The Cold War Times®

The Newsletter of The Cold War Museum®

Winter 2022









Letter from the Executive Director

"Increasingly desperate."

As I write this, that seems to be the consensus among Western experts on Russia about Vladimir Putin's decisions. His advanced weapons and the chips to make them are running out, his troops are retreating, he's had to institute a major draft that has caused hundreds of thousands of his most talented people to flee the country, China and India are appalled, etc., etc.

Why did he invade Ukraine when much of this was foreseeable? There are many reasons, including the kind of poor advance information you get about your army and your opponents when people get killed or demoted for telling you the truth, corruption and low morale in the military and security services, and other things. There was also the assumption, based on past Russian experience, that this kind of thing could be done swiftly and with no publicity about your internal planning, and neither of those conditions occurred this time due to some pretty good intelligence and the decision to make much more of that intelligence visible to the public than we usually do, at some risk to our sources and methods.

But among the many causes was also undoubtedly some influence from Russian history—not only of the Cold War but back hundreds of years—a history that could easily produce an unusual sense of national paranoia about bordering next to your perceived enemies.

That history of invasions of Russia by hostile forces goes back a long way. Here are a few of the many instances:

- 13th Century The Mongols from the east, followed by the Teutonic Knights from the West
- 16th Century Ottomans move through Russia and destroy Moscow
- 17th Century King Gustavus Adolphus and his Swedes
- 19th Century Napoleon
- 20th Century
 - Western nations support the White Russians against the Bolsheviks
 - Hitler in WWII—resulting in the estimated loss of 27 million Soviet citizens.
 - The Cold War—the appearance of constant hostility from the thoroughly misunderstood capitalist powers of the West.

Since the bulk of the invasions have come from the West, it's not surprising that the Soviets were adamant about trying to control every country on their Western borders so the fight with any Western invaders would take place in the territory of its client states, NOT in the territory of the Motherland.

And when your country has NEVER experienced any significant period of real democracy (one where an opposition has any real power at all)—in fact has been ruled autocratically for hundreds of years—the idea of actual individual rights and liberties is entirely foreign, a seeming illusion. This is in no way an excuse for Putin's actions, which are obviously unprovoked and horrifying. But to contain an opponent you have to know how he thinks, and part of how he thinks is likely shaped by the deep history of his country.

To think that way as a people, it's helpful to have history museums like the Cold War Museum, where people come with their families, partly to be entertained but partly to teach themselves things and perhaps to use the Museum's artifacts and labels to teach their children and grandchildren. People don't just want to know their own *personal* heritage, which we can now understand more quickly and easily with DNA sequencing and online connections to genealogical databases. They often want to know how they and their prior family members were part of their *collective* heritage—and what that means for how they and their country should choose to act now.

As a Member of the Museum, you are the critical element in making that history come alive in places like the Cold War Museum.

Thanks again.

Jason



The Cold War Museum®
P.O. Box 861526
7172 Lineweaver Road
Vint
Vint Hill, VA 20187
(540) 341-2008

Executive Director
Jason Y. Hall
Jason@coldwar.org

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CWM Seeking Congressional Designation as The National Cold War Museum

As I reported in the last issue, since late 2021 CWM has been seeking the support of members of the Virginia Congressional delegation to advance a bill that would designate CWM as The National Cold War Museum. There can be only one US museum with this designation, and museums in NE and AR are also seeking this recognition, which does not bring with it any federal funding but does greatly enhance the credibility of an institution seeking funds from large-scale private donors.

We've made considerable progress in this effort, aided by the key positions that VA legislators in both the House and Senate occupy on the most important Committees for such an effort: the House and Senate Armed Services Committees, as well as the Senate Intelligence Committee. And since this a nonpartisan topic with no cost going forward for the federal government, it is very attractive for support by both Democrats and Republicans. Neither of the competitive states have anything comparable in terms of representation on the key Committees.

This is normally a slow process, requiring several years of effort to achieve success, but we are well underway with it with the help of our Hill friends on both sides. This effort is aided by the personal relationships of Chairman Chuck Wilson and some other CWM Board members with key legislators, and that ED Jason Hall was a professional lobbyist for a federal agency and a national trade association for many years.

Rep. Rob Wittman, the senior Republican on the House Armed Services Committee, is taking the lead for us in this effort, and he is joined on his draft legislation by Rep. Elaine Luria, a Democrat who is the Vice-Chair of the Committee; by the Museum's current Congressman, Rep. Bob Good (who recently visited the Museum with one of his staffers, as we reported elsewhere in this issue); and by others in the VA delegation.

We're delighted to report the latest news in this area: On September 20th, Mr. Wittman introduced H.R. 8929, to designate your Museum "The National Cold War Museum of the United States." He has four initial co-sponsors and we hope to pick up more. Normally the process of getting such a designation takes several years, but there's a possibility that it might be added to DoD authorization bill this year.

We will keep you informed of our progress in this area in coming editions of *The Cold War Times*. If you have connections to any of the Congressional offices noted above and would like to help in this effort, please contact Jason at jason@coldwar.org.

NOTE: if you would like to follow the progress of **any** federal legislation, including this bill, it's actually extremely easy online. Just go to www.congress.gov, ype the bill number or key words into the search box at the top, and you can get the bill text and every legislative action and Congressional report associated with it. ED Jason Hall was a professional lobbyist for the American Association of Museums for many years and used the predecessor version of this Library of Congress service, then called THOMAS (for Thomas Jefferson) as did everyone on the Hill and following Hill actions. These days it is remarkably easy to be a highly-informed citizen if you know where to look for reliable information.

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The Cold War Times

The Newsletter of The Cold War Museum

Deadline for Spring issue: March 15, 2023

To discuss article submission, please contact:

Jason Hall

Jason@coldwar.org



Message from the Chairman

Chuck Wilson

Dear Members of the Cold War Museum®, Cold War Veterans, and Friends,

We hope that you and yours are safe and well. We are finishing up a solid performance in 2022 and looking forward to an exciting 2023. Despite the challenges of the pandemic, the

vacillating economy, and divisive politics that have slowed many museums across the country down, your Cold War Museum® endures! Here are just a few areas that will interest you:

- National Recognition of The Cold War Museum®: On September 20, 2022, Congressman Rob Wittman took the lead and introduced the bill H.R.8929 − "To designate the Cold War Museum located at 7142 Lineweaver Road, Warrenton, Virginia, as the 'National Cold War Museum® of the United States,' and for other purposes." 117th Congress (2021-2022). This is a bipartisan bill with four cosponsors: Representative Elaine Luria, Representative Ben Cline, Representative Bob Good, and Representative Griffith Morgan, Although the process may take some time, we hope it to pass through the 117th Congress.
- Vint Hill Farms Station (VHFS) celebrates 80th Anniversary. VHFS was a US Army and National Security Agency signals intelligence and electronic warfare facility established in 1942 during World War II. VHFS played a pivotal role in listening in on enemy communications. In 1943, VHFS intercepted a message from the Japanese ambassador in Berlin to his superiors in Tokyo that contained a detailed description of Nazi fortifications along the French Coast, with General Dwight D. Eisenhower later saying the information made a significant contribution to the D-Day invasion at Normandy. No doubt VHFS was one of the most important intelligence gathering stations during WWII. The Cold War Museum® is located at VHFS!
- Our Cold War Presentation series continues to exceed expectations! The slate of distinguished Cold War speakers and authors such as Dr. Andrew Krepinovich who spoke on "Winning without Doomsday," and Dr. Dewey Browder who spoke on "The Last Casualty of the Cold War," drew large audiences. We look forward to lectures from many more exciting speakers! See our Presentation schedule on p. 28 in this issue.
- Fundraising success! Although we have had considerable fundraising success so far this year, we do need your continued support. Our next fundraising event is Giving Tuesday, a national online event scheduled for November 29th. WE DO NEED YOUR HELP so do plan to contribute! Here is our donation link: Donate to the Cold War Museum

Our work is far from over. Looking ahead for next year, pressure is on to increase our funding, modernize, and expand our space to display all our artifacts. With the decline of the pandemic *and with your help*, we will take The Cold War Museum® to the next level of success: to modernize and expand! I cannot THANK YOU ENOUGH for all you do, and, for your continued support of The Cold War Museum®!! *The best of wishes for a happy holiday season!*



Chuck Wilson
Chairman, The Board of Directors
Webpage: https://coldwar.org/



Museum Staff

Jason Hall, Ph.D., CAE Executive Director (Historian)

John DePerro, Chief Curator & Key
Tour Guide
(Army veteran)

Paul Schaya, Imagery Intelligence Collections/Exhibits (Marine veteran and former CIA image analyst)

John Suter, Imagery Intelligence Collections/Exhibits & Museum Photographer (NRO imagery veteran)

Gene Eisman, Director of Public Relations & Cold War Times contributor

Chris Sturdevant, Chairman
Midwest Chapter of CWM & Cold
War Times contributor
(Air Force veteran)

Kevin Knapp, Special Events Support (Army Special Forces veteran)

[Name withheld], Signals Intelligence Technology Specialist

Museum Staff cont. from page 3

Stan Manvell, Chief Fabricator (construction industry)

[Name withheld], Chief Technology Officer & Key Tour Guide (Vint Hill Army veteran & former FBI electronics engineer)

Doug Harsha,
Civil Defense Expert &
Social Media Lead Staffer

Birgitte Tessier, Registrar/Archivist

Bryan Zwanzig, Lead Staffer Private Tour Arrangements & Presentation Series staffing (Vint Hill Army veteran)

Karen Zwanzig, *Cold War Times*Lead Staffer

John Welch, CWM Co-Founder & Vice-Chair Board of Directors and Membership Records

Clayton Vieg, Imagery (Intelligence Community)

Washington DC, Saturday, September 17th. Celebrating the 75th Anniversary of the Central Intelligence Agency (CIA), the infamous U-2 Dragon Lady made a low-level flyover of the National Capital Region and CIA as part of the birthday celebration. Piloted by "Jethro" (callsign), flying into and out of the Wash DC airspace is no easy task, with the mission more than eleven hours long.

As stated in Northern Virginia Magazine: "Seventy-five years ago, CIA was born when President Harry S. Truman signed the National Security Act of 1947 into law and created not just the clandestine agency we know and love today but also several other organizations we count on for protection. Here's what the act did:

- Created the United States Air Force and declared the Marine Corps an independent service as part of the U.S. Navy.
- Merged the Departments of the Army, Navy, and the new Air Force into the National Military Estab-

Meet Your Board of Directors



The Cold War Museum® Board of Directors is the governing body of our nonprofit organization. This governance is high level: strategy, oversight, and accountability of the overall activities of the museum. Our Board is made up of thirteen seasoned senior executives of varying professional backgrounds who work pro bono for the benefit of the museum. Our Board members meet, usually each month, to discuss and vote on the affairs of The Cold War Museum®.

Meet our Board of Directors at this link: BOARD OF DIRECTORS CWM

CIA Celebrates 75th Birthday with U-2 Flyover

lishment, effectively creating what is now the Department of Defense.

 Created the National Security Council to advise the White House on intelligence matters.

And the Act spelled out how to "centralize" all the intelligence that was vital to keeping peace in the aftermath of World War II. Until then, the War Department, the State Department, the Federal Bureau of Investigation, and the Post Office were competing with the remains of the recently disbanded Office of Strategic Services — the OSS, an early covert spy agency — to be the conduit of intelligence to the president's ear."



U-2 images by retired U-2 pilot Gary Edelblute



U-2 approaching CIA Headquarters



U-2 making a low pass by CIA



U-2 departing the CIA Area

Our Lecture Series

The Cold War Museum's Presentation Series, where we present eyewitnesses to, and expert accounts of, key Cold War events, has been a key method by which the Museum educates about the Cold War for our audience (which normally averages about 40-50 people), a resource for future scholars (since we film all these events including the question-and-answer sessions), and a significant source of income for our operations.

As you know, we began this Series well before COVID and originally did all of them in-person. When COVID force the closing of our doors and suspension of all of our activities, we had to rethink many things. Since people could no longer gather in large groups, we got a Zoom license and converted to 100% online. This has been highly successful for us, since it allows both audience and speaker to be from anywhere in the world, so we will continue with Zoom streaming but eventually also return to the in-person option where the speaker is local; we'll do that when COVID conditions allow, although not in our prior venue of the Old Bust Head production floor since that is no longer available. Because of the popularity and scope of the Zoom format, we've expanded to doing these about every three or four weeks.

Since our Summer 2002 issue appeared, we have presented the following:

- 7/10/22 Don Stanton on sub-chasing as a P-3 pilot in the Atlantic and Mediterranean.
- 9/11/22 Andrew Krepinevich on Andrew Marshall, the first Director of the Office of Net Assessment at DoD, and the principal architect of the U.S.'s defense strategy for nuclear weapons under eight Presidents. He draws from *The Last Warrior*, his book on Marshall.
- 10/9/22 U.S. Army LTC (Ret.) Dewey Browder on the crisis around the Soviet murder of Arthur Nicholson, the last casualty of the Cold War. Dewey was the Ass't POLAD [foreign policy advisor to senior military] at HQ USAREUR [US Army—Europe] (1982-1986) and "worked the crisis day and night for a few weeks," confronting the Soviets about Nicholson's death.
- 10/30/22 Former Special Forces Berlin member James Stejskal on his book *Special Forces Berlin*; he went on to be a field operator for CIA for 25 years.

There are MANY MORE ALREADY SCHEDULED FOR THE REST OF THE YEAR AND HALFWAY THROUGH 2023; as I write this, we have them scheduled to late June 2023, with more to follow. Please see the Upcoming Events article in this issue for the dates and descriptions of those events.

If you are interested in getting a list of our prior events and/or accessing the digital videos of any of them, please contact Exec. Director Jason Hall (jason@coldwar.org); there is a modest charge for accessing the prior ones, all of which were videoed.

And if you'd like your email address to be added to our notification list for coming events, please contact Jason for that as well.

Remembering D-Day



"'This is D-Day,' the BBC announced at twelve. 'This is the day.' The invasion has begun...Is this really the beginning of the long-awaited liberation? The liberation we've all talked so much about, which still seems too good, too much of a fairy tale ever to come true? Will this year, 1944, bring us victory? We don't know yet. But where there's hope, there's life. It fills us with fresh courage and makes us strong again." —Anne Frank, diary entry June 6, 1944

Seventy-eight years ago, on the morning of June 6 1944, U.S. and Allied Forces commenced Operation Overlord, the invasion of the European mainland that began the liberation of Europe from Hitler's NAZI (national socialist) regime. This day was designated as "D-Day." By dawn on June 6, thousands of paratroopers and glider troops were already on the ground behind enemy lines, securing bridges and exit roads. At 6:30 AM an estimated



156,000 American, British, and Canadian troops landed over a 50-mile stretch of heavily fortified beaches at Normandy. Almost 5,000 ships, and 12,000 aircraft, supported the D-Day invasion.



By nightfall of June 6, 1944, some 100,000 Allied servicemen had come ashore. The U.S. 1st and 29th Infantry Divisions made the most difficult landing on Omaha Beach where stiff German resistance incurred over 3,000 Allied casualties. On this D-day Allied troops suffered more than 10,000 casualties, with 4,400 confirmed dead. U.S. forces suffered about 6,600 casualties, British and Canadian forc-

es about 3,700 casualties. The Germans contained Allied troops in their slowly expanding beachhead for almost six weeks.

June 6th is observed annually as D-Day, bringing overwhelming memories of the brave men and women who fought a strategically-planned and well-executed battle that ultimately led to the end of the Second World War. Almost eight decades after the end of World War II, these memories remain fresh to the over 300,000 living U.S. veterans of the war. The rest of us look to their legacy and the rich history of events told through museums and memorials. Once again this is an important time for us to remember and honor them as we reflect on D-Day, June 6, 1944.



Artifact Donations

As a collecting museum, we depend on our artifacts to anchor our stories about Cold War history and to bring those stories to life. We have many artifacts but also many gaps in the kinds of stories we can tell, so we are always seeking more Cold War artifacts for

Luckily our Members have been wonderful about thinking of us when they have decided to part with artifacts from their own careers. Since, like many other American museums, we have no budget for artifact purchase, almost our entire collections have come to us from the generosity of donors. Many of these artifacts are rare or even one-of-a-kind.

We will occasionally use our newsletter to let you know about particularly noteworthy artifact donations.

Here's a photo of one of them, which came to us on August 27th from CWM Board Member and former SR-71 pilot Buz Carpenter:



Left to right: Key Staff Members Mike Washvill and Doug Harsha with Buzz Carpenter

Custom-made, of course, like everything on an SR-71 25th: and its CIA counterpart and predecessor, the A-12. Definitely not from Home Depot.

Thank you, Buz!

This is a thick We and heavy also quartz-glass rewindow from an ceived SR-71, still the fastest airwonbreathing piderful loted aircraft ever made. It of an had to withstand temperatures of up to

600 degrees F

and speeds of

2,100 mph+.

model



EC-2 Hawkeye, a tactical airborne early warning (AEW) aircraft used during the Cold War to help protect our people in the skies and below by providing advance notice of airborne threats. This came to us from Kevin McElroy on September

Thank you, Kevin!

U-2 Dragon Lady ReU2nion 67-Year Celebration



On October 6-9, 2022, in Sacramento CA and at Beale AFB, CA, the U-2 Dragon Lady Association hosted a four-day long convention and "ReU2nion" that celebrated sixty-seven years of

the U-2 program. An estimated 500 pilots, maintainers, technicians, planners, Defense contractors, civil servants, spouses, and avid supporters of the U-2 program came together at the Hard Rock Hotel in Sacramento (Wheatland) California and at Beale AFB to commemorate the U-2 program's 67-year success as America's sentinel of intelligence.

During the height of the Cold War, Clarence "Kelly" Johnson of Lockheed's Skunkworks designed the U-2, perhaps the world's most famous Cold War spy plane. First operated by the CIA, this aircraft flew at unheard-of altitudes above 70,000 feet, would operate from undisclosed remote locations, would not have markings on the fuselage or tail, and take off or land in the darkness under the utmost secrecy. Their audacious overflights took them over the Soviet Union, The Near (or Middle) East, The

Far East, or across Eastern Europe.

Although today the U-2 program is over 67 years old, the airplane is not. Over the decades, the U-2 has been rebuilt (R-model) received many modifications and continues to be upgraded. Today's U-2S features a GE F118 Engine, Glass Cockpit (digital) displays, has a vast array of the latest Imagery and SIGINT sensors and continues to fly in sensitive areas around the world. The service life may well last past 2040...good for the America, good for the taxpayer.

At the ReU2union convention, the ceremonies began with a tribute in memoriam to those who gave their lives flying operational missions in the U-2 Dragon Lady.

The four-day event included briefings on the current state of play of the U-2 and NASA's ER-2; comments by Brig Gen Mark Tillman, the Air Force One Presidential pilot on Sep 11th, 2001; a picnic on the Beale AFB flightline; a golf tournament; and a tour of the U-2 squadron and U-2 Pilot Heritage Room. It culminated with a dynamite dining out at the Hard Rock Hotel's "Hard Rock Live" music and entertainment



center with an audiovideo sound system that is "out of this world."



At the formal dinner, Mike "Sooch" Masucci. Virgin Atlantic Astronaut and past U-2 pilot, was the guest speaker who provided a thrilling and pictorial brief on his journey to being an astronaut with Virgin Atlantic. "Sooch"is a



test pilot for Virgin Galactic and a commercial

U-2 Dragon Lady cont. from page 8

<u>astronaut</u>. He is a former U.S. Air Force lieutenant colonel and U-2 test pilot. Masucci first flew to space in February 2019, during the <u>VSS Unity VF-01</u> mission, and again in July 2021, on board <u>Virgin Galactic Unity 22</u>





Jon "Huggy " Huggins, Dragon Lady Association President, Daryll "Egg" Smith, and Matthew "Nova" Beaubien performed superbly as co-masters of ceremonies.



DLA President Huggy Huggins recognized for his fantastic work in putting together this event, and presented with a personalized copy of Kristin Hill's "Alone with The Forms" limited-edition print. The lithograph bears the artists' copy number "537" that is also Huggy's U-2 solo number. The presenter was former U-2/SR-71 pilot Stormy Boudreaux.



A very special guest was 94-year-old Maj Gen Pat Halloran who soloed the U-2 back in 1957. Maj. Gen Halloran piloted both the U-2 and later the SR-71.



CWM Board Chairman Chuck Wilson was recognized for being "The biggest cheerleader for the U-2 program (for several decades) ...keeping hundreds of us informed of the U-2 program activities, and instrumental in helping the DLA rebuild over the past four years."

The Dragon Lady Association also recognized a few members who have gone *Above and Beyond* for the U-2 Dragon Lady community. They were Bill Bonnichson, Bruce & Karyl Marlow, Chris Pocock, Bill Williams, Tony Bevacqua, Brandon Jones, Ken Hall, Bob Ray, and the Cold War Muse-um's® (CWM) own Chuck Wilson who is CWM Chairman of the Board, past U-2 pilot, Instructor Pilot and two-time U-2 Commander.

The awardees received an eloquent sculpture of a U-2 pilot dressed "in the suit" created by U-2 pilot artist Ed Walby. Lockheed-Martin was a prime sponsor for this event.

The next gathering is slated for the 70th anniversary September/October 2025.

Ukraine's Fight for Democracy and a New Limited Cold War

By Don Stanton

President Vladimir Putin bet that he could quickly take all of Ukraine and in February 2022, Russian troops headed straight for Kyiv in an attempt to decapitate the fledgling democracy. But he badly miscalculated. President Volodymyr Zelenskyy and the Ukrainians' fierce resilience pushed the Russian army back from the gates of Kyiv and Kharkiv, and the invasion rapidly united Europe, the US, NATO, and democratic nations across the world.

Putin is an unpredictable and dangerous disruptor. He has been emboldened by the full backing of Chinese Communist Party (CCP) General Secretary Xi as both China and Russia strengthen their authoritarian regimes and cooperate on trade and arms to exploit a perceived lack of strength and unity among the world's democracies. As in the Cold War, the world is becoming divided again as nations align into two camps and a neutral group of developing countries. The new Limited Cold War enemy is Vladimir Putin (and China), not the people of Russia, many of whom have bravely protested the war and have been persecuted.

Looking back since the 2014 Euromaidan Revolution and Russia's subsequent annexation of Crimea, Putin has moved steadily toward an invasion of Ukraine to snuff out a strengthening democratic state. Putin wanted to demonstrate that Russia was back as a competitive global force with nuclear capabilities. To the last minute, many in Europe and the US clung to the hope that diplomacy could prevail in Ukraine and that peace would be maintained by the many gas, oil, trade and political relations built up over decades. Putin exploited this and went through the charade of meeting with western leaders at his long table while preparing his forces for the inevitable invasion.

Forcing Ukraine back into the Russian orbit was so important to Putin that he was willing to disrupt global order and gamble away those relationships. He believed that Ukraine, NATO, and the West were weak and not united. Conversely, his invasion mobilized the West to send billions in aid to Ukraine, station tens of thousands more troops on NATO's eastern flank, place 300,000 troops on high alert in the Rapid Reaction Force, and motivate Sweden and Finland to join the alliance.

The Ukraine War might evolve into something

like the aftermath of the Korean War in which military lines stabilized, a ceasefire was established without a peace treaty, and an impasse has lingered for 70 years.

This paper covers four themes:

- How Ukraine is a turning point in a Limited Cold War with Russia countering the expansion of democracies
- Thoughts about Ukraine's future and questions that remain
- Some history and the differences between the 1947-91 Cold War and today's Limited Cold War
- Why the West refused to believe that Russia would invade Ukraine because it was blinded by a vision of peace through trade (especially in energy) and political ties built since the fall of the USSR; and that many western countries and companies insist on continuing to trade with Russia.

Ukraine is a turning point in a Limited Cold War with Russia countering the expansion of democracies

Ukraine, Poland, the Baltic states, and others remember the oppressions of the Soviet past and have fiercely defended their democratic freedoms; Putin's invasion of Ukraine brings back their horrific memories of WWII and reopens old wounds and passions of the Cold War. It forebodes long-term struggles between democratic countries and autocracies and is resetting economic and trade relationships as we enter a new global era.

After decades of United Nations' and rule of law efforts to maintain existing sovereign boundaries, Russia's participation in the G-8, increased trade, and thousands of western business deals with Russian firms, Putin has completely disrupted the world order by savagely invading Ukraine and plunging the world back into armed confrontation.

The Ukraine War is a turning point and the directions in which it develops will have long-term democratic, political, economic, and military ramifications. The Ukrainians' valiant stand against an overwhelming military onslaught is the pivotal example in our lifetimes of the fight for democracy against autocracy.

The Ukraine War is going to be a long slog one which will constantly challenge Western economies and perhaps contribute to power shifts in some governments, including the U.S. due to gasoline prices and inflation. I believe the West is settling into a new normal: the economies of the US, Canada, and Europe are being stressed and many Europeans want Ukraine to make peace with the Russians and ensure the return flow of cheap natural gas for the upcoming winter. Developing nations desperately need Ukraine's grain, which is immobilized due to Russia's blockade on the Black Sea and to rail track-gauge incompatibilities on land.

The US and Europe may only be able to do so much as Russia and China are collaborating in a strengthened alliance and both hold seats on the UN Security Council with veto authority. Putin's invasion of Ukraine has shocked NATO and Western democracies into united action. A bipolar world order is returning with developing nations trying to remain neutral and nonaligned. Sadly, Ukraine may permanently lose land to Putin, and he may militarily reassert Russian dominance over bordering nations like Moldova, Transnistria, or possibly the Baltic states.

What is a Limited Cold War?

We are now embarking on long-term confrontations between NATO / Western/ Asian democratic partners and the Russia/ China alliance. The Ukraine War has plunged us into a renewed Military and Economic Limited Cold War which is creating and straining alliance commitments not only in Europe, but around the world. The Ukraine struggle is also a fight over democracy in Eastern Europe, which the Soviets subjugated during the 1940s through 1948.

The Cold War dominated national security and industrial priorities from 1947-91 and involved massive superpower and allies' land, air, space, and sea military operations carried out in the around the world. However, now in the Limited Cold War the US, Russia, and China are backing sides in country-specific military conflicts and economic developments. Examples of this are evident in Ukraine, Taiwan, Venezuela, and many countries of Africa.

Today, the US and Russia have many fewer nuclear weapons than during the Cold War and so far Russia has refrained from the use of tactical nuclear weapons in Ukraine. Putin has directed a great percentage of Russia's wealth

toward expansion and improvement of the Russian military, including hypersonic weapons, aviation, intelligence, surveillance, nuclear advances, and advanced submarine codevelopment with China.

Increased economic competition has developed between the US and China, with Russia's actions influencing energy markets, inflation, and interest rates. Today's Limited Cold War power competition is more economically oriented than during the Cold War, which was centered on superpower military and nuclear confrontation.

In 2016, China created the Asian Infrastructure Investment Bank (AIIB), challenging the US-led World Bank and the Japanese-led Asian Development Bank. 105 countries have joined the AIIB including the UK, Germany, France, Italy, Canada, Turkey, Russia, and South Korea. China has funded and constructed Belt and Road Initiative projects around the world.

To compete, the democratic countries of the G-7 announced in June the \$200 billion Partnership for Global Infrastructure and Investment (PGII) to leverage and mobilize \$600 billion by 2027 in global infrastructure investments. FACT SHEET: President Biden and G7 Leaders Formally Launch the Partnership for Global Infrastructure and Investment | The White House

Russia is NATO's main threat

On June 29, 2022 UK Defense Secretary Ben Wallace stated "Russia is very, very dangerous now on the world stage. The world is less secure than it was two or three years ago and that is not looking likely to change for the next decade." <u>Ukraine Is Winning The War And Russia Has Lost 25,000 Troops, Says Defence Secretary (msn.com)</u>

At the June NATO summit, Secretary General Jens Stoltenberg declared that Putin's Russia is "NATO's most significant and direct threat. We meet in the midst of the most serious security crisis we have faced since the Second World War...This will be a historic and transformative summit where we will make decisions that will actually change this alliance for many years to come."

President Joe Biden noted that NATO had drafted a new mission statement focusing on Russia, mentioning China, and that Europe has substantially increased its commitments. He emphasized that "We are sending an unmistakable message that NATO is strong, united. In our meetings today we are going to approve a new NATO strategic concept and reaffirm the unity of determination of our alliance to defend

every inch of NATO territory...We (the alliance) are going to stick with Ukraine for as long as it takes..." NATO poised to take historic action on strategy, enlargement, and Ukraine | Washington Examiner

The President's explicit statement about defending every inch of territory is a new crystal-clear signal to Putin that NATO will not tolerate another Ukraine-like intervention in former Soviet territory.

The President announced that the US Army V Corps would be established at a permanent base (important because it is a permanent base with a US general and staff established) in Poland to "strengthen the US-NATO interoperability across the entire eastern flank," along with sending a Brigade Combat Team to Romania, and increased deployments of troops, ships, and planes to NATO.

Putin recently stated that "The leading NATO members are using the Ukrainian people to reinforce their positions and their role in the world, reaffirm their hegemony and their imperial ambitions." Putin's week: Facing NATO expansion, West's unity on Ukraine (msn.com)

I want to emphasize the absolutely vital importance of Poland to Ukraine's defense and NATO. Poland has 38 million citizens and has been the key bulwark for the war in Ukraine. The Polish people have been magnanimous in opening their borders, homes, and schools to more than 1.2 million refugees from Ukraine. Poland has been a key leader in supporting Ukraine's fight against the Russian invasion and was recently chosen for the new US Army V Corps headquarters, is the key staging area for major economic and military aid to Ukraine, and will be of critical importance as a hub for many years in this new Limited Cold War. When the history is written about this new era of Limited Cold War, Poland will stand

The UN estimates that out of a country of 43 million, upwards of 12 million Ukrainians have fled their homes including 2/3 of all children. About five million have left the country and over seven million are internally displaced still within Ukraine. Poland has been extremely generous in accepting over half of the refugees and Romania has taken upwards of 1 million. Moldova, Slovakia, and Hungary have opened their borders to about ½ million each. Russia has forcibly moved over a million Ukrainians into its Federation. How many Ukrainian refugees are there and where have they gone? - BBC News

Putin's Total War

Putin never mentions his total-war invasion of Ukraine; he uses KGB/FSB talk about con-

ducting "a special military operation in the territories of the Donetsk People's Republic, the Luhansk People's Republic, and Ukraine."

Putin is still KGB; he is shrewd, ruthless, and has struck out and killed many enemies: 2003-13 oil tycoon Mikhail Khodorkovsky imprisoned; 2006 FSB poisoned Alexander Litvinenko with Polonium-210; 2015; Boris Nemtsov shot near Kremlin; 2018 in the United Kingdom Sergei & Yulia Skripal poisoned with Novichok nerve agent; 2020 opposition politician Alekei Navalny poisoned with Novichok and in 2021 arrested and sent to IK-2 penal colony; and in April 2022 journalist Nobel Peace Prize awardee Dmitry Muratov was attacked with acid.

In 2022 Putin used terror in the Ukraine War. He sent Spetsnaz commandos in civilian clothes into Kyiv to decapitate the elected Ukrainian leadership. Russians have executed hundreds in Bucha and other occupied cities; Ukrainian mayors and civilians were executed with their hands tied and tens of thousands of civilians have been deported to Russia. Putin has committed war crimes and his soldiers have committed rapes, abused civilians, and fired on refugees in a Mariupol theater.

The Russian military uses massed-artillery shelling and missile strikes on cities to create terror or win territory. It is difficult to believe we are living in the 21st century when we see these scenes reminiscent of past world wars. It also demonstrated how degraded the Russian Army has become when compared to the high state of readiness of the Soviet Army days during the Cold War.

On June 26, 2022 Russia indiscriminately fired anti-ship missiles with 2200 lb. warheads into Kremenchuk on the Dnipro River in central Ukraine hitting a shopping center and killing 20, sending a signal just before the G-7 meeting in Germany. This illustrated Russia's brutal tactics of targeting civilian centers with massed artillery and missile strikes to terrorize and destroy population centers. These tactics against civilian targets bring us back to the horrors of WWII. Illustrating its depravity, the Russian Ministry of Defense claimed the Kremenchuk shopping mall fire was caused by "detonation of stored ammunition for western weapons."

G-7 leaders stated "Russian President Putin and those responsible will be held to account" and condemned the Kremenchuk attack as "a war crime." This tragedy illustrates that Putin is waging a total war to regain his coveted Russian sphere of influence and that the US, Europe, and NATO will be engaged for many years in in a renewed Limited Cold War which will occur on the military, political, economic, and social levels.

After the end of the NATO summit, on the night of June 30th Russian bombers over the Black Sea launched anti-ship missiles into an apartment complex and recreation center in Odesa killing over 20. Russian Missiles Kill 20 in Residential Area in Odessa Region, Ukraine Says (msn.com)

NATO is ratcheting up its response capabilities by stationing brigade-size units in frontline counties bordering Russia. If Russia thought the invasion of Ukraine would intimidate the Europeans, it has done the exact opposite, increasing defense spending and cooperation. NATO has offered air defense systems, massive amounts of ammunition, artillery shells, antitank and anti-air missiles, tanks, howitzers, and helicopters sourced from Poland, Slovakia, Czech Republic, UK, Canada, Germany, and other countries.

Congress approved \$40 billion in Ukraine assistance and the US has sent close to \$5 billion in armaments so far, including 155mm longrange artillery, hundreds of thousands artillery shells, high-mobility artillery rocket systems (HIMARS), air defense, anti-ship missiles, drones, counter-artillery radar, jamming equipment; and armored personnel carriers from the Ohio, West Virginia and other National Guard units.

Thoughts about Ukraine's future and questions that remain:

It is up to President Zelensky and Ukraine to decide how to conduct the war and when to make peace; NATO and the West have committed to giving them continued military and economic assistance. Ukraine may need to make peace soon given their probable need to pause, rebuild the army, and build an in-depth 'Eastern Wall' air defense/ maneuver zone so they can hold their lines. They also need to start rebuilding shattered civilian infrastructure and help aid the seven million internally displaced persons and refugees.

Ukraine needs force multipliers to permanently hold off vastly larger Russian forces, especially air defense, anti-air/anti-tank/anti-ship missiles, drones, satellites, and intelligence, surveillance, and other reconnaissance assets.

Will the war spill over into Moldova, Lithuania or another country? Will insurgencies and partisan fighting erupt in Russian-occupied areas?

Ukraine may not be able to join NATO, but perhaps they could have associate Partnership For Peace (PFP) status which would help them coordinate better with neighboring countries, especially Poland and Baltic states.

Could a ceasefire be established before winter? Will Putin stop after consolidating gains in the Donbas region and southeastern Ukraine or will he accept a cease-fire pause only to reset for future attacks? I think Ukraine could develop into a Korean War-like situation; military lines stabilized with a ceasefire, but no peace agreement and an impasse which could linger for decades.

Western sanctions have now caused Russia to default on its international loans for the first time in 100 years. https://

www.npr.org/2022/06/27/1107750231/russia-default-foreign-debt-payments-explained

Defending the Odesa region and access to the Black Sea is critical for Ukraine's trade, especially its grain exports. Putin seems committed to making Ukraine a landlocked state and having the entire Black Sea as a "Russian lake." However, on June 30th Russian forces fled Snake Island under heavy Ukrainian missile fire; this then remains an opportunity for Ukraine to maintain some control of this area.

In an ideal world, the UN would broker a cease-fire, broker agreements for Ukrainian grain exports to feed the world, and oversee peace talks. However, Russia and China are on the Security Council and might use their veto power to stifle such efforts.

During his 2014 annexation of Crimea, Putin learned to withstand Western economic and diplomatic sanctions and was emboldened by Western disunity, including German desire for cheap natural gas, to attempt to take Ukraine. The world's dilemma is when you have a brutal leader like Putin who has nuclear weapons, how do you stop them? It takes two parties who are interested in negotiating a peace and what if only one is interested?

Putin is unpredictable and dangerous and his actions and threats, along with those of his friend Chairman Xi and a power-flexing China are driving the world into two camps in a Limited Cold War.

What have we done to keep China from helping Russia in Ukraine? The US and democracies did successfully advocate to keep China from directly supplying armaments, but China, India, and others are signing long-term energy contracts which provide the 'blood money' for Putin's war on Ukraine

How long will Putin and his cronies dominate Russia and what would Russia be like post-Putin?

How do democracies with leaders who have to be reelected every few years maintain the long -term solidarity to face autocracies like Russia and China? Democracies may provide funding, but don't want their soldiers directly involved in armed conflicts.

For the sake of saving Ukraine, how long will democracies put up with the consequences of helping? Will Europeans and Americans react after increased energy bills and inflation to throw out those leaders supporting Ukraine in its defense.

Will the US, Europe, and NATO be able to remain united and sustain the strong support for Ukraine in the long term for the massive funding needed for economic assistance and military assistance, infrastructure reconstruction, and refugee assistance?



Stalin signed just above Lemberg (present-day Lviv)

Public domain: The Nuremburg Trials 1946



Polish Home Army General Leopold Okuliki

<u>Institute of National Remembrance Archive</u>

Some Relevant History

There is bitter history between Poles, the Baltic peoples, most Ukrainians, and the Russians. Stalin and the Soviets killed and deported millions of Ukrainians during the 1932-33 Terror-Famine and the dictator secretly signed the 1939 Molotov-Ribbentrop Pact which continues to affect Eastern Europe and the Baltics to the present day.

Soon after the Pact, the Soviet Army, NKVD secret police, and communist commissars rolled into Poland, captured thousands of Polish officers and intelligentsia, and deported hundreds of thousands to Russian prisons. In 1940 over 22,000 Polish officers and leaders were executed by the Soviets in the Katyn Forest.

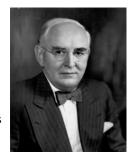
Some of the first casualties of the impending Cold War were the 1945 show trials which condemned many Polish Home Army democratic heroes like General Okulicki. Putin's invasion of Ukraine has opened old wounds from the cruel excesses of Soviet times and ignited passions from the past. NATO is not just expanding a military alliance but is also protecting the return of democracy to countries which between 1940-48 had been subjugated by the Soviet Red Army, NKVD, and political commissars. During these times democratic leaders were targeted, imprisoned, and often executed.

We need more bipartisan leaders like Republican Senator Vandenberg, chair of the Senate Foreign Relations Committee, who in 1947 supported Democratic President Truman in containing communism by asserting that "We must stop partisan politics at the water's edge."

How things have changed. On April 28, 2022 ten American congressmen led by Arizona Representative Andy Biggs actually voted against aid to Ukraine while the Russians were brutally escalating the war.

The valiant Ukrainian defense flashes us back 66 years to October 1956 when tens of thousands of Hungarians rose up against Soviet rule and were brutally overwhelmed by tanks, troops, and secret police. Throughout the Cold War East Germans, Poles, Czechs, and Chinese citizens revolted against communism.

During the 1980s, Putin was a young KGB officer in Dresden who was shocked at how fast East Germany and the Soviet buffer states in the Warsaw Pact rose up. He is now driven to reconstruct the Russian sphere of influence and we are now witnessing his use of total war to subjugate nations into his orbit. Putin continues his harsh pattern opposing the expansion of democracies and NATO as well as aggressively threatening his border countries.





Senator Arthur Vandenberg Bioguide Search (congress.gov) 1956 Hungarian Revolution
American Hungarian Federation Home - American Hungarian Foundation (ahfoundation.org)

After the dissolution of the Soviet Union, in 1994 Ukraine signed the Budapest Memorandum on Security Assurances and gave up its nuclear weapons. A question must be asked: would Russia have invaded Ukraine if it still had its nuclear weapons?

In 2007 a Russian submarine planted a flag on the North Pole ocean floor to stake a claim; Russia resumed air patrols over the Arctic Ocean and over the years began construction of a naval facility and air defense radar on Wrangel Island which is 300 miles from Alaska. Russia placed a flag on Wrangel in early 2022 during the Ukraine War. The Ice Curtain: Why is there a new Russian military facility 300 miles from Alaska? (tearline.mil)

At the Munich Security Conference in March 2007, President Putin asserted that "NATO expansion represents a serious provocation that reduces the level of mutual trust. And we have the right to ask: against whom is this expansion intended? And what happened to the assurances our western partners made after the dissolution (1991) of the Warsaw Pact?" Did Putin's 2007 Munich Speech Predict the Ukraine Crisis? | Cato Institute

Putin was referring to various US and allies' assurances not to expand NATO eastward after the dissolution of the USSR and the Warsaw Pact. In the early 1990s Secretary of State Baker and NATO leaders had stated that they did not seek to move NATO eastward. Recently Putin complained that the West had "swindled, blatantly cheated" Russia by those pledges.

Former Soviet satellites were committed to distancing themselves from Russia and cementing their relations with the West. Poland, Czechoslovakia, Hungary joined the US coalition to liberate Kuwait in 1991 and in 1999 they acceded to NATO membership. Bulgaria, Romania, Slovakia & Slovenia were admitted to NATO in 2004 and were followed in 2009 by Estonia, Latvia, Lithuania, Croatia, Albania.

All of these losses weighed on Putin, who was

determined to bolster what was left of the Soviet orbit. He was aided by Viktor Yanukovych who was Prime Minister in 2006, became President of Ukraine in 2010, and bolstered ties with Russia.

In 2008 Russia invaded and recognized the breakaway provinces of South Ossetia and Abkhazia. In 2012 Putin refused to extend the Nunn-Lugar Cooperative Threat Reduction Program. The Nord Stream 1 pipeline opened with former SPD German Chancellor Schröder joining its board of directors within weeks of leaving office. Putin also invited Herr Schröder to serve on the boards of directors of Rosneft (Russia's third largest company), Gazprom (Russia's largest company) and Nord Stream 2. Schröder has now been forced to resign in disgrace.



Euromaidan protests photo by Mstyslav Chernov

<u>User:Mstyslav Chernov - Wikimedia Commons</u>

In February 2014, Ukrainians seeking closer trade ties with Europe took to the streets in the Euromaidan Revolution. and ousted Yanukovych. This event unraveled President Putin's efforts to reassert a Russian sphere of influence which he believed was increasingly threatened by former Soviet republics' struggles for democracy and NATO membership.

In February-March 2014 Putin invaded and rapidly annexed Crimea and commandeered some Ukrainian Navy ships. At the same time, the breakaway area of Transnistria asked to join Russia. While the G-8 and US condemned the Crimea grab and placed sanctions on Putin and associates, they were not enough to stop Putin.

In 2014, the Russian 53rd Anti-Aircraft Missile Brigade fired a Buk Surface to Air missile, downing Malaysian Airlines Flight 17 and killing 298 died, and Russians kidnapped an Estonian border guard. Russia deployed its military on air, sea, and land to help Syria in 2015 and a large Russia-Belarus military exercise was staged in 2017.

In 2018, Russian Tu-160 bombers visited Venezuela to show solidarity with dictator President Nicolás Maduro and in 2019 Russia ended collaboration with the US on the 1987 Intermediate-Range Nuclear Forces (INF) Treaty. Russia & China co-develop new submarine in 2020 and

Russia was caught interfering in US elections
In February 2022, Russia invaded Ukraine and
has threatened Finland, Sweden, and Lithuania
in recent months. In June, Lithuanian Defense
Minister Arvydas Anusauskas blamed a Russian
hacker group for thousands of cyber-attacks
against state institutions and businesses.
Ukraine Latest: NATO Boosts Troops on Alert,
Issues Invitations (msn.com)

What is Similar to the Cold War:

The Cold War dominated national security and industrial priorities from 1947-91 and involved superpowers' and allies' land, air, space, and sea military operations carried out around the world. These massive efforts required multiple generations to serve in the military. Putin's actions are now rapidly reuniting the democratic world again with a new focus on protecting nations like Ukraine and the Baltic states against aggression. Putin is working closely with Chinese Premier Xi who has centralized power in the Chinese Communist Party to coordinate economic, military, and diplomatic efforts against the alliance of democratic nations.

As during the Cold War, the world has divided as nations align into two main camps along with a neutral group of developing countries trying to maintain relations with Russia and China. Political, military, economic/ trade competition is building between these two camps. An example of this competition was revealed at the June G-7 meeting: a \$600 billion infrastructure initiative to provide an alternate for developing nations rather than China's Belt and Road program. President Biden stated that nations would see "the concrete benefits of partnering with democracies."

Avoiding nuclear weapon use is very complex. What would happen if Putin used a tactical nuclear weapon in Ukraine? Ukraine is not part of NATO, but how would the US and NATO respond? In a concerted attempt to mitigate Putin's perceived need to use nuclear weapons in Ukraine, President Biden and NATO leadership have been very careful to avoid actions that might "lead to World War III." However, given Putin's recklessness and rashness, this cataclysmic peril cannot be fully mitigated. President Kennedy aptly warned that nuclear powers "must avert those confrontations which bring an adversary to a choice of either a humiliating retreat or a nuclear war." (June 1963 JFK Commencement Speech at American University)

The Ukraine War is becoming bogged down in artillery, missile, and trench warfare and is turning into a proxy war with US/ NATO versus

Putin, Belarus and allies. This is analogous to the long proxy wars of the Cold War era such the conflicts in in Korea, Vietnam, Laos, Angola, and the Middle East.

During the Cold War, the US, NATO, and USSR projected power and deployed forces around the globe. The US maintained long-term Army and Air Force deployments to Europe, Asia, and the Pacific, with continuous naval fleet, patrol and reconnaissance coverage around the world. The Soviets similarly deployed to Cuba, Angola, and Syria and made lengthy naval deployments around the world with anchorages off Hammamet Tunisia, Sollum Egypt, Kythira Island Greece among others.

Efficient and effective logistics was and still remains key to these capabilities. During the Cold War, the USAF Military Airlift Command constantly moved troops, families, wounded, and supplies. In December 1965 Operation Blue Light was the largest military airlift into a combat zone; an entire brigade including equipment of the 25th Infantry Division was airlifted from Hawaii to Vietnam in less than a month.

During the Iraq and Afghanistan conflicts, the Air Mobility Command refined its capabilities to lift massive quantities of materiel and personnel. The NATO Rapid Reaction Force has been continually improved and its capabilities are now being enhanced further to meet the new threat from Putin.

What is not the same as the Cold War:

The USSR spread Marxist-Leninist communist ideology around the world. It engaged in supporting communist insurgencies, "Wars of National Liberation," helping countries develop Soviet-modeled militaries and secret police, and global espionage.

Putin is not spreading ideology; he wants instead to reestablish an authoritarian Russian-dominated sphere of influence by any means necessary, including total war.

Putin may pause after taking the Donbas and southeastern Ukraine, but his goal is to take all of Ukraine and he may try to take parts of other countries bordering on Russia.

Today the US, NATO, our allies, and Russia have smaller militaries with fewer nuclear weapons and a greater reliance on technology than during the Cold War.

The 44-year Cold War was a superpower competition with tens of thousands of nuclear weapons standing off between the free West, US, and 15-member NATO on one side and the Soviet Union with the seven countries of the Warsaw Pact on the other.

A critical aspect was that both superpowers got accustomed to operating near each other, both sides developed strict nuclear weapons

handling and use protocols, and a stable normalcy of sorts developed. Today the West faces a brutal dictator in Putin who many believe could use tactical nuclear weapons should he feel threatened.

Americans and Europeans had known the full devastation of WWII and atomic bombs, seen the ravages of Communism, and generations were willing to make sacrifices during the Cold War. In the 1970s, about 70% of the US Congress members had served in the military; 16 million Americans had served in WWII, 2 million in Korea, and 3.5 million during Vietnam.

Universal military conscription in the US, much of NATO, USSR and the Warsaw Pact affected politics and social systems during the Cold War. During many Cold War years, NATO had over 5 million active military personnel, including up to 435,000 forward-deployed US personnel. The US had over 250,000 troops in Germany for over 40 years and every American knew someone who was "in the Service." However, today a very small number of Americans are volunteering and recently the US military services are having difficulty recruiting.

The US took its eye off Russia as a threat, especially after the 2001 attack on the World Trade Towers. Priorities were shifted to the "Global War on Terror" and the US and Allies diverted massive resources to operations in Iraq and Afghanistan for two decades. The resources of the Departments of Defense, State, and the CIA were concentrated on Southwest Asia and "Russia hands" languished.

We are in a very different world now. The US and Europe had bet that Western companies' ventures and trade with Russia would help stabilize relations and reduce its aggression.

Soviet grain was a key export to the West during the Cold War. Today, Putin's forces have blockaded Ukraine grain from being shipped out through Black Sea ports and have stolen upwards of one million tons of grain.

During 1992-94 I helped direct a small project within the Nunn-Lugar Cooperative Threat Reduction Program (which sought to reduce nuclear risk and develop confidence-building). We brought groups of former Soviet defense executives to Washington for a mini-MBA program and arranged 6-week internships with US companies. These executives were talented leaders and the hope was that they would help stabilize their countries. Now Putin has destroyed Western business relationships for his schemes to reassert Russian dominance.

After WWII, the US was the only surviving economic, military, political power able to provide stability, but now the authoritarian regimes of China and Russia are collectively challenging the post-Cold War order with their autocratic

brand of trade, military coordination and codevelopments.



Xi has centralized power in the Chinese Communist Party and there won't be any 'no' votes Voice of America http://www.voachinese.com/content/ccp-congress-reps-proposals-measure-20121111/1543623.html

The Chinese Communist Party centrally commands and plans. China operates a vast industrial and military espionage system throughout the world. China forces companies to share technology and put Communist Party directors on every board of directors. While Western consumers demand the cheaper Chinese goods, a price is being paid which helps strengthen the communist autocracy and contributes to repression of dissent and ethnic minorities.

To counter this, the G-7 created the Partnership for Global Infrastructure and Investment (PGII) to develop global Infrastructure projects such as a \$2 billion solar project in Angola, \$600 million for a submarine telecommunications cable connecting Singapore to France via the Horn of Africa and Egypt, and \$14 million for an engineering study for Romania's small modular reactor plant.

The post-Cold War world order has shifted. I think a long-term "Renewed Limited Cold War" scenario is unfolding where we are seeing an alliance of "free world" countries: US, Canada, EU, Japan, Korea, Australia, and others pitted against Putin's Russian orbit (Belarus, Armenia, Chechnya, Kazakhstan, Turkmenistan, Kyrgyzstan, Tajikistan, Azerbaijan, Serbia, Iran, and Syria) and Xi's China and its allies. There are also countries such as India, UAE, Hungary, Turkey, and Israel which still trade with Russia and many hundreds of Western companies who still refuse to stop dealing with Russia. These countries and firms are providing blood money in political and/or economic support to Russia as it wages war and commits war crimes in Ukraine.



Ukrainian defender at Snake Island & Moskva Ukraine Postal Service Ukrposhta | Ukraine's national post

The West was blinded about a potential invasion by gambling on economic (especially in energy) and political ties

Germany and the EU gambled heavily on hopes of détente with Russia and that gas sales would cement ties and mellow Putin. During the 1970s and onward, strategies were "Ostpolitik" and "Wandel durch handel (Change through trade) with several large-scale Russia to Europe petroleum pipelines built. In 2012 Nord Stream 1 pipeline opened and Putin convinced former SPD Chancellor <u>Schröder</u> to serve on the Nord Stream, Rosneft, and Gazprom boards. Schröder has now had to resign in disgrace.

In 2022 Russia cut off or limited gas to Poland, Bulgaria, Germany and others.

Germany is now sending some arms to Ukraine, is building two liquefied natural gas (LNG) terminals, and has had to return to burning coal to generate electricity.

Europe, the US, Canada, the EU, and many democratic countries have joined in sanctioning Russia, but China, India, Turkey, and UAE have aligned themselves with Russia. Argentina, Brazil, Chile, Mexico, S. Africa, Indonesia, Korea, Turkey, Israel, and other countries still want to trade with Russia and may be afraid of retaliation. Additionally, trade disruption costs are driving some initially supportive allies of Ukraine to seek ways to end the conflict to stabilize gas and oil prices and regain trade flows.

Several national airlines are still flying to Russia. Listed in order the of most flights: Turkish Air, Emirates Airlines (UAE), Etihad (UAE), El Al (Israel), Egyptair, and Qatar Airways 30 Foreign Airlines Are Still Flying To Russia (simpleflying.com)

Switzerland blocked ammunition for German Gepard tanks destined for Ukraine. Hungary (gets 85% of its gas from Russia) and Slovakia objected to EU sanctions, so a compromise was reached to allow the southern pipeline to remain open to their region. Prime Minister Orban stated that "ending Russian oil purchas-

es would be an "atomic bomb" on Hungary's economy."

Hundreds of western companies have refused to leave the Russian market and many made profits that gave Putin the cash flow to conduct his barbarous war on Ukraine. According to Yale Professor Jeffrey A. Sonnenfeld's research, many US companies have "dug-in" to maintain operations in Russia. Huntsman, International Paper, Koch Industries, Paccar, Stryker, Tenneco, and Titan Int'I maintain their operations. Others such as ADM, Baker Hughes, Cargill, Colgate, Kimberly Clark, Otis, and Proctor & Gamble are "buying time." Over 1,000 Companies Have Curtailed Operations in Russia—But Some Remain | Yale School of Management

JP Morgan Chase, Goldman Sachs, and other firms made hundreds of millions by exploiting loopholes for months to enable continued trading of Russian debt until the US Department of the Treasury finally stopped them.

Ukraine's valiant fight to save its democracy against Vladimir Putin's brutal invasion is the turning point of our times. With countries and companies seeking to return to, or to maintain relations with Russia despite a brutal war that has disrupted the world order, it remains to be seen how long democratic nations can maintain their unity.

We are now embarking on a long-term political, military, and economic competition between two alliances. On one side are democratic nations of the West, the Pacific, and NATO versus autocratic Russia, China, and their allies. This is a renewed, but Limited Cold War which will dominate nations for decades to come. Will the US, Europe, and NATO be able to remain united and sustain the strong support for Ukraine in the long term for the massive funding needed for economic assistance and military assistance, infrastructure reconstruction, and refugee assistance?

Don Stanton was commissioned through Cornell University Navy ROTC, served off Vietnam aboard a destroyer and aircraft carrier, flew as a P-3C antisubmarine patrol pilot, and co-directed a Nunn-Lugar program teaching former Soviet defense executives about western business practices. He served as a Deputy Assistant Secretary of Defense, chairs the Colorado Transportation Commission, holds an MA National Security Studies from Georgetown University, and wrote 'Looking Back at the Cold War-30 Veterans and a Patrol Plane Commander Remember.'

Acknowledgements: My deep gratitude to Captain Martin Kelly USAF Aux., Ellen Stanton, Dr. Thomas Keefe, Dr. Barbara Adams, CDR Stephen Thiel USN Ret., LtCol Steven Walsworth USAF Ret., LtCol Robert Chaloux Canadian Army Ret., and Miller Hudson for their many thoughtful insights and reviews.

On Full Alert: The SAC Perspective

In the Middle of the Mobilization Of the Entire SAC Force During the **Cuban Missile Crisis** by Duke Woodhull

The basic facts surrounding the Cuban Missile Crisis are readily available to any researcher via the Internet and published materials. It is certainly no exaggeration to say that it was the most dangerous incident occurring during the decades-long Cold War between the Free World and the Communist World, led by the Union of Soviet Socialist Republics (USSR). For anyone too young to have lived through that period, facts in the informal history lesson that follows will no doubt come as a complete surprise.

Its objective, however, is simply to provide a few personal observations and insights of one who actively participated during that period as a member of the US armed forces. Specifically, during the fourteen days in question, I was serving as a Crew Commander in the Strategic Air Command KC-135 jet aerial refueling tanker force at Westover Air Force Base, Massachu-

It is important to understand what the basic posture was of the SAC bomber and tanker forces during the Cold War prior to the crisis. At a large number (20-25) of SAC bases throughout the US, about one-third of the entire SAC B-52 bomber and KC-135 jet tanker force was continuously on alert 24 hours of every day. It was known as the SAC Alert Force. Every one of those airplanes and crews on alert had a specific, pre-planned mission involving a retaliatory attack against specific targets in the USSR or a Communist satellite country.

Being on alert meant that the bombers (armed with nuclear weapons) and their tankers were continuously guarded and were parked in special parking areas near the runways. The flight crews resided 24-hours-per-day, one-week-at-a -time, in special buildings near the airplanes on the flight line, where they could respond quickly to alerts and run to the airplanes, start the engines, and take off in a very few minutes. The reason for haste was the reality that Russian

missiles fired from Soviet submarines off the US sions they were living in the airplanes on the coast had the capability of attacking and crippling the US strategic bomber and tanker forces in just a few minutes.

Practice alerts were constantly conducted to ensure that the crews could get to their airplanes and take off in the required amount of time to safely launch. Sometimes the practice alerts would only involve running to the airplanes and starting the engines, while at other times the airplanes would actually taxi down the runway. Less frequently, some alert tankers would actually be launched into the air but bombers with nuclear weapons aboard were never sent into the air. One can imagine the tremendous time, effort, and expense - for many years—of maintaining the huge SAC bomber and tanker Alert Force as described above. The reason was very simple: A firm belief by US leaders in the willingness and ability of the USSR to attack our strategic forces. To deter such an attack, we had to maintain a credible and invulnerable capability to respond to any attack from the USSR.

When the missile launch facilities under construction in Cuba were discovered by U-2 aerial photography, the US viewed it as an aggressive activity, virtually an act of war. Intermediate range missiles launched from only 90 miles away from the US would be able to hit American cities and bases in a matter of minutes, amounting to an intolerable danger to the US homeland. When actual missiles were detected onboard ships that were approaching Cuba, the situation required that something be done.

The entire SAC force – many hundreds of bombers and tankers – was put on alert. A continuous parade of flying B-52 bombers – this time armed with nuclear weapons - was kept aloft 24 hours each day. Their various routes took them across the Atlantic ocean and into the approaches of the USSR where they could be seen on Russian radar before returning all the way to their home base. Each bomber flew a mission that lasted nearly a full 24 hours and involved multiple refuelings from tankers based in both the US and Europe. When the bomber and tanker crews were not actually flying mis-

ground, listening to the radios, ready to launch at a moment's notice.

During the most intense days of the crisis, my unit sent out twenty-two (22) sorties each day. Each sortie lasted about three hours and fifteen minutes and offloaded 113,000 pounds to a single B-52 in about twenty minutes of contact. Do the arithmetic! The effort to prepare that many airplanes every day and transfer that much fuel involved a Herculean efforts and great expense.

During that period the atmosphere was surreal....like an implausible, but frightening movie. All of the crewmembers wore firearms both on the ground and in flight, and believing that we were very close to actual hostilities, we were very worried about our families, who were alone in the housing area, out of contact. Some of the families moved to another state far to the north away from the base, assuming that if World War III started, our base would be one of the first to be hit.

Another of the strange occurrences during the Crisis was the broadcasting of Communist propaganda messages on the International Time Clock Station, WWV. That station broadcasts a simple time signal on High Frequency (HF), continuously giving precise time reports for use in celestial navigation. All crewmembers are accustomed to get "time hacks" on WWV, but it was a genuine shock to hear a loud voice break into the transmission with threats and accusations about how "President Kennedy was going to cause World War III," etc....in English, with a strange accent.

During the Crisis everyone was hungry for news and the few with television access were kept abreast of the developments almost as quickly as were the official sources. This was before the days of cellphones, so we had only infrequent contact with the families, who in some cases knew more about what was happening than we

Saturday, 27 October 62, was a particularly critical day because that was the day that a U-2 flown by Major Rudy Anderson was shot down

SAC Perspective, cont. from page 15

over Cuba. On the same day, also not known to the public at the time, was that another U-2

flying near Alaska had severe navigational problems that caused an overflight of the eastern Soviet Union. Although thought by the Soviets to be deliberate, it was later learned that the inadvertent overflight was caused by a mistake the pilot had made in performing grid navigation, a method necessary in the Arctic regions. The situation was saved when the pilot, realizing he was lost, called for help on an international distress frequency.

During the crisis, behind the scenes and unknown to the public, diplomatic contacts were underway and President Kennedy and Soviet Premier Khrushchev exchanged two formal letters. The crisis was finally resolved by Khrushchev's making a commitment to remove the missiles from Cuba.

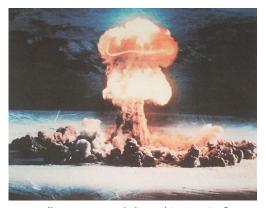
When the Crisis was resolved at the highest level, crewmembers learned first by being told that some could return to their homes while others would remain on alert. Some weeks later President Kennedy visited our unit, chatted with us about the events of those critical days, and expressed his thanks for the unit's performance. After the crisis, the SAC Alert Force returned to its pre-crisis posture and continued in that posture for several more years. Today, the round-the-clock, 24/7 SAC Alert Force of bombers and tankers no longer exists.

The watchword of the Strategic Air Command during the Cold War years was "Peace is Our Profession," and the Cuban Missile Crisis became the exemplification of that mission statement.

Ballistic Missiles, Atomic Bombs, Cuba: Thirteen Days in October

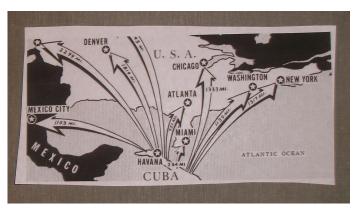
By Jack Gibson

In October, 1962, I was a young married father of a two-year-old daughter with a new career underway at the Lockheed Georgia Aircraft Company. Lockheed is on the northern outskirts of Atlanta, Georgia. We lived in a new house in the suburb city of Smyrna, close to Lockheed, and all in life was going very well. Then something happened on October 15^{th:} Soviet Union ballistic missiles, of the atomic type aimed at the USA, were discovered in Cuba by an American U2 Spy plane! For the next 13 days we lived in terror of being in an atomic war with the Soviets. Yes, it was a real feeling of "doomsday" terror...a new family, new house, new career...and it could all come to a sudden "mushroom cloud" end!



Why was I personally so concerned about this situation? My Lockheed aircraft plant was producing military airplanes and it was located adjacent to the USAF's Dobbins Air Force Base. Atlanta itself was an important commercial city and large supplier to the US Military. Atlanta was also the home of Fort McPherson, the US 3rd Army Headquarters and a large training and supply base for the southeastern states area. In addition, the city was home base for the Atlanta US Naval Air Station and several other Army and National Guard units. Obviously, the whole

Atlanta metro area would be a prime target for any Soviet missile attack. To further underscore the seriousness of the situation, at Lockheed there was a normally unused runway on which two USAF B-47 Strategic Bombers (loaded with our "nukes," fueled and manned 24 hours a day) awaited orders from Washington to counterattack any Soviet move. We could see these bombers from Lockheed but the presence of the "nuke" loaded B-47s was not then known to the general public.



News and rumors flew constantly of various scenarios such as a US naval blockade of Cuba, plans for invasion of Cuba, possible air attacks on the Soviet missile launch sites, destruction of Soviet supply ships, etc. It was all quite unnerving day after day. Then on October 28th, after 13 days of military brinksmanship and country to country negotiations...without any violence agreement was made to remove the missiles from Cuba by US President John Kennedy and Soviet Premier Nikita Khrushchev. The immediate "doomsday" crisis was over and life slowly returned to its somewhat less intense "normal" Cold War state. I have never experienced anything as fearful as this before or since. Most people today have no idea how serious and close to a nuclear disaster was this episode in history.

Ballistic Missiles, cont. from page 16

A very few weeks later, as a result of the "Cuban Missile Crisis," the city of Smyrna announced it was organizing a new Civil Defense Program. So could I help? I was a fairly recent college graduate with a degree in physics and math. I had also served two years in the US Army as a project officer in ballistic missile research and development. The next thing I knew I was the first volunteer Nuclear Defense Officer in Smyrna's Civil Defense Organization. I became the custodian of several Geiger Counters for detecting bomb fallout radiation and several Dosimeters for recording the amount of radiation a person received. I also acquired various textbooks on nuclear bomb effects on people and property that updated those I had from my Army days. Of course we knew that if we were anywhere near a direct hit from a "nuke" there was no defense. But on the outskirts of a hit there was a lot that could be done to help protect the public from radiation fallout.

This time was also when some folks began building bomb shelters in their backyards. I enjoyed the work of helping to make local defense plans and teaching classes about nuclear bombs, their effects, ballistic missiles, and defense measures. It helped a good bit in combatting the continuing "Cold War Anxiety" of those times by being actively involved in civil defense for family, neighbors, and my fellow townspeople.

"Jack" Gibson, Hideaway, Texas, Feb. 13, 2020

Afterthought: It only occurred to me recently that in the above volunteering I was following in the footsteps of my volunteering parents during their distress in World War II. In those days we lived in the Kentucky small college city of Barbourville, which was also the county seat. Dad was a member of the local Civil Defense organization as an Airplane Spotter and Fire Watcher. Several times a week he would go out after dark to look for any fires from a high vantage point (an abandoned coal mine entrance) on US Highway 25E which overlooked the city. I went with him on several of these lonely vigils. During the days he looked overhead for airplanes whenever he was outside. I think this was early in the first year of the war until it became obvious that Barbourville was likely not an enemy target. Mom was a very good knitter and joined a lady's group which knit wool scarves, socks, and watch caps for our men on US Navy ships. Both of them also volunteered for the duration of the war in Scrap Metal Drives, tending a large Victory Garden, buying US War Bonds, and helping with other adult and school children's patriotic programs in the city.

Some Fun Facts About The Cold War

The Special Relationship. To say that Churchill was eager to get the U.S. into WWII would be a gross understatement. He knew that Britain could not survive without our help. Luckily for him, Roosevelt was also of that view, knowing that if the Nazis could not be defeated in Europe, we were likely next. But Roosevelt had a serious problem. Many American families had lost people in WWI and we were mostly an isolationist country as result. So Pearl Harbor was a godsend for both of them.

One of the many ways that Churchill used to bind our two countries together was to offshore the headquarters of the British foreign intelligence service (AKA SIS—Secret Intelligence Service—or MI6) to New York City for part of the war, in part because Churchill had to assume that the Nazis would successfully invade Britain (they were militarily vastly superior at that point) and he wanted to resist them not only by a guerrilla war but also with the records and people of SIS safe in the U.S. AND he appointed a very talented and personable Canadian, William Stephenson--AKA INTREPID, his code name—to run SIS out of New York.

An important part of Stephenson's duties was to ingratiate himself with William Donovan, Roosevelt's choice to run the U.S.'s combined intelligence and covert action force called the Office of Strategic Services (OSS), our first real intelligence service in quite a while. (George Washington had been a big fan of spies and ran them well, but we'd gotten slack.) Donovan, who was nicknamed "Wild Bill," was an extremely talented guy himself—a Congressional Medal of Honor awardee for his WWI service:

the founder of a successful white-shoe law firm in NYC, Donovan Leisure; etc., etc.

Luckily for Churchill, Stephenson and Donovan got on extremely well and Donovan soaked up a great deal of practical wisdom from the Brits, who had (and have) one of the top 5 intelligence services in the world and great skill.

The result: not long after US entry into the war, Churchill and Roosevelt decided that the Brits and the U.S. would have what Churchill called a Special Relationship with respect to intelligence gathering and sharing, especially on the signals intelligence (coded radio transmissions) side. In practice this relationship was so close that our two signals intelligence services—what became known as the National Security Agency (NSA) and the British GCHQ (Government Communications Headquarters)—effectively became a single entity.

The significance: it's been that way through to the present, and the mutual trust is so strong on the signals side that that is not likely to change. There have been more bumps on the road with human intelligence, with first the US getting cautious about sharing our sources because of the British mole Kim Philby, and then same thing happening in reverse, with the Brits getting cautious because of our FBI traitor Robert Hanssen and CIA traitor Aldrich Ames.

The Five Eyes. Not long after the Special Relationship was born, the two parties quickly agreed that the intel-sharing agreement should be extended to Australia, Canada, and New Zealand. That was not only for trust reasons but also because it was very handy

to have listening posts closer to Japan and the Far East generally, and to our frenemies the Sovs, and to share the product. That ALSO still exists today. We're very tight with Mossad, the excellent Israeli secret service (also one of the top five), and the Jordanians in the M. East, and with our French and German service counterparts, but there is no other intelligence arrangement in the world like the Five Eyes in terms of joint collection, analysis, and action.

For more: https://en.wikipedia.org/wiki/Five Eyes

How Close Did We Come? To being crispy treats, I mean—nuclear armageddon. Pretty close a number of times, more than you might know. If you want a count and some basic facts, try this: https://en.wikipedia.org/wiki/List of nuclear close calls Most of these weren't really very dangerous, as the mistaken impression was quickly discovered and the risk mitigated.

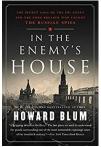
ED Jason Hall knows a fair amount about two that were genuinely very close, one of which was during the Cuban Missile Crisis of 1962 (we cover that one at the Museum; there was a Russian naval officer who was literally The Man Who Saved the World on that one) and the other during the NATO Able Archer exercises in 1983, which the Sovs completely misinterpreted for a variety of reasons and where they came close to launching a first strike. One of the Museum's eyewitness presenters talked to us about that.

Book Reviews



Books reviewed by **Chad Manske**





In the Enemy's House: The Secret Saga of the FBI Agent and the Code **Breaker Who Caught the** Russian Spies, Howard Blum

On-the-edge-of-yourseat drama and excitement from the opening!

Meredith Gardner (MASTER —and I mean over a dozen languages—linguist and codebreaker) and Bob Gardner (the latter's younger supervisor at FBI), are tasked in 1946 to track and follow KGB ops with respect to activities within the US. They stumble upon an extensive network of spies within the US hell-bent on stealing intelligence and atomic secrets. Code named Operation Venona, these personal opposites in every way follow multiple clues and trails eventually leading to the incarceration, among others, of traitorous Julius and Ethel Rosenberg, who eventually were tried and executed for their heinous and substantiated crimes hours apart on June 19th, 1953. Meanwhile, within the Soviet Union the KGB was implementing Operation Enormoz at the Russian Intelligence HQs level, feeding invaluable intel on behalf of Soviet Premier Khrushchev's mandate to 'bury' the US. The author skillfully dramatizes this historical account of how US atomic secrets came into the hands of clever Soviets, thus bringing them to nuclear parity.

The Moscow Rules: The Secret CIA Tactics That Helped America Win the Cold War, Antonio and Jonna Mendez

A fascinating and revealing work of Cold War spy craft mastery never told before publication a few years ago! Antonio Mendez, CIA Chief of Disguise and Authentication, arrived in Moscow in 1976 near the height of Cold

THE SECRET CIA TACTICS THAT HELPED ERICA WIN THE COLD WAR THE MOSCOW RUGES

War heat. He and a small cadre of other analysts created what was known as The Moscow Rules—procedural spy craft tactics specifically for operatives in the U.S.'s Moscow Station. Mendez weaves the origin and creation of these tactics into a dramatic narrative of the spies who employed them, as well as dovetailing stories of spies and double spies on both sides who were active during his service there. We hear a bit about Soviet electronics engineer Adolf Tolkachev and how generously he supplied the US with documents and knowledge. We hear of US traitor and counterintelligence officer Aldrich Ames, who was motivated purely by money and is Soviet Union in 1966 where he remarried, serving a life sentence in Indiana without the possibility of parole. And there are others. Mendez shares these motivations via the MICE acronym—money, ideology, compromise and ego. One of the brilliant tactics devised at the time included walking identity swaps in which a businessman changes into a little old lady in the span of 45 steps in 45 seconds (don't want to give away the how—you have to read it!). These efforts by the Office of Technical Services in aggregate helped the US gain a decisive advantage against the KGB in a very trying era.



Betrayal in Berlin: The IN BERLIN True Story of the Cold War's Most Audacious **Espionage Operation**

> Fans and historians of the Cold War will love

this spellbinding 2020-published account of traitor/spy/double agent George Blake. A British spy for their Secret Intelligence Service, Blake would exchange loyalties from the Brits to the Soviets not for money—as most often happens with double agents—but for a real belief in the Communist ideal—something more dangerous. In the early 1950's the West devised a plan to construct a 1500' (height of the Empire State Building) underground tunnel from West Berlin to East Berlin for the purpose of tapping into Red Army and KGB communications. Before the tunnel was completely designed, Blake—code named Agent Diamond—went to the KGB with its forthcoming construction. The tunnel was built yet the KGB canceled knowledge of its existence despite the West's receipt of valuable intelligence, primarily from the Red Army. In 1961, Blake was found out and sentenced to 42 years in London's Wormwood Scrubs prison. Sympathetic acquaintances helped Blake escape and flee to the had more children (he already had 3 from his wife at time of imprisonment), and died in Russia in late 2020 at the age of 98. His actions as a KGB sympathizer netted him a dacha, medical benefits, and great employment for the rest of this life, as well as receiving the Order of Lenin and other decorations and calls from Putin on his 90th birthday, hailing him as a 'hero for peace.'

Spies, Lies, and Algorithms: The History and Future of American Intelligence, Amy B. Zegart

A fascinating look at spying and intelligence from one of the foremost



academic non-intelligence professionals in the field.

Book Reviews cont. from page 18

Zegart uses her many years of experience in this field to trace the history of intelligence operations and how the prolific number of spy novels and movies have blurred and often distorted the reality of how intelligence is gathered, works and employed. Even within the IC—intelligence community—wide disparities occur in analysis and levels of surety, and vast cognitive biases exist between Congressional intelligence committee members, the general public and others who consume or make life and death decisions based upon intel they cannot generally agree on how to interpret and use. Zegart skillfully makes distinctions between fact and fiction, and how technology today can distort mander Lt Col Rick Bishop provides the public opinion, among dozens of other illuminating insights. She opines and concludes with a piece on how cyberspace is the ultimate cloak and dagger spy tool and what private citizens and others can do to better understand its positive and negative utility. This is a fantastic read as are all of Zegart's books on spycraft, endeavoring to

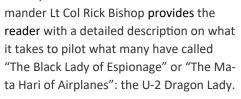
educate society by debunking common misunderstandings.

Books Reviewed by Chuck Wilson



Shady Lady: 1,500 Hours Flying the U-2 Spy Plane, Lieutenant Colonel Rick Bishop, USAF, Ret.

In his book, former U-2 pilot, operations officer, and com-



Designed by Clarence "Kelly" Johnson of Lockheed's Skunkworks, the U-2 is perhaps Announcement: Rick Bishop tells us that the world's most famous spy plane. First operated by the CIA, it flew at unheard-of altitudes above 70,000 feet, would oper-

ate from undisclosed remote locations, would not have markings on the fuselage or tail, and takeoff or land in the darkness under the utmost secrecy. U-2 pilots' audacious overflights took them over the Soviet Union, the Near (or Middle) East, the Far East, and across Eastern Europe.

In Shady Lady Bishop masterfully reveals the trials and tribulations of piloting an aircraft widely known as "the most dangerous aircraft in the world." He describes the selection process including the vetting to get selected for a two-week-long interview, the challenges of training, and deploying and piloting top secret missions at the edge of the space and over sensitive areas around the globe.

Bishop's firsthand account brings new light to a world that is not known outside the tight fraternity of U-2 pilots and the technicians that maintained and supported the Dragon Lady. This is a must read for U-2 enthusiasts.

the second edition of Shady Lady, with a new cover (shown) should be coming out by the end of October 2022.

Researching Sputnik I

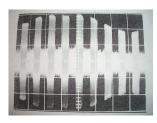
By John S. Gibson, FAIAA

In October, 1957, I was a 1st Lieutenant in the Army at Redstone Arsenal, Alabama, working as a Project Officer in the Research Labs of the Army Rocket and Guided Missile Agency (ARGMA). In the dark morning hours of Oct. 5th (the morning after the launch of Sputnik I the evening before), I was called out to the Lab to set up a monitoring station for the "Russian Satellite." In three hours we set up a shortwave radio listening, audio recording, and electronic signal ("signature") photographing site...and heard Sputnik's sounds first at about noon.

The paper for which this is an abstract covers the details of the Sputnik monitoring station at Redstone and the recording and analysis of the received sounds and signatures. The photo below shows the small but effective operating area (I am in the foreground).



We made many tape audio recordings of Sputnik's beeping sounds and of the electronic signatures. A typical signature photo is shown in the next illustration.

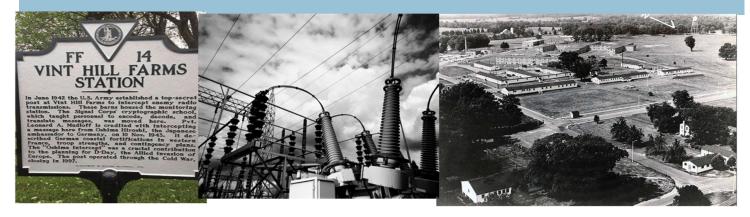


This is a single-sweep oscillograph photo of about 7 seconds (L to R). It shows the spaces between "beep" pulses as typically about the same as the pulse widths (but there were variations over time), variations of the overall time envelope, and some variations in the individual pulses.

The monitoring station worked around the clock for 5 days at which time the signals were getting rather weak and erratic. We were later to know that the slight pulse-width variations and space-width variations were measures of Sputnik's internal pressure and temperature. The other variations noted were usually rather random and we correctly assumed they were primarily due to changes in ionospheric signal transmission paths.

This was Redstone's first "in-orbit" artificial satellite research activity, slightly before Redstone's extremely successful launch and operation of Explorer I.

Vint Hill Farms Station Celebrates Eighty Years



<u>Vint Hill Farms Station</u> (VHFS) was a <u>United States Army</u> and <u>National Security Agency</u>(NSA) <u>signals intelligence</u> and <u>electronic warfare</u> facility located in <u>Fauquier County</u>, <u>Virginia</u>, near <u>Warrenton</u>.



Army Security Agency intercept training during WWII

tor).

VHFS played a pivotal role in listening in on enemy communications. In 1943, VHFS intercepted a message from the <u>Japanese</u> ambassador in <u>Berlin</u> to his superiors in Tokyo. It also acquired and distributed a detailed description of Nazi fortifications along the French Coast, with General <u>Dwight D. Eisenhower</u> later saying the information

During WWII the unit was known as

MS-1 (monitoring station designa-

made a significant contribution to the <u>D-Day</u> invasion at <u>Normandy</u>. No doubt VHFS was a most important intelligence gathering stations during WWII.





Intercept areas



Vint Hill lofts



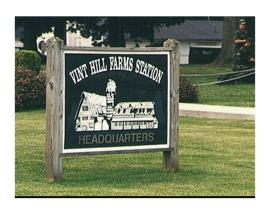
Vint Hill Farms, cont. from page 20



In conjunction with the 50th anniversary of Fauquier Parks and Recreation, a celebration of Vint Hill Day was planned for Saturday October 1st, but inclement weather caused a postponement on the celebration that was to include: booths and activities from the Cold War Museum, the National Museum of the Marine Corps, and the NSA's Center for Cryptologic History, as well as displays of military vehicles, an Enigma machine, and a special event HAM radio station. For kids and families, moon bounces and other family activities were to be available alongside food and vendor options from the Old Bust Head Brewery and others. Stay tuned for further announcements. The Cold War Museum® is located at the old facility at Vint Hill Farms



Directional signage



Headquarters



The Civil Defense exhibit area





Barracks

I Flew the SR-71Blackbird in the Cold War Here's Why It Was So Important



by Lt. Col. B.C. Thomas, USAF (ret.)

The SR-71 has the deserved reputation of

being the most unique air-breathing aircraft ever built. No other could fly as fast, as high, or carry thousands of pounds of equipment above 80,000 feet. It was the primary strategic reconnaissance asset for the Free World during the latter 25 years of the Cold War. The SR-71 could sustain continuous Mach 3+ flight for over an hour while obtaining the highest quality reconnaissance information from multiple sensors, and with aerial refueling, the aircraft could have circumnavigated the Earth in one flight. The aircraft was one of the first to employ stealth technology, thereby ensuring that it was almost invisible to radar. Its speed and altitude also cloaked its presence. During this time of sparse reconnaissance satellite coverage over potential enemy targets, the SR-71 could sneak up, gather vital information, and



leave the area without warning, and often without notice.

The SR-71 was never successfully intercepted by surface-to-air missile or aircraft. It had a state-of-the-art electronic defensive system which would defeat an incoming missile's homing and steering. Detectors on board would alert the crew of a missile launch instantly and, since the SR-71 did not normally fly at its maximum speed or altitude, the aircraft's defense was simultaneously to jam the missile's guidance while accelerating, climbing, and turning with 45° of bank. No surface-to-air missile could out-turn, thus hit, an SR-71, a fact demonstrated many times, especially during the Vietnam War. Attempts to shoot down an SR-71 continued until August 25, 1981, which was the last time an enemy (North Korea) fired a surface-to-air missile at an SR-71; that mission was flown by Maury Rosenberg, pilot, and Ed McKim, Reconnaissance Systems Officer (RSO). It missed.

We carried an array of sophisticated sensors and recorders which could glean reconnaissance data with cameras capable of high-quality photographs horizon-to-horizon. We also had radar imagery capable of one-foot resolution. This was the Advanced Synthetic Aperture Radar System (ASARS), which could deliver readable radar pictures night or day, bad weather or clear. I'm no photo interpreter, but even I could tell what was pictured. The SR -71 also carried electronic intelligence (ELINT) systems which are still classified. We advertised that the SR-71, within 24 hours notification, could be over any target on earth and be capable of surveying 100,000 square miles of

terrain each hour. It was no idle boast.

The SR-71's potential versatility is not widely known. Clarence 'Kelly' Johnson, the genius designer



of all 'Blackbirds,' was diligent in assuring that the Mach 3+ Blackbird aircraft could fulfil several roles if needed for national contingencies. The first version was the A-12 aircraft, built for the Central Intelligence Agency (CIA). This was a single-person airplane and carried as principal sensor one very high-resolution optical camera.



A differently capable aircraft was the YF-12, the Mach 3+ fighter/ interceptor ver-

sion of the Blackbird's basic design. It was developed as part of Kelly Johnson's "Universal Aircraft" concept of adapting the fore-body section to accept reconnaissance equipment, air-to-air missiles, or four nuclear weapons. Thus, the Mach 3+ Blackbird type could have been straight reconnaissance, a nuclear bomber, an interceptor, or recon/strike. There is at

least one video, available to the public, which shows an actual missile launch from a YF-12 at Mach 3. I'll add parenthetically that it was also outfitted to be a Mach 3 drone-launch vehicle, but the first test deployment of the D-21 drone failed and resulted in the loss of the Blackbird M-21 launch aircraft.

So it was versatile. But did it deliver?

By the late 1950s, we knew the Soviet Union had better, more capable rocket launch systems than any North Atlantic Treaty Organization (NATO) country. This was dramatically evidenced by two sudden leaps in Soviet advanced technology: 1957, Sputnik, the first artificial satellite; 1961, first man in space to orbit the Earth. These notable achievements shocked the people of the United States and indeed, the Western World.

Knowledge of the military and industrial strength of Communist states was extremely important, and reconnaissance missions against the Soviet Union started as early as 1947. Several American aircraft conducted these flights: the RB-29, RB-47, RB-50, C-130, PB4Y-2, U-2, and the Ryan 147 remotely piloted vehicle (RPV). Reconnaissance flights penetrated Soviet airspace, overflew the land mass, and many were shot down. The Los Angeles Times, 11/12/1992, reported that 40 such reconnaissance aircraft were lost and 200 American airmen died conducting these flights. That number of lost personnel was confirmed by Paul Glenshaw in his article: "Secret Causalities of the Cold War," Smithsonian Air & Space Magazine, December 2017.

So aerial reconnaissance flights against potential enemies (the Soviet Union, China, North Korea, Cuba, the Middle East) were a top priority. These flights had to be conducted routinely and had to be *survivable*.

The SR-71 was developed to fill that need. From 1966 to 1990, the SR-71 flew over 3,500 operational reconnaissance missions while logging 11,000 hours in a flight environment which was most hostile: aircraft skin temperature averaged 620° F, outside air pressure was 0.4 pounds-per-square-inch (psi), altitude was

SR-71 Blackbird, cont. from page 22

15-16 miles straight up, aerodynamic damping was low, and true airspeed was typically 2,000 to 2,100 miles-per-hour, making pitch controllability critical.

For operational survivability, the SR-71 was one of the safest military aircraft, as no Air Force crew member was killed while flying one, a testament to outstanding aircraft maintenance and crew training. A remarkable record given its extreme flight envelope and potential attack risk.

I'll summarize the importance of the SR-71 missions by quoting Paul Crickmore, noted aviation historian and Blackbird author, in a letter to me.

"In theatre, the SR-71 proved the concept of high-Mach, high-altitude flight, to obtain vital aerial reconnaissance. The SR-71 regularly conducted reconnaissance missions in the skies over North Vietnam – particularly around Hanoi in 1968-70 which at the time, was the most highly defended area on the planet.

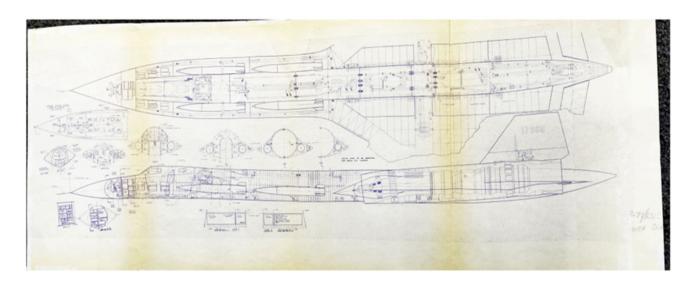
"The Blackbirds provided superior flexibility compared to satellites, time after time, specific examples—Yom Kippur War 1973, Yemen 1979, Cuba 1977—1990, Lebanon October 1983 (following the truck-bomb attack killing over 240 US Marines), Libya 1986, The Persian Gulf 1987, but perhaps most importantly, the on-going monitoring of Soviet nuclear submarine fleets for the US Navy—particularly the Northern Fleet with their submarine-launched ballistic missiles (SLBMs), capable of hitting large areas of the United States, as well as all Allied Countries.

"The simultaneous, synoptic coverage of information gathered by the SR-71's sensors, provided the intelligence community and national leader-ship—with photographic imagery (PHOTINT), radar imagery (RADINT) and electronic intelligence (ELNT), that unquestionably helped to keep the Western World free.

Richard H Graham, Colonel, USAF (ret) was an SR-71 Instructor Pilot, Squadron Commander, 9th Strategic Reconnaissance Wing Commander, and assigned to the Headquarters USAF (Pentagon) to supervise Programs and Resources as a Strategic Force Programmer. His evaluation of the SR-71's worth as a reconnaissance asset is quoted from his book: "SR-71 The Complete Illustrated History of the Blackbird, The World's Highest, Fastest Plane."

"...the synoptic coverage (displaying conditions as they exist simultaneously over a broad area) provided by the SR-71 was far superior to satellite reconnaissance. Broad-area coverage from different approach angles, in a relatively short time span, produced considerably better intelligence than a predictable, single satellite pass, every ninety minutes. In 1990, the SR-71 was the only airborne reconnaissance platform that could penetrate hostile territory, accomplish wide-area synoptic coverage, and still survive. It could also be tasked reasonably quickly and had the element of surprise."

Blueprint for a possible strategic nuclear bomber, an iteration of the A-12/SR-71 'Universal Airplane,' studied by Kelly Johnson and his Skunk Works team.



IN MEMORIAM

Here are the stories of a few of the many Cold Warriors who have passed on recently. Some you may have heard of, some not. All are worthy of our remembrance and respect, most because of what they did to protect the rest of us during the Cold War. In many cases they were ordinary people who were called upon to do extraordinary things, and who were then happy to step back from any spotlight, knowing that they'd done their duty. We also include other notable Cold War figures, including some from the East and some who are historically important because of their treachery.



Charles Boyd, Air Force General and former POW who was shot down as a fighter pilot during the Vietnam War and endured nearly seven years of captivity:

https://www.washingtonpost.com/ obituaries/2022/03/24/air-force-generalcharles-boyd-dead/

Lt. Col. Frank D. Chamberlain III,USAF (retired), flying staff officer for the 9th Strategic Reconnaissance Wing, Beale AFB, CA (SR-71, U-



2). https://www.legacy.com/us/obituaries/appealdemocrat/name/frank-chamberlain-obituary?id=36478437



Colonel Ken Collins, age 93 passed Monday May 2, 2022. Collins was selected by the CIA to fly A 12 and then later he flew the SR 71 at Beale Air Force Base CA.

A native of Leavenworth, Kansas, Collins enlisted with the U.S. Air Force in

1950. After completing advanced pilot training, he was shipped to Korea, where he began flying combat missions in August 1952.

By March 1953, he had completed 118 missions with the 15th Tactical Reconnaissance Squadron. This service earned him

the Silver Star and Distinguished Flying Cross, as well a promotion to First Lieutenant. After serving several more years abroad as an instructor pilot, he returned to the U.S. in 1959 and was soon selected for the highly classified OXCART Project as an experimental test pilot.

The 10 pilots chosen for the program were charged with testing the triple-sonic, high-altitude A-12. The single-seat aircraft was designed for sophisticated reconnaissance and could reach Mach 3 (2,300 mph) over 80,000 feet, a first in aviation history

By the end of 1968, Collins had flown six combat missions in the A-12 over North Vietnam, receiving the Central Intelligence Agency (CIA) Intelligence Star and two Distinguished Flying Crosses. Collins went on to fly a reconnaissance vehicle very similar to the A-12 known as the SR-71 as an instructor and test pilot in California, eventually accruing over 700 flight hours in the aircraft.

Collins retired from the Air Force in 1980. Given his involvement in national security operations, the full scope of his military experience wasn't declassified and revealed until Sept. 2007.

May Colonel Collins have clear skies and tailwinds on his final flight West!



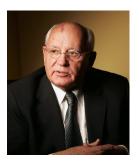
Major General John Robert (Jack) Farrington, USAF, Retired, https:// <u>obituaries/26036851/john-robert-farrington</u>



Anne Garrels (intrepid war correspondent for NPR and Moscow reporter): https://

www.washingtonpost.com/ obituaries/2022/09/08/anne-garrels-nprcorrespondent-dies/

Mikhail Gorbachev, last leader of Soviet Union, https://



www.washingtonpost.com/ obituaries/2022/08/30/mikhail-gorbachevsoviet-leader-dies/



Her Majesty
Queen Elizabeth II, https://

www.washingtonpost.com/ obituaries/2022/09/08/queen-elizabeth-iidead/

www.tributearchive.com/

In Memoriam, cont. from page 24



William J. Kemmer, 74, a proud family man, US Air Force U Wednesday, Sep--2 Pilot and avid golfer, passed away Wednesday July 20, 2022.

William John Kemmer was born outside of Cleveland, Ohio in 1947. He lived with his twin sister Betty, his older sister Kay, his mother Doris, and his father Gale in Orwell. OH. He attended Orwell High School and went on to graduate from Ohio Northern University.

After college Bill started his career in the United States Air Force. He completed pilot training and was assigned to KC-135 Tankers which he flew during the Vietnam War. He then moved to the role of flight instructor and was assigned to the T-38 training jets. Bill served as a standard evaluation pilot for the USAF Thunderbirds.

Bill completed his MBA through the U.S. Air Force and moved on to the U2 program in California. He finished his military career at the Pentagon as a Lieutenant Colonel and retired in 1990.

The second half of Bill's career was spent as a commercial airline pilot for Continental Airlines. He flew international routes in the 747 and domestically in the 737. Bill flew for Continental for 20 years and reluctantly retired at the age of 60. He was also an instructor pilot for small civilian aircraft.

Bill loved traveling, playing pool, golfing, telling jokes, telling his endless supply of stories, spending time with friends and family, and having his afternoon cocktails. He loved bragging about his kids and telling complete strangers too much about his life.

Bill is survived by his wife Beth Mayer and his three children.

Colonel Tofie M. Owen, USAF Ret. of Alexandria, VA, passed away on tember 28, 2022, at eighty-four while loved ones at his



He earned a Bachelor of Science in Electrical Engineering from the University of Notre Dame and a Master of Science in Research & Development Systems Management from the University of Southern California and was a distinguished graduate of the Naval War College. Tofie proudly served his country in the U.S. Air Force for over twenty-two years as an Electronic Warfare Officer, completing over one hundred missions in Southeast Asia. He was Chief of the Systems Engineering Section at Robins Air Force Base and while serving at the Pentagon he was the Chief of the Defense Suppression Branch, and Chief of the Electronic Warfare Division at HQ USAF.

Upon his retirement from the Air Force in 1983, he founded a defense consulting firm, Tofie Owen & Associates, in Alexandria, VA. He was a member of the Association of Old Crows and served as President of the Washington DC Assn.



Ronald Pelton NSA analyst who sold secrets to the Soviets: https://

www.washingtonpost.com/ obituaries/2022/09/16/ronald-pelton-nsaspy-dead/

Sam Ryals made his final flight west October 2022 after a valiant fight with cancer. Sam was a 1975 graduate of the United States Air Force



Academy and Cold War U-2 Pilot. During

his flying career he flew highly classified missions in the U-2 aircraft, qualified as a test pilot and amassed over 5000 hours in over 100 different aircraft types. His prowess as an Air Force program manager was historic, shepherding the F-117 program to success, being recognized as the top System Program Office in the Air Force along with numerous other accolades for acquisition excellence. After military retirement, his contributions to national security continued in his follow-on career as the Goodrich/Collins Aerospace Large Account Manager for USAF Research and Development Plans and Programs. Sam had a rich and storied life as a proud father, decorated Air Force pilot, accomplished acquisition professional and trusted mentor and friend. He will be truly missed by his family, his USAF colleagues, and his country.



Schroen, CIA spy sent to get Bin Laden https://

www.washingtonpost.com/dc-mdva/2022/09/09/gary-schroen-cia-binladen-9-11/

Colonel (Retired) William Lee Spacy, former commander of the 7276th Air Base Group at Iraklion Air Station on the island of Crete https://www.shoemakerfh.com/ obituary/colonel-retired-william-billspacy

Help Wanted

If you have followed our journey from volved in designing, planning for, the dreams of a small group of patri- and building a large museum. ots back in 1985, you know that our efforts have resulted in a fullyfunctioning Cold War Museum at Vint Hill Farms, near Warrenton, Virginia. While we want to continue the current includes marketing, public relations, operations at this site because of its historical significance, we must now deal with the reality of the limitations of this facility. This site is approximately 45 minutes due west from the White House and therefore off the beaten path for tourists, housed in the former very small former Army building, and most importantly, has no space to expand.

a suitable second site closer to Washington, D.C. The new site must provide all the elements necessary to cess for the new museum facility insure the making of a truly National Cold War Museum to include location, easy access to routes of travel, parking, and at a cost that will allow us to continue to expand services in education and research and to create a proud monument for the legacy of our Armed Forces and all involved.

The Board of Directors' most urgent need is to find wealthy donors and/or corporations that would like to leave a legacy with their participation. We further need individuals that would be immediately recognized as leaders during this time to encourage large donations and bring credibility to the effort.

The Board of Directors also will be needing technical advisors to be in-

needed are professionals schooled in almost all business operations, such as attorneys, accountants and con-This array of talent tract managers. building maintenance to name just a few.

Initially, positions for this effort will have to be as volunteers. However, once in operation, we will have a number of paid positions. The wonderful thing about participation in the early stages is that much of the business of design and planning can be done through Zoom conference The Board of Directors is looking for calls, and those in leadership fundraising positions will have significant influence in the creation pro-

> We are asking for your support in identifying and referring interested parties. Your efforts now can help make this dream a legacy for the millions of men and women that served as professional Cold Warriors, usually in the military and intelligence services.

> Please send questions, resumes, contact information for interested individuals and corporations, and donations to:

> > Mr. John Welch Board Member The Cold War Museum john.welch@coldwar.org 919-500-9383 (Cell)

In the News



- Disputed US/USSR basketball final at Munich Olympics: https://www.washingtonpost.com/sports/ olympics/2022/09/08/us-ussr-basketball-1972-munich-olympics/
- Biden admin declares post-Cold War era 'definitively over': https://www.politico.com/ news/2022/10/12/biden-post-cold-war-00061428
- This Might Not Be a Cold War, but It Feels Like One: https://www.nytimes.com/2022/09/13/world/asia/xi-jinping-china-biden.html
- Ten+ recent AP articles about the Cold War: https://apnews.com/hub/cold-war
- Multiple recent US News and World Report Cold War pieces: https://www.usnews.com/topics/ subjects/cold_war
- Recent Cold War news from Britain's The Independent: https://www.independent.co.uk/topic/ cold-war



The Cold War Times

The official newsletter of The Cold War Museum

Karen Zwanzig, Lead Newsletter Staffer



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The editorial opinions and reviews expressed in the newsletter are those of the individual writer(s). The museum and its newsletter editor(s) cannot be held responsible for errors of fact or opinion. Proven errors of fact will be corrected.

Deadline for Spring issue: March 15, 2023

To request publication guidelines, please contact the editor (Jason Hall, jason@coldwar.org)



Upcoming Events

NOTE: New lectures will be added from time to time. Keep up with us on Facebook! All lectures in the Zoom Presentation Series start at 2:00 p.m. Participants arrive in the Zoom room online between 1:30 p.m. and 2:00 p.m. Tickets to all events are available at Eventbrite; for the specific link to each of the upcoming events listed below, please click on this link to the Events page on our new website: https://coldwar.org/default.asp? pid=16883

11/20/22-- U.S. Army LTC (Ret.)
Dewey Browder on the Euromissiles
(the Pershing II and the Ground
Launched Cruise Missiles) and their
role in the ending of the Cold War.

12/11/22—The Appearance and the Reality of the Tet Offensive. Greg Nedved (NSA Historian) and a panel of other experts assess how things appeared and how they actually were during a turning point event of the Vietnam War.

1/15/23—Bill Halpin—topic TBD

2/12/23—Tom Spink on subchasing as a P-3 pilot against the Soviets in the Pacific.

3/5/23—Justin Sherman on Russia's views on, and use of information (propaganda, disinformation, and espionage) from Czarist times to the present day, with special attention to how they use the internet.

3/26/23—Roseanna Minchew on the training and necessary aptitudes of Agency case officers, with illustrations from her 15-year career as a case officer in South Asia, Europe, Latin America, and Afghanistan.

Private Tours – An Important Source of Museum Income

The increasing number of private tours we arrange provides a significant percentage of the Museum's operating income, so it's an important part of our many income streams, helping to stabilize our operating income from month to month.

As with every other museum in this country and around the world, our ability to hold such tours was necessarily eliminated for several months by COVID health concerns. Luckily with things mostly more stable on COVID in Virginia we are once again giving private tours on request, without masks (except on request) according to the most recent guidelines at the time I write this.

Operating within those rules, we have still been able to go ahead with most tours. We've continued to have inquiries but a good number of arrangers are indicating that they want to wait a few more months to book so that their group won't have to deal with masks. Here are some of the private tours conducted by museum docents since the last newsletter:

7/27/22 – Two groups of NATO Military Attaches and spouses from DC embassies plus their two DoD liaisons. These are all members of the Military Liaison Associa-





tion, which now regularly visits the Museum and has given us an award for special service to their members. We had a few beers with them at the craft brewery next door. Very interesting and intelligent people who love

Cont. on page 29

Private Tours

To arrange a private tour led by one of the museum docents, please contact

Bryan A. Zwanzig

703-408-2039 | bryan.z@coldwar.org

Cost: \$20/person for groups of 10 or fewer \$15/person for larger groups
No cost for active duty military personnel ever!

Private Tours, cont. from page 28

• 9/1/22—Key Staff Member Mike Washvill presents on Cold War history for the Regency Women's Club Luncheon in nearby Haymarket, VA accompanied by ED Jason Hall—c. 80 people.





9/22/22—Bette Singletary's Group



- 10/12/22—Private tour for Vietnam Pilots Association –16 people.
- 10/26/22—Private tour for 26 people.
- 11/4/22—Private tour for 40 people.
- 11/8/22—Private tour for James Schero and 4 others.

The Museum's Challenge Coin is available for \$15. The coin pays homage to Vint Hill Farms Station as an active listening post from 1942—1997 and features the Cold War Museum on the reverse side.





Mission Statement

The Cold War Museum is a 501(c)(3) charitable organization dedicated to education, preservation, and research on the global, ideological, and political confrontations between East and West from the end of World War II to the dissolution of the Soviet Union.

The Three Main Goals of the Museum:

- ◆ To keep knowledge of the Cold War and its significance alive for coming generations.
- ◆ To honor the service of those who had professional Cold War roles.
- ◆ To use the Museum's extensive collection of rare and, in some cases, unique artifacts in Cold War signals intelligence (SIGINT) and image intelligence (IMINT) to show how intelligence collection and analysis supports our policy, diplomacy, and military action.

Museum Membership

Individual Membership

\$25/year

Member Benefits

- Access to The Cold War Times (including all prior issues)
- Listed as a "Founding Member"
- Priority access to the executive director

Sponsorship Circles

Friend: \$75/year
Patron: \$150/year
Benefactor: \$300/year
Guardian: \$600/year

The Cold War Museum is an all-volunteer operation. 100 percent of your contributions are applied to fulfilling the museum's mission. Contributions to the museum *above and beyond membership* are also fully deductible in accordance with IRS guidelines for contributions to 501c3 organizations.

Join AmazonSmile and Support The Cold War Museum at No Cost to You



- 1. Go to *smile.amazon.com* and log in as you normally do on amazon.com.
- 2. When prompted to select your preferred charity, search "The Cold War Museum" and select.
- 3. You're all set and ready to shop. Amazon will donate 0.5% of the price of your eligible purchases to The Cold War Museum.
- 5. Bookmark smile.amazon.com and remember to shop through the AmazonSmile site.