

# **ICON WEEKLY REPORT DECEMBER 4<sup>th</sup>, 2020 FROM THE ICBM EAR AND PETER HUESSY, PRESIDENT OF GEOSTRATEGIC ANALYSIS, PREVIEWS OF COMING DISTRACTIONS**

## **The Congressional News in Brief**

- ✓ The Senate Appropriations Defense Bill has been completed and there are modest cuts in the GBSD and the LRSO programs.
- ✓ The NDAA conference bill is complete—all 4500+ pages--and will be reportedly on the way to the White House.
- ✓ A number of non-military issues may block the bill from becoming law but that will be resolved soon.
- ✓ There is also a package of appropriations bills for the whole of government to avoid a Dec 11 shutdown and fund the defense department and related defense programs as well as all of government for the remainder of the year, with roughly \$730 billion in the OCO, NNSA and Defense Base force spending.
  
- ✓ There is continued speculation that the new administration will seek to relook at the nuclear deterrent modernization efforts including examining whether the GBSD and LRSO should be terminated, delayed, or reduced in funding.
- ✓ Michelle Flournoy, a top candidate for Secretary of Defense, said in 2017 that it made sense to examine whether the nuclear deterrent legacy systems including the ICBM leg of the Triad should be continued or significantly reduced in size.
- ✓ A group of 35 social justice and peace groups wrote a letter to former VP Biden calling for GBSD and LSRO to be terminated along with the proposed nuclear armed cruise missile for the Navy and the low yield warheads for the D-5 missiles. That letter was provided to the ICON last week.
- ✓ Other reports indicate that during the campaign, the former VP Mr. Biden also expressed support for adopting a nuclear strategy of “No First Use”.

## **Events of Interest**

Future Navy Plans: The US Naval Institute

[https://event.on24.com/wcc/r/2713260/CFC6DA60A3A31B670AF34F4D4346534B?mode=login  
&email=phuessy@afa.org](https://event.on24.com/wcc/r/2713260/CFC6DA60A3A31B670AF34F4D4346534B?mode=login&email=phuessy@afa.org)

Mitchell Institute is hosting in its Space Power seminar series Lt Gen Joseph T. Guastella". Please email [kgunzinger@afa.org](mailto:kgunzinger@afa.org) for an invitation for the Dec 8, 2020 presentation at 9:30am. Or email [Mitchell@afa.org](mailto:Mitchell@afa.org)

12/04/20 09:00 AM EST

[Webinar: The Center for Strategic and International Studies](#)

The Center for Strategic and International Studies holds a webcast, beginning at 9 a.m., on the top national security priorities for a new Biden administration.

12/04/20 03:00 PM EST

[Webinar: The Hudson Institute](#)

The Hudson Institute holds a webinar, beginning at 3 p.m., on "Diplomacy, Deterrence, and Disruption: Navigating North Korea Policy in 2021."

12/07/20 11:00 AM EST

[Discussion: The Rice University Baker Institute for Public Policy's Science and Technology Policy Program](#)

The Rice University Baker Institute for Public Policy's Science and Technology Policy Program holds a virtual discussion, beginning at 11 a.m., on "Reducing Global Security Risks: The Agenda for 2021 and Beyond," focusing on the current state of global security relating to nuclear and biological threats.

12/08/20 12:00 PM EST

[Webinar: The Cato Institute](#)

The Cato Institute holds a webinar, beginning at 12 p.m., on "Space Force: Ahead of Its Time or Dreadfully Premature?"

12/08/20 12:00 PM EST

[Webinar: The Center for Strategic and International Studies](#)

The Center for Strategic and International Studies holds a webcast, beginning at 12 p.m., on "Nuclear Modernization and Arms Control in 2021."

12/09/20 04:00 PM EST

[Debate: The Center for Strategic and International Studies](#)

The Center for Strategic and International Studies holds a virtual debate, beginning at 4 p.m., on "Within the Next Five Years, China Will Use Significant Military Force Against a Country on its Periphery," the fourth in a series of five debates as part of the China Power Project's fifth annual conference.

12/11/20 09:00 AM EST

[Discussion: The Atlantic Council Scowcroft Center for Strategy and Security's Transatlantic Security Initiative](#)

The Atlantic Council Scowcroft Center for Strategy and Security's Transatlantic Security Initiative holds an online discussion, beginning at 9 a.m., on "NATO 20/2020: 20 bold ideas to reimagine the Alliance after the 2020 U.S. election."

## Congressional Defense Spending Update

**1. Growing probability of ~\$1.4T 2021 Omnibus Appropriations Bill, before end of December 11, 2020 CR**, (now that HAC & SAC have reached agreement on topline funding for each agency). (Politico, Nov. 24, 2020).

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**2. Potential Defense Secretary candidates:** (a) Michele Flournoy; (b) Jeh Johnson; (c) Sen. Tammy Duckworth (D-IL); (d) Gen. Lloyd Austin (US Army, Ret.), (former CENTCOM Commander). [“Elevate diplomacy and de-emphasize the military”] (Axios; Bloomberg; Business Insider; The Independent, Nov. 27, 2020).

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**3. Growing expectation of ~+2B-\$4B/year, of increased 2022-2026 Navy topline funding for Shipbuilding, under current Trump Administration.** [Presumably funded from cuts to USAF; Army; and DoD-wide funding]

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## Trump Administration News

**4. POTUS Trump**, (Thanksgiving call to US Troops, Oval Office, Nov. 26, 2020):

**a. To US Troops:** (i) Peace through strength; (ii) US has spent ~\$2.5T on national security during Trump’s-tenure; (iii) very proud of US Space Force.

**b. To reporters:** (i) Still challenging election results; (ii) Took credit for accelerated COVID-19 vaccines, (~40M initial vaccine doses, (for 20M Americans), to be shipped by December 31, 2020, funded with ~\$13B of Operation Warp Speed funding from CARES Act); (iii) Testy, but will agree to peaceful-transition, if current legal challenges fail.

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**5. POTUS Trump at G-20 Summit**, adamant that Paris Climate Accord will destroy the US Economy, (mandating immediate US pollution-reduction), while China becomes the world’s largest economy by default, (because mandatory Chinese pollution-reduction does not begin until ~2030-2032). (G-20, Nov. 22, 2020):

**POTUS Trump:** “To protect American workers, I withdrew the United States from the unfair and one-sided Paris Climate Accord...The Paris Accord was not designed to save the environment, it was designed to kill the American Economy. I refuse to surrender millions of American jobs and send trillions of American dollars to the world’s worst-polluters...Since withdrawing from the Paris Accord, the United States has reduced carbon-emissions more than any nation, anywhere in the world. Our air is 7% cleaner than when I took office.”

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## Biden News

**a. “America is back. We are at the head of the table once again.”**

**b. Transition briefings are fully underway, from national security, to COVID-19 vaccine distribution.**

**c. There will likely be three approved COVID-19 vaccines, before January 20, 2021 Inauguration.**

**Biden:** “The Administration has set up a [vaccine] roll-out...We may alter that...I’ve had a zoom [call] with the leading Governors in the country...We’ve talked extensively about the need...to get the vaccine into places where you can actually get vaccinated...The hope is that this Administration can begin to distribute it, before we are sworn-in to take office...”

**d. Planning to issue a “national mask mandate”, with major ramp-up in testing & contact-tracing.**

**Biden:** “I hope that we are going to be able to have a united voice, on the need to mask, socially-distance, testing, and [contact] tracing...They’re critical, critical pieces, to dealing with bringing down this virus to a more manageable place...The words of a President matter...I think it’s a patriotic responsibility to wear a mask.”

**e. Wants ~\$150B-\$200B to re-open schools.**

**Biden:** “It takes a lot of money to get them back [to school]. The estimates are \$150B-\$200B for the year...to safely open our schools...We know that we have to change everything from the ventilation systems...We have to make sure that everyone, from the sanitation workers...right through to the bus drivers...they have to be protected...they need the PPE...They [teachers] need to have smaller modules of classes...”

**Biden: Will send Bill to Senate, to create a “pathway-to-citizenship” for all ~11M undocumented-immigrants in the US. Will also be issuing Executive Orders to enforce Climate Change.**

**Biden:** “In the first 100 days, I will send an immigration bill to the United States Senate, with a pathway-to-citizenship for over 11 million undocumented people in America. I will also be moving to do away with some of the...very damaging Executive Orders that have significantly-impacted on making the climate worse, and making us less healthy, from methane, to a whole range of things...”

**First priority in “Fourth Stimulus”, is funding for state & local governments.**

**Biden:** “There’s also things that I want to do, that relate to the ability to make sure that we get immediate assistance [to] state & local governments, to keep them from basically going under...”

**Other priority in “Fourth Stimulus”, is funding for minority-communities.**

**Biden:** “The most important thing...is focus on those folks who are always...when crisis hits, are the first ones hit, and when recovery comes, are the last ones in, that’s basically minority-communities which have been hurt very badly...Think of all the people who are lying-awake at night, staring at the ceiling, thinking ‘God forbid, what happens if?’...”

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**Biden**, (National Governors Meeting, Nov. 19, 2020), (~10 Governors): **Planning for “dark winter ahead”**. (“The projections are, that if nothing fundamentally changes, between now and the beginning of February, we are likely to lose a total of 400,000 lives, another 150,000 lives.”).

**Beating COVID-19 will require a national effort:**

**Congress must immediately-pass “Fourth Stimulus” to fund state & local governments.** (“Lost revenue from COVID, and the cost of COVID recovery, is devastating to state & local budgets...The federal government has to deliver this relief...and with flexibility for the states to meet their needs”).

**Concerned over speed of vaccine mass-production.** (“One statistic raised by the Governors, was that it took eight-months to provide 100 million COVID tests...eight-months...Just imagine how much more difficult it will be...to provide 330 million vaccinations”).

**Vaccines do not save lives, only vaccinations save lives.** (“The Governors talked about having vaccines distributed, is just one step, we actually have to get vaccinations into the arms of 330 million Americans...That takes enormous resources...”).

**Massive public education campaign is required, to persuade members of “traditionally-underserved-communities”, to take the vaccine.** (“Black, Brown, Latino, Latin-American, Native-American communities”).

**Full Federal funding of all Title 32 National Guard support.** (“That is going to cost a lot of money, Governors need that paid for”).

**National mask mandate.** (“Ten Governors, Democrat & Republican, have imposed masking requirements...for universal masking...It is a patriotic duty”).

**Massive expansion of COVID-19 testing.** (“Making testing more available & accessible, anyone who wants a test, should be able to get one, period”).

**Much greater use of Defense Production Act mandate.** (“We are going to employ the Defense Production Act, to be able to go out there and dictate companies to build, and do the following things, we need much more masking, we need gloves...That should be moved on now, now.”).

**Pledging no “national shutdown”. But fully-supports strict-business-conditions in high-infection states.**

**Biden:** “I am not going to shut down the Economy, period. I am going to shut down the virus. I will say it again, no national shutdown. No national shutdown. Every region, every area, every community can be different. There is no circumstance that I can see that would require a total national shutdown...But there are constraints...to which businesses can be opened. For example,...in a state where the infection rate is not as high, you can have gymnasiums open. It is another thing to say it can only be open four hours per day, with ‘x’ number of people.

The church I go to...they don't allow more than 40% of the people to come into the church. Those are rational decisions. That's not shutting down everything. It is calibrated, based on what the threat is."

**Strong desire to shift greater-quantity of vaccine, to under-represented communities-of-color.**

**Biden:** "The idea that the Brown, Black, Asian-American, and Native-American communities, are always the first ones hit the hardest, and the last ones brought back. We're going to flip that around...You know, three times as many African Americans died, than white Americans from COVID. So there has to be a prioritization...We have got to make sure that there is access for them."

**Planning for aggressive Federal deficit-spending, to attempt to drive economic jobs growth.**

**Biden:** "The way the Federal Reserve has been approaching dealing with the dollar...has been in the positive direction...Our interest rates are as low as they have been in modern history...It lends credence to the possibility of us being able to expend the money in deficit spend[ing], in order to be able to generate economic growth right out of the bat."

**US will immediately-rejoin both the WHO, and the Paris Climate Accord.**

**US must work with allies, to identify "certain bright lines that the Chinese understand".**

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**Biden Thanksgiving address, (Nov. 25, 2020):**

"Our country is in the middle of a dramatic spike in [COVID-19] cases. We are now averaging 160,000 new cases a day. And no one will be surprised if we hit 200,000 cases in a single day. Many local health systems are at-risk of being over-whelmed."

: "We have to try to slow the growth of this virus...It means wearing a mask, keeping social-distancing, limiting the size of any group we're in."

"Starting on day one of my Presidency, we will take steps that will change the course of this disease. More testing. We will find people with cases and get them away from one another. More protective gear for businesses and our schools...Clear guidance, to get more businesses and schools open. The Federal Government has vast powers to combat the virus. I commit to you; I will use all of those powers to lead a national coordinated response."

"The good news is that there has been significant record-breaking progress recently in developing the vaccine. And several of these vaccines look extra-ordinarily effective. It happens that we're on-track for the first immunization to begin by late December or early January. Then we will need to put in place, a distribution plan to get the entire country immunized as soon as possible."

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**Incoming White House Staff:**

- Chief of Staff, Ron Klain. [Deputy Chief of Staff, Jen O'Malley Dillon]
- White House Counsel, Dana Remus.

- Senior Advisor to President, Mike Donilon.
- Counselor to the President, Steve Ricchetti.
- Director of Public Engagement, Cedric Richmond.
- Director of Intergovernmental Affairs, Julie Rodriguez.
- Director of Presidential Personnel, Cathy Russell.
- Director of Legislative Affairs, Louisa Terrell. [Deputy Directors, Reema Dodin and Shuwanza Goff]

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**Biden's introduction of Foreign Policy & National Security Team.** (C-SPAN, Nov. 24, 2020): **US will immediately re-join multi-lateral organizations, (e.g., Paris Climate Accord, and WHO). Economic security is national security. COVID-19, climate change, and growth of the middle-class to reduce inequality, are the three primary Biden/Harris national security pillars. Brief reference to China's "predatory trade practices".**

America is back. Ready to lead the world. Not retreat from it. Once again, sit at the head of the table. Ready to confront our adversaries, and not reject our allies. Ready to stand up for our values."

"America is strongest when it works with its allies...That's how we truly keep America safe, without engaging in needless military conflicts, and our adversaries in-check, and terrorists at-bay. And that's how we counter terrorism & extremism, control this pandemic and future ones, deal with the climate crisis, nuclear proliferation, cyber threats & emerging technology, the spread of authoritarianism, and so much more."

"To win the competition for the future, we need to keep us safe & secure, and build back better than ever. We need to invest in our people, sharpen our innovative edge, unite the economic might of our democracies around the world, to grow our middle class, and reduce inequity. Do things like counter 'predatory trade practices' of our competitors."

"For the first time ever, the United States will have a full-time [Climate Change] leader, participating in ministerial meetings...[H]e will have a seat at every table around the world. For the first time ever, there will be a Principal on the National Security Council, who can make sure climate change is on the agenda in the Situation Room...mobilize action to meet the existential threat that we face...The world will know that with one of my closet friends, John Kerry, he is speaking for America, on one of the most pressing-threats of our time."

**Secretary of State, Antony Blinken.** ["Rebuild morale & trust in the State Department"]

· **National Security Advisor, Jake Sullivan.** ["He helped lead the early negotiations that led to the Iran Nuclear Deal. He helped broker the Gaza cease-fire in 2012. Played a key role Asia-Pacific rebalance in our Administration. And in this campaign...he served as one of my most-trusted advisors...including helping me develop our COVID-19 strategy. Jake understands my vision, that 'economic security is national security', and will help steer what I call 'foreign policy for the middle class'"]

· **Secretary of DHS, Alejandro Mayorkas.** ["It is a job that plays a critical role in fixing our broken immigration system"]



**ODNI, Avril Haines.** [“If she gets word of a threat coming to our shores, like another pandemic or foreign interference in our elections, she will not stop raising alarms, until the right people take action”]

**UN Ambassador, Amb. Linda Thomas-Greenfield.** [Cabinet Post] [“She never forgot where she came from, growing up in segregated Louisiana, the eldest of eight [children], her Dad could not read or write”]

**Special Presidential Envoy for Climate Change, Sec. John Kerry.** [NSC Member]

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**The 20<sup>th</sup> Bi-Annual TRIAD SYMPOSIUM IN COOPERATION  
WITH GLOBAL STRIKE COMMAND, THE MITCHELL  
INSTITUTE FOR AEROSPACE STUDIES, THE CYBER  
INNOVATION CENTER AND THE LOUISIANA TECH  
RESEARCH INSTITUTE TAKES PLACE DECEMBER 10<sup>TH</sup>.**

20th Annual Nuclear Triad and Deterrence Symposium

<b>SECOND TO NONE: WORKING TOGETHER TO MODERNIZE AMERICA'S NUCLEAR DETERRENT</b>
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**December 10, 2020**

**9am CT/10 am ET – 12 noon CT/1pm ET**

Link is Here: [Invitation to the Live Virtual Nuclear Triad Symposium 10 Dec 2020](#)

**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).**

I urge all ICON members please to attend the virtual event where we will be doing live presentations with General Dawkins and General Harencak. General Ray will pre-record his remarks and discuss the work of Global Strike Command, while , General Dawkins will discuss in part the NC3 challenges the USAF faces, and General Harencak the origins and consequences of the nuclear procurement holiday the US embarked on at the end of the Cold War.


	Speakers/Topic
Live Broadcast	
8:55am (CT)	Online with Triad Symposium graphics/video and music; sponsor recognition



9:00am (CT)	Introductory Remarks: <b>Peter Huessy, Mitchell Institute and Craig Spohn, Cyber Innovation Center</b> (Live)
9:05am (CT)	Keynote Remarks: <b>General Timothy Ray, Commander, Air Force Global Strike Command</b> (Live)
TBD	Mitchell Institute video; LTRI video; CIC video, sponsor videos
9:40am (CT)	<b>Congressman Mike Johnson, (R-LA)</b> - "The Look from the Hill: America's Nuclear Deterrent Enterprise" (Recorded)
10:15am (CT)	<b>Peter Huessy, President, GeoStrategic Analysis</b> , Director of Strategic Deterrent Studies at the Mitchell Institute: "The Nuclear Arms Control Landscape: Does Arsenal Size Matter?"
10:50am (CT)	<b>Colonel (Sel) Dan Voorhies, Air Force Global Strike Command lead on GBSD and Captain Proper, USN, Navy Strategic Systems Programs:</b> "GBSD and Columbia: Key Deterrent Factors, An Update" (Live)
11:20am (CT)	<b>Maj Gen (Ret) Garret Harencak, Jacobs Engineering:</b> "The Consequences of National Nuclear Holidays"
11:55am (CT)	Closing Remarks: <b>Craig Spohn, Executive Director, CIC</b> (Live)
On-demand	<b>Dr. Christopher Ford, Assistant Secretary for International Security and Nonproliferation:</b> "Nuclear Proliferation and Arms Control in the Context of Triad Modernization."
On-demand	<b>Mark Gunzinger, Col, USAF (Ret), Director Future Concepts and Capability Assessments, Mitchell Institute for Aerospace Studies:</b> "Hypersonic Technology, Strategic Bombers and Nuclear Weapons: Resetting Deterrence"
On-demand	<b>John Harvey, former Principal Deputy Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs:</b> "Conserving the Consensus on Modernizing the Triad."
On-demand	<b>Lt Gen (Ret) Frank Klotz, RAND Corporation:</b> The New Start and Arms Control Environment
On-demand	<b>Ronald F. Lehman II, Counselor to the Director of Lawrence Livermore National Laboratory and Peter Huessy, Mitchell Institute:</b> "Getting in the Way of Consensus: Nuclear Mythologies and Misconceptions"
On-demand	<b>Henry Sokolski, executive director of the Nonproliferation Policy Education Center:</b> "The Coming Nuclear Proliferation Challenge"
On-demand	<b>Dr. Brad Thayer, Professor at the University of Texas San Antonio:</b> "China's Nuclear Strategy and Great Power Competition"

On-demand	<b>Drew Walter, PTDO Deputy Assistant Secretary of Defense for Nuclear Matters</b>
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## Speaker Bios

	<p><b>Dr. Christopher Ford</b> was sworn in as Assistant Secretary for International Security and Nonproliferation on January 9, 2018. In his current capacity, Dr. Ford was additionally delegated the authorities and functions of the Office of the Under Secretary for Arms Control and International Security on October 21, 2019. Before ISN, Dr. Ford served as Special Assistant to the President and Senior Director for Weapons of Mass Destruction and Counterproliferation at the National Security Council.</p> <p>Dr. Ford began his public service in 1996 as Assistant Counsel to the Intelligence Oversight Board and then served on several Congressional staffs, including the Senate Select Committee on Intelligence. In 2003, he served as Principal Deputy Assistant Secretary in the State Department's Bureau of Verification and Compliance (now the Bureau of Arms Control, Verification, and Compliance). In 2006, he was named U.S. Special Representative for Nuclear Non-Proliferation, where he was responsible for U.S. diplomacy with respect to the Treaty on the Non-Proliferation of Nuclear Weapons.</p> <p>From 2008 to 2013, Dr. Ford was a Senior Fellow at Hudson Institute, a foreign affairs and national security think tank. In 2013, Dr. Ford returned to Congress where he served on the Senate Committee on Appropriations, the Senate Committee on Banking, Housing, and Urban Affairs, and the Senate Committee on Foreign Relations. Dr. Ford also served as an intelligence officer in the U.S. Navy Reserve from 1994 until 2011, receiving an Honorable Discharge at the rank of Lieutenant Commander. He is the author of three books and scores of articles and monographs.</p>
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**Mark Gunzinger, Col, USAF (Ret)**, Director Future Concepts and Capability Assessments, Mitchell Institute for Aerospace Studies

Mr. Gunzinger served in multiple positions as a strategic planner in the U.S. Department of Defense. As the Deputy Assistant Secretary of Defense for Forces Transformation and Resources, Mark was the principal author or co-author of multiple Defense Planning Guidance directives, key strategic planning documents that shaped DoD's future force planning. A retired U.S. Air Force Colonel and Command Pilot, Mark joined the Office of the Secretary of Defense in 2004. He was appointed to the Senior Executive Service and served as Principal Director of DoD's central staff for the 2006 Quadrennial Defense Review before joining the National Security Council Staff as the Director for Defense Transformation, Force Planning and Resources. During his Air Force career, Mark was an aircraft commander/instructor pilot with over 3,000 hours in the B-52, served as a strategic planner on the Air Staff, and helped lead multiple assessments of future capability requirements. Mark is now the Director for Future Concepts and Capability Assessments at the Mitchell Institute for Aerospace Studies.



**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.

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.





**Dr. John R. Harvey** is a physicist with over 35 years of experience working nuclear weapons and national security issues, first at Lawrence Livermore National Laboratory, then at Stanford University's Center for International Security and Arms Control and in senior positions in the Departments of Defense (twice) and Energy. From 2009-2013, he served as Principal Deputy Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs under then Undersecretary Ash Carter. He was Dr. Carter's "go to" person for the 2010 Nuclear Posture Review, as well as for interactions with the Department of Energy on joint oversight of the U.S. nuclear weapons stockpile. Dr. Harvey also provided oversight to DoD acquisition programs to sustain and modernize nuclear weapons delivery systems and systems for their command and control. Since retiring from government service in 2013, he consults with the Defense Science Board, Institute for Defense Analysis, Los Alamos National Laboratory, National Institute for Public Policy, Center for Strategic and International Studies and Strategic Command's Strategic Advisory Group Panel on Nuclear Weapons Command and Control.




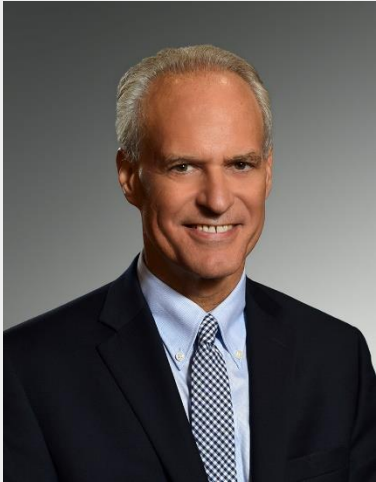
**Peter Huessy** is Director of Strategic Deterrent Studies at the Mitchell Institute for Aerospace Studies and President and CEO of Geo-Strategic Analysis. Mr. Huessy teaches nuclear deterrent and missile defense policy at the U.S. Naval Academy as part of his work on a wide range of national security 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.



**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.

	<p><b>Lieutenant General Frank Klotz</b> (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,</p> <p>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.</p>
	<p><b>The Honorable Ronald F. Lehman II</b> 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.</p> <p>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.</p> <p>For many years, he was the Director of the Center for Global Security Research at LLNL.</p>



	<p><b>Gen. Timothy M. Ray</b> 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.</p> <p>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.</p> <p>Prior to his current assignment, General Ray served as the Deputy Commander, U.S. European Command, Stuttgart, Germany.</p>
	<p><b>Henry Sokolski</b> 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.</p> <p>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 <i>Underestimated: Our Not So Peaceful Nuclear Future</i> and <i>Best of Intentions: America's Campaign against Strategic Weapons Proliferation</i>.</p>
<p>No photo available</p>	<p><b>Bradley Thayer</b> 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</p>
	<p><b>Col Daniel Voohies</b></p>

## Flournoy Gets a Boost for Secretary of Defense

Reps. [Anthony Brown](#) of Maryland and [Marc Veasey](#) of Texas, both members of the Congressional Black Caucus, threw their support behind Michèle Flournoy to be the next defense secretary on Thursday.

The Democrats [argued in a letter to President-elect Joe Biden obtained by POLITICO](#), that Flournoy "has the right combination of experience and vision" for the top Pentagon post.

"Ms. Flournoy has a deep understanding of the structure, organization, and operation of the Pentagon and has served our nation with honor for decades," they wrote. "During her service in both the Clinton and Obama Administrations she demonstrated her ability to lead, capacity to manage the bureaucracy at the Pentagon and her strong relationships with both uniformed and civilian leaders at the Department of Defense."

The pair lauded her experience as Pentagon policy chief, which they said is needed to realign the military to compete with China, invest in new technology and establish "a post-Afghanistan regime for counter-terrorism policies."

The endorsement follows reports this week that some members of the Congressional Black Caucus have [urged Biden to select a Black nominee for defense secretary](#). Over the past week, former Homeland Security Secretary Jeh Johnson and retired Army Gen. Lloyd Austin have emerged as candidates to be the first Black defense secretary.

Top Democrats, including Biden ally Jim Clyburn of South Carolina, have argued the president-elect's Cabinet picks [need to be more diverse](#).

Flournoy herself would make history as the first woman to lead the Pentagon. But while long viewed as the frontrunner for the job, she faces growing scrutiny over her ties to defense contractors and criticism from some on the left over what they consider her hawkish views.

But Veasey and Brown argued she's championed diversity in the national security world.



"Ms. Flournoy has been a tireless advocate for diversity and inclusion in national security and ensuring those of diverse backgrounds have the opportunity to compete and thrive within the enterprise," the pair wrote. "Her nomination as Secretary of Defense would be the realization of these principles: an extremely qualified, dedicated, public servant who is selected not because she is a woman, but because she was given the opportunity to compete and is the right person for the job."

Brown, a retired Army colonel, is the vice chair of the House Armed Services Committee and the only member of the CBC on the panel. Veasey is a former member of the panel. As House members, the pair won't have a vote in confirming Biden's cabinet picks.

Johnson and Austin face hurdles of their own. Opposition research has circulated on Capitol Hill about Johnson's record at Homeland Security, including swifter deportations and expanded family detention — issues that likely won't sit well with progressive Democrats.

Austin, who was Army vice chief of staff and led the U.S. Central Command, retired in 2016, leaving him short of the required seven years that former military officers need to be out of uniform to qualify for the post. Congress would have to pass a waiver for Austin to serve and are likely to bristle at having to grant another exception after doing so for Jim Mattis in 2017.

A House Democratic aide added that CBC members are divided on who should be Biden's defense secretary. Lawmakers are concerned about Johnson's record at DHS and Austin is largely unknown.

Flournoy has also benefited from considerable public support in recent days.

Some other Democratic lawmakers and left-leaning advocacy groups have backed her candidacy. Reps. [Jackie Speier](#) of California, [Jim Langevin](#) of Rhode Island and [Seth Moulton](#) of Massachusetts threw their support behind Flournoy last week, along with Rep. [Ruben Gallego](#), a member of both the Armed Services Committee and the Congressional Progressive Caucus. A slew of arms control advocates also has endorsed her.

## **Rep Rose DeLauro (D-Conn) Gets the HAC Nod**

House Democrats on Thursday elected Rep. [Rosa DeLauro](#) as the next chair of the powerful Appropriations Committee, bestowing the 77-year-old ally of Speaker

[Nancy Pelosi](#) with the long-sought gavel to steer the lower chamber's spending bills in the next Congress.

DeLauro won in a 148-79 caucus-wide vote after vying for the top spot for more than a year against Reps. [Debbie Wasserman Schultz](#) (D-Fla.) and [Marcy Kaptur](#) (D-Ohio). Allies of Wasserman Schultz had insisted that the race was narrowing in recent weeks.

Kaptur — the most senior Democrat on the spending panel and the longest-serving woman in Congress — dropped out of the race at the last minute and backed DeLauro, giving the Connecticut Democrat an edge in a battle that had been tightening with Wasserman Schultz. Kaptur was previously passed over for the position in 2012, when she lost to retiring Chair [Nita Lowey](#) (D-N.Y.).

As chair, DeLauro will work closely with the White House in future funding negotiations, charged with executing President-elect Joe Biden's spending priorities and packing annual appropriations bills with long-held Democratic prerogatives.

If Republicans keep their majority in the Senate, DeLauro will have to navigate the appropriations process alongside Senate Appropriations Chair [Richard Shelby](#) (R-Ala.), who boasts a good working relationship with Lowey. Republicans in the next Congress will likely start raising more concerns about an exploding federal deficit after historic pandemic spending, as Congress looks to deliver more coronavirus relief amid a worsening global health crisis before a vaccine is widely available.

DeLauro's win comes after she was [endorsed by wide margins on Tuesday](#) by the House Steering and Policy Committee, the panel that recommends committee assignments from which DeLauro recently relinquished her position as co-chair. She is the second-most senior of the three candidates who fought for the gavel.

Her ascension to chair of the Appropriations panel amounts to the pinnacle of 30 years in Congress representing Connecticut's 3rd District. The purple-haired Democrat — who currently controls the largest portion of nondefense spending as the chair of the Labor-HHS-Education subcommittee — will be the second woman ever to lead the panel, behind long-time friend Lowey.

DeLauro has pledged to reform the appropriations process and make it more transparent and accessible to members, while better targeting federal investments to underserved and marginalized communities. She has vowed to dispatch with the

Hyde Amendment, a provision tucked into annual spending bills for decades that bars the use of federal funds to pay for abortion. And she supports bringing back earmarked spending next Congress with increased transparency — a priority for many House Democrats and even some Republicans who think that annual spending bills should present more opportunities to secure cash for pet projects at home.

Her win comes despite [a race that had been narrowing with Wasserman Schultz](#), who picked up strong support from members eager for generational diversity within the leadership ranks — especially after a disappointing 2020 election in which Democrats unexpectedly lost more than half a dozen seats.

Wasserman Schultz, who stepped down as DNC chair after an embarrassing trove of emails leaked, had backing from freshmen, moderates, and some members of the Congressional Black Caucus, who typically respect seniority when it comes to leadership elections. Many members also pointed to her prolific fundraising for Democrats and willingness to assist the party, in addition to serving as a mentor for many lawmakers about the appropriations process.

Wasserman Schultz, who leads the subcommittee that oversees funding for military construction and the Department of Veterans Affairs, also had support from members who've seen DeLauro's style as abrasive at times. The Connecticut Democrat is known as a firebrand who doesn't shy away from confrontation, sometimes to her detriment within the caucus.

Still, DeLauro has a reputation for working across the aisle with senior Republican appropriators like Rep. [Tom Cole](#) (R-Okla.), and she has been lauded by the public health and education advocates as a passionate champion for their causes. Major organizations like the AFL-CIO, the National Education Association and the American Federation of Teachers publicly endorsed her in the race for Appropriations chair.

“Our support for Rosa DeLauro comes from working together on appropriations over the course of the last decade or so,” said AFT President Randi Weingarten, who also has a long-time relationship with former DNC Chair Wasserman Schultz, in an interview last month. “She has been a fierce, fierce advocate for working families and for education.”

## **Mike Rogers (R-AL) Gets Ranking HASC Appointment**

The House Republican Steering Committee on Tuesday chose Rep. [Mike Rogers](#) to be the top House Armed Services Republican, according to a source familiar with the situation, beating out Reps. [Mike Turner](#) of Ohio and [Rob Wittman](#) of Virginia.

The full House GOP Conference must still approve Rogers and other committee leaders, which is expected this week. If Rogers wins, he will succeed retiring Rep. [Mac Thornberry](#) of Texas.

Rogers, who is the top Republican on the Homeland Security Committee, was viewed as the favorite in what was long seen a two-way race with Turner. Wittman, who is least senior of the three, was a long-shot candidate.

Armed Services is one of the most coveted committee posts in the House. The panel oversees the annual National Defense Authorization Act, a bill that directs military policy and outlines the Pentagon budget each year. The legislation has been enacted for 59 consecutive years, making it one of the few major bills that reliably passes each year.

The committee has been in the spotlight as House and Senate leaders and the White House tussle over whether to force the Army to rename 10 bases that honor Confederate leaders in a compromise defense bill. Renaming bases, which President Donald Trump opposes, is one of the few hurdles to a final bill, which lawmakers are aiming to pass this week.

The victory puts Rogers in line to chair the Armed Services Committee if Republicans retake the House in the 2022 midterms. Democrats will have a single digit majority next year.

Both Rogers and Turner have long defense track records. Each has chaired multiple Armed Services subcommittees and have deep knowledge of national security issues and ties to the defense community.

Rogers is the most conservative of the three contenders. His backers argued his priorities, relationships in the GOP conference, fundraising for fellow Republicans and legislative record on Armed Services made him the strongest candidate.

As chair of the Armed Services Strategic Forces panel, Rogers was an advocate for creating a military space service, now known as the Space Force. He pushed to stand up a new service in 2017 along with Tennessee Democrat [Jim Cooper](#). The effort was opposed by Turner as well as top senators and then-Defense Secretary Jim Mattis and Air Force Secretary Heather Wilson.

A Space Force was created last year by the National Defense Authorization Act after Trump himself backed the effort.

The man Rogers will replace, Thornberry, is term-limited from the top committee post and is retiring after 13 terms in the House.

With Rogers moving to Armed Services, Republicans will now need to select a new ranking member for the Homeland Security Committee. The Steering Committee is expected to vote on that position on Wednesday.

<p><b>The EAR for the Week of December 4, 2020</b> <b>Nuclear Policy issues and Deterrent Matters</b></p>
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- ✓ The Ear this week also presents to you a USAF point paper on ICBMs and the GBSD program as well as bombers and the LRSO.
- ✓ In addition, we will also include an essay by Peter Huessy on the New Start treaty and an examination of the extent to which the size of our adversary's nuclear forces matters as we consider both our own strategic nuclear modernization as well as future arms control prospects.
- ✓ Also included will be remarks by Henry Sokolski, John Harvey, Professor Brad Thayer, and Mark Gunzinger on our nuclear forces, especially bombers, and the capacity of China to produce nuclear warheads and the geostrategic use to which China would use such weapons.
- ✓

**DOES ONLY SIZE MATTER? THE ISSUE OF NUCLEAR  
STABILITY, ARMS CONTROL AND THE NEW START  
TREATY EXTENSION**

## **By Peter Huessy, December 3, 2020, Maven Warrior**

Since 1972 the United States has sought to curtail the size of the nuclear forces of our prime adversary the USSR (and now Russia) with varying degrees of success. Under the original SALT I agreement the Soviets were assumed to have roughly 2500 long-range or what were known as strategic nuclear warheads.

By the end of the 1980's, the Soviets were well on their way to building up to over 11,500 such warheads a nearly 500% increase from the SALT I levels. Most Soviet warheads were on long-range land-based missiles, with huge throw-weight, or the ability to carry multiple warheads on each missile. And because these missiles were solid fueled the alert rate reached close to 100%. The fear then and today is these missiles are first-strike weapons designed to pre-emptively disarm an adversary.

We now have a New START agreement with Russia, which the next administration will probably extend for five years. Most commentary on the treaty assumes the 2010 deal keeps US and Russian nuclear warheads at 1550. That number appears to be less than the warhead numbers allowed by previous arms agreements, and thus is considered less of a threat, especially for purposes of pre-emption, but it remains suspect.

What's the real number? The real size of the Russian arsenal does matter.

The New START treaty allows the Russians to have 1,490 sea launched and land based strategic long-range missile warheads. The Russians may also have roughly 690 warheads available for their 60 bombers allowed under the treaty. Although the 60 authorized bombers are capable of carrying much more than simply one bomb the bomber is counted as only a single warhead.. [Other bombers such as the Backfire do not count at all].

This lack of fidelity in accounting allows Russia [and of course the United States as the other party to the treaty] to have roughly 2,180 deployed strategic nuclear warheads. This is essentially identical to the upper limit number allowed by the 2003 Moscow Treaty which allowed 2,200 warheads. In short, for twenty years, arms control has been at a standstill, providing Russia the breathing room they needed to have deployed or place under development some 22 new types of nuclear strategic long-range bombers, missiles, and submarines. According to official Russian sources, they have fully modernized 90% of their strategic nuclear forces.

So much for the idea that "arms control" deals stop our adversaries from building more nuclear stuff!

However, and more importantly, as explained by my colleague Franklin Miller of the Scowcroft Group, the New START also limits the total number of strategic nuclear delivery vehicles (SNDV's) to 700 deployed and 100 in reserve. SNDVs are akin to strategic nuclear mail trucks—bombers, land-based missiles, and missiles abroad submarines. They deliver the nuclear mail—warheads.

These delivery vehicles/weapons platforms (as well as their major conventional military forces) are the weapons we have to hold at risk to make deterrence effective. We would retaliate against the remaining forces in the Russian nuclear and conventional arsenal to make sure they could not achieve any hegemonic ambitions even after striking the US first. We would effectively eliminate their remaining useful military capability. [Could the Russians use everything all at once in a pre-emptive strike? Yes, they could go “all-in” but that is what nuclear expert Paul Nitze termed the “Armageddon option” in that such a huge strike would result in a massive US retaliatory strike where both nations would be destroyed.]

Today the Russians have close to 600 nuclear SNDVs deployed, which leaves them room to legally deploy an additional 100 bombers, submarine missiles or land-based missiles SNDVs but only if the warheads also deployed stayed within the 1550 ceiling.

Before New START the Russians had close to 400 SNDVs, having seen a dramatic deterioration in their nuclear forces in the immediate post-Cold War period, especially compared to the US 1100 SNDVs. General Cartwright told me he negotiated the New START treaty that cut US forces by nearly 40% to 700, while the Russian could increase their SSDVs upwards of 75%.

Today Russian mobile missiles, and exotic missiles, deployed by Russia’s beyond the New START limits, provide Russia considerable warhead upload potential and greater SNDVs than the New START treaty allows. Mobile missiles are very hard to verify and various exotic systems announced as being built by Russia are not necessarily under New START limits.

Furthermore, you cannot be completely sure that you credibly can account for the number of warheads the Russians have deployed under New START since you can verify only a relatively small percent of Russian missile and warhead numbers during any allowed inspection period. To be fair, our senior nuclear military commanders believe while New START has serious deficiencies, the extent to which New START allows for transparency (from annual inspections) of Russian deployed nuclear systems it is a valuable tool in the geostrategic toolbox.

However, the point of the US trying to get more credible and verifiable warhead limits, including short-range and lower yield nuclear weapons, is to begin the process of attributing actual and real warheads to every missile bomber and submarine in the Russian force; as well as accounting for warheads on theater or short-range nuclear delivery systems, which as of today are not part of any nuclear arms control agreement.

This is especially important in order to avoid the situation in the 1970s where the US feared, and the Soviets believed the correlation of nuclear and conventional forces had moved significantly and dangerously toward Moscow.

It also might be useful to seek a freeze on currently deployed Russian nuclear warheads because you can’t freeze what you cannot count. Counting actual warheads would be required in order to secure nearly complete transparency into Russian nuclear capability and strategy that the inspection process does not necessarily now provide.



Thus, if the US does extend the New START agreement, it would be helpful to freeze warheads at the same time—in principle—while over the next few years negotiate how best to verify such a freeze. A five-year extension provides time to negotiate protocols and procedures to count warheads. Every missile and bomber would have to have an attributable # of warheads, with each class of missiles/bombers having the same number of agreed upon attributable warheads.

Here is the dilemma. How sure can we be that such an agreement can be verified since there are current concerns that New START does not accurately ascertain the number of warheads the Russians have deployed, and can deploy in a breakout scenario?

Of equal importance is the age-old question of what action the United States would take if we found Russia in violation of the agreed numbers. Under New Start it is difficult to substantiate a violation in deployed warheads because discrepancy in the fielded warheads inspected by the USA vs what the Russians told us was deployed is not a violation of the treaty. Some critics explained to me the treaty was designed that way so as not to call into question the treaty itself, no matter what “mistakes” the US found in its annual inspections of Russian nuclear assets.

What about China? The point of including China in the arms discussions is to create eventual transparency in the Chinese nuclear forces so we know how many nuclear warheads they actually have deployed, as well as how many in their stockpile or reserve, in order to help ascertain their nuclear strategy. The work of Henry Sokolski of the NPEC illustrates China has or is building the capacity to build tens of thousands of nuclear warheads from potential weapons grade nuclear material for which there is no nuclear energy production use.

If France or England are going to be brought into the discussions, as Russia is proposing, why should China get a free pass and avoid disclosing the world how many nuclear warheads they have actually deployed in their nuclear forces?

Marc Schneider’s recent essay on the question of China’s nuclear arsenal is an excellent think-piece and uncovers the false narrative that China has only a limited number of nuclear weapons, a minimal deterrent strategy, and consequently there is no necessity to include them in nuclear arms discussions.

When considering numbers of warheads, a further consideration on cheating needs to be addressed. When , the nuclear arsenal is reduced to the 1,500 to 2,000 warhead level, cheating becomes very significant because it is relatively easy to have 100, 200, or 300 covert warheads deployed; in the scheme of things those numbers might matter as opposed to an arsenal of over 10,000 warheads, where a covert deployment of a few hundred warheads might not matter strategically.

In the current environment, a few hundred extra warheads might very well embolden a US adversary to take additional risks in international affairs because of the assumed advantage in deployed nuclear weapons gives an aggressor. This also means a robust missile defense even if imperfect [which supporters assume it will be], contributes immeasurably to deterrence since it prevents an adversary from taking the risk of initiating conflict and can also counterbalance non-compliance..

Years ago, Dr. Henry Kissinger said nuclear superiority has no practical significance, as he asked, “What do you do with such superiority if you have it?”

Implying, of course, relative warhead levels may not matter.

A rogue nation, including China and Russia, may believe a greater number of deployed nuclear weapons gives them an advantage in a crisis, or conventional conflict, and enables them to take greater risks. An emboldened rogue nation may choose to engage in aggression because they believe numerical nuclear superiority gives them a practical real-world advantage.

It can also be argued numbers of nuclear warheads don’t matter. After all, China deters with 300 warheads superpowers that have over 2,000 warheads available for day- to-day deployment. But if that’s the case, why have nuclear arms control agreements in the first place? And why insist, as we have since 1972 and the first SALT agreement, the US have parity with parties who are willing to enter into arms control agreements?

In short, if numbers—the size of an arsenal-- don’t matter, why do we insist they do!? And why, when we sign such agreements, do we insist we must be able to “trust but verify” such numbers?

It appears numbers do matter, whether they are warheads or SNDVs.

Transparency, if effective, can avoid strategic surprise.

However, if transparency is absent, strategic surprise may well be on the geostrategic menu.

As stated at the beginning of this essay, since the beginning of arms control actually assessing the number of nuclear warheads was deemed important, even if only in rough terms.

Certainly, knowing what nuclear warheads and assets are deployed by our adversaries, is a critically important function in order to achieve improved strategic nuclear stability, and if possible, further verifiable arms control.

As a former US arms negotiator with the Russians explained recently, under the START series of treaties, warhead numbers became central to arms deals, as deployed long-range strategic nuclear warhead levels dropped nearly 90%.

The Commander of US Strategic Command, Admiral Charles Richard, emphasized that in facing both China and Russia as nuclear armed great power competitors, the US is entering an environment which is unique in history.

The challenge is to ask whether a simple linear reduction in warheads is the means by which to reach better stability. If the US wants to eliminate any incentives for our adversaries to use nuclear weapons against us, numbers of adversary warheads do matter, especially when the uncertainty surrounding their numbers and purpose is reaching dangerous levels.

Given these conditions, the US must continue to fully modernize its own nuclear arsenal, better monitor, and verify the arsenals of our adversaries, deploy more robust missile defenses, while being open to arms deals if they increase stability and the security of America and its allies.

Simply extending New START does not do the job.

## **THE REAL NUCLEAR BALANCE**

### **How Much Is Too Little?**

Dr. Peter Vincent Pry

Task Force on National and Homeland Security

December 7, 2020

#### **Key Judgments**

--If the U.S. under a Biden Administration embarks on re-thinking the nuclear Triad, perhaps it will also be time to re-think other fundamentals driving U.S. nuclear strategy and policy, like how we measure “the nuclear balance.”

--“Bean-counting” numbers of nuclear weapons is an obsessive focus of the U.S. intelligence community, policymakers, and academics, that is fundamental to U.S. assessments about the likely and relative nuclear threat from Russia, China, and North Korea.

--Yet “bean-counting” is not really an objective measure of the nuclear balance, but a subjective fixation of a U.S. (and Western) strategic culture dominated by arms control theory, that requires omniscience about U.S. and adversary nuclear arms in order for them to be limited and so supposedly “controlled.”

--Potential nuclear adversaries, unlike the United States, do not accurately report their nuclear inventories, as these are regarded as vital state secrets.

--Intelligence, arms control, and academic communities pretend to have omniscience about the numbers of nuclear weapons deployed by adversaries, despite often being wrong, and despite extraordinary efforts by Russia, China, and North Korea to conceal their nuclear forces.

--Prudent policymakers and military planners should have low-confidence in intelligence community and other static estimates of the nuclear balance—and prepare for the worst.

--The strategic nuclear balance is best assessed by force-on-force exchange modeling under the widest range of plausible scenarios, simulating various possible nuclear wars.

--A Biden Administration that thinks like HASC Chairman Adam Smith may well reject all paradigms for assessing the nuclear balance and worry not at all about significant disparities and potential vulnerabilities.

--Dismantling the Triad for a “Minimum Deterrent” Monad of SSBNs would be an unprecedented deep reduction of U.S. nuclear capabilities to dangerously deficient levels, breaking radically with consensus strategic thinking that enabled the U.S. to prevail in the Cold War while deterring a thermonuclear World War III.

--The West has long nurtured in its universities and politics a radical minority cult that damns the United States for inventing the atomic bomb, the fruit of a social-political system they condemn as

fundamentally evil. For the original sin of being itself, America must atone and suffer. 75 years after Hiroshima and Nagasaki, America's nihilists are on the threshold of getting their wish. 1

## Introduction

A President Joe Biden is likely to revisit the Nuclear Posture Review and fundamentally reimagine the U.S. nuclear deterrent as a much smaller, less diverse, less capable, and less expensive force. Rep. Adam Smith, Chairman of the House Armed Services Committee (HASC), presently the most powerful Democrat shaping U.S. national security policy, speaking before the Center for a New American Security recently opined:

*What I want us to have is a nuclear arsenal that is sufficient to deter anyone from thinking that it makes sense to start a nuclear war. We have a nuclear arsenal that still envisions ‘winning a nuclear war’... That’s what I find insane. It’s worth having the debate to envision what our nuclear deterrence policy should look like and what do we need to build to achieve it?’<sup>1</sup>*

<sup>1</sup> Abraham Mahshie, “HASC Chairman Foreshadows Change To Nuclear Posture And Modernization Delay If Biden Wins” Washington Examiner (November 3, 2020).

<sup>2</sup> “Outside Perspectives on Nuclear Deterrence Policy and Posture” House Armed Services Committee (March 6, 2019).

In March 2019, Chairman Smith held hearings before the HASC that called for unilaterally banning U.S. ICBMs and strategic bombers, replacing the nuclear Triad of land-based missiles, bombers, and ballistic missile submarines (SSBNs) with a Monad of SSBNs reduced from 14 boats to 6 SSBNs. Radical anti-nuclear activists from such groups as Ploughshares, Union of Concerned Scientists, and Federation of American Scientists have testified before Congress as strategic “experts” advocating for such a posture of “Minimum Deterrence.”<sup>2</sup>

Thus, the longstanding consensus among Democrats and Republicans that prevailed through the Cold War that the U.S. nuclear deterrent should be “second to none” appears to be broken.

If the U.S. under a Biden Administration embarks on re-thinking the nuclear Triad, perhaps it will also be time to re-think other fundamentals driving U.S. nuclear strategy and policy, like how we measure “the nuclear balance.”

“Bean-counting” numbers of nuclear weapons is an obsessive focus of the U.S. intelligence community, policymakers, and academics, that is fundamental to U.S. assessments about the likely and relative nuclear threat from Russia, China, and North Korea. Yet “bean-counting” is not really an objective measure of the nuclear balance, but a subjective fixation of a U.S. (and Western) strategic culture dominated by arms control theory, that requires omniscience about U.S. and adversary nuclear arms in order for them to be limited and so supposedly “controlled.”

Nor is “bean-counting” an accurate and reliable indicator of the nuclear threat, since potential nuclear adversaries, unlike the United States, do not accurately report their nuclear inventories, as these are regarded as vital state secrets. Nonetheless, “bean-counting” and arms control is such a 2

strong strategic cultural imperative for the U.S. that estimates of the nuclear balance, that are probably largely fictional, are treated as gospel.

Perhaps it is time for a more mature and sophisticated approach to calculating the nuclear threat based on such metrics as adversary targeting requirements to achieve various damage goals against the United States—as is the focus in Moscow, Beijing, and Pyongyang.

### ***The Nuclear Stockpiles***

The press, both liberal and conservative press, and many equally uninformed Washington officials, think of the nuclear balance as the “nuclear stockpile” as estimated by the anti-nuclear Federation of American Scientists (FAS). According to FAS nuclear stockpile estimates, the U.S. has 5,800 weapons, Russia has 6,370 weapons, China has 320 weapons, and North Korea has 35.<sup>3</sup>

<sup>3</sup> Hans Kristensen and Matt Korda, “Status of World Nuclear Forces” (Federation of American Scientists: September 2020).

<sup>4</sup> Office of the Secretary of Defense, *Security Developments Involving the People’s Republic of China* (Annual Report to Congress: September 1, 2020). Dr. Mark Schneider “The Chinese Nuclear Threat” RealClearDefense (October 24, 2020). Phillip Karber, *Strategic Implications of China’s Underground Great Wall* (Georgetown University: 2012). See also: “China May Have 1,600-1,800 Nuclear Munitions—Experts” Interfax (October 24, 2011). “Hunt for China’s Secret Nukes: Obama Orders the Pentagon to Find Ways to ‘Neutralize’ Store of Up To 3,000 Nuclear Weapons” Daily Mail (January 8, 2013).

An enormous problem with measuring the nuclear balance by the “nuclear stockpiles” is that this includes thousands of U.S. weapons (over 4,300) that are not operational, are warehoused and retired, are awaiting dismantlement, have been cannibalized for spare parts, and would require months or years to be made operational, if possible at all. By counting non-operational U.S. weapons, the anti-nuclear FAS can greatly inflate U.S. nuclear strength relative to adversaries and inflate the global total of nuclear bombs FAS wants to ban.

Moreover, Russia, China, and North Korea’s “nuclear stockpiles” are unknown to the U.S.

Government and to FAS. Credible estimates vary greatly, sometimes by tenfold. For example: China, according to a recent highly controversial DOD estimate, has only 200 nuclear weapons, making the anti-nuclear FAS estimate (320) look hawkish. Former senior DOD official, Dr. Mark Schneider, debunks the almost certainly erroneous DOD estimate and exposes DOD’s history of underestimating China in a recent article. Schneider notes: Russian General Viktor Yesin in 2012 estimated China had enough fissile material for 3,600 nuclear warheads and built 1,600-1,800.

Russian General Vladimir Dvorkin in 2012 estimated China had 1,600 nuclear weapons. A three-year study by former DOD analyst Phillip Karber assesses China could be hiding up to 3,000 nuclear warheads, including mobile missiles, in their Underground Great Wall.<sup>4</sup>

How can China have only 200 weapons, when they have deployed 32 DF-41 ICBMs capable of delivering up to 10-12 MIRVed warheads, which would give Beijing 320-384 warheads on the 3

DF-41 ICBM alone?<sup>5</sup> China's "Underground Great Wall" comprising 5,000 kilometers of tunnels belonging to the PRC's Strategic Rocket Forces could conceal hundreds of mobile ICBMs.<sup>6</sup>  
<sup>5</sup> Ibid, Schneider. "DF-41 (Dong Feng-41/CSS-X-20)" Missile Threat CSIS estimates 10 MIRVed warheads. "DF-41" en.wikipedia 10-12 MIRVed warheads. See; John Grady, "U.S. Working to End Chinese Secrecy Around Nuclear Capabilities" USNI (October 15, 2020).

<sup>6</sup> Karber, *Strategic Implications of China's Underground Great Wall*, see footnote 4.

<sup>7</sup> John Grady, "U.S. Working to End Chinese Secrecy Around Nuclear Capabilities" USNI (October 15, 2020).

<sup>8</sup> Hans Kristensen, "No, China Does Not Have 3,000 Nuclear Weapons" (Federation of American Scientists: December 3, 2011). On Russia, Dr. Mark Schneider, former senior Defense Department official, commenting on Russian Defense Minister Shoigu's recent statement that Russia has constructed 597 ICBM launchers: "It is not possible to have a number anywhere like this high without a covert undeclared ICBM force." Schneider correspondence (October 15, 2020). "Orenburg Formation of Russian Strategic Missile Forces to Prepare for Deployment of 2 Avanguard Missile Complexes by Yearend—Shoigu" Interfax (October 13, 2020). On North Korea see: Dr. Peter Vincent Pry "Underestimating the North Korean Nuclear Threat" Secure Freedom Quarterly (2<sup>nd</sup> Quarter 2016).

<sup>9</sup> "New START data as of 1 September 2020"

[http://russianforces.org/blog/2020/10/new\\_start\\_data\\_as\\_of\\_1\\_september\\_1.shtml](http://russianforces.org/blog/2020/10/new_start_data_as_of_1_september_1.shtml)



<sup>10</sup> Department of State, *2020 Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments* (Bureau of Verification and Compliance: 2020). Dr. Peter Vincent Pry, "How To Lose A War Without Firing A Shot?" The Hill (April 27, 2020). Dr. Peter Vincent Pry, "Arms Control Addiction" Newsmax (August 25, 2020). Dr. Peter Vincent Pry, "The Case Against Arms Control" RealClearDefense (January 12, 2019).

For the fullest record of Soviet arms control violations during the Cold War see "GAC Report on Soviet U.S. senior arms negotiator Marshall Billingslea said in October 2020 that Washington is trying to end China's "great wall of secrecy" about its nuclear weapons. "Billingslea contrasted the more than 100-page document the United States has released on nuclear strategy to the five paragraphs China has publicly released on its nuclear programs and strategy." While DOD recently estimates China has 200 operational nuclear weapons, Billingslea notes China has "as many as 2,000 intermediate-range ballistic and cruise missiles."<sup>7</sup>

Perhaps the truest thing ever said by FAS President Hans Kristensen is, "Only the Chinese Government knows how many nuclear weapons China has"—and this is also true of Russia and North Korea.<sup>8</sup>

### ***New START***

A more accurate representation of the nuclear balance is the number of operational warheads that can be delivered by missiles and bombers, limited by the New Strategic Arms Reduction Treaty (START) to 1,550 warheads for the U.S. and Russia. According to New START data as of September 1, 2020: the U.S. has 1,457 deployed warheads, and Russia declares 1,447 deployed warheads.<sup>9</sup>

However, Russia is notorious for violating arms control treaties and commitments. For example, Moscow is violating the Intermediate-range Nuclear Forces Treaty (deploying prohibited INF missiles), the Presidential Nuclear Initiative (cheating its way to a tenfold advantage over the U.S. in tactical nuclear weapons), and the Comprehensive Test Ban Treaty (developing advanced, new generation nuclear weapons).<sup>10</sup> 4

Noncompliance Oct 1984" [insidethecoldwar.org](http://insidethecoldwar.org) which is the summary of the still classified President's General Advisory Committee on Arms Control and Disarmament, *A Quarter Century of Soviet Compliance Practices Under Arms Control Commitments: 1958-1983* (The White House: 1984).

<sup>11</sup> Dr. Mark Schneider, "Does Russia Have 2-to-1 Advantage In Deployed Strategic Nuclear Weapons?" RealClearDefense (January 12, 2019). Pavel Felgengauer, "Kremlin Overrides Own Defense and Foreign Policy Establishment on Arms Control" Eurasia Daily Monitor (October 22, 2020).

Although the State Department contends Russia is complying with New START, independent experts, like Dr. Mark Schneider, a former DOD senior official, make a compelling case that New START verification provisions are grossly inadequate. Russia could be far above New START levels, according to Schneider having perhaps 3,300 deployed warheads. Usually reliable independent Russian analysts, Pavel Felgengauer and Sergei Rogov, estimate Russia could have, operational and stockpiled, 6,000 strategic nuclear warheads and 10,000 tactical nuclear weapons, noting "the number and readiness state" of these weapons "has never been disclosed."<sup>11</sup> Intelligence, arms control, and academic communities pretend to have omniscience about the numbers of nuclear weapons deployed by adversaries, despite often being wrong, and despite extraordinary efforts by Russia, China, and North Korea to conceal their nuclear forces. Prudent policymakers and military planners should have low-confidence in intelligence community and other estimates of the nuclear balance—and prepare for the worst.

### ***ICBM Warheads: Planning for the Worst-Case Scenario***

As there are very significant unknowns and uncertainties about the number of adversary nuclear weapons, either "stockpiled" or supposedly "limited" by arms control, a better way of weighing the strategic nuclear balance may be by U.S. capability to respond to the worst-case scenario—an adversary "bolt from the blue" surprise attack. This amounts to the balance of ICBM warheads. ICBMs, unlike U.S. strategic bombers and ballistic missile submarines, do not have to be generated to a survivable posture. All U.S. strategic bombers, none of which are maintained on strip-alert, and at least two-thirds of SSBNs, which are normally in port, would be destroyed in a surprise attack. ICBMs, because of their high alert rates and responsiveness, are probably the only nuclear forces that would really matter in a worst-case scenario "bolt from the blue" surprise attack, which is likely to be an ICBM exchange. If U.S. ICBMs can deter or defeat the worst-case scenario, America may be safe from less challenging nuclear scenarios, and the unknowns about "nuclear stockpiles" and "operational warheads" unconstrained by arms control may not matter.

Russia probably greatly outnumbers the U.S., and China probably has at least parity, in the crucial category of ICBM warheads:

--Russia, in addition to having silo-based and mobile ICBMs, has armed its submarines with ICBMs (unlike U.S. SSBNs that carry IRBMs) so they can strike intercontinental targets from their ports, and have dockside C3 so they can launch while berthed. 5

--Russia, China, and North Korea have mobile ICBMs (the U.S. has no mobile ICBMs) because they are more survivable against a first strike, can better elude surveillance for "bean counting" and other intelligence purposes, *and by launching from unexpected locations can better execute a surprise attack.*

--Russia, China, and North Korea favor ICBMs over bombers and submarines because of their high-alert constant combat readiness to respond to, or initiate, surprise attack.

--Russia and China favor MIRVed ICBMs, armed with multiple warheads having yield/accuracy combinations for destroying hard targets like missile silos, so one ICBM can destroy many targets in a surprise attack. North Korea paraded possibly the world's largest MIRVed mobile ICBM.<sup>12</sup>

<sup>12</sup> "North Korea Displays Huge New ICBM At Coronavirus-Defying Parade" AFP (October 10, 2020). Paul Crespo, "North Korea Displays New Long-Range ICBM at Low Key Parade" American Defense News (October 13, 2020).

<sup>13</sup> "Russia's Hypersonic Ballistic Missile And Laser Systems In Final Tests, Putin Says" Moscow Times (April 11, 2019) describes Satan II as carrying "multiple hypersonic warheads" and "up to 15 warheads." Dan Stefano, "Russia Tests New 'Satan 2' ICBM To Replace Original" wtky.com (March 30, 2018) Putin describes Satan 2 as carrying "a bigger number of nuclear warheads" and "more powerful."

<sup>14</sup> 1,000 Russian ICBM warheads assumes they are complying with New START. Hans Kristensen and Robert Norris estimate Russia has 1,040 ICBM warheads in "Russian Nuclear Forces, 2016" Nuclear Notebook (Bulletin of the Atomic Scientists: 2016). Franz-Stefan Gady, "Russian General: Russia Now Fields 400 Intercontinental Ballistic Missiles" The Diplomat (December 16, 2016). 3,300 Russian ICBM warheads (includes SLBMs of intercontinental range) could be deployed now if Russia is cheating on New START, see excellent analysis of Dr. Mark Schneider, "Russian Nuclear Force Expansion and the Failure of Arms Control" RealClearDefense (October 24, 2019).

Schneider, "Does Russia Have 2-to-1 Advantage In Deployed Strategic Nuclear Weapons?" in footnote 11.

Correspondence with Dr. Schneider (October 11, 2020). 400-1,000 ICBM warheads for China, the range assumes a small clandestine force or larger clandestine force, both entirely plausible since 32 deployed DF-41 ICBMs alone can carry 320-384 warheads, and each DF-41 ICBM launcher is supposed to have at least one missile re-load (640-768 warheads). Alternatively, only 68 DF-41s would have to be hidden in China's Underground Great Wall, combined with the 32 deployed DF-41s, for 1,000 warheads.

Russia's ICBMs like the SS-18 Mod 5 (10 warheads) and the Sarmat (Satan II, reportedly 10-15 hypersonic warheads) and China's DF-41 mobile ICBM (10-12 warheads) are ideal instruments for surprise attack.<sup>13</sup>

If Main Street USA is right and the most likely scenario is a "bolt from the blue" surprise attack, then the nuclear balance that matters most, perhaps the only firepower that really matters, are the ICBM warheads.

We do not know how many operational ICBM warheads are deployed by Russia and China, but the balance might well look like this: United States 400, Russia 1,000-3,300, China 400-1,000.<sup>14</sup>

Since Russia and China both have ICBMs that can achieve high (90%) single-shot kills against U.S. ICBMs silos, Russia has a preponderant advantage, and so might China, in what is arguably the most important dimension of the strategic nuclear balance. "Winning" a nuclear war, in theory if not in fact, relies on having the capability to make disarming counterforce attacks very promptly.

By this thinking, a policy that unilaterally abolishes U.S. ICBMs and relies only on strategic bombers and SSBNs, or only on a *Monad* of SSBNs, invites aggression. 6

An adversary surprise attack would have to strike just 5 targets—the 3 U.S. bomber bases and 2 SSBN ports—to destroy all U.S. nuclear bombers and two-thirds of SSBNs. This is presently within the capability of even North Korea.

### ***Exchange Modeling and Targeting Requirements***

The strategic nuclear balance is best assessed by force-on-force exchange modeling under the widest range of plausible scenarios, simulating various possible nuclear wars. Often so complex that the calculations are done by computers, the construction, execution, and outcomes of nuclear wargames yields the most accurate and nuanced understanding of the relative capabilities, strengths, and weaknesses of the opposing sides.<sup>15</sup>

<sup>15</sup> Dr. Peter Vincent Pry, *Nuclear Wars: Exchanges and Outcomes* (Crane Russak, Taylor & Francis: 1990) once used as a textbook at National Defense University is still a good introduction to the calculations and techniques of force-on-force nuclear exchange modeling.

<sup>16</sup> “Threat Posed By Electromagnetic Pulse (EMP) Attack” Hearing before the House Armed Services Committee (January 10, 2008). EMP Commission, *Chairman’s Report* (July 2017) pp. 23-25, all the unclassified EMP Commission reports are available at [www.firstempcommission.org](http://www.firstempcommission.org)

As a practitioner of nuclear exchange modeling during the Cold War decades and afterwards, the vast complexity so consistently results in the same outcomes that the following lessons learned are almost axiomatic:

- He who strikes first wins;
- The U.S. wins, if it strikes first from a fully generated posture;
- U.S. force generation is highly visible and may result in the adversary striking first;
- The adversary (the USSR and now Russia) wins if they strike first, and is postured to do so without generating forces, relying only on ICBMs.

These lessons learned from decades of exchange modeling probably also apply to nuclear war between the U.S. and China, either now or soon, when China deploys enough DF-41 ICBMs to make a disarming counterforce attack on the U.S. target set: 400 ICBM silos, 3 bomber bases, and 2 SSBN bases. China’s DF-41 ICBM is like a mobile version of the U.S. Peacekeeper ICBM, the most lethal strategic missile ever deployed by the United States.

The lessons learned above might also even apply to a nuclear war between the U.S. and North Korea. As noted earlier, North Korea can destroy about two-thirds of the U.S. Triad by a surprise attack destroying just 5 targets—the 3 U.S. nuclear bomber bases and 2 SSBN bases. North Korea probably has Super-EMP weapons (generating 100 kilovolts/meter or more) which could enable it to damage missile, command, and control electronics, and so paralyze U.S. ICBMs (which during the Cold War were EMP hardened to 50 kvs/meter).<sup>16</sup> 7

These operational and technological realities suggest the real nuclear balance of capabilities between the U.S. and North Korea is much more dangerous than the “bean counting” comparisons often made in the press to dismiss the North Korean nuclear threat. The real nuclear balance between North Korea and the U.S. is not adequately or accurately captured by the ratio of North Korean operational warheads (30-60) vs. U.S. operational warheads (1,457), a 24-fold U.S. advantage; and much less so by the ratio North Korean operational warheads (30-60) vs. U.S. warheads in the nuclear stockpile (5,800), a 96-fold U.S. advantage.

Such false metrics may seem reassuring to the U.S. public and policymakers but are dangerously misleading. The 120-pound weakling, armed with a gun, is a potentially mortal threat to anyone, including a much bigger and better armed and trained policeman.

Even more dangerously misleading is the arms control notion that “parity” in numbers of strategic nuclear weapons between the U.S. and Russia is equal security, and equal risk, for the sides. No arms control agreement, including New START, takes account of the great disparity in targeting requirements between the sides.

For example, unlike the U.S., Russia has many thousands of underground command posts and thousands of nuclear-capable SAMs protecting everything. From the exchange modeling and nuclear targeting perspective, arms control “parity” between the U.S. and Russia in numbers of strategic weapons very significantly disadvantages the United States. The same is true, or soon will be true, for the nuclear balance between the U.S. and China.

### ***The MADness of Minimum Deterrence***

A Biden Administration that thinks like HASC Chairman Adam Smith may well reject all paradigms for assessing the nuclear balance and worry not at all about significant disparities and potential vulnerabilities. Or as Chairman Smith recently put it: “We have a nuclear arsenal that still envisions ‘winning a nuclear war’... That’s what I find insane.”<sup>17</sup>

<sup>17</sup> Mahshie, see footnote 1.

<sup>18</sup> “Outside Perspectives on Nuclear Deterrence Policy and Posture” see footnote 2. Bruce Blair, who starred in the hearings, is credited with converting Rep. Adam Smith, Chairman of the House Armed Service Committees, to his extreme views on U.S. unilateral nuclear disarmament see: Jessica Sleight, Zia Minn, Frank Von Hippel, “Blair: Challenging The Accidental Nuclear War Machine” Bulletin of the Atomic Scientists (August 11, 2020).

Chairman Smith advocates replacing the Triad of bombers, ICBMs, and SSBNs with a Monad of submarines, perhaps reduced from 14 to 6 SSBNs, a posture of “Minimum Deterrence.”<sup>18</sup>

After an adversary surprise attack, residual U.S. nuclear forces for a fleet of 14 SSBNs would be the 4 SSBNs on patrol (240 warheads). Or if SSBNs are reduced to 6, residual U.S. nuclear forces would be the 2 SSBNs on patrol (120 warheads). This assumes the boats at sea are not destroyed or their EAM communications severed by EMP or other means.

Every SLBM fired in counterforce retaliation will subtract from the reserve intended to deter nuclear attacks on U.S. cities. 8

During the Cold War, the criteria for Mutual Assured Destruction (MAD) against Russia required blasting 75% of industry and killing 25% of population, supposedly achievable with 400 Equivalent Megatons (EMTs).<sup>19</sup> MAD calculations did not include other nuclear capabilities necessary for counterforce attacks and warfighting, just the bottom-line for “city-busting.”

<sup>19</sup> Robert S. McNamara, *The Fiscal Year 1969-1973 Defense Program and the 1969 Defense Budget*, Statement before the Senate Armed Services Committee (DOD: 1968) p. 50. Lawrence Friedman, *The Evolution of Nuclear Strategy* (1981) pp. 246-247. Russia can destroy 90% of U.S. industry and 40% of U.S. population with 100 EMTs because of their greater concentration in large urban-industrial areas. See Pry footnote 15 p. 222. Dr. Peter Vincent Pry, “Mutual Assured Destruction (MAD) No Longer Mutual: U.S. Unilaterally Vulnerable” Family Security Matters (March 14, 2018).

The hope was that, if the U.S. could assuredly execute MAD even after a surprise attack, Russia would be deterred from attacking, or at least would not escalate a nuclear conflict to attacks on U.S. cities. MAD was the Cold War “Minimum Deterrent.”

Today, if the U.S. Triad is reduced to a Monad of 14 or 6 SSBNs, after a surprise attack the residual 240 or 120 U.S. warheads are far short of the 400 EMTs necessary for MAD.

Chairman Smith, Ploughshares, Union of Concerned Scientists and other anti-nuclear activists propose radical surgery on the U.S. Triad and unprecedented deep reduction of U.S. nuclear capabilities to dangerously deficient levels, offering no justification for their new “Minimum Deterrent”—except their conviction that nuclear warfighting is “insane.”

Yet Russia, China, and North Korea are nuclear warfighters in their military planning, exercises, force posture and other behaviors (like nuclear blackmail)—and they are the ones the U.S. must deter, not Ploughshares.

Chairman Smith and the anti-nuclear Left believe, with the fervor of a secular religion, that nuclear weapons are “unusable” and nuclear war “unthinkable” to everyone, including Russia, China, and North Korea. To them, all these complicated calculations about the nuclear balance and exchange modeling are pointless and obfuscate the essential truth that the mere existence of a small number of U.S. nuclear weapons will be enough to deter.

If a Biden Administration follows their path, it will break radically with consensus strategic thinking that enabled the U.S. to prevail in the Cold War while deterring a thermonuclear World War III, gambling U.S. survival on fantasies of the Ploughshares, Union of Concerned Scientists and others of the “ban the bomb” Left.

<p>The West has long nurtured in its universities and politics a radical minority cult that damns the United States for inventing the atomic bomb, the fruit of a social-political system they condemn as fundamentally evil. For the original sin of being itself, America must atone and suffer. 75 years after Hiroshima and Nagasaki, America’s nihilists are on the threshold of getting their wish.</p>
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Nuclear Triad  
Symposium 12.10.20

# Strategic Deterrence: Its Future if the Bomb Spreads

Henry Sokolski

Nonproliferation Policy Education Center

[www.npolicy.org](http://www.npolicy.org)

Nuclear Triad Symposium  
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## **Thayer talk “China’s Nuclear Strategy and Great Power Competition,” 19<sup>th</sup> Triad Symposium December 10, 2020, Bossier City, LA/Barksdale AFB**

Thank you Peter for the opportunity to address this august symposium, and please let me acknowledge Brian Moran, Jeff Beene, and Sean Greene, for their assistance in facilitating my participation.

I make three major arguments in my allotted time. First, Xi is a unique leader and singular threat to the Chinese people and America’s global interests. China’s nuclear expansion is significant, dramatic, and a threat to stability in the Indo-Pacific as well as globally.

Second, the prodigious expansion of nuclear and conventional capabilities is the result of the Xi’s “Xi Doctrine,” generated by the Xi Jinping clique in control of China. The fundamental aim of the “Xi Doctrine” is to replace the United States as the world’s dominant state.

Third, threat to the U.S. homeland, U.S. allies, and other U.S. interests is a function of capabilities and intent. The growth of the PRC’s capabilities has been prodigious, and Beijing’s intent is to replace the U.S. In response, the U.S. must return to the principles of great power competition. It must adopt measured confrontation. Washington should significantly increase its



nuclear and conventional presence in the Indo-Pacific, strengthen its allies, and draw the world's attention to the fact that China is the cause of intensified security competition and its other dangerous consequences of China's reckless expansion.

### **First: Xi Is a Unique Leader and Singular Threat to the Chinese People and American Interests**

The U.S. should recognize that Xi is a unique CCP leader and is a particular danger to the interests of the United States. He is determined to be the equal of Mao Zedong in his impact on the CCP and the country, and to overshadow Deng Xiaoping's legacy. Xi will ensure the supremacy of the CCP and its rule and continue to force ideological conformity with Maoism. His deep insecurity and paranoia drive him to continue to target rivals, such as Ren Zhiqiang, an influential and long-time critic of the Chinese Communist Party (CCP). Ren was born to a CCP veteran family, and thus is a "Red princeling" like Xi. In February 2020, Ren circulated an essay critical of Xi's response to the pandemic. Fundamentally, the essay was an indictment of the CCP's rule. Ren argued that the pandemic is caused by the defects of the CCP system. Not unexpectedly, Ren has since been imprisoned.

Xi also ensures that potential rivals such as Jack Ma, do not come into a position to challenge him. The Ant IPO suspension shows that Xi sees him as a rival, and Ma's frank and accurate criticisms of China's banking system and regulations—including describing China's banks as "pawn shops"—marked him as an enemy. Xi's moves against domestic opponents is to ensure his domination and rule. His moves against states, including the U.S., equally reveals Xi's ultimate objective is for the PRC to achieve dominance. As China becomes more powerful, Xi's ambitions and actions reflect the fruits of its expanding power and should be cause of great concern for the rest of the world.

Under Xi, the PRC is working assiduously to alter—not embrace—the *status quo* in international politics. Among its many policies to bring about change, it has confronted Japan over contested territory, the Diaoyu/Senkaku Islands, and declared a new Air Defense Identification Zone (ADIZ) in the region, clashed with India repeatedly over their disputed border, threatened Taiwan, militarized the PRC's facility in Djibouti, created new islands in the South China Sea and has the local military power to enforce its claims absent a U.S. response, and has had series of incidences of territorial expansion, most notable Scarborough Shoal in 2012, as well as numerous diplomatic clashes with the Philippines.

Additionally, it has rejected the Permanent Court of Arbitration 2016 ruling that the PRC was violating international law in the South China Sea, contravened the 1984 Hong Kong treaty with the UK to crush Hong Kong and, *de facto*, ended the "one country, two systems," imprisoned Uighur, Kazakh, and Kyrgyz Muslims in concentration camps in Xinjiang and abused many of the families of these inmates by requiring them to house and host Han men to humiliate not only the family but their people and religion.

The PRC has launched new international institutions like the Asia Infrastructure Investment Bank (AIIB), leads the Regional Comprehensive Economic Partnership (RCEP) free trade zone in the Indo-Pacific which encompasses about a third of global economic output, and weaponized the Belt and Road Initiative and Digital Silk Road to secure lines of communication to Europe

and Southwest Asia and Africa. It has expanded its influence in the Arctic and sub-Arctic, in Melanesia, and Polynesia, and is increasingly assertive in opposing U.S. air and sea operations in South China Sea, East China Sea, and North Pacific. These measures are intended to expand the PRC's control beyond even the ambitions even of Mao.

Most significantly, China has launched an arms race in conventional, nuclear and space weaponry, aggressively expanding its military capability. China's expansion of nuclear weapons has not received the attention it deserves due to its threat to the ability of the U.S. to deter attacks against the U.S., to extend deterrence to its allies, and to protect its interests. It also is a threat to strategic stability. Strategic stability will not obtain with respect to China for three reasons.

First, while common estimate of China's nuclear weapons is approximately 300, due to China's lack of transparency, it is possible that China has significantly more than this estimate. There have been calls within China for expanding its nuclear arsenal to 1,000 strategic warheads, to say nothing of nuclear weapons on intermediate range or other forces. While the U.S. has taken a "strategic holiday," the PRC has used the opportunity to expand their arsenals, as well as cyber and conventional capabilities. The PRC's arsenal has grown considerably, and it now fields a modern force, and its modernization is accelerating.

Most disconcertingly, China's build up might allow it to race to parity or superiority with the U.S. resulting in an intense arms race.

Second, the form of China's builds up is notable. Always secretive, the Chinese have occluded their nuclear expansion as they do not want to provoke a U.S. or U.S. ally's reaction prematurely. More damning is that the Chinese are secretly "preparing the battlefield" to ensure that they have the ability to damage the U.S. through other, non-nuclear, non-kinetic means. These non-kinetic avenues of attack include cyber, supply chain dominance, economic influence and trade insecurity, export of fentanyl and similar narcotics, and the continued legal and illegal access to America's knowledge, intellectual property, finance, and technology to facilitate Beijing's growth. But this penetration is not only about expanding power. These are new attack vectors to hurt the U.S. economy and population.

Third, China rejects arms control in practice and in principle. Thus far, Beijing will not unilaterally reduce or limit its arsenal or enter into arms control talks. That is a worrisome sign and suggests that U.S. assumptions about the causes of stability in a great power relationship are only its own, and not shared by China.

A major objective of arms control is that it can promote stability in the relations between states. The state willingly abandons or limits a class of weapons to demonstrate to other actors that its ambitions are limited, and it supports strategic stability. By entering an arms control regime, China could show that it accepts the value of arms control which aids stability and demonstrates that China is a status quo power. As the German Foreign Minister, Heiko Maas, argued in November 2020, when he called for Beijing's participation in future arms control agreements, "as a major nuclear and military power, Beijing must engage more strongly in arms control, transparency and risk reduction." Fundamentally, it would allow China to signal its peaceful intentions, and, in turn, have an important stabilizing effect on states concerned with China's

increasing power. The fact that China rejects arms control is troubling and suggests, first, it is a revisionist power, and second, that it wants to be unfettered as it expands its arsenal.

Due to the lack of transparency in China, there remain many unknowns about Beijing's nuclear modernization, nuclear doctrine, and ambitions. China's lack of transparency regarding the scope and size of its nuclear modernization weakens strategic stability, as the PRC introduces significant doubt about its future intentions and commitment to ensure a stable strategic environment for the twenty-first century.

## **Second: The Xi Doctrine and Great Power Competition**

China's military build-up and its pronouncements concerning its vision and ambitions are not accident or the result of chance, or the product of a natural evolution. It is purposeful and the product of China's grand strategy, the "Xi Doctrine," the Chinese leadership's plan to supplant the U.S., and which defines what the Chinese leadership want, and why they are willing to confront the U.S.

Xi seeks victory. His conception of victory—the realization of Xi Doctrine which will result in the return of the Middle Kingdom's suzerainty, the fulfilment of Chinese Communist Party's (CCP) ideological goals, and the replacement of the U.S. by China as the dominant power in international politics.

China is confronting and will continue to confront the United States because it is the single major impediment to China's strategic objectives. With the U.S. weakened, and ideally removed, there is no single power, or constellation of powers such as Australia, Japan, and India, that could prevent Beijing from achieving its aims. These objectives have been boldly and transparently advanced by Xi in his conception of a hegemonic China by 2049. The United States is the obstruction to the realization of China's ambitions and its ideological opponent. Thus, it is the focus of China's enmity. The "Xi Doctrine's" objectives are to use economic, technological, ideological, diplomatic, and military means to expand China's power.

The economic means include grandiose enterprises such as the Belt and Road Initiative, Asian Infrastructure Investment Bank, and investment and infrastructure creation to expand China's power through economic might.

It is also technological, the "China 2025 project" and the Digital Silk Road, which is intended to create the next digital 5G infrastructure and in time quantum and AI, with the objective to control the internet, gather intelligence, and coerce other states through digital means.

The ideological mechanisms are just as broad and are centered on such purportedly noble messages such as creating the "shared destiny of mankind rhetoric" and via other measures, such as the spread of Confucius Institutes around the world. For states of the Global South, China advances the "China model" for growth and modernization which combines repressive political rule with CCP-led crony capitalism—all supported by China and requiring China's good will to sustain.

The diplomatic mechanisms are largely traditional avenues for expanding power, e.g., creating bases in Djibouti and Pakistan as a hearty start to ultimately a global network of intelligence and military bases that will require the PRC to develop credible extended deterrent capabilities.

Finally, the military instrument, via the PRC's conventional and nuclear expansion will cement China's gains and further its expansion, certainly including against Hong Kong and Taiwan, but "out of area," well beyond China's borders as well. The anticipated expansion of the Y-20 fleet (from around 10 now to 100-400 in the next decade) will aid Beijing's ability to project power.

### **Third: The U.S. Response Should Be Measured Confrontation**

There have been many appeals for accommodation, but accommodation will fail because it requires sufficient mutual interests. As I have argued this is not the case, this will be the PRC's world or the world of the liberal international order. The dispositive question of the 21<sup>st</sup> century is which will it be. To ensure our victory, measured confrontation is necessary.

Xi's personal motto is: "show the blade (亮剑)." So, let the U.S. take him at his word and adopt this maxim as its animating spirit to defeat Xi's ambitions.

To combat Xi's measures, the U.S. must advance a policy of measured confrontation with his regime. The U.S. must be clear about the enemy and how the U.S. will achieve victory over the foe. Forty years after the end of the Cold War, Washington once again needs to adhere to the four principles of great power competition.

The first of these are a strategic focus on the enemy and strategy for victory over the foe. Marcus Porcius Cato (the Elder) always ended his speeches in the Roman Senate—no matter the topic—with the recognition that Rome's peer competitor, Carthage, must be destroyed (*Carthago delenda est*). Carthage was finally vanquished after the end of the Third Punic War in 146 B.C., three years after Cato's death. His focus on the peer competitive threat perpetually reminded Roman leaders of the danger to their primacy and of Carthage's determination to defeat them. Today, Cato's clear and powerful insight concerning the necessity of focusing upon the enemy, the peer competitive threat, must fuel U.S. strategic thought.

Second, power is everything. Power is the coin of realm in great power competition. U.S. policy must be anchored on the understanding that the most significant instrument in international politics is power. The maintenance of U.S. power, in all of its forms, military, economic, technological, educational, is essential.

The third principle for great power competition is the distinction between absolute and relative power. While the absolute power that a state has is significant, what is more important is the relative power of the state—how it ranks in terms of power against the power of other states.

Dominant great powers that do not carefully consider and evaluate the relative distribution of power are condemned to lose their dominance. Thus, how relative power is distributed in international politics is of central importance. Accordingly, trade must be considered with respect to its strategic impact. The free market economists' emphasis on absolute gains from trade must be supplanted by the strategists' emphasis on the distribution of relative power:

which state will gain more power from economic exchange must be the metric. Lamentably, the U.S. did not follow this strategic principle in its relations with China over the last generation.

In a historically unprecedented act, the U.S. contributed mightily to the creation its most formidable peer competitor. It is both appalling and shameful that U.S. decision-makers labored to create this challenger. Warnings of this adverse change in the balance of power were not heeded by U.S. decision-makers. To the contrary, too many in Washington, New York, and Silicon Valley, pursued policies which emphasized cooperation, “bringing China in” to the international order and fostering its growth, so that it would become a “responsible stakeholder” in it. The expectation was that China would cooperate with the West to preserve the present liberal order of global politics.

The fourth principle is focused balancing. The U.S. possess the correct conventional and strategic force structure in the region to deter China. Washington must stand with allies and other states of the Quad—Australia, India, Japan—which are cooperating ever more closely and might serve as a nascent counterbalance to the PRC. But the U.S. must continue to lead them.

Effective balancing also requires that the U.S. must significantly increase its nuclear and conventional presence in the Indo-Pacific, strengthen its allies, augment its defenses, and continue to convey to the world the dangerous consequences of China’s reckless expansion—it compels the recognition that China does not limit its nuclear forces because it is not invested in strategic stability, and is not so invested because it is a revisionist great power.

## **Conclusion**

Unfortunately for international peace and the security of its neighbors, China’s determined and dramatic increase underscores first, China’s ambitions are not limited, but are expansionistic, Second, that it rejects strategic stability by undertaking the secretive and accelerated growth of its arsenal.

China could convey that it is a status quo power, and one that is willing to forsake its immediate advantage in a particular category of weapon systems for strategic stability. Indeed, China could achieve greater security by working within the present international order than by overturning it.

The fact that China does not take these steps, they are indeed unthinkable is alarming and a stark testament to China’s objectives. China is driving an arms races and intensifying security competition due to the Olympian ambitions of its leaders. In response, the U.S., and its allies, as well as the international community must be clear: the problem is the unrivaled growth of the PRC’s capabilities and the concomitant expansion of their ambition, particularly under Xi.

Accommodation will embolden Xi and generate additional and accelerated pressure for change to U.S. interests and the liberal international order. The U.S. has time to act to sustain its position over China, but that window is closing, and the greater the accommodation with China, the faster that window will close. As regrettable as it is, the traditional tools of great power competition: direct, focused, and measured confrontation is the necessary and only option available to the United States to defeat Xi’s ambitions.

**Speaking Notes: U.S. Nuclear Modernization—Road to 2030 and Beyond  
Presented (Virtually) to 20th Annual Nuclear Triad and Deterrence  
Symposium**

**John R. Harvey  
10 December 2020**

I am pleased to join you today, even if virtually, to speak about critical issues involving modernization of our nuclear forces. But before I do I want to thank Jeff Beane (Cyber Innovation Center), Brian Moran, Peter Huessy (Mitchell Institute), who originated this series of symposia in 2011 and is co-host, and General Ray of Global Strike Command, a strong proponent of this very important effort.

Many of us take as a given that U.S. nuclear forces help prevent major wars and promote strategic stability among the major powers. But the set of exquisite capabilities—the people who design, develop, secure, plan, operate and maintain nuclear forces and the associated R&D, manufacturing and operational infrastructure that supports this effort—are no less a factor in assuring allies and deterring adversaries. Over the next few decades this set of capabilities will be tested in very complex modernization programs that will involve the near simultaneous replacement of every leg of the aging triad, a major upgrade to the NC2 system that links nuclear forces with Presidential authority, and recapitalization of NNSA’s aging warhead production infrastructure. As former Secretary of Defense Ash Carter said: either we replace aging platforms and systems, or we must remove them from service. There is no other choice.

What I hope to achieve in brief remarks is to review triad modernization, examine three major risks to successful modernization and, lastly, address the implications of “modern conflict” and of arms control for U.S. nuclear posture and programs.

The first order of business is *sustainment*: ensuring that today’s nuclear triad, U.S. dual-capable fighter bombers and associated NC2 remain operational until modern replacements are available.

Recall the major replacement programs underway in DoD:

- Modernize the sea-based deterrent with a new Columbia-class ballistic missile submarine to replace the Ohio-class submarines deployed since the 1980s.
- Develop a follow-on ICBM—the so-called GBSD—to replace the aging Minuteman III.
- Field a new B-21 strategic bomber.
- Field a Long-Range Standoff missile to replace the current air-launched cruise missile.
- Meet deterrence commitments to allies with a nuclear-capable F-35 Joint Strike Fighter deployed with the life extended B61-12 bomb.
- Develop and field, in the next decade, a nuclear-armed SLCM.
- Field a “next-gen” NC2 system that is responsive to both advancing threats and the evolving vision for modern conflict.

For NNSA, a no-less important series of programs is being executed as called out in the 2018 NPR. Most of you are knowledgeable about them, including nine large capital construction projects in various stages of execution, but I want to call attention to one critical need:

- That is, NNSA must sustain personnel, computational, experimental, and test capabilities needed to assess the safety and reliability of the nuclear stockpile as well as to design, develop, and produce modern nuclear warheads as may be needed in the future.

### **Modernization Challenges and Risks**

There are three major risks to successful completion of this intensive modernization effort.

#### ***Program Execution Risk***

First is program execution risk. Slips in individual programs, coupled with serious shortfalls in the aging warhead production infrastructure, can degrade deterrence from not having forces available sufficient to meet targeting needs. The entire work program reflects a modernization challenge not experienced in over 40 years, since the days of the Cold War, and we should anticipate significant technical and programmatic challenges in completing it on time and cost. Several factors contribute to increased risk. Previous delay in initiating programs has left no margin for error in fielding these systems on current schedules. Very importantly, these programs are not stovepipes but highly interconnected. For example, the retirement of the ALCM carried by B-52, the production ramp-up of the LRSO which replaces ALCM, the deployment of the B-21 bomber which will also deliver LRSO, and NNSA's program to field the LRSO warhead, must all be synchronized. Problems or delays in one program will reverberate through the others causing additional delays and increased cost.

Some modernization—bombers, cruise missiles, satellite systems—can rely on a robust R&D and manufacturing base built up over years from related activities in the commercial sector, from other non-nuclear DoD programs, or from both. For other, nuclear-unique systems—solid rocket motors, reentry systems, means for SLBM underwater launch, rad-hard electronics—the tech base is less mature. As found out from painful past experience, programs may need to re-learn, or adapt, production processes not used in decades, which can add complexity to these efforts as well as cost and schedule risk.

Some in DoD who oversee nuclear modernization, believe that the greatest challenge will be during the period starting the end of this decade when the transition of aging delivery systems to their modern replacements begins. This highlights a key point for managing risk; specifically, as modernization proceeds, adequate resources must be devoted to sustaining existing forces until such time as they can be replaced. Other means of risk mitigation merit consideration:

- Stellar program execution over many years by highly qualified and seasoned acquisition officials is essential.
- Aggressive measures, with some inherent risk in themselves, to extend further the life of current systems to “cushion” potential delays in their replacements.
- Acceleration of a well-performing program for one delivery system to hedge delays in another.

All must be in play. Very importantly, acquisition oversight must view nuclear modernization not as individual stove piped programs but as an integrated whole that cuts across both DoD and

NNSA programs and is managed as such. With this type of integrated oversight, appropriate tradeoffs can be made, within or among individual programs, to manage risk.

***Risk to Bipartisan Consensus on Modernization***

A second risk is to a continuing bipartisan consensus on modernization. Early in his second term, in part due to Mr. Putin's reckless behavior in Crimea and elsewhere, Mr. Obama moved out aggressively on nuclear modernization and received strong support from Congress. There were two reasons for this. First, he mollified the left's distaste for modernization by giving voice to a long-term aspiration for eliminating these weapons (even if not in his lifetime!), by avoiding programs involving new warheads or fundamentally new military capabilities, and by moving forward on the New START treaty with Russia. Second, he captured the right by agreeing to fund modernization at a higher level than originally intended in return for support from Senate Republicans on New START ratification.

The Trump team put together a nuclear review and associated modernization program for nuclear forces that drew on much of what it inherited from Mr. Obama. The 2018 NPR is thoughtful, balanced and in the mainstream of U.S. nuclear policy. As a result, bipartisan support in Congress for nuclear modernization continued for Mr. Trump's first three budget requests. In the run-up to passage of the FY20 NDAA, for example, there were a few disputes on nuclear programs between the Democrat-controlled House and the Republican-controlled Senate.<sup>1</sup> In the final bill, passed by both Houses, all issues in dispute were resolved favorably, and nearly all of the associated funding was appropriated consistent with the President's budget request.

<sup>1</sup> Areas of contention involved (1) whether to slow down GBSD, the replacement program for Minuteman III, by cutting its funding, (2) whether to cut funding for two NNSA programs (warhead pit production, the W87-1 LEP) that support GBSD, (3) whether to field a low-yield warhead for Trident, (4) whether to proceed on a study for a new nuclear SLCM, (5) whether to adopt a "no first use" policy, and (6) whether to retire the B83 bomb.

The big question is whether, over the two decades that modernization plays out, successive Presidents will be able to persuade successive Congresses to continue necessary bipartisan political and financial support. Consensus is fragile and can turn on a dime. Modernization will be attacked as unaffordable and, yes, \$1 trillion over 30 years is not cheap. But the cost argument has not received much traction so far. Indeed, both the Obama and Trump administrations made clear that nuclear forces are America's #1 national security priority. Moreover, nuclear sustainment and modernization will consume less than 7% of the annual defense budget, declining to 3% as modernization winds down. Given its high priority as expressed by two very different Presidents from two very different administrations, and the relatively small fraction of the Defense budget consumed, many see modernization as both important and affordable.

Bipartisan support for nuclear modernization has traditionally been linked to continued bipartisan support for arms control. We all recall the dialog between Mr. Obama's team and Sen. Kyl that led to both Republican support for New START ratification and increased funding for modernization.

Despite positive words about arms control in the 2018 NPR, there is a perception among some, based on its resistance to New START extension and reports of a possible interest in resuming underground nuclear testing, that the Trump team has been hostile to arms control. Whether fact or fiction, the fate of modernization in future Congresses may well



hinge on a new administration conveying a different message; that is, arms control and related initiatives complement U.S. nuclear forces in managing global nuclear threats.

On this last point, so long as Russia continues to comply, a key proviso, U.S. support for New START extension to me is a “no brainer.” This is so not primarily for its purported benefits for strategic stability (of which there are some), or for its role advancing U.S. nonproliferation goals (highly arguable), or to assure allies (valuable), or for the transparency it provides into each other’s nuclear weapons programs (highly useful). Rather, it is primarily to support the modernization program. New START extension and continued support by both parties for modernization should be a package—not one without the other.

Consideration should also be given to renewed efforts to engage Russia on other initiatives that are in U.S. security interests including reducing the large disparity in non-strategic nuclear weapons, reining in certain of Russia’s exotic modernization programs, and a more productive dialog on strategic stability. As Mr. Obama learned, this may turn out to be another dead end with Russia. Still, such efforts, even if unrealized, would demonstrate “good faith effort” and as a result strengthen bipartisan support for modernization.

### ***Risk from Evolving Threats***

Third is the risk from evolving threats. The modernization program underway is not creating more nuclear weapons with exquisite new military capabilities, but simply replacing what we have today with modern versions. Is such a program sufficient to address threats that will evolve significantly over the 50-70 years that these systems are to remain in the field? More succinctly, is the force we are rebuilding the force we need for 2030 and beyond?

To answer this question, a central focus must be the return to great power competition and, specifically, the evolution of the threat posed by *Russia*. Russia is not the only driver for the \$1 trillion that will be spent over the next 30 years to sustain and modernize nuclear forces, but it is the most important one. Russia’s open contempt for the post-Cold War security order, its illegal occupation of Crimea, its ongoing war with Ukraine, its nuclear threats to U.S. allies, its deployment of a land-based cruise missile in abject violation of the INF Treaty, its modernization programs for exotic new nuclear weapons, and the surging role of nuclear weapons in its overall security posture all suggest the persistence of dangers for which the U.S. nuclear deterrent remains relevant.<sup>2</sup> Very importantly, there is concern that a limited-first-use, “escalate to win” nuclear strategy had gained prominence in Russia’s nuclear doctrine as reflected in military exercises and aggressive modernization programs for tactical nuclear weapons. Indeed, the low-yield Trident and nuclear SLCM programs are U.S. initiatives designed specifically to bolster deterrence to Russian limited first-use.

<sup>2</sup> This does not exhaust the list of deeply troubling Russian behaviors. We should not forget Russia’s use of radiological and banned chemical weapons to murder expatriates who have lost favor, its support to the atrocities carried out in Syria, and its interference in the political process and elections both in Europe and the United States. The emerging vision for so-called *modern conflict* also has implications for U.S. nuclear posture and particularly command and control. Today, we must anticipate a much more dynamic security environment featuring multiple, potential sources of conflict with peer competitors, and with the emergence of nuclear-armed regional states. More varied and complex conflict

scenarios may be encountered which are potentially more stressing to forces and NC2 than even traditional Cold War threats.

Four developments are driving these considerations. First is the aforementioned troubling trend of increasing salience in the nuclear doctrine of Russia (and possibly others) of limited first use of nuclear weapons. Second are increasing capabilities for kinetic attack on satellite systems, and not just from Russia or China. Third are increasing foreign capabilities for precision global conventional strike. Fourth, and what may be most stressing, is the potential for cyberattack on forces and critical command and control assets.

Consider a regional conflict that escalates to a global conventional-only phase in which U.S. nuclear forces and NC2 are degraded initially by cyber and anti-satellite attacks and later by long-range precision conventional strikes on military forces. An attack on an Advanced EHF satellite to degrade tactical communications in a conventional conflict would also degrade nuclear communications provided by that same satellite. Escalation to limited nuclear could feature space use of nuclear weapons to produce high-altitude EMP, but few immediate casualties on the ground, along with more widespread non-nuclear attacks on general purpose command and control assets. Escalation to a large nuclear attack with multiple detonations on U.S. territory—i.e., the Cold War scenario—could thus begin with severely degraded NC2.

In such conflict scenarios, the United States will need an NC2 system that can survive sustained conventional attack as well as the ability to plan and conduct nuclear strikes in coordination with ongoing conventional operations. In conflicts where nuclear use initially may be quite limited, a President will seek a much broader set of consultations with senior advisors, allied, and possibly adversaries requiring more reliable, secure two-way communications pathways. Such pathways will also support adaptive nuclear planning, decision-making conferencing, and flexible execution. Demand for high quality voice, video, and data transmissions, resilient to stressed nuclear environments and adversary exploitation, and available wherever the President is located, will greatly exceed those capabilities developed for the Cold War.

Regarding delivery platforms, the U.S. has long valued the inherent survivability of ballistic missile submarines at sea. It has spent wisely to stay on top of any technological developments that could conceivably put those assets at risk. With regard to aircraft, once aloft and outside integrated air defense zones, U.S. bombers, NC2 aircraft, and aircraft supporting national leadership were thought to be survivable for an extended period. We need to rethink this. Technological advances may make aircraft more vulnerable to detection, tracking and targeting. SSBNs may become more vulnerable to anti-submarine warfare if adversaries are able to exploit electronic communications to identify their operating area. Moving forward on modernization requires robust communications links that enable management and direction of forces consistent with operational concepts that maximize survivability of mobile platforms.

Finally, in providing timely adjustments responsive to evolving threats and technical challenges, the importance of restoring the capabilities of the R&D and industrial base that sustains and modernizes nuclear forces cannot be understated. Until then, we must rely on a less-than-desirable strategy of maintaining additional spare warheads in the U.S. nuclear stockpile to hedge against such uncertainty. Restoring the infrastructure needed to produce uranium and

plutonium components for nuclear warheads is a priority. Remaining on track with other ongoing triad modernization efforts is essential. Assuring continued competence of our nuclear warhead and reentry system designers, engineers, and production personnel is a prerequisite for everything.<sup>3</sup>

### **Conclusion**

Let me conclude by summarizing some important take aways from this discussion:

- Keeping the U.S. nuclear modernization on track for the two decades that modernization will play out remains a key technical and political challenge.
- There is little flexibility to absorb further triad modernization delay without affecting robust nuclear deterrence in future years.
- A contentious debate on arms control should be avoided because it would only tear at the fabric of consensus on nuclear modernization.
- The debate over nuclear forces must increase focus on Russia and, in particular, Mr. Putin's bad behavior.
- Achieving viable means to hedge strategic uncertainty is critical; most importantly, by restoring and maintaining the capabilities of the R&D and industrial base that sustains and modernizes forces.

The U.S. nuclear arsenal beyond 2030 will not look much different from today's—there will be a Triad but a modern one with life-extended warheads and enhanced NC2. Some U.S. programs will be initiated or bolstered to respond to technological advances or evolutions in deterrence strategies outlined earlier. In taking such steps, the U.S. nuclear posture will continue to meet deterrence needs against any potential adversary. The big well, uncertainty. We should expect to be surprised and the means to respond to surprise—a robust and responsive nuclear R&D and industrial base—will be essential.

{ On this last point, the Navy's program for the Mk7/W93 warhead and reentry system, and its intent to offer modern features including modularity for rapid adaptation to evolving threats, field maintainability, and others will be an excellent "test case" for a restored R&D and industrial base for nuclear forces.

## **Mark Gunzinger, The Future Bomber Force, December 10<sup>th</sup>, 2020 Nuclear triad Symposium, Bossier City, Louisiana**



Mitchell Future  
Bomber Force Preser

### **Missile Defense: 'If It Ain't Broke, Don't Fix It'**

*By Peter Huessy, The Hill: "Missile defense is back in the news for a*

variety of reasons, some good, some worrisome." Published in  
RealClearDefense Dec. 4, 2020

### **New DOD Nuclear Triad Factsheets from OSD's Rob Soofer**

<https://media.defense.gov/2020/Nov/24/2002541293/-1/-1/1/FACTSHEET-THE-IMPORTANCE-OF-MODERNIZING-THE-NUCLEAR-TRIAD.PDF>

## **Answering Questions**

### **Are U.S. ICBMs on "hair trigger" alert? Isn't this dangerous?**

No, the term "hair trigger" is misleading, meant to evoke an image of ICBMs dangerously close to being launched at the first sign of attack, without safeguards or oversight. In reality, ICBM operators are incapable of launching an ICBM without first receiving and confirming a number of criteria to verify and process a valid launch order from the President. Furthermore, to prevent unauthorized or accidental launches, ICBMs are locked day-to-day and cannot be enabled for launch without a code received in the valid launch order. In addition, a missile squadron is interconnected, meaning the five launch control centers (LCCs) monitor the status of all 50 ICBMs in that squadron and each other, and any one LCC will initiate "inhibit launch" commands in the event of unauthorized launch indications. Although the President can order the launch of ICBMs quickly during an adversary's confirmed strike, the dispersed and survivable nature of the overall nuclear Triad, along with the redundant and secure nature of U.S. missile warning sensors, offers the President viable options to not rely on launch-under-attack tactics.

### **Does the United States have a launch-on-warning policy? What about false warnings of attack?**

No, the United States rejects launch-on-warning policies and postures and will not launch its ICBMs based only on one sensor's data. The United States maintains and is modernizing an overlapping network of space- and ground-based sensors that jointly validate the indications, and determine the severity, of a missile launch against the United States. The United States takes every precaution to ensure it does not rely on only one sensor's data for missile warning and assessment. Before a notification is sent to U.S. senior leadership, data concerning a potential missile attack are confirmed using dual-phenomenology – matching the data from both ground- and space-based

sensors. 4The Department of Defense also considers the broader political-military context in which it receives the data concerning a possible missile launch. Data that indicate a massive missile attack against the United States, when received in peacetime, will be given an extra level of scrutiny and confirmation to prevent mischaracterization.

## Why can't we rely on submarines and bombers by themselves?

A dyad of submarines and bombers alone would not provide sufficient deterrence and assurance effect. 4Without ICBMs, a conventional-only attack on the limited number of submarine and bomber bases could significantly degrade the U.S. nuclear arsenal without rising to the level of nuclear use.

This significantly lowers the threshold for an attack against the U.S. homeland. 4Adversaries would have enormous incentives to invest even more in anti-submarine warfare capabilities while reinforcing their already substantial air and missile defenses.

## Will the GBSD cause an arms race?

No, Russia and China are already increasing the capability and number of their ICBMs respectively, while the United States is transparently replacing ICBMs on a one-for-one basis. Eliminating U.S. ICBMs unilaterally would in fact remove leverage from diplomats seeking to avoid an arms race and reduce the leverage needed to persuade other nations to decrease their nuclear arsenals.

## Would eliminating ICBMs save a lot of money in the defense budget?

No, even assuming a vastly reduced future defense budget, according to the Congressional Budget Office (CBO), eliminating ICBMs would account for less than one percent of the defense dollars spent over the next 30 years.

Additionally, calls for eliminating ICBMs rarely account for the increased costs that would result. 4Eliminating ICBMs would only transfer the responsibility of nuclear deterrence and assurance missions onto the other legs of the nuclear Triad – bombers and submarines – which would require force posture and capability changes. These changes could potentially include procurement of additional submarines and bombers, and then placing bombers on strategic day-to-day alert to maintain current capabilities and effectiveness – both of which would increase costs.

# Challenges for the Next Presidential Term

By [Lamont Colucci](#) Monday, 30 November 2020 11:28 AM [Current](#) | [Bio](#) | [Archive](#)

During the next four years, the man who occupies the presidency will face many serious challenges, none of which received any attention during the last election cycle or, bizarrely, any time during the presidential debates.

The American people may pay a high price for the media's inability to prioritize, engage, and understand foreign affairs and international relations.

This is not a discussion of every foreign policy problem the president will face. The realm of strategic flashpoints is the area least likely addressed by the media since these are long-term strategic issues fundamentally based on geopolitics and astropolitics.

Thus, a brief primer will illustrate the strategic challenges the president will face. These are best exemplified by the potential flashpoints that condense the national security decision process into a short period. Eleven likely flashpoints could erupt during the next four years to some degree or another. Seven of the 10 involve China in a significant way.

The four remaining primarily involve Russia.

The first two Russian flashpoints are the Euro-Russian frontier stretching from Poland to Romania, and the second is the Baltics. These potential eruptions are all within the context that the EU is in directionless chaos. Russia continues to bully the Baltic and utilizes the ethnic Russian population as a potential menace while threatening to use gray-zone-hybrid warfare to destabilize Baltic independence.

They couple this with the Russian Air Force's continual harassment of NATO forces and airspace. Now that the Baltic states are full partners in NATO, Russia's attempt to use any type of force or threat of force must be considered an attack on American national interests.

Russia's shadow is just as dark when it comes to Russia on the eastern European frontier. Russia has attempted to use energy as a weapon and campaigns hard to drive wedges between the east part of NATO and the core western powers.

Needless to say, the threat of a "Soviet" style conventional attack has never evaporated.

Finally, we have Russia's overt use of conventional strength and expansion into the Arctic, setting the stage for major territorial and resource grab.

The Middle East is a perennial hotspot, but it crosses into great power conflict with Russia's specter. Russia's power projection into Syria and its unholy relationship with Iran bolsters the two of the three worst regimes on the planet (the third being North Korea, which maintains close ties to the others.) Any calculation for American actions in Syria or Iran must factor in the Russian equation at some level, even if it is actively to ignore it.

The remaining seven flashpoints center on China's hostile actions. Those don't consider the tipping point where western nations will no longer take a passive attitude toward China's human rights abuses. The next three flashpoints all have to do with China's strategic maneuvering in Asia. China's march toward hegemony is finding a demonstration in the South China Sea, which at some point could explode into an outright territorial grab beyond what they have done up to this point.

China's naval actions make all of her neighbors in the Sea of Japan very nervous. China's continued backing of the totalitarian regime in North Korea allows that regime a free hand to engage in nuclear weapons development and genocide at home and weapons proliferation abroad.

Two other flashpoints are in and around the sub-continent. The Indian Ocean and the Sino-Indian border illustrate India and China's tension and conflict as India attempts to rebuff an Asia dominated by her enemy.

The 10th flashpoint is exceptionally dangerous. The potential for naval conflict or a maritime dispute that escalates again relates to China's power projection, with conflict zones in and around the Taiwan and Tsushima straits a possibility.

Finally, and most importantly, is the realm of space power and space economics. The next few years will determine space leadership. China makes a clear bid for space supremacy with concrete policies and advances that will need to be aggressively and vigorously countered. We are the opening act of a real space opera.

All of these potential flashpoints will either not erupt or will be short-lived based on American decisions. America's role as the dominant world power has created order, stability, and hope. Any American retreat from this role will enhance violence and chaos.

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