

ICBM EAR and ICON WEEKLY REPORT FOR OCTOBER 23, 2020 FROM PETER HUESSY, PRESIDENT OF GEOSTRATEGIC ANALYSIS

PREVIEWS OF COMING DISTRACTIONS*

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QUOTE OF THE WEEK: STRATCOM SPEAKS

"Our ability for globally integrated planning, communications and execution in a defined, shared understanding of the threat and what we do about it may be our last remaining advantage over the adversary," Admiral Charles Richard

The nation has not seriously considered the possibility of engaging in competition through a crisis or possible direct armed conflict with a nuclear-capable armed adversary in more than 25 years, Navy Adm. Charles "Chas" A. Richard, the commander of the U.S. Strategic Command said today.

The commander spoke virtually in a keynote address to the International Security at the Nuclear Nexus seminar hosted by the Center for Strategic and International Studies.

"Given Russia and China's expanding capabilities in increasingly aggressive behavior, and those posed by nuclear North Korea and possibly Iran, we must reinvigorate the national conversation on the importance of strategic deterrence," he said.

During the last 30 years, however, the Defense Department has focused on capabilities-based development and planning, because there was no existential threat, he said. "Our post-Cold War experiences of operating in uncontested domains are over. Our adversaries took advantage of this

period, emboldened ... their aggressive behavior, expanded their capabilities and reconsidered their tactics and strategies."

But, as the commander in charge of employing strategic deterrence capabilities for the nation and U.S. allies, Richard said he simply doesn't have the luxury of assuming a crisis conflict or war won't happen.

"I know I painted a pretty sobering picture, but I really want to highlight the reality in front of us. It's also important to understand how our modernization programs support and integrate with our efforts to rethink how we do strategic deterrence," he noted.

The admiral said the DOD must prioritize the sustainment modernization of U.S. intercontinental ballistic missile bombers, ballistic missile submarines, weapons complex and its nuclear command, control, and communications systems, also known as NC3.

Richard said he is committed to investing in modernizing NC3 systems to be more robust and survivable against physical, electromagnetic, and cyber-attacks.

To shape the strategic environment to the U.S.' advantage, the DOD must first face the reality that its adversaries have blurred the lines between conventional and nuclear conflict, and have developed capabilities to directly challenge the strategy, doctrine and advantages the United States has held as a nation and alliance.

"We can no longer expect our potential adversaries to act within our long-standing, self-imposed constraints based on our rule sets or values, particularly between conventional and nuclear," he said.

Richard has challenged STRATCOM to revise its 21st-century strategic deterrence theory that considers U.S. adversaries' decision calculus and behaviors and identifies threat indicators or conditions that could indicate potential actions. Crafting this revised theory, he added, minimizes risks inherent in competing against another nuclear-armed state.

"It's an exhaustive assessment to fully account for current conditions, emerging capabilities, changing norms and rule sets, and potentially unintended outcomes within a spectrum of conflict," he noted.

"By the end of the decade, if not sooner, we will face two nuclear-capable peer adversaries who have to be deterred differently. We've never had to face that situation in our history," Richard said.

Additionally, the DOD must engage in the environment early to shape its potential adversaries' actions, using a synchronized whole-of-government and integrated global mindset, he said.

"Our ability for globally integrated planning, communications and execution in a defined, shared understanding of the threat and what we do about it may be our last remaining advantage over the adversary," the STRATCOM commander said.

The DOD must advance its abilities to integrate its coordination processes across the globe and across all domains, Richard said, adding that will include rethinking how DOD executes its NC3.

"As advanced kinetic capabilities are developed, we must have the ability to detect, identify, track and integrate our command and control architecture. NC3 architecture is a patchwork of deliberate systems that have been piecemealed over decades, [and] it works quite well, but it needs to be updated," he said.

UPCOMING AND PAST NNSA SEMINAR

The Mitchell Institute for Aerospace Studies and the Advanced Nuclear Weapons Alliance Deterrence Center present a virtual session of The Joint National Nuclear Security Administration (NNSA) Strategic Nuclear Deterrence Online Forums featuring **Mr. James J. McConnell, Associate Administrator for Safety, Infrastructure and Operations**, National Nuclear Security Administration, U.S. Department of Energy, and **Mr. Robert B. Raines, Associate Administrator for Acquisition and Project Management**, National Nuclear Security Administration, U.S. Department of Energy, on **Maintaining a Credible Strategic Nuclear Deterrent: Modernizing the NNSA Nuclear Weapons Complex Infrastructure**. Join us on **Thursday, October 29, 2020 at 3:00-4:00 PM EDT**.

Registration required:

https://us02web.zoom.us/webinar/register/WN_vNtlRuMmTZGsZgzi5xhgQQ

Once registered, you will receive a confirmation with a link to the event page.

Henry Sokolski talked about the proliferation of nuclear weapons grade material especially re China. His slides are on the video here. He indicates China has sufficient nuclear material to build multiple thousands of warheads. Also, the nuclear material is of such size as to exceed any possible use of the material for nuclear energy. https://youtu.be/p_3Rie8-Wbs

<h2>NEW START EXTENSION?</h2>

KREMLIN OVERRULES OWN DEFENSE AND FOREIGN POLICY ESTABLISHMENT ON ARMS CONTROL

Publication: Eurasia Daily Monitor Volume: 17 Issue: 149

By: [Pavel Felgenhauer](#)

October 22, 2020 05:34 PM Age: 16 hours

With the election in the United States less than three weeks away, Russian President Vladimir Putin made a surprise strategic concession to the Donald Trump administration—apparently against the consensus opinion of Russia’s military and diplomatic bureaucracy. The Kremlin proposal looks designed to help US President Donald Trump’s reelection prospects by producing a last-minute deal on nuclear arms control. Russian foreign ministry officials involved in the talks with Washington and Foreign Minister Sergei Lavrov himself have for months been rejecting the US government’s offer to prolong the New START arms control treaty, scheduled to expire on February 5, 2021, in exchange for a supplementary political declaration or “gentleman’s agreement” to freeze all active nuclear weapons at their present numbers, including those not covered by New START. The Trump-appointed Special Presidential Envoy for Arms Control, Ambassador Marshall Billingslea, has insisted both governments have in principal agreed “at the highest levels” to put together such a package before November 3, 2020; but Russian negotiators rejected the notion. Lavrov called the US negotiators “shell game con artists,” trying to push through an “unacceptable agreement” (see [EDM](#), October 15). But then came a reality show–style “October surprise”: The Russian foreign ministry publicly announced it is ready to prolong New START for one year (instead of five) and make a “political decision” to declare a mutual “nuclear arms freeze” for a year—allowing that time to be used to negotiate a new “comprehensive” arms control agreement. This apparent concession is conditioned on Washington not making any other additional demands ([Militarynew.ru](#), October 20).

Moscow called on Washington to answer and promptly resume negotiations. Billingslea and US Secretary of State Michael Pompeo responded positively. A looming meeting of Russian and US negotiators is reportedly being prepared and, according to Billingslea, “We’re very, very close to a deal” ([Interfax](#), October 22). At the same time, both Billingslea and Pompeo insisted New START is not a good agreement since it limits some 92 percent of the US nuclear arsenal while covering only 45 percent the Russian one, while Chinese warheads are not covered at all ([TASS](#), October 21). To rectify this apparent disadvantage, Washington demands that any nuclear “freeze” must be vigorously verified ([Militarynews.ru](#), October 22).

After 1991, as the Cold War ended, the US unilaterally retired and eventually scrapped almost all of its non-strategic or tactical nuclear weapons—both the delivery systems and the warheads themselves. Only several hundred nuclear bombs are left, at bases in Europe, designated for use by North Atlantic Treaty Organization (NATO) members’ non-stealth jets. The last major US unilateral non-strategic nuclear arms reduction happened during President Barack Obama’s second term. But while the US disarmed unilaterally in this area, Russia has retained its non-strategic nuclear arsenal; and in the last two decades under Putin, it has been expanding or reinstating tactical nuclear arms—nuclear field artillery, different land- and sea-based missiles, nuclear torpedoes, and so on. The non-strategic nuclear weapons are not covered by New START or any other arms control treaty. The New START verification regime instead controls the number of deployed and reserve strategic nuclear delivery systems, which are easier to track. The number of warheads attached to strategic ballistic missiles is also verified. Nuclear warheads and bombs not directly attached to delivery systems are maintained at special nuclear storage facilities of the Ministry of Defense’s 12th Main Directorate. And the nuclear arms are assembled and dissembled at facilities in the so-called “chosen cities” of the Rosatom State Nuclear Energy Corporation. Verification is not and has never been carried out at the 12th Main Directorate’s sites; and the number or readiness state of the Rosatom stockpiles has never been disclosed.

According to Russo-US relations and arms control expert Sergei Rogov, the official number of Russian nuclear arms deployed under New START terms is postulated to be 1,550, but the overall number of strategic nuclear weapons, including those in storage, could be as high as around 6,000. The number of Russian non-strategic nuclear weapons deployed or in storage has never been disclosed; assessments range between several thousand and over 10,000. No established methods exist for counting stored strategic or stored non-strategic nuclear weapons. With no trustworthy numbers, enforcing a “nuclear freeze” seems like an uphill job. Washington is proposing onsite intrusive inspections, including US soldiers patrolling the perimeter of 12th Main Directorate bases or the Rosatom facilities to make sure no nuclear arms go in or out. Russia would be apparently granted the same privilege at US sites. According to Rogov, such an arrangement would likely be mutually unacceptable. Working out any workable nuclear warhead verification procedure will surely require more than a year of negotiations, and it is absolutely impossible to start such talks from scratch and conclude them prior to November 3 ([Interfax](#), October 22).

The sudden Russian U-turn on arms control caused a serious ripple in Moscow. Putin apparently made the decision personally and imposed it on the foreign policy and defense establishment. Of course, the autocratic Russian president is incontestably in charge of the country’s foreign and defense policymaking; still, the apparent Kremlin submissiveness in yielding to US demands sparked tensions and dismay in the capital. The bureaucracy fears that even if this concession is nothing more than a PR move to help Trump’s reelection, and Putin is not ready to give away Russia’s vast advantage in tactical nuclear arms for a year of prolonging New START, the Americans might still come to believe that Putin’s Russia can be pushed around like in the bad old times of Mikhail Gorbachev and Boris Yeltsin ([Kommersant](#), October 21).

Despite of the apparent “nuclear freeze” concession, the Kremlin apparently insists there will be no mention of China’s nuclear arsenal in the proposed “gentleman’s agreement” with Trump. And it seems there will be no meaningful verification protocol attached. But it is far from clear that the Trump White House would be willing to sign up to such an arrangement just to be able to quickly declare victory.

As Rogov observes, the present US election is not about foreign policy or nuclear arms control at all ([Interfax](#), October 22). The Democratic Party contender, Joseph Biden, promised he would prolong New START for five years without preconditions, but Putin seems so intent to tangibly show support for Trump’s reelection that he did not wait until after November 3 to make his pitch. Instead, Putin opted to rush and accept a seemingly worse deal proposed by the Trump administration—something Russian specialists in Russo-US relations simply cannot rationalize.

EMERGING THREAT: PUTIN: RUSSIA-CHINA MILITARY ALLIANCE CAN'T BE RULED OUT

By [Vladimir Isachenkov](#)

October 23, 2020

(Alexei Druzhinin, Sputnik, Kremlin Pool Photo via AP)

MOSCOW (AP) — Russian President Vladimir Putin said Thursday there is no need for a Russia-China military alliance now but noted it could be forged in the future.

Putin's statement signaled deepening ties between Moscow and Beijing amid growing tensions in their relations with the United States. The Russian leader also made a strong call for extending the last remaining arms control pact between Moscow and Washington.

Asked during a video conference with international foreign policy experts Thursday whether a military union between Moscow and Beijing was possible, Putin replied that "we don't need it, but, theoretically, it's quite possible to imagine it."

Russia and China have hailed their "strategic partnership," but so far rejected any talk about the possibility of their forming a military alliance.

Putin pointed to the war games that the armed forces of China and Russia held as a signal of the countries' burgeoning military cooperation.

Putin also noted that Russia has shared sensitive military technologies that helped significantly boost China's military potential, but didn't mention any specifics, saying the information was sensitive.

"Without any doubt, our cooperation with China is bolstering the defense capability of China's army," he said, adding that the future could see even closer military ties between the two countries.

"The time will show how it will develop," the Russian president said, adding that "we won't exclude it."

Russia has sought to develop stronger ties with China as its relations with the West sank to post-Cold War lows over Moscow's annexation of Ukraine's Crimea, accusations of Russian meddling in the 2016 U.S. presidential election and other rifts.

Putin on Thursday emphasized the importance of extending the New START treaty that expires in February, Russia's last arms control pact with the United States.

NEW START TREATY DEAL?

Earlier this week, the United States and Russia signaled their readiness to accept compromises to salvage the New START treaty just two weeks ahead of the U.S. presidential election in which President Donald Trump faces a strong challenge from former Vice President Joe Biden, whose campaign has accused Trump of being soft on Russia.

New START was signed in 2010 by then-U.S. President Barack Obama and then-Russian President Dmitry Medvedev. The pact limits each country to no more than 1,550 deployed nuclear warheads and 700 deployed missiles and bombers and envisages sweeping on-site inspections to verify compliance.

Russia had offered to extend the pact without any conditions, while the Trump administration initially insisted that it could only be renewed if China agreed to join. China has refused to consider the idea. The U.S. recently modified its stance and proposed a one-year extension of the treaty but said it must be coupled with the imposition of a broader cap on nuclear warheads.

The Kremlin initially resisted Washington's demand, but its position shifted this week with the Russian Foreign Ministry stating that Moscow can accept a freeze on warheads if the U.S. agrees to put forward no additional demands.

Putin didn't address the issue of the freeze on warheads, but he emphasized the importance of salvaging New START.

"The question is whether to keep the existing treaty as it is, begin a detailed discussion and try to reach a compromise in a year or lose that treaty altogether, leaving ourselves, Russia and the United States, along with the rest of the world, without any agreement restricting an arms race," he said. "I believe the second option is much worse."

At the same time, he added that Russia "wasn't clinging to the treaty" and will ensure its security without it. He pointed at Russia's perceived edge in hypersonic weapons and indicated a readiness to include them in a future pact.

"If our partners decide that they don't need it, well, so be it, we can't stop them," he said. "Russia"

Despite indications earlier this week that Russia and the U.S. were inching closer to a deal on New START, the top Russian negotiator said that "dramatic" differences still remain and strongly warned Washington against making new demands.

Sergei Ryabkov cautioned the U.S. against pressing its demand for more intrusive control verification measures like those that existed in the 1990s and aren't envisaged by the New START. The diplomat argued that new control mechanisms could be discussed as part of a future deal, saying firmly that Russia will not accept the demand that amounts to "legitimate espionage."

“If it doesn’t suit the U.S. for some reason, then there will be no deal,” Ryabkov was quoted by the Interfax news agency as saying.

SOME POLLS TO REVIEW

For the first time the weekly ICBM EAR contains some polling information. We are avoiding using the RCP average of all polls because mixing widely different polls—some accurate and some inaccurate--doesn’t give you accurate polls. These polls are vastly different because they make very different assumptions about turn-out, what proportion of voters will be from the two major parties or be independent, and what early voting in person and by mail has shown so far.

One new survey, taken October 15-18 among 1,037 likely voters, marks the “first Restoration PAC poll showing Trump ahead in either Michigan, Wisconsin, or Pennsylvania since the spring.”

The survey also showed GOP Senate candidate John James maintaining a lead over Democrat Sen. Gary Peters, leading by 2.2 percent. Peters is a member of the SASC.

Restoration PAC Founder and President Doug Truax said in a statement that “all the momentum appears to be with Donald Trump and John James” in the Great Lakes State.

A recent Breitbart News analysis [showed](#) that Trump secured all three key swing states — Michigan, Pennsylvania, Wisconsin — in 2016 despite the final RealClearPolitics (RCP) averages pointing to clear victories for Hillary Clinton across the board.

Notably, RCP’s co-founder and president Tom Bevan [referred](#) to Trafalgar Group as “one of the most accurate polling operations in America” due to its accurate predictions in the last two election cycles. Chief pollster Robert Cahaly, Bevan said, stood as “[the only pollster](#) to show Donald Trump winning the state of Michigan” in 2016.

A Restoration PAC/Trafalgar Group survey [released](#) last week showed the race tightening in Wisconsin, with Biden leading Trump by 1.9 percent — 47.3 percent to Trump’s 45.4 percent. On Monday, they [followed](#) up with a survey analyzing the presidential race in Pennsylvania, showing Biden holding a 1.1 percent lead.

As for control of the US Senate, which is critical for the support of strategic modernization, R have pickup opportunities in Michigan, Alabama, and Minnesota, while incumbent R candidates are trailing in Iowa, Colorado, and Maine. In Georgia, Perdue is up by 1% while Senator Daines from Montana is in a tie with Governor Bullock.

Here are some links to news stories.

[Poll: Battleground Michigan](#)

<https://www.breitbart.com/politics/2020/10/21/poll-president-trump-leads-joe-biden-in-battleground-michigan-2/>

and

Fox News Polls: Ohio, Race Tightens in Pennsylvania, Wisconsin

<https://www.breitbart.com/2020-election/2020/10/21/fox-news-polls-trump-leads-in-ohio-race-tightens-in-pennsylvania-wisconsin/>

LINKS TO THE NUCLEAR BLOG: PEACE IS OUR PROFESSION

[Russia & U.S. on "New Start": THE GATHERING STRATEGIC STORM?](#)

Warrior Maven
Oct 15

At the top of US concerns is how into the future promote greater strategic stability

[WARRIOR COLUMN: NUCLEAR DETERRENCE & PEACE IS OUR PROFESSION](#)

Warrior Maven
Oct 8

Each weekly essay will begin with correcting some recent examples of nuclear deterrence misinformation

[IRAN: Can We Make Peace with the Mullahs?](#)

Warrior Maven
Oct 1

NEWS REPORT ON A NUCLEAR FREEZE EXTENDING THE NEW START TREATY

National security adviser Robert O'Brien told Seligman that an agreement to extend the New Strategic Arms Reduction Treaty for another year is not “a done deal” because the two sides still need the procedures for verifying the terms of an agreement “that are suitable to both parties.”

At issue is Washington's requirement that an extension of the 10-year-old agreement include a temporary freeze on all nuclear weapons, including strategic weapons covered by the treaty and tactical weapons that aren't.

“In any negotiation but especially in arms control, the devil is always in the details,” O'Brien said in an interview. “Assuming that we can get suitable verification on the

freeze, I think we should be able to get a deal. At least I hope so. I think we will propose something very shortly in the next couple days, or next week.”

Putin also threw more cold water on the prospect of an imminent victory for Trump on Thursday. “The agreement expires in February and what I proposed is very simple,” Putin said in an online appearance at the Valdai forum in Moscow. “Nothing terrible will happen if we extend it for a year, without preconditions, and we can continue to work with determination on resolving all the issues that concern us and the Americans.”

Washington has already rejected an extension without preconditions, so the comments dimmed hopes for an agreement just days after Putin indicated that his government was open to a one-year freeze, including tactical weapons that aren't covered by New START.

Deputy Foreign Minister Sergei Ryabkov also told a Russian newspaper on Thursday that the two sides are far from a deal. "So far, at this stage, it cannot be said that we are on the verge of agreements," he told Kommersant.

What the U.S. is demanding is considered extremely ambitious: a full accounting of all of Russia's nukes and protocols for verifying it is abiding by a freeze, including on-site inspections. That's especially true when it comes to the thousands of weapons Russia is believed to possess that are not covered by New START.

“You can’t freeze what you can’t count, so you have to get an accurate count,” said Peter Huessy, director of strategic deterrent studies at the Mitchell Institute for Aerospace Studies. “New START gives us a fuzzy start. The hard part will be to freeze non-strategic systems which are not even accounted for.”

He predicted that fashioning a viable process for verifying a freeze would take “many months” and “probably over a year.” That could mean a freeze will not be formalized until after the treaty extension expires.

The graybeards weigh in: Some of the leading architects of the Cold War arms control regime that birthed New START are hoping things can be salvaged so the last remaining nuclear treaty between the two sides doesn’t disappear.

“The United States and Russia should seal the deal now to extend New START, because if the last remaining bilateral treaty governing U.S. and Russian strategic nuclear forces ends in February, the world’s most destructive nuclear arsenals will be unlimited and unverified for the first time since the end of the Cold War,” former Secretary of State George Schultz, former Secretary of Defense William Perry and former Sen. Sam Nunn [wrote in The Washington Post](#).

Related: [Putin doesn’t rule out a future Russia-China military alliance](#), via The Associated Press.

And: [U.S. officials give confusing comparisons of U.S. and Russian nuclear forces](#), via Federation of American Scientists.

The disarmament community wizards of Armageddon cannot figure out how the administration can claim only 45% of the Russian nuclear forces are under arms control but 92% of the US forces are under treaty limits. The above link has a lengthy assessment of dozens of possible computations. But the general facts remain the same: roughly 90% of all US deployed (not stockpiled) US warheads are under treaty limits; while for the Russians assuming 2000 (not 5000) on-non-strategic weapons in their deployed arsenal, gets you around 45% of under half. These estimates of course undermine the idea that the New START treaty keeps US and Russian nuclear weapons at the same level.

Estimating these numbers is pretty simple. Russia has 1490 ICBM and SLBM warheads and 60 bomber “warheads” under treaty but not the minimum number of roughly 2000 theater warheads Russian is estimated to have in its regional/theater forces. 1550/3550 is 44%. For the United States, we have strategic warheads 1550 under control but not our estimated 150 theater systems in Europe, or 91%, which again is very close to the 92%.

NUCLEAR DEJA VU ALL OVER AGAIN?*

By Peter Huessy

(To be posted on the Maven Warrior website this weekend)

Four years ago, I wrote “The US defense budget will be unveiled by the new administration and sent to Congress February 9, 2016 and already the ‘doves with knives’ are out to cut critical nuclear modernization elements from the nation’s military forces.”

At that time, Gordon Adams, previously at the Office of Management and Budget in the Clinton administration, and Lawrence Korb, at the Center for American Progress, were both calling for the unilateral dismantlement of major elements of the US nuclear deterrent. Fortunately, the incoming Trump administration and subsequent Congresses rejected their advice and proceeded with the necessary path towards eventual nuclear modernization.

This path was agreed to by the Obama administration only after the Senate insisted that as part of the 2010 resolution of ratification of the New Start treaty, a new upgraded and expanded ten-year new funding profile that preserved “the safety, reliability and performance of U.S. nuclear forces”, including plans to produce a new strategic bomber, bomber cruise missile and land based missile force, be agreed to. And the Trump administration did adopt the new plan and over the past four years secured a consensus in Congress to fully fund our nuclear deterrent.

But will the consensus hold? With a new defense budget due from the administration in February 2021, and the current year FY2021 defense budget not completed, once again [there are proposals](#) to unilaterally [dismantle](#) key elements of our strategic or long-range nuclear deterrent. The former Secretary of Defense William Perry [and other disarmament advocates](#) want to eliminate all land based ICBMs, cut the planned acquisition of 12 submarines to as low as 6, cut back the production of the B-21 bomber and eliminate the bomber cruise missile or LRSO.

In addition, the development of a nuclear-armed sea-based cruise missile to balance Russian theater or regional nuclear capabilities might also be on the chopping block. A flurry of recent critical comments from the disarmament community signals a new effort may be underway to significantly defund this program.

Apart from funding cuts, the US may also see efforts to secure major changes in US national nuclear security policy. First, the US government might change national policy and explicitly declare nuclear weapons would only be used to deter a nuclear attack on the US, a policy cousin of the idea the US should also declare a “no first use” policy.

This policy change would primarily affect our extended deterrent/nuclear umbrella over our allies in Europe and Northwest Asia. At issue, assert disarmament advocates, is ambiguity in the deployment of dual capable cruise missile. For example, US deployed cruise missiles can deliver nuclear or conventional weapons, and it is thought their use might be misconstrued as breaking the nuclear barrier even if at the time they are only conventionally armed.

However, the US routinely deploys nuclear capable but conventionally armed B52's with cruise missiles with very little problem. And importantly a key point is that during the entirety of the Cold War, the US **nuclear** umbrella in Europe and Asia successfully deterred Soviet or North Korean **conventional** strikes, apparently a lesson having been lost on today's disarmament community.

Furthermore, the development of a Navy based nuclear armed cruise missiles stems from Russia's adoption of a theory of victory where Moscow might first use in the European theater a limited number of regional nuclear weapons. Moscow's concept has been described as a strategy of “escalate to win”, both blurring the distinction between conventional and nuclear conflict while coercing the US to stand down in a crisis/conflict. A Navy-based cruise missile provides a deterrent force to the battlefield quickly if that option were required by the US command authorities, without putting US sea-based strategic nuclear forces at risk.

Second, while most of NATO is also convinced the US needs a regional or medium range nuclear capability to defeat Russian threats, US disarmament advocates are pushing to return from Europe all US regional nuclear forces. Having a credible counter to Russian short-range low-yield weapons in the European theater is critical to deterrence and withdrawing such forces from Europe would be highly destabilizing.

As Brad Roberts of Lawrence Livermore National has explained in great detail, Russia's "escalate to win" doctrine is part of a "strategy of victory" that Moscow has adopted but which the US has yet to fully address. Should a new administration eliminate non-strategic nuclear forces dedicated to Europe's defense, NATO's deterrent capability would be weakened, as control over the emerging integrated conventional-nuclear battlefield would be ceded to the Russians.

Now it is true the US already has low-yield weapons in both its strategic and regional nuclear arsenals deployed in part in Europe. But those regional forces dedicated to defending NATO are on relatively slow-flying aircraft and in significantly smaller numbers than the Russian theater arsenal. A sea-based cruise missile would begin to repair that imbalance, would not break the limits set by the New Start treaty, and could avoid messy disputes that would probably arise if such nuclear forces were being proposed for a land-based deployment in a NATO member nation.

Third, the next Congress will also face a growing narrative from the disarmament community that the US is starting a new arms race with its modernization plans and should seek as a remedy unilateral US restraint. Although the current modernization was largely agreed to in the Obama administration, the platforms including the nuclear capable B-21 bomber, the GBSD and the Columbia class submarine acquisition have come under contract only recently and are still not projected to initially become operational until 2029-32

Killing such systems now would hardly impact Russian modernization which is now 90% complete, nor Chinese plans which are well underway and are projected to double China's overall nuclear forces within the decade. In fact, the "US is starting an arms race" narrative needs to be discarded. As one disarmament advocate recently admitted, (surprisingly!) much of the proposed US modernization "is still in the early stages" and will not be first deployed for nearly a decade.

As for the claim the administration is "dangerously expanding" the nuclear arsenal beyond treaty limits, that claim too is meritless. The one new program the current administration completed was to add a modest number of lower-yield nuclear warheads to the D-5 missile. But the upgrade is still strictly within the missile warhead limits of the 2010 New Start treaty and is consistent with "the United States [having] nuclear options [deployed in previous administrations] capable of such limited strikes." The key difference is the speed with which the capability can be deployed in the European theater if necessary, to counter Russian aggression. As noted, overall warhead loadings on the D-5 remain the same.

So, what explains the disarmament community's passion for unilaterally cutting US nuclear forces, despite all evidence those actions will undermine the US deterrent capability? It appears many disarmers embrace a fictional belief that the key to changing the dangerous nuclear behavior of Russia, China, Iran or North Korea is to first blame the United States for nuclear instabilities/arms control failures, and then second assume our enemies will choose to agree to restraint once the US goes down that road first.

Just this past week, for example, a number of prominent nuclear modernization opponents echoed Adams and Korb of four years ago. They blamed the US for pursuing a costly and unnecessary nuclear arms race, even though the US has not since 1997 deployed a single new nuclear bomber, submarine, or ICBM, and won't until 2029. They complained the pending nuclear modernization was excessive, although the current modernization effort mirrored that inherited from the previous administration and Congress.

And when the President recently took credit for prioritizing the refurbishing of America's nuclear deterrent, that too was out of bounds, as critics claimed the Trump administration--while guilty of starting an arms race [with weapons acquisition started during the Obama administration]--could not take credit for any modernization progress, because the US weapons modernization was--you guessed it---started during the Obama administration. [Actually, the ten-year plan adopted by the government in 2010 was primarily the initiative of then Arizona Senator Jon Kyl.]

These disingenuous rhetorical tricks by many disarmers may appear clever, as the media often repeats such claims verbatim and without skepticism, giving them a patina of accuracy. But the tricks still are tricks. How can it be that while the past two administrations have supported a similar and basic nuclear modernization effort, the fantasy world of the unilateral disarmers sees one effort consistent with seeking a move toward global zero nuclear weapons, while the other effort is blamed for starting an "nuclear arms race?"

Though Korb and Adams in 2016 were not successful in getting the administration or Congress to adopt their unilateral cuts, the same proposals are being put forward again, but now by an even broader range of disarmers. The CATO Institute on the right wants to get rid of ICBMs just as Global Zero and Ploughshares does on the left. The line of argument from four years ago hasn't changed, but would a new Congress or administration adopt such a radical path?

Let's look at their arguments in some detail to help the new Congress and whatever administration is elected to have the tools with which to better understand the dangers of jettisoning the current consensus on nuclear modernization painstakingly put together over the past decade.

Much like their colleagues today, in 2016, Adams and Korb sought to kill major elements of our nuclear deterrent, including all land-based ICBMs and half of our strategic submarines. bombers.

Korb was particularly insistent that the US not North Korea was responsible for North Korea's nuclear threat. He blamed what was then a nearly moribund US modernization effort of 25 years as the cause for North Koreans to develop their own nuclear weapons. To remedy things, Korb proposed the US unilaterally dismantle 80% of its nuclear deterrent to make things right, an echo of the late UN Ambassador Jeane Kirkpatrick's 1984 explanation that more often than not "San Francisco" Democrats "always blame America first" when things go wrong in the world.

Korb also falsely complained the US Senate failure in 1999 to ratify the comprehensive nuclear test ban treaty or CTBT, was further evidence of how bad US behavior had caused the North Korea to start a nuclear weapons program—although the North started seeking nuclear weapons in the early 1990's. Korb says the 2002 US withdrawal from the ABM treaty made any deal to end North Korea's nuclear program impossible, a neat way of again blaming the US for the failure of the North Korean government to fulfill its repeated promise to denuclearize. However, despite the end of the ABM treaty and continued US nuclear modernization, since 2017 the North Koreans have not tested a nuclear device or a long-range ballistic missile, largely proving wrong Korb's assumption about tit for tat North Korean behavior is animated only by bad US action with which Korb (and apparently the leaders of North Korea) disapprove.

Gordon Adams, on the other hand, had a simpler but equally problematical plan in 2016, focusing primarily on cutting defense spending. He called for the US to unilaterally dismantle most of its nuclear deterrent. He proposed first to eliminate all 400 land-based Minuteman missiles. Second, he recommended taking the bombers out of the nuclear business. And third, he proposed the US build only 8 of the projected 12 Columbia-class nuclear submarines—replacing only roughly half of the 14 Ohio-class Trident D-5 missiles, and overall, unilaterally cutting US nuclear armed ballistic missiles by 80%.

None of these ideas enhance US security.

Let us start with what's wrong with Korb's ideas.

North Korea started to develop and build its nuclear arsenal as far back as the early 1990's, when the US was still a party to the ABM Treaty and had announced a ban on any further nuclear testing. In 1991 and 1993, as well, the United States and USSR/Russia announced the START I and START II treaties, which together would have cut their respective strategic deployed nuclear arsenals by nearly 70%, to no more than 3500 while the US simultaneously essentially delayed much needed modernization programs for its nuclear enterprise by two decades.

In short, the US did all the things Korb implicitly said would have caused North Korea not to pursue nuclear weapons. But North Korea cheated on the 1994 Agreed Framework agreement with the United States. Even as a signatory to the Nuclear Non-Proliferation Treaty (NPT) under which all non-nuclear states pledged not to build nuclear weapons, North Korea cheated.

What Korb ignored was that North Korea used both the Agreed Framework and the NPT to hide its nuclear weapons work and proceed with its covert nuclear weapons program while pretending otherwise.

What was the North Korean motive? Nuclear weapons are an integral part of North Korea's strategy to eventually reunify the Korean peninsula under North Korean communist rule.

How do we know this?

Hwang Jang-Yop was the highest-ranking North Korean defector in history and was the personal tutor and assistant to North Korea's former ruler Kim Jong-Il. He was also Chairman of the Standing Committee of the Supreme People's Assembly. His defection was a huge blow to the North and the Republic of Korea (ROK) made his birthday a national holiday upon his death in 2010 at the age of 87.

As he told my boss and colleague retired USAF General Michael Dunn, the past President of the National Defense University and the Air Force Association, and former military adviser to the UN delegation on the DMZ between North Korea and the ROK, the North Korean goal was to remove American military forces from the ROK.

Once that was achieved, the North would hold at risk with its nuclear forces the US and allies conventional forces deployed in Japan and the United States Pacific bases. Such a threat would deter the US from coming to the defense of the ROK if the North moved to reunify the peninsula by force. In short, North Korea's nuclear arsenal was to trump America's conventional military capability, irrespective of the size of the US nuclear arsenal or missile defense deployments.

As for Adams, although he didn't blame America for North Korea's nuclear recklessness, if carried out his proposed cuts to America's nuclear arsenal would have also caused serious instabilities in the nuclear balance between the United States and its nuclear armed adversaries, especially Russia and China.

The heart of Adams thesis is his claim like Korb that the United States is projected to spend \$350 billion over the next decade and over a trillion dollars over the next three decades on nuclear modernization. Given such huge planned expenditures Adams asserts roughly \$200 billion can be saved with the cuts he proposes while not harming US security.

He and Korb are both wrong. Their numbers are fuzzy.

The US does not spend and does not plan to spend \$350 billion over the next decade on nuclear modernization. In 2017-2020, for example, the US spent \$138 billion on RDT&E and procurement on its entire nuclear enterprise, of which roughly one-third is for modernization and the remaining is for the sustainment and operations of our legacy nuclear forces. In short,

doing nothing but keeping the rusting US nuclear force in place would cost nearly two-thirds of the US DOD and NNSA nuclear budget, facts that plainly call for the US to modernize and save money operating and sustaining a more modern up-to-date and capable deterrent.

By the end of the coming decade, that annual nuclear bill will indeed rise to \$47-50 billion as the acquisition of all three legs of the Triad kicks into gear, but then the costs will gradually decline as the modernization peaks. Acquisition costs will grow as research and development is curtailed, a common characteristic of all modernization. But today, for example, acquisition and research and development costs for new systems are remarkably low.

While the numbers will grow, at this time the entire modernization effort proposed for FY2021 for the nuclear platforms-- B-21 strategic bomber, the Columbia-class submarine, the D-5 missile upgrade and the GBSD budgets-- **accounts for under \$8 billion of the \$740 billion defense budget**, and less than twenty percent of the total nuclear budget. NC3 or nuclear command and control account for roughly an additional \$5 billion more while the NNSA warhead complex sustainment and upgrades programs being sought comes in at roughly another \$21 billion. The remaining nuclear budget costs are for the sustainment of the existing nuclear force of aging—but still capable—MMIII missiles, Ohio-class submarines, D-5 missiles and B52 and B2 strategic bombers.

Over the next decade a fair accounting of the costs of the nuclear enterprise **modernization** would come to a total of \$270 billion. But included in the total is also the work of the Department of Energy. We have to refurbish our nuclear warheads and are going to reduce the types of warheads we have from 12 to 5. At the same time, we have to update our command and control system that communicates with our nuclear forces, especially in light of cyber challenges the Defense Department faces.

Even these estimates are to some degree an overestimate. While the total cost of the new strategic bomber (B-21) is included, as former OSD official Jim Miller explains the bomber force will be modernized irrespective of whether the new strategic aircraft is nuclear capable. While the law requires the new bomber to be nuclear capable no later than three years after initial deployment, (circa 2029), the “nuclear related” costs of the bomber are in the 3% range according to Miller. Thus, eliminating the role of the bomber in the nuclear business as Mr. Adams proposed would only save some \$3 billion over the life of the bomber’s acquisition.

As for the land-based systems, eliminating MMIII and its GBS successor would save at best a net average of \$2 billion a year over the next five year defense plan, as closing the three related MM III missile bases and eliminating the associated work force will require considerable new expenditures, as estimated from previous base closings where up to 40% of the projected “savings” will be lost.

What about the planned acquisition of the twelve Columbia-class submarines? Here not building four of the twelve submarines as Gordon Adams proposed saves zero funding over the next five-year defense plan. Why? Acquisition savings from acquiring a smaller number of

submarines comes at the end of the purchase, but only in the 2040-42 timeframe. That means whatever acquisition savings might be achieved would have to wait for two decades and therefore not be noticeable in real budget time.

What if in order to immediately save money, the Navy simply stopped building a new Columbia-class submarine each year? Well, that delay would leave huge gaps in our nuclear deterrent as the Ohio-class submarines have to go out of service but before a replacement submarine could be available. The reason? Engineers have concluded the hull life of our current Ohio submarines is 42 years—which the fleet of Ohio-class submarines is now reaching, an estimated life which is the longest of any submarine in our nation's history. On top of which a stretched-out production schedule would markedly increase the unit cost of each future purchased submarine, further slowing production and harming our security.

What about savings from the Navy's research and development budget? There will not be any as the research and development costs of the program do not change with a smaller purchase of submarines (or missiles or bombers). The fact is the impact of spreading out research, development, test, and evaluation expenditures over a smaller number of submarines increases the per unit cost of the submarine quite significantly.

What about the impact on the strategic balance and deterrence of going to a submarine only nuclear deterrent?

Here the impacts are more serious.

For example, we would be putting all our eggs in one nuclear technology basket. This would leave a single technological failure between the US having a nuclear deterrent of any kind and being out of the nuclear deterrent business.

Let me explain. Adams is also assuming that while the air and land have become increasingly transparent, for some reason the oceans will remain opaque and thus our submarines will remain undetectable for their entire planned eight-decade deployment. That is reckless bet to make, especially when the very survival of the United States is at stake.

Furthermore, the reduced submarine force, even if it remained highly survivable, might for logistical and cost reasons be based at only one of our two submarine bases. Instead of having a base on both the Atlantic and Pacific, we may have only one.

When added altogether, the US would have a much smaller fleet, fewer warheads deployed, reduced target coverage. In short, which enemy would we have to choose not to deter since deterring or holding at risk some significant number of military assets in China and Russia would have to be taken off the table?

Now supporters of eliminating ICBMs and cutting back submarines appear to understand unilateral reductions might not sit well with Congress. Thus, to make the idea more palatable, while eliminating the 400 Minuteman warheads, some have suggested we simply move those 400 warheads to the submarines, keeping the overall level of missile warheads the same.

With 192 D-5 missiles available on the currently planned 12 Columbia-class submarines, and with each missile projected under New Start treaty limits to hold an average of 5.7 warheads, the D-5 would have to carry 8+ warheads per 16 missiles per submarine to accommodate the 400 Minuteman warheads. [Technically the MMIII Mark-21A nuclear warheads would not be transferable to the D-5 missiles; and new submarine based warheads would have to be taken both from the stockpile or newly developed and manufactured, as an additional 400 sea based missile warheads may simply not be readily available.]

However, even if that number of warheads were available, there is a new strategic math problem. Since the D-5 can only carry a maximum of 8 warheads per missile or 1536 total, the D-5 missiles would be fully loaded. Thus, the newly loaded D-5 missiles could carry a maximum of $16 \times 8 \times 12$ warheads, a small 46 increase from the 1490 fast flying long-range missiles now officially “allowed” under the 2010 New Start treaty with Russia.

But beyond that number, no warheads could be added technically as the missiles would have no more room. Thus, any US upload or surge capacity as a hedge against Russia breaking out of the New Start or subsequent treaty would be eliminated. No upload, no hedge.

Even worse, according to a former senior Pentagon nuclear expert, the extra warheads would so increase the weight of each D-5 sub-based missile that it would “significantly cut down on the range of the missile and the patrol area in which to operate”. The submarines would have to operate closer to the countries needing to be deterred in order for the heavier missile to get to the right target. That also makes the submarine more vulnerable as the patrol area would be curtailed. Even worse, the missiles have a flexible but fixed “footprint” or area held at risk and thus some of the extra warheads would possibly be redundant, only able to hit the same targets as other missile warheads from the same submarine, as opposed to other targets critically needed to be held at risk.

Thus, Mr. Adam’s proposals save almost no money over the near term, undermine our deterrent, make us less safe, and increase future risk to the nation by eliminating whatever hedge we now have in case arms control breaks-down.

Are Mr. Adams arguments about ICBMs any better?

His rationale for eliminating ICBMs adopts the common mistake of assuming that because our land-based missiles are in fixed silos—although spread out over five western states—they are vulnerable and thus likely to being attacked in a crisis. He follows this assumption by then incorrectly assuming US ICBMs would have to be launched early in a crisis to avoid being eliminated by an enemy’s first strike.

This is a false assumption. It may have had validity during the height of the Cold War, when we had 1054 silo-based missiles and the Soviets had over 10,000 nuclear warheads aimed at the United States including multiple thousands of highly accurate ICBMs. The fear—described as the “window of vulnerability”—was that the Soviets could take out our only accurate missiles—those that were silo based—with a relatively small percent of their force, leaving a remaining nearly 8000-9000 warheads with which to compel the United States to stand down.

Under the new START treaty signed in 2010, between the USA and Russia, the Russians—if they are abiding by the agreement—have 1490 deployed strategic long-range missile warheads capable of reaching United States. To take out 450 Minuteman silos and their associated 45 launch control centers, the Russians would have to launch some 1000 missile warheads at the United States assuming they target two warheads on each ICBM related asset.

To what end would Russia launch such a strike, knowing full well the US bomber weapons available and surviving ICBM weapons plus our multiple hundreds of submarine based warheads at sea, would be launched by the US back at Russia in a retaliatory strike?

Such a Russian first strike makes no sense tactically as Russia would probably have to put at least some of its forces on higher alert to have that many warheads available to strike the United States.

By doing so they would warn us of a possible pending strike. Why? Our satellites could see their platforms weapons being put in a position to launch. In short, Russian submarines might have to go to sea, bombers put on alert and mobile missiles moved out of garrison.

If so, the Russians make the strategic balance better for the US and worse for Russia. What would be the point?

In short, as the just retired USAF Chief of Staff told a recent seminar audience the Mitchell Institute hosted, our land-based missiles are not vulnerable to being suddenly attacked by Russia or any other adversary, nor as a whole are our current and planned nuclear Triad of submarines, land-based missiles, and bombers.

Cutting the Triad as Mr. Adams and Mr. Korb suggest would therefore be reckless, particularly as reducing our nuclear assets to under a handful would make it easier for our adversaries to attack us and get us out of the nuclear business. Six submarines in the force would allow 2-3 to be at sea on patrol at any one time. That leaves all of four-five targets for the Russians to take out to disarm the United States---2-3 submarines at sea and two Navy subbases in Kings Bay, Georgia and Bangor, Washington. An ASW or anti-submarine warfare breakthrough would put the US nuclear deterrent at easy risk of pre-emptively being destroyed.

Even more absurd was Mr. Adam’s assertion—echoed by Mr. Korb---that the incoming Trump administration was launching some kind of a new nuclear arms race. Let us examine the record.

If arms control deals are accurate, the United States has cut nuclear warheads from 2200 deployed strategic warheads under the 2002 Moscow Treaty to as low as 1550 under the 2010 New Start agreement. This is a further reduction from the George W. Bush era when US strategic deployed nuclear weapons were cut from 6000 after Start I to 2200 under the Moscow treaty, a 67% reduction. This in turn was on top of the reduction from over 12,000 warheads to the 6000-warhead level under the START 1 treaty between the US and Russia.

Given the Trump administration had no plans to reverse these very large—90%-- reductions, Adams and Korb still called on the US to stop the “arms race”, even though through this entire period of reductions the US also did not deploy a single new nuclear platform.

When the US does complete its planned modernization, the US will still have not added a single warhead to the arsenal allowed by the 2010 New Start treaty. It does, however, avoid what Dr. Clark Murdock, formerly a top staff member of the House Armed Services Committee and the founder of the Program on Nuclear Initiatives at the Center for Strategic and International Studies, described as a US nuclear force “rusting to obsolescence” which would be the result if we failed to replace our aging nuclear systems. So, the Trump administration has fully funded a robust modernization program that will eventually replace our currently aging nuclear force, but all within the parameters of the New Start agreement.

What arms race were Adams and Korb worrying about?

The US has modernized only twice: the first time under Presidents Dwight Eisenhower and John F. Kennedy and lastly under President Ronald W. Reagan and George W. Bush. Our land-based ICBMs were initially built in 1971 and given a life extension starting in 1994. Our last Ohio-class submarine was built in 1991; and our newest B52 was initially built in 1963. And the last B2 bomber was built in 1997. The idea that deciding some half century after these systems were initially deployed to replace them is somehow perpetuating an “arms race” is hard to understand.

Not only is the US not starting an arms race, but our adversary Russia has already finished racing on its own! Russia has built or will soon build some 27 new nuclear platform types since 1991 while the 5 successive American administrations during that period have implemented a 90% reduction in deployed nuclear forces while building zero new ones.

Even more important to understand is as USAF Major General Garret Harencak warned a Capitol Hill audience on May 13, 2015, the United States at the end of the Cold War not only did not start a nuclear arms race but went on “an intellectual and procurement nuclear holiday.”

But with the leadership of subsequent Secretaries of the Air Force and USAF Chiefs of Staff, and administrations and Congress dedicated to doing the right thing, the United States has moved quickly to remedy the holiday about which Harencak spoke. A planned modernized bomber and ICBM force—and the Navy’s submarine replacement program—is supported by

both this administration and an overwhelming majority in the US Congress and over the past 4 years has received full funding.

This consensus was difficult to achieve and if destroyed may not be put back together. But a consensus indeed we have. And we must use that political gift to continue to build support for the necessary future planned US nuclear modernization, especially in the face of an aggressive hegemonic seeking Russia and China both fully expanding and modernizing their respective nuclear forces. It is to hoped, therefore, that the prospective deal with Russia to freeze all nuclear warheads—with a one-year extension of New Start during which to negotiate how to verify the deal---is successfully concluded as our national leaders “provide for the common defense.”

*The Hall of Fame catcher for the New York Yankees, Yogi Peter Berra, winner of eight World Series, made the statement “Its déjà vu all over again” to describe the Yankees winning another World baseball title.



20th Annual Nuclear Triad and Deterrence Symposium
December 10, 2020
8am CT/9 am ET – 11am CT/12pm ET

Hosted by Louisiana Tech Research Institute (LTRI), Cyber Innovation Center (CIC) and the Mitchell Institute for Aerospace Studies (in association with Air Force Global Strike Command).

	Speakers/Topic	Pre-recording Date/Time
7:55am (CT)	Online with Triad Symposium graphics/video and music; sponsor recognition	
8:00am (CT)	Introductory Remarks: Peter Huessy, Mitchell Institute and Craig Spohn, Cyber Innovation Center (Live)	
8:05am (CT)	Keynote Remarks: General Timothy Ray, Commander, Air Force Global Strike Command (Live)	
TBD	Mitchell Institute video; LTRI video; CIC video	
8:40am (CT)	Congressman Mike Johnson, (R-LA) - “The Look from the Hill: America’s Nuclear Deterrent Enterprise” (Recorded)	
TBD	Northrop Grumman video; Boeing video	

9:15am (CT)	Live speaker TBD (Adm (ret) Cecil Haney; Congressman Mac Thornberry)	
TBD	Lockheed Martin video; General Dynamics video	
9:50am (CT)	Colonel (Sel) Dan Voorhies, Air Force Global Strike Command lead on GBSD and Captain Doug Williams, USN, Technical Director, Navy Strategic Systems Programs: “GBSD and Columbia: Key Deterrent Factors, An Update” (Live)	
TBD	Other sponsor videos	
10:20am (CT)	Maj Gen (Ret) Garret Harencak, Jacobs Engineering: “The Consequences of National Nuclear Holidays”	
10:55am (CT)	Closing Remarks: Craig Spohn, Executive Director, CIC (Live)	
On-demand	Drew Walter, PTDO Deputy Assistant Secretary of Defense for Nuclear Matters	
On-demand	Mark Gunzinger, Col, USAF (Ret), Director Future Concepts and Capability Assessments, Mitchell Institute for Aerospace Studies: “Hypersonic Technology, Strategic Bombers and Nuclear Weapons: Resetting Deterrence”	
On-demand	Henry Sokolski, executive director of the Nonproliferation Policy Education Center: “The Coming Nuclear Proliferation Challenge”	
On-demand	Lt Gen (Ret) Frank Klotz, RAND Corporation: The New Start and Arms Control Environment	
On-demand	Ronald F. Lehman II, Counselor to the Director of Lawrence Livermore National Laboratory and Peter Huessy, Mitchell Institute: “Getting in the Way of Consensus: Nuclear Mythologies and Misconceptions”	
On-demand	Dr. Brad Thayer, Professor at the University of Texas San Antonio: “China’s Nuclear Strategy and Great Power Competition”	I will be free to pre-record my remarks after Thanksgiving, i.e. between Nov. 30th and Dec. 4th.

Speaker Bios

	<p>Mark Gunzinger, Col, USAF (Ret), Director Future Concepts and Capability Assessments, Mitchell Institute for Aerospace Studies</p>
 A portrait of Maj. Gen. Garrett Harencak, a man with short grey hair, wearing a grey suit, blue shirt, and patterned tie. He is smiling and standing in front of an American flag.	<p>Maj. Gen. Garrett Harencak (Ret) is vice president for Jacobs Engineering Group in Colorado Springs and spent 28 years in the Air Force, retiring as a major general and commander of the Air Force Recruiting Service. Before his final USAF assignment, he was the Assistant Chief of Staff for Strategic Deterrence and Nuclear Integration, Headquarters U.S. Air Force.</p> <p>General Harencak entered the Air Force in 1983 as a graduate of the U.S. Air Force Academy. His assignments included aircraft command of the B-52; instructor pilot and squadron command in the B-1B; and service as aide to the Commander of U.S. Central Command. He also directed the Headquarters U.S. Air Force Executive Secretariat and served as Deputy Director of Requirements at Headquarters Air Combat Command. General Harencak commanded the 7th Bomb Wing at Dyess Air Force Base, Texas, and the 509th Bomb Wing at Whiteman AFB, Missouri.</p>
 A portrait of Peter Huessy, a man with short grey hair and glasses, wearing a dark suit and a light-colored shirt. He is smiling and standing in front of a blue background with a circular logo.	<p>Peter Huessy is Director of Strategic Deterrent Studies at the Mitchell Institute for Aerospace Studies and President and CEO of Geo-Strategic Analysis. Mr. Huessy teaches nuclear deterrent and missile defense policy at the U.S. Naval Academy as part of his work on a wide range of national security and defense issues, including nuclear deterrence, missile defense, terrorism and counterterrorism, proliferation, energy, and immigration. He created a nuclear deterrent and missile defense seminar series in 1983 and since then has hosted 1,500 of these seminars on key defense and national security issues for the Mitchell Institute, and previously for the National Defense Industrial Association and the National Defense University Foundation. He created the Triad series of conferences in 2011.</p>



Congressman Mike Johnson is a Republican member of Congress proudly serving Louisiana's Fourth District. He represents the nearly 760,000 residents of 15 parishes in the northwest and western regions of the state. Mike was elected to the U.S. House of Representatives on December 10, 2016. For two decades of experience in Constitutional law, he has been appointed to the powerful House Judiciary Committee and named Ranking Member for one of its subcommittees – the Subcommittee on the Constitution, Civil Rights and Civil Liberties. He also serves on the House Natural Resources Committee overseeing American energy production, mineral issues, fisheries, and several other key contributors to Louisiana's economy. Mike was appointed to the Natural Resources Subcommittees on Oversight and Investigations and Water, Power and Oceans.



Lieutenant General Frank Klotz (USAF, Ret.) is senior fellow for strategic studies and arms control at the Council on Foreign Relations (CFR). He is the former commander of Air Force Global Strike Command. In that position, he established and then led a brand new 23,000-person organization that merged responsibility for all U.S. nuclear-capable bombers and land-based missiles under a single chain-of-command. From 2005 to 2007, General Klotz was the vice commander of Air Force Space Command,

Earlier in his military career, General Klotz served as the defense attaché at U.S. Embassy Moscow during a particularly eventful period in U.S.-Russian relations. Later, as the director for nuclear policy and arms control on the National Security Council staff, he represented the White House in the talks that led to the 2002 Moscow Treaty to reduce strategic nuclear weapons. He subsequently coordinated the executive branch's negotiations with the Senate Foreign Relations Committee to ratify the treaty resulting in a 95-0 vote in favor by the full Senate.



The Honorable Ronald F. Lehman II is the Counselor to the Director of Lawrence Livermore National Laboratory. For the State Department, Lehman Chairs the Governing Board of the International Science and Technology Center (ISTC), an intergovernmental organization. For the Defense Department, Ron was one of the original members of the Defense Threat Reduction Advisory Committee (TRAC) and was its Chair from 2014 through 2019 having previously served as Vice Chair.

Lehman was Director of the U.S. Arms Control and Disarmament Agency from 1989 to 1993, when START I, START II, the Chemical Weapons Convention, Conventional Forces in Europe, Open Skies, and other historic agreements were concluded. Previously, he served in the U.S. Department of Defense as Assistant Secretary for International Security Policy, in the State Department as Ambassador and U.S. Chief Negotiator on Strategic Offensive Arms (START I), and in the White House as Deputy Assistant to the President for National Security Affairs. He has also served on the National Security Council staff as a Senior Director, in the Pentagon as Deputy Assistant Secretary, on the Senior Professional Staff of the U.S. Senate Armed Services Committee, and in Vietnam commissioned in the United States Army.

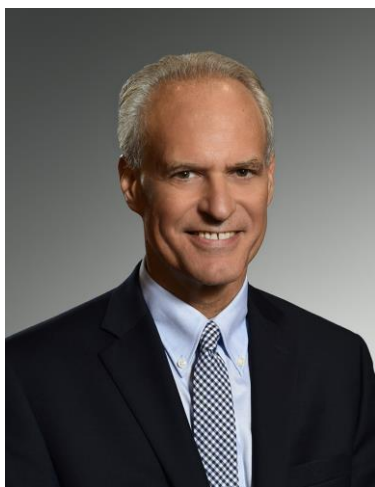
For many years, he was the Director of the Center for Global Security Research at LLNL.



Gen. Timothy M. Ray is Commander, Air Force Global Strike Command and Commander, Air Forces Strategic - Air, U.S. Strategic Command, Barksdale Air Force Base, Louisiana. AFGSC provides strategic deterrence, global strike, and combat support to USSTRATCOM and other geographic combatant commands. The command is comprised of more than 33,700 professionals operating at two numbered air forces: 11 active duty, Air National Guard and Air Force Reserve wings, the Joint Global Strike Operations Center and the Nuclear Command, Control and Communications Center. Weapons systems assigned to AFGSC include all U.S. Air Force Intercontinental Ballistic Missiles and bomber aircraft, UH-1N helicopters, E-4B National Airborne Operations Center aircraft, and the remaining U.S. Air Force NC3 weapons system.

General Ray earned his commission from the U.S. Air Force Academy in 1985. He completed undergraduate pilot training and has held operational flying assignments in the T-38 and B-52, serving as an instructor, evaluator pilot and squadron commander. He has also flown the B-1 and commanded the 7th Bomb Wing at Dyess AFB, Texas. General Ray had various staff assignments at the major command, Headquarters U.S. Air Force and combatant command levels, as well as served as Commanding General, NATO Air Training Command - Afghanistan, NATO Training Mission - Afghanistan/Combined Security Transition Command - Afghanistan and Commander, 438th Air Expeditionary Wing, Kabul, Afghanistan.

Prior to his current assignment, General Ray served as the Deputy Commander, U.S. European Command, Stuttgart, Germany.



Henry Sokolski is the executive director of the Nonproliferation Policy Education Center and teaches graduate-level classes on nuclear policy at the University of Utah and the Institute of World Politics. He is also a Senior Fellow for Nuclear Security Studies at the University of California at San Diego's School of Global Policy and Strategy. He has worked in the Pentagon as Deputy for Nonproliferation Policy, as a consultant to the National Intelligence Council, as a member of the Central Intelligence Agency's Senior Advisory Group, and as a Senate military and legislative aide. He has also served on two congressional commissions on the prevention of WMD proliferation and has authored and edited numerous volumes on strategic weapons proliferation issues, including *Underestimated: Our Not So Peaceful Nuclear Future* and *Best of Intentions: America's Campaign against Strategic Weapons Proliferation*.

prefers no photo

Bradley Thayer is a Professor at the University of Texas San Antonio and a former Fellow of Magdalen College, University of Oxford and the Belfer Center for Science and International Affairs, Harvard University

	Col Daniel Voochies
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Previews of Coming Distractions was the title of the daily news clips compilation report published by Senator Lawton Chiles, Chair of the Senate Budget Committee, US Senate.