999, my last year at CENTCOM, and no one was willing to stand up and plan. The State Department wasn't going to own up to it. They did not want to get involved in the planning. Nobody else at DoD or anybody else wanted to take this on. I told my people that if this were to happen, either because there was an intentional decision to go into Iraq, or because of our airstrikes and everything we were doing, and the country internally imploded, we would be forced to go in, so let's plan for it.

My chief of staff said, "You know, a lot of this stuff we are looking at is not us. We don't rebuild governments, and we don't know how to build economic systems and all that." I said I didn't care. We were going to plan and assume we'd have to take it on. I said, if nothing else, we might not be able to understand what had to be done, but we could at least help identify the problems and what we expected might happen. At least we could have an outline of the things we needed to consider because we might be putting together a pickup team to get them done. We began the Desert Crossing planning based on this even though we weren't tasked with it.

When the decision was made to go into Iraq, this surprised the hell out of me because there was no need to go into Iraq. Saddam was no threat to anybody, nobody was afraid of him, and we had bigger fish to fry in Afghanistan. Then I saw Rumsfeld throw away the war plan. He thought he could do it on the cheap, which really told me that the new plan was going to exacerbate the problem tremendously because you were not going to have control of the people, you were not going to have control of key facilities, you were not going to have control of the borders, and all of this was going to come back to haunt you.

I called down to CENTCOM. I was retired, but I talked to the deputy commander. I told him, "You guys are crazy." First of all, the war plan that Rumsfeld was talking about involved far too few troops, meaning we'd get overwhelmed, and that place was going to erupt in many different ways, and we'd be unable to control it. And I said, one thing we needed to look at was Desert Crossing because that would give us an idea of what to expect. He said he'd never heard of Desert Crossing. We had worked on that plan up until I retired in October 2000. Whatever was done on that plan at CENTCOM afterward was completely blown off by the leadership there.



You know, when you are retired, you don't like to go back and poke around your last command. I mean, it is just not done. However, a number of the staff that were still there contacted me and told me about the plans they were being forced to put together, the troop cuts, the assumptions being made—it was just going to be a disaster. And of course, it was.

My point in all of this is that in that Desert Crossing game, we had a specific objective in mind—to learn what was going to happen. Let's put together the best minds, the best intelligence organizations, and we had every one of them there. They very accurately gave us a picture that we had not put together before that. Unfortunately, it got lost in translation and transition and amidst arrogant people that came into leadership at DoD and elsewhere. Colin Powell understood it, but that's not who President Bush listened to on this. We ignored everything we learned from that game.

The COCOMs have very specific requirements they are looking at, as opposed to the services that are looking more broadly at future capabilities. How does this impact the effectiveness of the wargames and exercises they both conduct?

Zinni: The gaming with the COCOMs is very different from service-level gaming, which is trying to validate or prove capabilities that the services want and need to get the budget for. At the COCOMs, you are gaming war plans. That is basically what you do. In exercises and in gaming, you usually have specific things you either want to test or learn, and they tend to be things you are testing or want to learn that affect a war plan or a contingency plan, or something along those lines. And of course, having been a former COCOM commander, I'm going to tell you that ours were honest, and the services' were not.

However, sometimes when you bring allies in, you have to be a bit careful because, first of all, intelligence sharing becomes a problem in some of these things, but you also don't want to embarrass allies. For us, to play a game and get defeated, we can take it as the result of wanting to learn or test something. For some allies, that is politically unacceptable. They were more into looking good coming out of the game, and that overrides learning. As CENTCOM commander, in exercises and gaming, I worked very hard at trying to get our key allies to embrace more free play. I found that the key was you have to get the top guys onboard with that, because below that, they aren't going to accept it unless they know they can make mistakes and that will be okay. They may look bad and fail at something, but it is supposed to be a learning event—rather than one where your main concern is about looking bad in front of your boss. So, I think there is maybe more honesty in the gaming with combatant commanders. That is sort of driven by how you are exercising real-world war plans and operations. You can't polish over or become pollyannish about something that isn't real, but there are times when you must be careful with that, like I said, with allies and when you have a concern with intelligence sharing.

The other thing is you don't want to take too much on in a game. I always felt you got more out of the game or exercise if you had a specific handful of things you wanted to learn and focus on, as opposed to trying to eat the big enchilada and do the whole war plan. That gets too unmanageable, and it gets too diffused and diluted. If you look at specific parts of, say, a plan or whatever you are trying to do, and pick five or six things you really want to focus on, the game is much more meaningful.

How were you involved with the Millennium Challenge wargame?

Zinni: I was a senior mentor. Back in those days, Joint Forces Command wrote joint doctrine and conducted joint training and joint wargaming. They brought in retired generals to be senior mentors and to play the red team, as Lieutenant General Paul K. Van Riper, USMC (ret.) classically did with Millennium Challenge, when he exposed all the things we mentioned earlier—trying to be too scripted or prove capabilities, rather than being true and honest with open testing and free play.

They advertised Millennium Challenge as this super, all-time greatest military exercise game. It was going to involve forces from all over the military. This was going to be a proof of concept of the U.S. military writ large. They had a scenario, and they placed this big emphasis on if we failed, that was fine. It was going to be completely free play, and we'd go wherever it took us. Supposedly. Well, when I got there, I asked who was leading the red team. They said Paul Van Riper, and I said, "You guys better have your stuff together because you are going to die." They kind of blew me off, like this was going to be a piece of cake.

They started the game, and there was a lot of media attention. After the first two or three moves, Van Riper had sunk half of Fifth Fleet and destroyed a corps. They stopped the game because it was now



turning into a disaster. They brought everybody in and said they were going to restart the game because some things didn't go right or whatever. Van Riper didn't do what they thought or assumed he would do. They thought they had him figured out, had the "enemy" figured out.

They started the game again—same result. Van Riper kicked their butts, and now they stopped again. People were coming down from the Pentagon, and this was becoming a problem. They then said they were going to start for a third time, but this time they told Van Riper what he had to do. He said if they wanted him to go by a script, they had to advertise that it was not free play—that it was scripted. You can't advertise something as free play when it is really being scripted—that is dishonest. They told him they were not going to do that, but that Van Riper was going to be scripted in many of the things that he could do.

The next thing that happened was a bunch of the majors that were down there revolted and went to the media, and of course Van Riper then became a superstar for every young officer in the military. Malcolm Gladwell even wrote about it. This went all the way up to the Joint Chiefs, and the Joint Chiefs dissed Van Riper and didn't defend him. Van Riper became the hero for everybody involved in Millennium Challenge below the rank of one-star.

Are we overreliant on technology for solutions? What are some potential pitfalls of this approach?

Zinni: Yes, it is in our nature to become overreliant on technology because we created this dependency on it, and in addition to that, in some ways, we don't leverage it enough. Every time I get into a discussion with someone about facing a peer-level military threat, it always comes down to the same thing: Well, they've got missiles that are going to crush us. The answer is always that we must go after those missiles, we must find them, and shoot them down. What everybody is losing sight of is one of the first things I ask: How does the missile know where you are? Then there's a fall back: Tell me how they target you. The missile is back there, and you are out here, and they can't see you. Something is targeting you. Is it a satellite? Is it a recon unit? Instead of wasting all this effort and resources on new technology to kill the missiles, could we blind their missiles? Could we deceive the missile in some way? Maybe the focus of our technology should be on defeating targeting, and maybe the ways we defeat it is to give it a false image, to blind it, to deceive it. To address the threat through better tactics, using what we already have. No one ever talks about that. Everybody just pushes the technology to kill the missile. My point is that it is not just overrelying on technology. Sometimes it is not knowing how to use technology through tactics to build an advantage.

In Millennium Challenge, the blue force was totally dependent on monitoring the red team's communications, so Van Riper did not use any digital technology. He used motorcycle couriers and all kinds of alternative, simple sources of communication. He did nothing that could be captured or intercepted, so they were totally blind. They put all their eggs—that they would have superior technology to intercept his communications—in one basket. They assumed he would never initiate the fight—that this enemy would be so overwhelmed he would not attack during the build-up phase. Of course, Van Riper immediately attacked. It was a beautiful thing to watch! When we make too many assumptions, it becomes a vulnerability.

The Commandant of the Marine Corps recently published a new doctrinal publication on competition. From your business experience, what are some lessons learned that might be applicable to this new mindset that the service and DoD writ large are adopting? What does it mean to compete with a peer threat below the level of an actual conflict?

Zinni: In the business world, when you look at competition, you look at three things. When you go after a contract or something, you bid on it and put a proposal out there. Your reputation begins with that proposal. For the customers you are dealing with—let's take the defense industry, and you are dealing with the Defense Department and services you are going to provide—you are going to be known by the quality of those proposals. If you have a series of proposals that have flaws in them, you are going to get a bad reputation and soon become uncompetitive. That's how you first establish your reputation in a competitive sense.

Let me draw parallels with the military. Basically, what you are doing is you are putting out proposals to allies and potential enemies. In other words, you are framing yourself. This is going to be your



reputation because if you can't live up to it or have a reputation of claiming things that don't work or whatever, then you begin to lose credibility, and you begin to tempt the enemy to test you.

You also need to realize you can't compete across the entire spectrum. You need to identify the signature capabilities that really make up the heart and soul of your company and build your reputation around them. In a military sense, these are the things you must be the top in—let's say missile defense, or nukes, or whatever. There are certain things that are so critical to your essence and what you are doing that you need to focus more on them.

The third thing, which is critically important in the business industry, is you need your best people where you touch your customer or your client. In the business world, I want to make sure I have people out there who have customer intimacy, familiarity, and trust. They are my selling point. People want to come back to your company because of these people. Relating this to the military: Who are your combatant commanders? Who are your senior generals? Who do you put out there as military attachés, or the military people who are negotiating or interacting with allies? If the enemy is in the Middle East, he is looking at the CENTCOM commander, and your customers and allies are looking at that commander, too.

One of the problems the military has is that capabilities are not centrally determined. Every service, every service secretary, and every service chief fights for something, and we don't have a good way of looking at tradeoffs and risks. What happens is when there's a budget cut and you need to take risks, it is sort of salami-sliced across the DoD, and no one, particularly at the top, has enough power to say we are going to do this, but not that. This was Eisenhower's complaint when he talked about the military industrial complex—the military wants everything. They didn't come to him saying we are going to take risks here, and this is how we see the budget. He just had four services wanting everything. That becomes part of the problem, particularly if you relate that to "signature capabilities." You must pick which ones are your signature capabilities and are most important for you not to take risks in—and even more importantly, where you are willing to take risks, and what the tradeoffs are.

In business, you measure yourself against what I call a competitive set. For example, say I am on the board of a real estate investment trust that owns 12 hotels. We are basically a small hotel company—a real estate investment trust. We have about a dozen competitors in our peer competition set. You watch that set very carefully. Investors who are going to invest at that level will look at you compared to the others. If you apply that to the military, peer competitor means "the big guys" (Russia and China), but there are capabilities within our military that are not necessarily designed to be about the big fight.

We don't do so well in the "least likely" conflicts, like when we get caught up in the Iraqs, Afghanistans, Somalias, and Vietnams. We don't do well in that competitive set. I always say you never fight the war you prepare for. Logically, you should prepare for the war you don't want to fight, but that means for all the others, you don't have the perfect capability to engage in them. Some of that is not military related; it is political will, which erodes over time if you are not showing success. I think you saw that in Iraq and in Afghanistan.

General Anthony Zinni served 39 years as a U.S. Marine and retired as Commander-in-Chief, U.S. Central Command, a position he held from August 1997 to September 2000. After retiring, General Zinni served as U.S. special envoy to Israel and the Palestinian Authority (2001-2003) and U.S. special envoy to Qatar (2017-2019). General Zinni has held numerous academic positions, including the Stanley Chair in Ethics at the Virginia Military Institute, the Nimitz Chair at the University of California, Berkeley, the Hofheimer Chair at the Joint Forces Staff College, the Sanford Distinguished Lecturer in Residence at Duke University, and the Harriman Professorship of Government at the Reves Center for International Studies at the College of William and Mary. General Zinni is the author of several books, including *Before the First Shots Are Fired*, *Leading the Charge*, *The Battle for Peace*, and *Battle Ready*. He has also had a distinguished business career, serving as Chairman of the Board at BAE Systems Inc., a member of the board and later executive vice president at DynCorp International, and President of International Operations for M.I.C. Industries, Inc.

Dr. Mie Augier is Professor in the Graduate School of Defense Management, and Defense Analysis Department, at NPS. She is a founding member of NWSI and is interested in strategy, organizations, leadership, innovation, and how to educate strategic thinkers and learning leaders.



Major Sean F. X. Barrett, PhD is a Marine intelligence officer currently serving as the Operations Officer for 1st Radio Battalion.

[General Anthony Zinni \(ret.\) on Wargaming Iraq, Millennium Challenge, and Competition | Center for International Maritime Security \(cimsec.org\)](#)

[Return to Index](#)

ALUMNI:

Bryan P. Long, PE selected the NAVFAC EURAFCENT Civilian Engineer of the Year

(DVIDS 19 Oct 21) ... Lisa Woodbury Rama

Naval Facilities Engineering Systems Command, Europe, Africa and Central Commands (NAVFAC EURAFCENT) proudly announced Bryan Long, Utilities and Energy Management (UEM) Branch Head, Public Works Department (PWD), Rota, Spain as the NAVFAC EURAFCENT Civilian Engineer of the Year for 2022 in an email sent by Capt. Joseph D. Harder III, Commanding Officer, on Oct 13.

Long, a NAVFAC employee since 2003, is a 2018 **Naval Postgraduate School** graduate with a Master of Science in Systems Engineering and 2003 Washington University graduate with a Master of Science in Environmental Engineering

“Brian came to Rota with a strong reputation and high expectations. He has lived up to both by getting his hands wrapped around a very complex and dynamic utilities program with many large scale projects in planning and in execution. He continues to build on the success of the program and we are fortunate to have him at the helm of a talented team of professionals,” said Cmdr. Joe Dunaway, Public Works Officer, PWD Rota.

Mr. Long reported to PWD Rota in Aug. 2020. He manages a staff of 59 military; U.S. government civilians and Spanish host national employees responsible for operating one of the Navy's few electric power conversion plants. He supervised major upgrades to the plant that increased the capacity of a 35-70 year-old power system and directly improved mission support across Naval Station Rota. Long managed the commissioning of a large-scale 6 megawatt photovoltaic farm ensuring that the contractor delivered a system capable of synchronizing with the existing distribution grid and enabling the installation to leverage the abundant solar energy in southern Spain.

Manuel Rebollo Descalzo, UEM High Voltage Crew Leader and thirty-year NAVFAC Spanish national employee, applauds Long's selection.

“Bryan's presence has been huge in UEM workplace. He is very kind and sympathetic person, as well as the most intellectual guy that I've ever met; he makes everyone around him smarter, and people just want to be around him,” said Rebollo Descalzo.

Long impressively managed his team throughout the COVID-19 pandemic, providing electrical power and water to over 6,000 U.S. personnel while responding to 14 unplanned electrical and water outages throughout sporadic pandemic restrictions.

“I've been playing competitive team sports since I was just over 4 years old - being from St. Louis, Mo, we start 'em young in baseball,” Long said his feelings on receiving this award.

“Throughout my entire life, I've learned and re-learned that being a part of a team means we all have to do our part to make the team successful. I have been extremely blessed and fortunate to have this amazing team here at UEM Rota. I owe a huge "thank you" to them for helping me to get in the right place to receive such an award, and for continuing to do what they do best every day: come to work, put in a hard, rewarding effort, and ensure the utilities here in Rota, Spain for the most part go un-noticed. Clean water and clean electrons always flowing in and wastewater always flowing out,” he said.

NAVFAC EURAFCENT executes approximately \$1 billion per year in construction, professional engineering and facilities services for the U.S. Navy, U.S. Department of Defense (DoD) and NATO commands in countries throughout Europe, Africa and Central Command where the Navy is the DoD lead agent for military construction.



[Return to Index](#)

New Jersey native, U.S. Navy Captain Sharif Calfee, discusses command at sea

(DVIDS 16 Oct 21) ... Mass Communication Specialist 1st Class Rawad Madanat

A native of Toms River, N.J. and Fernandina Beach, FL., U.S. Navy Capt. Sharif Calfee is the son of a Navy Seabee, and grandson of an Army vet, and the current captain, or commanding officer of the U.S. Navy warship USS Shiloh (CG 67), which is forward-deployed overseas at the U.S. Naval base in Yokosuka, Japan with a crew of 400 sailors. His duties and responsibilities include the performance of the warship and all the personnel who are assigned to it.

“I am responsible for all the people, all the equipment, and the all the missions that we are assigned and where we go with that,” said Calfee. “In some ways it’s almost like running a mini town. We have food services, administrative services, power, lights, with the engineering department providing electricity and propulsion, with heating and air conditioning and water purification.”

Along with the ship’s physical condition and mission, Calfee also ensures the care of the Sailors onboard.

“The goal is to help lead them, to help them grow and mature, move to the next level, capability and talent, both personally and professionally in service to our mission,” said Calfee. “I take their well-being seriously and I want their families to understand that is something very serious in the U.S. Navy.” Family is very important to Calfee. His 3 daughters, Maiya, Maila and Maryn along with his wife Kerry, who is a speech-language pathologist, are some of his biggest motivations in life.

“They’ve been the light of my life and the joy of my life,” said “Calfee. “I’m forever in absolute wonder about their creativity, their intellect and their passion. They keep me feeling young and laughing and their personalities are formidable in their own right at their age.”

Calfee first became interested in the Navy in high school during a career counseling presentation about the U.S. Naval Academy.

“Leafing through the catalog for the naval academy was the first moment that this ambiguous interest in different things crystallized in the form of ships, technology, aircraft, leadership,” said Calfee. “I could see what I was really interested in and somehow it captured my imagination in a specific way.”

Capt. Calfee attended the US Naval Academy, graduating with a Bachelor’s in Computer Science and commissioning into the Navy’s surface warfare officer community in 1996.

“I didn’t anticipate that I would still be in 25 years later,” said Calfee. “Initially I was excited to join and go become a naval officer, but I knew that after 5 years I’d have a decision to make.”

As Capt. Calfee moved through his initial division tours, he realized that it gave him a lot of professional satisfaction, which remained with him through subsequent tours as a department head.

“You learn about responsibility, authority and accountability,” said Calfee. “You have to put them into practice in the real world so you gain greater experience.”

Calfee earned master’s degrees in Computer Science (Artificial Intelligence concentration) from the U.S. **Naval Postgraduate School** in 2003 and Public Policy (International Affairs concentration) from Princeton in 2019. He previously served as captain of the U.S. Navy warship, USS McCampbell (DDG 85) an Arleigh Burke-class guided missile destroyer, seven years ago, which was also forward-deployed to Japan. His career eventually led to his assignment as captain of the Ticonderoga-class guided-missile cruiser USS Shiloh (CG-67), who’s mascot is a stinging hornet, in reference to the “Hornets Nest” where the fighting was most fierce during the Battle of Shiloh.

“It’s been a true honor and privilege to be able to lead and to work alongside the fantastic hornets of the Shiloh and to see them succeed in many different ways to accomplish our assigned missions.” As the captain of the ship, Calfee is committed to the training and professional development of his Sailors as part of his responsibility to achieve maximum readiness of Shiloh for its required missions.

“I want the very best, both personally and professionally for the sailors who are placed in our charge,” said Calfee. “In the Navy we believe in sustaining a professional work environment that strengthens our unit cohesion and combat readiness.”

Calfee also recognized the sacrifices that spouses and families make to support military service members.

“Make no mistake, sometimes the spouse takes on a greater share of the balance, especially when sailors are deployed,” said Calfee. “Whether they are working outside the home or they are working inside the home, both of them are work, and the deployment of the sailor may increase that overall workload for the spouse or family,” said Calfee.

Calfee suggests staying connected and communicating with family and friends while in the military. “For parents, especially for units that deploy, one thing to be mindful of is once we head out to sea, communications might not always be continuous,” said Calfee. “In this very connected world of ours, we are used to immediately being able to communicate with people, at all times, day or night, but that’s not always the case.”

When operational requirements allow for communication from a ship, Calfee advises managing communication expectations.

“You have your time to work and your off-time to communicate- so use it wisely,” said Calfee. “Based on where we are at and what we do, it may not always be there.”

Shiloh is attached to Commander, Task Force 70/Carrier Strike Group 5 forward-deployed to Japan in support of a free and open Indo-Pacific.

[DVIDS - News - New Jersey native, U.S. Navy Captain Sharif Calfee, discusses command at sea \(dvidshub.net\)](#)

[Return to Index](#)

MCHD’s Dr. Lee B. Smith travels to Chernobyl to augment radiation training

(WVNews 18 Oct 21)

Dr. Lee B. Smith spent five days in late June, dosimeter in hand, measuring radiation levels both inside the former Chernobyl Nuclear Power Plant in Ukraine and the surrounding area, known as the Exclusion Zone.

Dressed in assigned white personal protective gear (PPE) when inside the domed-off plant, which experienced a catastrophic explosion, meltdown and fire in 1986 that rained radiation at least as far away as Sweden, and in blue PPE outside in and around the ghost city of Pripjat, Dr. Smith continued his ongoing training in radiation detection and preparation that he utilizes for his job as Monongalia County Health Department’s executive director and county health officer.

“It’s still highly radioactive,” said Dr. Smith of Chernobyl. “Radioactivity will go on for thousands of years.”

Working in conjunction with MCHD’s Threat Preparedness program, Dr. Smith uses these skills locally, such as by helping to monitor mass gatherings for individuals or groups that might attempt to set off a “dirty” bomb that contains radiological material.

“We were part of a 10-person team to train in taking measurements and performing drills while seeing effects of the explosion 35 years later,” he said.

Dr. Smith was accompanied by his wife, Dr. Vicki Everly, an emergency physician at Mon Health Medical Center who prepared for the trip by undergoing training by the U.S. Department of Energy.

“My husband asked, ‘Do you want to go to Chernobyl?’” Dr. Everly said. “It’s not one of the top places I want to go, but I said, ‘Yeah, I can do that.’”

In the end, she was glad she did. “I loved it. It was one of those things that you can put a checkmark by,” she said. “I don’t know if I would do it again, but to stand in those places where all of this took place was amazing.”



And stand in amazing places they did. Drs. Smith and Everly visited locations that included a control room identical to one where an ill-advised test was conducted at 1:23:45 a.m. April 26, 1986 and the sarcophagus that now covers the remaining structures to keep radiation from escaping.

The test triggered a chain reaction nuclear explosion and fire in Chernobyl's No. 4 reactor.

When the accident took place, responding firefighters had no idea how to effectively extinguish radioactive flames from the more than 200 tons of uranium that melted down the reactor. They also were not properly outfitted to do so. Many died within three months and others died later from radiation.

"Many of those guys had lethal doses of gamma radiation," Dr. Smith said. "It was reported to us that many of the helicopter pilots who dropped sand and boron on the site also received lethal doses of gamma radiation just from flying helicopters over the open reactor."

Residents were not immediately alerted to the dangers of the nuclear accident and were not evacuated for three days.

The area will not be inhabitable for 30,000 years, and reaching the site required a daily train ride from Slavutych, about 60 miles away, and built for those involved in the clean up, Dr. Smith noted.

Dr. Smith was invited to participate on this trip by Technical Resources Group, based in Idaho Falls, Idaho, which has been conducting this exercise for about 10 years.

"Because of the work Monongalia County Health Department does with radiation training and preparation, we've been involved in a lot of education and drills," he noted.

Also, in 2015, the state Department of Health and Human Resources designated MCHD as the Northern West Virginia Radiation Response Team, which includes maintaining a cache of equipment and trained personnel who can respond to radiation events.

"Since then, we've put a lot of time and effort into getting our Threat Preparedness staff up to speed," he added.

That has meant sending staff members to Oak Ridge Institute for Science and Education (ORISE) in Oak Ridge, Tennessee. Also, Dr. Smith just completed Radiation Emergency Preparedness, a yearlong training at the **Naval Postgraduate School** in Monterey, California.

"That's been an involved course," Dr. Smith said. "We got to meet in person for the class, and there were subject matter experts from the federal government and from state governments, and someone from Oak Ridge was there. There were people from all over the country that were accepted into this program, and they were equally interested in what I had learned at Chernobyl."

That included insight into what prompted the accident. "Reactor No. 4 had about 200 tons of uranium in it and it was a twin to reactor No. 3," Dr. Smith. There were also twin reactors Nos. 1 and 2. "So there were huge amounts of radioactive materials there."

At the time, Ukraine was part of the United Soviet Socialist Republic (USSR) and the Cold War that was about to end was still ongoing.

"The Soviets thought that the Americans were going to come and bomb them, and they wanted to know if they could switch the electrical generator from nuclear power, generating steam to turn the turbines, to a diesel-fired generator. That's why this whole thing happened."

A series of errors occurred, including postponement of the test until the middle of the night when a less experienced shift would be working, and then by going ahead with the test even as indicators continued to emerge that should have stopped them from proceeding.

"Long story short, they ended up trying to shut down a lot of energy created from radiation and start it back up again. But the reactor power went so low. In order to make it heat up, they drained water from the cooling system, which was another error that sealed their fate."

Then, control rods filled with boron to absorb neutrons were withdrawn to allow more radiation and heat. When radiation reached critical levels, the safety control rods started to lower back down into the reactor. However, the rods' tips were made of graphite, which absorbs radiation. The rods were burned and ruined, jamming the safety rods from being further lowered. "It was a fait accompli. It went critical within seconds."

Although it's been more than 35 years since the Chernobyl nuclear disaster occurred, it reentered public awareness and was introduced to a new generation in 2019 through both an acclaimed HBO



miniseries, “Chernobyl,” and a bestselling book, “Midnight in Chernobyl: The Untold Story of the World’s Greatest Nuclear Disaster,” by Adam Higginbotham.

As depicted in the series, in the minutes following the explosion, area residents gathered on a nearby bridge to watch the flames, having no idea of the radioactive fallout that was swirling around the sky.

“Some of them ended up with thyroid cancer, which can be treatable,” Dr. Smith said. “Not everybody died quickly of acute radiation sickness.”

Unauthorized individuals are not supposed to visit Pripjat and the surrounding areas, but natives known as stalkers steal into town.

“Some of the people who were evacuated came back, thinking, ‘It’s my homestead and I can live off the land,’” he said. “But can you take the radiation? If you take a meter and hold it up to a tree, it’s giving off large amounts of radiation in counts per second. Heavy metals follow gravity and wash into the soil, where it is absorbed by plants.”

There are also adventure tourists who want to see the area for the coolness factor of visiting a forbidden place.

Dr. Smith recalled seeing a busload of sightseers disembark a bus. “And they have on T-shirts and flip-flops like they are on a picnic, and the leader of the group lets them turn on their meters, which make a big noise,” he said. “But they didn’t have a clue what they were doing.”

On the other hand, Dr. Smith felt very safe as his team was led by experienced professionals who have been conducting the tour twice a year for about a decade.

“It gives you a sense of reality that your meter is singing,” he said. “To you, it’s a real-world situation. But you are conscious of limiting your amount of exposure.”

They were in “harm’s way” for five days and were measured for radioactivity before and after. “At the end, we had like 45 microsieverts, which isn’t exceptional. It’s a really small cumulative dose, like getting dental X-rays.”

Pripjat offered its own fascination as a city stopped in time. The group saw abandoned amusement rides such as a merry-go-round and Ferris wheel; circa-1986 televisions, furniture and pianos on display at deserted shops; and a café with beautiful stained glass that served as a reminder of the city’s former status as a cultural center.

Also remaining in the area are dogs who survived in spite of a mass effort to eliminate all pets that might have been contaminated with radiation. One of the group’s guides runs a site called “Dogs of Chernobyl” that raises funds for communities affected by industrial accidents.

“He also sets up funds for people with various cancers to get them treatments that for them are not financially attainable,” Dr. Smith said.

As seasoned world travelers, Drs. Smith and Everly were able to compare their experience to previous trips.

“It was one of the most rigorous things we’ve ever done, maybe other than Machu Picchu,” Dr. Smith said. “It was 95 degrees a day, and when we were outside in Pripjat, we wore wool polyester-blend pants, big work boots and jackets while we walked about 10 miles each day. It wasn’t like you could sit down and put your backpack down because everything is contaminated.”

But it’s an experience that Dr. Everly will never forget. “It touches you to see this area, that it is now kind of beautiful and all grown over and green and lush, but it’s going to be radioactive for the next 30,000 years. Nothing is going to be able to inhabit it safely.”

[MCHD’s Dr. Lee B. Smith travels to Chernobyl to augment radiation training | WV News | wvnews.com](#)

[Return to Index](#)

