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Program

INSIDE THE ICBM LOBBY:

SPECIAL INTERESTS OR THE NATIONAL INTEREST?



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About the Center for International Policy

The Center for International Policy (CIP) is an independent nonprofit center for research, public education and advocacy on U.S. foreign policy. CIP works to make a peaceful, just and sustainable world the central pursuit of U.S. foreign policy. CIP's programs offer common sense solutions to address the most urgent threats to our planet: war, corruption, inequality and climate change. CIP's scholars, researchers, journalists, analysts and former government officials provide a unique mixture of issue-area expertise, access to high-level officials, media savvy and strategic vision. The Center was founded in 1975, in the wake of the Vietnam War, by former diplomats and peace activists who sought to reorient U.S. foreign policy to advance international cooperation as the primary vehicle for solving global challenges and promoting human rights. Today CIP brings diverse voices to bear on key foreign policy decisions and makes the evidence-based case for why and how the United States must redefine the concept of national security in the 21st century, and adopt greater cooperation, transparency and accountability in the international relations of the United States.

About the Arms & Security Program

The Arms and Security Program does independent research, media outreach, and public education on issues of nuclear policy, Pentagon spending, and the impacts of the global arms trade, with an eye towards promoting reforms in U.S. policy.

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Report cover image is of an "unarmed U.S. Air Force Minuteman III ICBM Test Launch," May 3, 2017, Source: U.S. Department of Defense on flickr

I SUMMARY AND RECOMMENDATIONS

Intercontinental Ballistic Missiles (ICBMs) have been called “some of the most dangerous weapons in the world” by former Defense Secretary William Perry, because the president would have only a matter of minutes to decide whether to launch them in a crisis, increasing the risks of an accidental nuclear war. Despite this reality, proposals for reducing this risk have routinely been blocked, in significant part due to a group of Senators from states that host ICBM bases or ICBM maintenance and development activities, often referred to as the ICBM Coalition. The Coalition includes Senators from Montana, North Dakota, Utah, and Wyoming.

The ICBM is a pillar of the nuclear triad of land-, sea-, and air-based nuclear delivery vehicles that has achieved near-sacred status among mainstream nuclear strategists, presidential administrations, and key members of Congress. But the origins of the nuclear triad have as much or more to do with interservice rivalry – a fierce battle for nuclear weapons-related funding – as they do with strategic need.¹

The efforts of the ICBM Coalition have been supplemented by lobbying and campaign contributions from ICBM contractors, led by Northrop Grumman, which has received a sole source, \$13.3 billion contract to build a new ICBM, known formally as the Ground-Based Strategic Deterrent, or GBSD. Current estimates indicate that building and operating the GBSD and related warheads will cost \$264 billion over the life of the program, which would provide a steady flow of revenue to Northrop Grumman and associated companies for years to come. Northrop Grumman’s lobbying efforts have been supplemented by a dozen major GBSD subcontractors, including heavy hitters like Lockheed Martin and General Dynamics.

Over the past decade, major ICBM contractors have made roughly \$1.2 million in campaign contributions to members of the ICBM Coalition, and over \$15 million more to members of key committees that play a central role in determining how much is spent on ICBMs: the Senate and House Armed Services Strategic Forces Subcommittees and the Senate and House Defense Appropriations Subcommittees.

ICBM contractors also have powerful lobbying machines that can be brought to bear on behalf of major weapons projects. Northrop Grumman and its top subcontractors spent over \$119 million on lobbying in 2019 and 2020 alone and employed 410 lobbyists among them. While not all of these lobbyists were employed to work on the ICBM issue, the substantial lobbying resources of the ICBM contractors give them preferred access to key members of Congress and help build relationships that can be leveraged for a variety of purposes.

¹ For a brief history of ICBM development, see Appendix, “Origins of the ICBM: Interservice Rivalry and Pork Barrel Politics” on p. 28

Northrop Grumman claims that the early stages of the new ICBM project will create 10,000 jobs at 125 facilities in 32 states. The company has provided no documentation for these estimates, which may well be exaggerated.

If accurate, Northrop Grumman's estimate of jobs tied to the development of the new ICBM are less than one hundredth of one per cent of a national labor force of 160 million people. The jobs are likely to be concentrated in a small number of facilities, with other locations receiving a handful of jobs at most.

For those sites that do have significant ICBM development related employment, alternative expenditures on infrastructure or green manufacturing would create over 40% more jobs per amount spent on ICBMs, as noted in an analysis conducted for Brown University's Costs of War Project.² In fact, if invested in green manufacturing, a significant reduction in Pentagon spending could create a net increase of 250,000 jobs – 25 times the number of jobs purportedly tied to the development of a new ICBM.³ Even a more modest investment in green manufacturing equivalent to the cost of the new ICBM would create a net increase of thousands of jobs compared to continuing work on the GBSD.

Canceling the new ICBM will have no economic impact on states hosting ICBM bases, nor would changes like adopting a no first use policy or taking ICBMs off of high alert status.

However, eliminating ICBMs altogether could put thousands of jobs at risk in states that host ICBM bases or significant ICBM maintenance activities. But given adequate planning and coordination among key stakeholders, it is possible to develop economic alternatives. The Pentagon's Office of Economic Adjustment (OEA) – now known as the Office of Local Defense Community Cooperation (OLDCC) -- has written case studies of 35 successful base conversion examples in 19 states that resulted in a total of over 157,000 new civilian jobs after the closure of the facilities – more than twice as many civilian jobs as were lost at the time of the base closures.

The fate of the GBSD program could ultimately be determined by larger budgetary considerations. Trillion-dollar deficits and the need for additional spending to reverse a deep recession will put pressure on the Pentagon's top line, as will other priorities like pandemic response, combatting climate change, and addressing racial and economic inequality. The GBSD program will also feel pressure from within the Pentagon budget, as goals such as a 500 ship Navy, the purchase of 2,400 costly F-35 aircraft, and investments in a new refueling

2. On jobs from defense versus other types of expenditure see Heidi Peltier, "War Spending and Lost Opportunities," Costs of War Project, Watson Institute, Brown University, March 2019, <https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/March%202019%20Job%20Opportunity%20Cost%20of%20War.pdf>

3. Heidi Peltier, "Cut Military Spending, Fund Green Manufacturing," Brown University Costs of War Project, November 13, 2019, <https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/Peltier%20Nov2019%20Short%20GND%20CoW.pdf>

tanker, a new nuclear bomber, a new generation of unmanned vehicles, and increased spending on hypersonic weapons and artificial intelligence compete for funds with the new ICBM.

The estimated \$264 billion price tag for developing, building, operating and maintaining the GBSD and related warheads may be a tempting budgetary target, especially in tandem with questions about its strategic value. Despite pressure from the ICBM lobby, the Biden administration should end the new ICBM program, both in the interests of reducing the risks of a nuclear conflict and of freeing up funds for more urgent national needs.

Recommendations

- Take existing ICBMs off of high alert. This would reduce the risks of an accidental launch of land-based nuclear missiles based on a false warning.
- Adopt a policy of no first use of nuclear weapons. This would provide an additional margin of safety to avoid a mistaken launch of nuclear weapons in a crisis without undermining U.S. deterrence.
- Forgo building a new ICBM and the related warhead, as a first step towards eliminating ICBMs from the U.S. nuclear force. Doing so could save over \$110 billion in procurement costs and \$264 billion in total costs, including deployment, operation, and maintenance.
- Provide federal transition assistance – both planning and financial – to communities impacted by the closing of ICBM bases, if ICBMs are eliminated from the arsenal.
- Impose stricter campaign finance limits and create a system of public financing of national elections that would reduce the influence of ICBM contractors and other special interest groups on key members of Congress.
- Reduce the influence of the revolving door by requiring greater transparency in reporting the movement of key officials back and forth between government and the defense industry and disclosing their political activities once they commence employment with arms contractors. Create a five-year cooling off period before Pentagon officials can go to work for defense contractors, engage in lobbying on their behalf, or serve as consultants to them, and prohibit political appointees and senior policy makers “from being able to seek employment from companies materially impacted by—including financially benefitting from—the policies they helped draft,” as recommended by the Project On Government Oversight (POGO).⁴

4. For a more detailed set of recommendations regarding the revolving door between the Pentagon and the defense industry, see Brass Parachutes: Defense Contractors’ Capture of Pentagon Officials Through the Revolving Door, November 5, 2018, pp. 39-40, https://s3.amazonaws.com/docs.pogo.org/report/2018/POGO_Brass_Parachutes_DoD_Revolving_Door_Re



ICBMs displayed at the National Museum of the United States Air Force in Dayton, OH, Aug. 1, 2013, Source: Sascha Pohflepp on flickr

INTRODUCTION

As former Secretary of Defense William Perry has noted, Intercontinental Ballistic Missiles (ICBMs) are “some of the most dangerous weapons in the world” because the president would only have a matter of minutes to decide whether to launch them in a crisis, greatly increasing the risks of an accidental nuclear war.⁵

There have been numerous proposals made for reducing this risk, from adopting a policy of no first use of nuclear weapons to eliminating them altogether. A June 2020 report by the Union of Concerned Scientists (UCS) makes the case for taking ICBMs off of high alert and forgoing the development of a new ICBM as first steps towards taking these systems out of the U.S. arsenal.⁶ A nuclear force consisting of nuclear-armed bombers and submarines would be more than sufficient to deter any other nation from attacking the United States. As David Wright of UCS has noted, “submarines are virtually undetectable and therefore invulnerable at sea, while ICBMs are sitting ducks. Their vulnerability has prompted the Air Force to keep them on high alert, which is dangerous and could trigger a nuclear war.”⁷

port_2018-11-05.pdf

5. William J. Perry, “Why It’s Safe to Scrap America’s ICBMs,” *New York Times*, September 30, 2016, <https://www.nytimes.com/2016/09/30/opinion/why-its-safe-to-scrap-americas-icbms.html>

6. David Wright, William D. Hartung, and Lisbeth Gronlund, “Rethinking Land-Based Nuclear Missiles: Sensible Risk-Reduction Strategies for U.S. ICBMs,” *Union of Concerned Scientists*, June 22, 2020, pp. 2-3, <https://www.ucsusa.org/sites/default/files/2020-06/rethinking-land-based-nuclear-missiles.pdf>

7. “US ICBMs Are Superfluous and Increase the Risk of Mistaken Nuclear War, Report Finds,” *press release, Union of Concerned Scientists*, June 22, 2020, <https://www.ucsusa.org/about/news/icbms-are-unnecessary-according-union-concerned-scientists>

The commonsense case for a dyad of submarine-launched ballistic missiles and a reserve bomber force is made in detail in the organization Global Zero's alternative nuclear posture review, which would shift U.S. nuclear strategy from one that engages in planning for elaborate and dangerous nuclear warfighting to one that establishes the nuclear arsenal as a second-strike force meant to deter nuclear attacks against the U.S. and its allies – a “deterrence-only” strategy.⁸

In addition, a recent poll conducted by ReThink Media and the Federation of American Scientists found that 60% of Americans supported either forgoing the development of a new ICBM, eliminating ICBMs altogether, or eliminating all nuclear weapons, an indication that a change in current ICBM policies would have significant public support.⁹ In addition, nearly two-thirds of respondents (64%) expressed a preference for delaying the new ICBM – known formally as the Ground-Based Strategic Deterrent (GBSD) -- while continuing to extend the life of existing land-based missiles while the GBSD program undergoes a comprehensive review.¹⁰

Despite all of the above, there has been no progress on changing U.S. policy on the procurement or deployment of ICBMs, in significant part due to the activities of the ICBM lobby – nuclear weapons contractors and their allies in Congress. ICBMs have been sustained as much by parochial interests as they have by strategic need. Support for a new ICBM is tied closely to the money to be made in developing, building, deploying, and maintaining it: over \$110 billion to develop and buy the missiles and related warheads and a total of over \$264 billion once the costs of operating and supporting the systems are taken into account.¹¹

This report details the workings of the ICBM lobby and makes recommendations for change.

INSIDE THE ICBM LOBBY: THE ICBM COALITION

One reason the ICBM force and the bases that house it have survived criticisms of their strategic utility within and outside of government has been the staunch support of the ICBM Coalition, a group of Senators from states where ICBMs are deployed and maintained.¹² The

8. Bruce G. Blair, Jessica Sleight, and Emma Claire Foley, “The End of Nuclear Warfighting: Moving to a Deterrence-Only Posture,” Program on Science and Security, Princeton University, and Global Zero, September 2018, <https://www.globalzero.org/wp-content/uploads/2019/02/ANPR-Final.pdf>

9. Aaron Mehta, “Majority of Voters Support ICBM Replacement Alternatives, New Poll Finds,” Defense News, February 5, 2021, <https://www.defensenews.com/smr/nuclear-arsenal/2021/02/05/majority-of-voters-support-icbm-replacement-alternatives-new-poll-finds/>

10. Ibid.

11. Anthony Capaccio, “New U.S. ICBM Could Cost Up to \$264 Billion Over Decades,” Bloomberg, October 3, 2020, <https://www.bloomberg.com/news/articles/2020-10-03/new-u-s-icbms-could-cost-up-to-264-billion-over-decades>

12. For a list of ICBM Coalition members an example of their advocacy efforts, see “Hoeven Working to Ensure That Replacement of Minuteman III Stays on Track,” press release, Office of Sen. John Hoeven (R-ND), September 26, 2019, <https://www.>

composition of the coalition has shifted over the last decade as members leave Congress and are replaced, but it has always been a bipartisan group including the Senators from the states hosting the nation's three ICBM bases, in Montana, North Dakota, and Wyoming; and from Utah, where maintenance and development of ICBMs occurs. On key issues, the coalition has drawn support from other advocates of the nuclear triad, including Senators from Louisiana, the home of Barksdale Air Force Base, which hosts the Air Force Global Strike Command and three squadrons of B-52H bombers.¹³ The coalition has been largely successful in fending off changes in the numbers of ICBMs, the numbers of bases where they are deployed, and any initiatives that might make it easier to reduce the ICBM force in the future.

Senators from states with an economic stake in the ICBM mission have included Sen. John Hoeven (R-ND); Sen. Kevin Cramer (R-ND); Sen. Jon Tester (D-MT); Sen. Steve Daines (R-MT); Sen. Mitt Romney (R-UT); Sen. Mike Lee (R-UT); Sen. John Barasso (R-WY); and former budget committee chair Sen. Mike Enzi (R-WY, now retired). Cynthia Lummis, the new Senator from Wyoming who replaced Sen. Enzi after his retirement at the end of 2020, has been a vocal proponent of ICBMs and the ICBM mission, including the introduction of several pro-ICBM amendments in the House of Representatives.

Over the past decade, the coalition has succeeded in limiting the reduction of deployed ICBMs under the New START treaty to 50, leaving a force of 400; keeping the 50 unused silos in "warm status," ready to receive missiles again should there be a shift in U.S. nuclear policy requiring deployment of additional ICBMs; preventing the Pentagon from doing a study of the environmental and economic impacts of further reductions in the ICBM force; and helping to support the Pentagon's plans for development of a next generation ICBM, the Ground-Based Strategic Deterrent (GBSD). In doing so, the coalition has taken dozens of actions, including letters to five secretaries of defense and a succession of chairs of the Senate Armed Services Committee; meetings with key Pentagon and military officials to make the case for continuing the ICBM mission; and amendments restricting the Pentagon's ability to reduce or even take steps that have even a modest chance of leading to reduction of the ICBM force.¹⁴

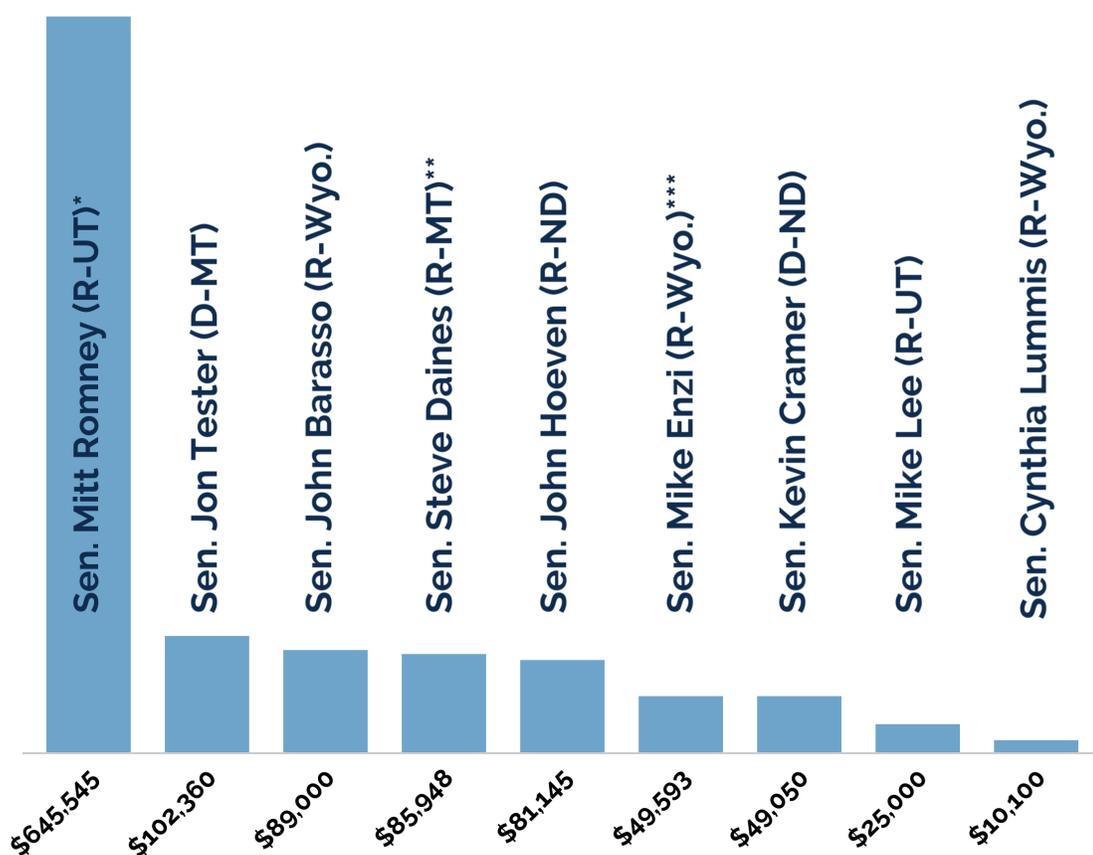
hoeven.senate.gov/news/news-releases/hoeven-working-to-ensure-replacement-for-the-minuteman-iii-stays-on-track

13. For more information on Barksdale, see the base's web site, <https://www.barksdale.af.mil/About/Fact-Sheets/>

14. "Hoeven Working to Ensure Replacement for the Minuteman III Stays on Track," press release, September 26, 2019, <https://www.hoeven.senate.gov/news/news-releases/hoeven-working-to-ensure-replacement-for-the-minuteman-iii-stays-on-track>; "Bipartisan Resolution Supports Modernizing, Maintaining ICBM Fleet," Minot Daily News, January 20, 2019, <https://www.minotdailynews.com/news/local-news/2019/01/bipartisan-resolution-supports-modernizing-maintaining-icbm-fleet/>; For other examples of letters sent and lobbying undertaken by members of the Senate ICBM Coalition over the years one can go to the web sites of Sen. Jon Tester (D-Mont.) of Sen. John Hoeven (R-ND) and search "ICBM Coalition."

Members of the Senate ICBM Coalition have benefited from generous campaign contributions from Northrop Grumman and its major subcontractors (See Graph 1, below).

Graph 1: Campaign Contributions from ICBM Contractors to Members of the Senate ICBM Coalition, 2012 to 2020¹⁵



TOTAL CONTRIBUTIONS TO COALITION: \$1,196,141

*The bulk of the contractor-related contributions to Mitt Romney came during his 2012 run for president.

**Includes contributions when Sen. Daines and Sen. Lummis were in the House of Representatives.

***Retired in 2020, replaced by Sen. Cynthia Lummis.

15. Source: Center for Responsive Politics, "Open Secrets" database; calculations by the author as of December 2020. This Graph covers contributions from the following major ICBM contractors: Northrop Grumman, Lockheed Martin, General Dynamics, L3Harris, Collins Aerospace (United Technologies), Textron, Aerojet Rocketdyne, Honeywell, Parsons, BRPH, Clark Construction, Bechtel, and Kratos. The Center's data includes contributions from company Political Action Committees (PACs) and from employees of the contractors and their families. The Center for Responsive Politics' full description of what is covered by their contributions data is as follows: "Contributions made by the organization's PAC or employees and their families . . . Totals reflect the giving of both the parent organization and affiliates or subsidiaries." OpenSecrets.org, "Organization Methodology," <https://www.opensecrets.org/orgs/methodology>



"Lt. Gen. Anthony Cotton, Air Force Global Strike Command deputy commander, holds a video interview session with media to discuss the Air Force's commitment to the sustainment and modernization of the nuclear enterprise," Feb. 3, 2020, Source: U.S. Air Force by Airman 1st Class Aubree Milks

THE ICBM LOBBY: ICBM CONTRACTORS

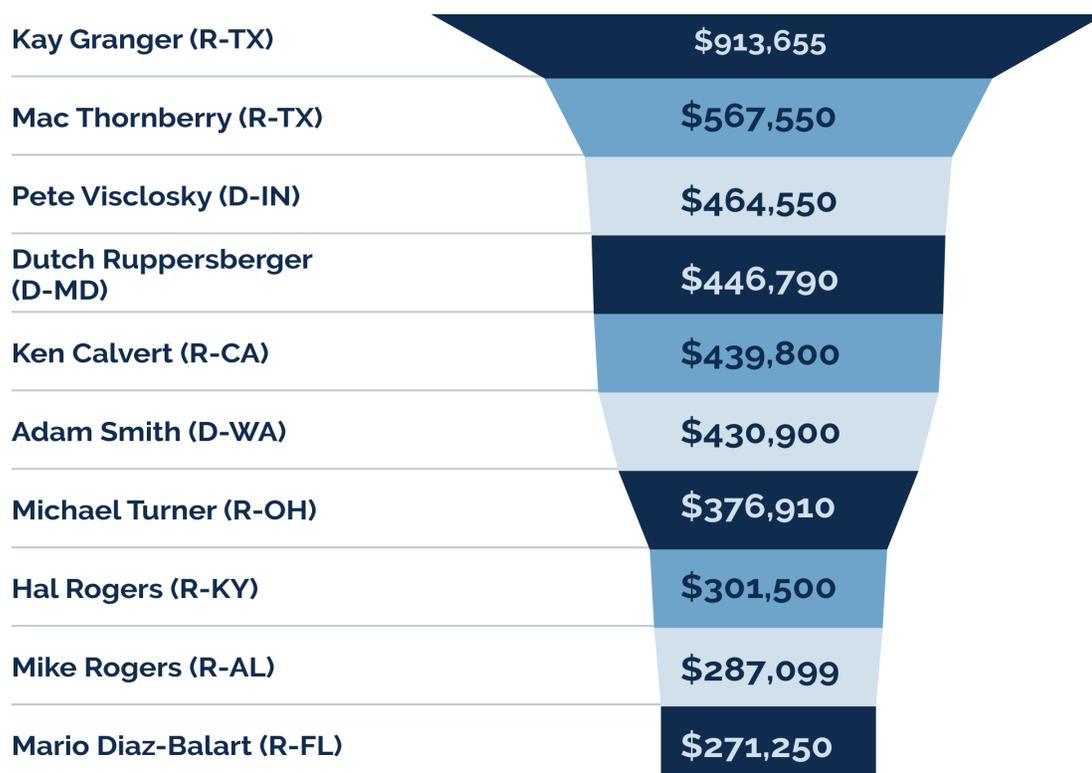
Northrop Grumman has emerged as the sole contractor bidding for the new ICBM, known formally as the Ground-Based Strategic Deterrent (GBSD) (see sidebar). The company flexed its lobbying muscles in 2019 when it helped kill an amendment that would have required the Pentagon to explore alternatives to a new ICBM.¹⁶ And in July of 2020, it lobbied vigorously to block an initiative by Rep. Ro Khanna (D-CA) that would have cut \$1 billion from the budget for the new ICBM.¹⁷ The company will only have more lobbying clout going forward, as it has named a dozen major subcontractors to work on the project, while claiming that the next phase of work will generate 10,000 jobs nationwide.¹⁸ The jobs figure is likely exaggerated, and Northrop Grumman has not provided documentation of its estimate.

16. John Isaacs, Key House Votes on H.R. 2500 Fiscal Year 2020 National Defense Authorization Bill, Council for a Livable World, https://livableworld.org/key-house-votes-on-h-r-2500-fiscal-year-2020-national-defense-authorization-bill/?utm_medium=email&utm_source=livable&utm_content=8+-+Click+here&utm_campaign=NSLC+071519&source=NSLC+071519

17. Joe Gould, "Next-gen ICBM Program Survives Defunding Attempt in House Panel," Defense News, July 2, 2020, <https://news.yahoo.com/next-gen-icbm-program-survives-032306165.html>

18. Marcus Weisgerber, "Northrop Announces Suppliers for New ICBM. Boeing Is Not on the List," Defense One, September 16, 2019. Suppliers include Lockheed Martin, General Dynamics, L3Harris, Collins Aerospace (United Technologies), Textron, Aerojet Rocketdyne, Honeywell, Parsons, BRPH, Clark Construction, Bechtel, and Kratos, <https://www.defenseone.com/business/2019/09/northrop-icbm/159886/>

Graph 2: Top 10 Recipients of Campaign Contributions from ICBM Contractors, U.S. House of Representatives, 2012 to 2020¹⁹



NORTHROP GRUMMAN'S MONOPOLY

In the initial runup to the Pentagon award of the next phase of the new ICBM project there were two competitors, Boeing and Northrop Grumman. But in June of 2019, Boeing pulled out, claiming that the terms were unfairly tilted in favor of Northrop Grumman. And in September 2020, Northrop Grumman received a sole source contract for \$13.3 billion for the engineering, manufacturing, and development phase of the GBSD.²⁰ It was one of the largest, if not the largest, sole source development contract ever awarded by the Pentagon.

Why did Boeing pull out of the competition? A key complaint was Northrop Grumman's acquisition of Orbital ATK, the main US producer of Solid Rocket Motors (SRMs) used in ICBMs. Prior to the acquisition, Orbital ATK had been part of the Boeing team that was bidding to develop the new missile. The acquisition complicated Boeing's ability to acquire SRMs for its

19. Source: Center for Responsive Politics, "Open Secrets" database. *Retired from Congress in 2020

20. Robert Burns, "Air Force Awards \$13.3 Billion Contract For Nuclear Missiles," Washington Post, September 8, 2020 (via Associated Press), https://www.washingtonpost.com/world/national-security/air-force-awards-133-billion-contract-for-nuclear-missiles/2020/09/08/ e0167fb2-f22a-11ea-8025-5d3489768ac8_story.html



"Airmen from the 90th Missile Maintenance Squadron prepare a reentry system for removal from a launch facility," Feb. 2, 2018, in the F. E. Warren Air Force Base missile complex, Source: U.S. Air Force by Airman 1st Class Braydon Williams

version of the missile and raised the risk that Orbital ATK would share proprietary information on the Boeing bid with Northrop Grumman. Boeing viewed efforts to protect against this outcome as inadequate and withdrew from the competition.²¹ Boeing pushed strenuously for a "best-of-industry" partnership that would have made it a primary producer of the new ICBM alongside Northrop Grumman, but it was out-lobbied by Northrop Grumman and Lockheed Martin, both of which vigorously opposed the idea.

Byron Callan, a defense industry analyst with Capital Alpha partners, raised questions about the deal: "It would be unusual, in our view, for a program of this size not to be competitively bid."²² One problem posed by the arrangement is that the already astronomical costs of the program will increase further because of the Pentagon's limited bargaining power when it has only one contractor. In fact, the head of the Air Force Global Strike Command asserted that a Northrop Grumman/Boeing competition – which never occurred – would have resulted in "billions of savings over the lifespan of the weapon."²³

The problem could be exacerbated if Northrop Grumman's missile fails to perform as advertised. The company already has a record of serious cost overruns on complex systems, as in a 2017 contract with Northrop Grumman to supply software for Air Force Operations Centers that was cancelled after four years and hundreds of millions of dollars in cost overruns.²⁴

21. Marcus Weisgerber, "Boeing: \$85 Billion Competition to Build New ICBM Favors Northrop Grumman," Defense One, July 25, 2019, <https://www.defenseone.com/business/2019/07/boeing-85b-competition-build-new-icbms-favors-northrop-grumman/158695/>

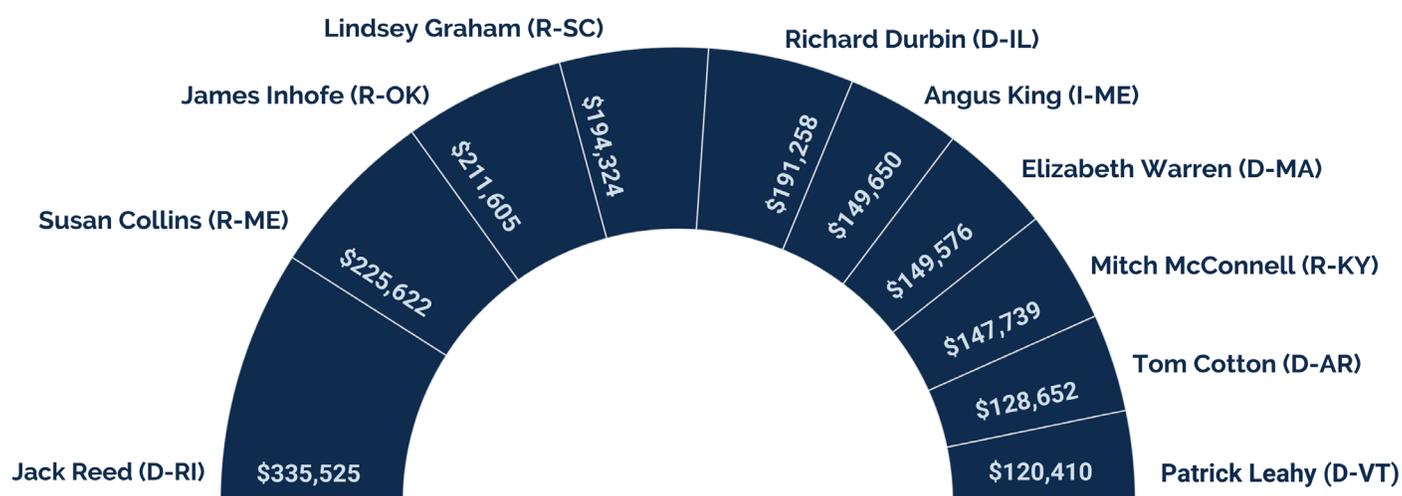
22. Ibid.

23. Valerie Insinna, "Air Force's Next-Gen ICBM Takes Another Step Forward," Defense News, July 17, 2019, <https://www.defensenews.com/2019/07/17/air-forces-next-gen-icbm-program-takes-another-step-foward/>

24. "Air Force Cancels AOC Contract With Northrop," Air Force Magazine, July 13, 2020, <https://www.airforcemag.com/us-af-cancels-aoccontract-with-northrop/>

The Northrop Grumman team has powerful tools at its disposal for fending off any changes in the ICBM program. Northrop Grumman and its major subcontractors have given \$1.2 million to the current members of the Senate ICBM Coalition since 2012, and over \$15 million more to members of key committees that play a central role in determining how much is spent on ICBMs: the Senate and House Armed Services Strategic Forces Subcommittees and the Senate and House Defense Appropriations Subcommittees.

Graph 3: Top 10 Recipients of Campaign Contributions from ICBM Contractors U.S. Senate, 2012 to 2020²⁵



The leaders of the House and current Senate Armed Services committees were high on the list of recipients of campaign contributions from ICBM contractors. In the House, ranking member Mac Thornberry (R-TX) (now retired) reaped \$567,550 from ICBM contractors, while committee chair Adam Smith (D-WA) received \$430,900. On the Senate side, Senate Armed Services Committee current committee chair Jack Reed (D-RI) received \$335,525 from ICBM contractors, and current ranking member James Inhofe (R-OK) received \$211,605.

Members who serve on the Strategic Forces subcommittees of the House and Senate are especially well positioned to assist ICBM contractors by funding their systems and have been rewarded accordingly. For example, Rep. Mike Turner (R-OH), a staunch advocate for nuclear weapons spending, received \$376,910 from major ICBM contractors between 2012 and

25. Source: Center for Responsive Politics, “Open Secrets” database. *Excludes members of the ICBM Coalition; see Graph 1 for data on Coalition members.



"The Pentagon" by David B. Gleason is licensed under CC BY-SA 2.0

2020. Turner was the co-leader of a successful 2019 effort to block an amendment to the National Defense Authorization Act (NDAA) that would have required a study of the costs and feasibility of extending the lifetimes of existing Minuteman III ICBMs, a possible alternative to building a new system. Rep. Mike Rogers (R-AL), his colleague on the subcommittee and the ranking Republican on the House Armed Services Committee as a whole, received \$287,099 from ICBM contractors over the same time period.

On the Senate side, members of the Strategic Forces Subcommittee who received substantial campaign contributions from ICBM contractors and their associates between 2012 and 2020 included Sen. Angus King (I-ME) and Sen. Elizabeth Warren (D-MA), at \$149,650 and \$149,576, respectively, followed by Rep. Tom Cotton (R-AR) at \$128,652.²⁶

The other key bodies tracked in this report are the Defense Appropriations subcommittees of the House and Senate, which determine the actual amount of government money that will flow to these ICBM contractors. In the House, former subcommittee chair Pete Visclowsky received \$464,550 from ICBM contractors, followed by Dutch Ruppersberger (D-MD) at \$446,790 and Ken Calvert (R-CA) at \$449,800. On the Senate side, top recipients were Susan Collins (R-ME), at \$225,622; Lindsey Graham (R-SC), at \$194,324; and Richard Durbin (D-IL), at \$191,258. ICBM Coalition member Sen. Jon Tester (D-MT) is the new chair of the Senate Appropriations Defense Subcommittee. As noted above, in Graph 1, he received \$102,360 from ICBM contractors between 2012 and 2020.

Perhaps even more important than campaign contributions are the extensive lobbying op-

26. The bulk of Sen. Warren's contributions came during her presidential run in 2020, and all of them were from executives and employees affiliated with ICBM contractors, not company Political Action Committees.

erations of ICBM contractors. The top 11 contractors working on the new ICBM spent over \$119 million on lobbying in 2019 and 2020 and employed 410 lobbyists.²⁷ While obviously not all of these lobbyists were employed to work on the ICBM issue, the substantial lobbying resources of the ICBM contractors give them preferred access to key members of Congress and help build relationships that can be leveraged for a variety of purposes.

Many of the lobbyists who work on behalf of ICBM contractors have passed through the “revolving door” from work in top government posts to work in the arms industry. For example, Northrop Grumman, the prime contractor for the next generation ICBM, employed 49 lobbyists, in-house and for-hire, in 2020, 36 of whom came through the revolving door from positions in government. Prominent examples of revolving door hires include John Green, who served as deputy chief of staff for former Senate Majority Leader Trent Lott (R-Miss.) from 1993 to 1996; G. Stewart Hall, the former legislative director for Sen. Richard Shelby (R-AL), the former chair of the Senate Appropriations Committee; Marc Numedahl, who worked as a special assistant to the Deputy Assistant Secretary of Defense from 2007 to 2011; Colby Miller, who worked as Congressional Liaison for the Department of the Navy from 1999 to 2003; Bud Cramer, a former Democratic Congressman who served in the House of Representatives from 1991 to 2009, was on the defense subcommittee of the appropriations committee and was a strong advocate for defense-related activities carried out by the Army’s Aviation and Missile Command and related contractors based in Huntsville, Alabama; Letitia White, who served as chief of staff for Rep. Jerry Lewis (R-CA) from 1981 to 2003; Jonathan Etherton, who served as a professional staff member of the Senate Armed Services Committee from 1985 to 1999; and Shay Michael Hancock, a former staffer for Sen. Patty Murray (D-WA), who serves on the Senate Budget Committee. Hancock also worked for Rep. Adam Smith (D-WA), current chair of the House Armed Services Committee.

The greatest leverage of all that ICBM contractors can bring to bear in support of their projects comes from their claims about the jobs generated in key states and Congressional districts by the development and production of the GBSD. Northrop Grumman has claimed that there will be 10,000 jobs associated with the development phase of the project. This is a tiny fraction of a national work force that is approaching 160 million people, but the jobs impact is still politically important in key states and localities. A map on the Northrop Grumman web site identifies over 125 facilities run by ICBM suppliers, located in 32 states.²⁸ This averages out to 80 jobs per facility – obviously some sites will have more than others, but this figure is indicative of the fact that most of the places represented in the 125 facilities cited by Northrop Grumman will have a minimal number of GBSD-related jobs.

27. Data on lobbyists and lobbying expenditures from Center For Responsive Politics, Open Secrets database, <https://www.opensecrets.org/>

28. The map of ICBM production sites is on the Northrop Grumman web site at <https://www.northropgrumman.com/wp-content/uploads/Approved-NG20-1485-200812-GBSD-Nationwide-Team-Map.pdf>

Table 1: Lobbying Expenditures and Number of Lobbyists, ICBM Contractors, 2019/2020²⁹

Company	Lobbying Expenditures (2019-2020)	# of Lobbyists (2020)
Northrop Grumman	\$25.6 million	57
Lockheed Martin	\$25.9 million	69
General Dynamics	\$21.3 million	80
United Technologies	\$12.8 million	53
Honeywell	\$10.6 million	50
L3/Harris	\$9.1 million	40
Textron	\$7.2 million	19
Aerojet Rocketdyne	\$3.2 million	16
Bechtel	\$1.9 million	13
Parsons	\$1.3 million	3
Kratos	\$0.8 million	7
Total	\$119.7 million	410

In addition, claims of the numbers of jobs and production locations for projects like the GBSD are often exaggerated. Northrop Grumman has failed to provide documentation for its estimates.

Promoting the impact of jobs in states with ICBM bases has been another element of Northrop Grumman's political strategy for garnering support for the GBSD and its role in developing it. In February 2017, well before it received the sole source contract to develop the GBSD, Northrop Grumman did a tour of communities hosting ICBM bases to get them on board to promote the company's bid. Northrop's vice president for the Ground-Based Strategic Deterrent (GBSD), Carol Erikson, said "we are here to interact with local leadership. To really understand the unique challenges and opportunities of fielding the next generation of

29. Source: Center for Responsive Politics "Open Secrets" data base. *Figures for 2019 only.

the ICBM system.” She also noted that the company was seeking potential local contractors to work with them on the development of the new ICBM.³⁰

The Northrop delegation included a revolving door dream team of retired Lt. Gen. James Kowalski, former deputy commander of the U.S. Strategic Command and former commander of the Air Force Global Strike Command; Brig. General Russ Anarde, former commander of the 91st Missile Wing (the ICBM force based at Minot Air Force Base); and retired Col. Tom Cullen, a 27-year ICBM officer who served in the 740th ICBM missile squadron at Minot and commanded the 10th ICBM missile squadron at Malmstrom Air Force Base in Montana. All of them were Northrop Grumman executives, and their experience no doubt served the company well in its successful bid for the development contract for the GBSD.

Chambers of Commerce in the cities hosting ICBM bases have been extremely active in promoting ballistic missiles in particular and the nuclear triad more generally. The Greater Cheyenne (WY) Chamber of Commerce, the Montana Defense Alliance and Task Force 21 (Minot, ND) are all members of the Strategic Deterrent Coalition, a network of organizations from localities with bomber, strategic submarine, or ballistic missile bases. The mission of the group is to “promote the nuclear triad as essential to the defense of the United States.” Among its activities are an annual conference that has drawn speakers such as the vice-chairman of the Joint Chiefs of Staff and the deputy commander of the United States Strategic Command.³¹ Sponsors of the annual event include ICBM contractors Northrop Grumman, Lockheed Martin, General Dynamics, and Collins Aerospace.³²

The Greater Cheyenne Chamber of Commerce has spawned sub-group called “GBSD Bound,” one of whose missions is to prepare the counties surrounding Warren Air Force Base for the economic influx that will accompany the modernization of the ICBM force, which is referred to locally as “The Jolt.” Activities of GBSD Bound include providing local businesses “support in their efforts in being selected as subcontractors to the military projects needed throughout the process” and helping educate K-12 students on “future career opportunities as it aligns with the workforce needs of the modernization.” As part of its effort to secure a steady flow of funding to the community, the Chamber of Commerce established the “Wyoming Wranglers Committee,” a group made up of “boosters to fund a lobbyist who specializes in military installation and transportation funding in Washington, D.C. Within that time the program has successfully secured funding for projects at F.E. War-

30. Eloise Ogden, “Northrop Grumman Team in Minot Making Plans for New ICBM.” Minot Daily News, February 25, 2017, <https://www.minotdailynews.com/news/local-news/2017/02/northrop-grumman-team-in-minot-making-plans-for-new-icbm/>

31. “Strategic Deterrent Coalition,” <http://www.sdc-usa.org/>

32. Ibid.

ren Air Force Base.”³³ Northrop Grumman works closely with GBSD Bound and is listed as a “partner” on its web site.³⁴

Minot North Dakota has a comparable organization to GBSD Bound, known as Task Force 21 (TF-21). Its mission is to educate the local community, North Dakota officials, members of Congress and the public on national security issues, particularly ones that affect Minot Air Force Base, the U.S. Air Force, and the nation’s nuclear deterrent. Like GBSD Bound, it sponsors an annual symposium on the importance of the nuclear triad. Speakers at the 2020 symposium included ICBM Coalition members Sen. Kevin Cramer (R-ND) and Sen. John Hoeven (R-ND), along with Gen. John Hyten, then vice-chairman of the Joint Chiefs of Staff.³⁵

The Malmstrom ICBM base in Montana is supported by the Montana Defense Alliance, whose goals include devising an annual strategic plan to “retain, attract, and enhance military missions” and to “support efforts of other Montana military organizations and defense related agencies.”³⁶ Northrop Grumman is listed as a major sponsor of the organization.³⁷

Tricia White and Matt Korda of the Federation of American Scientists have summarized the activities of the above-mentioned Chambers of Commerce as follows:

“[The organizations] meet with Pentagon officials, weapons contractors, and their Congressional representatives to advocate on behalf of their respective bases. It’s especially notable just how integrated these groups are with their local communities: they offer career opportunities in schools, allow weapons contractors to host community events when new project



“Staff Sgt. Brandon Dykes connects a telemetry cable on a Minuteman III intercontinental ballistic missile booster,” Feb. 3, 2020, Source: U.S. Air Force by Airman 1st Class Aubree Milks

33. Greater Cheyenne Chamber of Commerce, “GBSD Bound,” <https://www.gbsdbound.com/copy-of-vendors>

34. Greater Cheyenne Chamber of Commerce, GBSD Bound, “The Vendor,” <https://www.gbsdbound.com/industries>

35. “Task Force 21 Virtual Symposium,” <https://www.taskforce21.com/>

36. “Montana Defense Alliance,” <https://montanadefensealliance.org/>

37. *Ibid.*

bids are occurring, and guide local businesses through the ins-and-outs of subcontracting for Northrop Grumman, Boeing, or Lockheed Martin.”³⁸

■ ECONOMIC DEPENDENCY OF KEY STATES AND LOCALITIES

The jobs at the ICBM bases in Montana, Wyoming, and North Dakota are significant factors in the local economies of those areas, both at the state level and in the specific communities where the bases are located. This dependency on ICBM deployments and spending is the principal reason that the members of the Senate ICBM Coalition and local chambers of commerce lobby so fiercely to sustain and modernize ICBMs.

For example, Frances E. Warren Air Force Base in Cheyenne, Wyoming, is the largest employer in the state. According to a fact sheet contained on the base’s web site, the 90th Missile Wing, which is the primary activity at the base --responsible for the maintenance and deployment of 150 Minuteman ICBMs -- employs a total of 3,738 full-time personnel, 3,122 military and 616 civilian.³⁹ Cheyenne, which is the state capitol as well as the largest city in Wyoming, has a population of over 60,000 people, and the Cheyenne metropolitan area has a labor force of 48,700.⁴⁰ Looking at military as well as civilian jobs attributable to the base results in an estimate of base personnel at 7.2% of local employment. The statewide labor force in Wyoming was 295,000 as of September 2020, meaning that the direct employment at Warren accounts for about 1.3% of the state’s labor force.⁴¹

Minot Air Force Base, located outside the city of Minot, North Dakota, is home to the 91st Missile Wing, which is responsible for 150 ICBM sites, all within the state of North Dakota. According to the base’s fact sheet, the base and the missile sites taken together cover about 12% of the land area of North Dakota. The fact sheet reports 6,171 personnel currently at the base, 5,494 military and 677 civilian, divided between the 91st Missile Wing and the 5th Bomb Wing, which is also based at Minot.⁴²

Unlike the other two ICBM bases, Minot has two major functions. In addition to hosting the ICBM wing, Minot’s 5th Bomb Wing maintains 26 B-52 bombers under the supervision of the U.S. Global Strike Command. This dual function holds out the possibility that the base might

38. Tricia White and Matt Korda, “Nuclear Disarmers Can’t Forget the Communities That Rely on Military Spending,” Bulletin of the Atomic Scientists, October 28, 2020, <https://thebulletin.org/2020/10/nuclear-disarmers-cant-forget-the-communities-that-rely-on-military-spending/>; note that Boeing is no longer a GBSB contractor.

39. F.E. Warren Air Force Base, “90 MW Fact Sheet,” February 27, 2018, <https://www.warren.af.mil/About-Us/Fact-Sheets/Display/Article/331279/90-mw-fact-sheet/>

40. U.S. Bureau of Labor Statistics, “Cheyenne, WY Economy at a Glance,” https://www.bls.gov/regions/mountain-plains/wy_cheyenne_msa.htm

41. U.S. Bureau of Labor Statistics, “Wyoming – Economy at a Glance,” <https://www.bls.gov/eag/eag.wy.htm>

42. “Minot Air Force Base,” <https://www.minot.af.mil/About-Us/Fact-Sheets/Display/Article/264277/minot-air-force-base/>

be kept open even if its ballistic missile functions were to be terminated due to a change in ICBM deployments or the reduction or elimination of the missile leg of the nuclear triad.

The Minot statistical area has a labor force of 47,382, which means that the 6,171 full-time personnel at Minot AFB account directly for 11.5% of the local labor civilian and military labor force.⁴³ Direct employment at Minot accounts for 1.5% of North Dakota's total military and civilian labor force.⁴⁴ As noted above, not all of these jobs are associated with the 91st Missile Wing.

Last but not least among the three ICBM sites is Malmstrom Air Force Base, located near Great Falls, Montana. As with the other bases, Malmstrom is responsible for 150 ICBM sites. The base fact sheet indicates that there are "approximately" 4,000 personnel engaged in missile-related activities at Malmstrom, including about 3,300 military and 600 civilian. The 4,000 personnel account for 10.4% of the Great Falls area military and civilian labor force, and less than one percent of the military and civilian labor force for the state as a whole.⁴⁵

A closure or scaling back of activities at any of the three ICBM bases would have a substantial impact on the state and local economies. Although there is a significant record of communities recovering from base closures over time, and in many cases creating more civilian employment than the base itself provided, each case is unique, and communities like Cheyenne, Great Falls, and Minot would be well-advised to diversify their economies as much as possible and do advance planning to provide alternatives in case of a change of status of their local facility.

Success is possible. Each case is different, and successful conversion is by no means guaranteed. But the Pentagon's Office of Economic Adjustment (OEA), which was established to help communities cope with the impacts of base closures or reductions in defense manufacturing activities, has written case studies of 35 successful base conversion examples in 19 states that resulted in a total of over 157,000 new civilian jobs after the closure of the facilities – more than double the number of jobs lost at the time of the base closure. Successful cases had some common themes, including creation of targeted authorities to plan for transition of the base in question in consultation with government, business, and community representatives; multiple uses of the land freed up by the base closure, including everything from commuter airports and industrial/research parks to residential areas, parks, and university campuses; and commencement of planning before closure of a base. Tran-

43. Minot Area Development Corporation Corporation (MADC), "New Business Attraction – Data," <http://www.minotusa.com/minot-advantages/data/>

44. U.S. Bureau of Labor Statistics, "North Dakota – Economy at a Glance," <https://www.bls.gov/eag/eag.nd.htm>

45. U.S. Bureau of Labor Statistics, "Mountain-Plains Information Office – Great Falls," https://www.bls.gov/regions/mountain-plains/mt_greatfalls_msa.htm; and U.S. Bureau of Labor Statistics, "Mountain-Plains Information Office – Montana," <https://www.bls.gov/regions/mountain-plains/montana.htm>

“FORMER MILITARY BASES ARE UNDERUTILIZED SOURCES OF ECONOMIC POTENTIAL”

sitions can take years to accomplish given the need for environmental cleanup, transfer of land, and identification of government or private investment funds. But the effort is worth it given the prospect of new economic activity and employment at the sites of closed military facilities.⁴⁶ As Christopher Preble and Lucian Niemeyer have noted, former military bases are underutilized sources of economic potential, if the federal government expends resources on cleanup and releases the sites to local communities.⁴⁷

The OEA has recently been renamed the Office of Local Defense Community Cooperation (OLDCC). While it retains the mission of helping communities adjust to base closures, its web site does not emphasize the mission as clearly or strongly, merely stating that its role is “to assist states and communities hosting installations dealing with a changing Department of Defense presence.”⁴⁸ The Biden administration should make a point of ensuring that the office maintains its traditional mission of helping states and localities adjust to base closures by making the transition away from economic dependence on defense spending, and give it adequate funds to carry out its mission.

Whether it involves ICBM bases or ICBM contracting, it’s important to note that virtually any other public investment would create more jobs than spending on the GBSD program. There are better uses of scarce funds than spending tens of billions of dollars on a new ICBM. And virtually any other use of the funds will create more jobs than building and deploying the GBSD. For the same amount of spending, clean energy and infrastructure create 40% more jobs than spending on the military, and healthcare creates 100% more, according to analyses by The Costs of War Project at Brown University.⁴⁹ In the event of base closures, if even part of the savings from cancelling the GBSD and savings on maintenance and support of existing ICBMs were to be directed towards alternative economic activities in the states that host ICBM bases, it could provide a significant cushion as the affected communities transition to replace the jobs tied to those facilities with new economic activities. (See sidebar on green manufacturing jobs).

46. U.S. Department of Defense, Office of Economic Adjustment, unpublished paper, October 2020.

47. Lucian Niemeyer and Christopher Preble, “Turning Former Military Bases Into Economic Development,” Real Clear Defense, March 1, 2017, <https://www.cato.org/commentary/turning-former-military-bases-economic-development>; see also James Knupp and Christopher Preble, “When Debating Base Closures Look at the Data,” Cato Institute, January 15, 2020, <https://www.cato.org/blog/when-debating-base-closure-look-data>

48. Website of the Office of Local Defense Community Cooperation, <https://www.oldcc.gov/mission-and-history>

49. On jobs from defense versus other types of expenditure see Heidi Peltier, “War Spending and Lost Opportunities,” Costs of War Project, Watson Institute, Brown University, March 2019.

ALTERNATIVES: GREEN MANUFACTURING

Alongside the threat of a nuclear conflict, climate change represents the greatest challenge to the current and future security of humanity. There is an urgent need to take steps to reduce its impacts. One key element of any plan to address climate change is investment in clean energy sources. A clean energy plan could also create hundreds of thousands of well-paying jobs that could offset the economic impacts of reductions in Pentagon spending.⁵⁰ A green energy initiative would use “the purchasing power of the federal government to procure and stimulate demand for clean energy products such as wind and solar energy products and energy efficiency equipment and materials.”⁵¹

An analysis by Heidi Peltier for the Brown University Costs of War Project estimates that a shift of \$125 billion per year from the Pentagon budget would create a net increase of 250,000 jobs – 2,000 additional jobs per billion dollars shifted from military spending to alternative energy. A robust investment in green manufacturing activities could be targeted to areas with the most need while creating 25 times as many jobs as the 10,000 jobs that will purportedly be created by developing the GBSD, providing substantial opportunities for any workers displaced in the event of the cancellation of the new ICBM. Even a modest investment in green manufacturing equivalent to the cost of the new ICBM would create a net increase of thousands of jobs compared to continuing work on the GBSD.



“Northeast Solar Energy Research Center,” Jan. 7, 2013, Source: Brookhaven National Laboratory on flickr



Wind Turbine farm located in Beaumont, Kansas, March 18, 2007, Source: Brent Danley on flickr

50. Statistics contained in this section are drawn from Heidi Peltier, “Cut Military Spending, Fund Green Manufacturing,” Brown University Costs of War Project, November 13, 2019, <https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/Peltier%20Nov2019%20Short%20GND%20CoW.pdf>

51. Ibid.

DIFFERENT POLICY OPTIONS, DIFFERENT ECONOMIC IMPACTS

Different options for the future of the ICBM force will have dramatically different economic impacts. Policies of no first use of nuclear weapons or taking ICBMs off of high alert, which would relieve the pressure on the president to decide whether to launch ballistic missiles within a matter of minutes upon warning of attack, would greatly diminish the risk of an accidental war. But depending on what other policies are pursued in parallel to a new approach, these changes would not necessarily involve any changes in the deployment of ICBMs at current ICBM bases, and therefore would have no negative economic impacts on those areas.

A second possible policy option would be to abandon the plan to build a new ballistic missile and rely instead on refurbished versions of existing ICBMs, which would be substantially cheaper than developing and building the GBSD. A Congressional Budget Office study estimates that the development of a new ICBM could be pushed back by at least two decades by refurbishing current systems.⁵² And a review of studies by the Air Force, the RAND Corporation, and the Center for Strategic and International Studies conducted by the Union of Concerned Scientists suggests that the life of current ICBMs could be extended even further.⁵³ Forgoing the new ICBM would impact the contractor side of the ledger – the 10,000 jobs that Northrop Grumman claims would be involved in development of the GBSD – but it would not impact the ICBM bases or their communities. And since there would be some jobs associated with refurbishing existing ICBMs, the number of jobs that would need to be replaced in conjunction with a termination of the GBSD could be considerably less than 10,000.

The greatest economic impact would come from eliminating ICBMs altogether, since it could mean closing existing ICBM bases and eliminating potential jobs in the development of the new system. These economic effects would be manageable at the national level but would require transition assistance to the impacted areas of Wyoming, Montana, and North Dakota.

A February 2021 report by the Federation of American Scientists lays out the strategic consequences and costs savings associated with four possible scenarios for the ICBM program: Pursue GBSD at reduced force levels; Delay/Cancel GBSD and pursue a Minuteman III life-extension at current force levels; Delay/Cancel GBSD and pursue a Minuteman III life-ex-

52. Congressional Budget Office, *Approaches for Managing the Costs of US Nuclear Forces, 2017 to 2046*. Washington, DC., 2017, p. 31, <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53211-nuclearforces.pdf>

53. David Wright, William D. Hartung and Lisbeth Gronlund, *Rethinking Land-Based Nuclear Missiles – Sensible Risk Reduction Practices for U.S. ICBMs*, Union of Concerned Scientists, June 2020, pp. 18-19, <https://www.ucsusa.org/sites/default/files/2020-06/rethinking-land-based-nuclear-missiles.pdf>

tension at reduced force levels; Cancel GBSD and phase out ICBMs entirely from the US nuclear arsenal.⁵⁴ Net cost savings from the alternative approaches proposed by FAS would range from \$11 billion for reducing the size of the existing ICBM force to \$149 billion for eliminating ICBMs altogether, in 2017 dollars.⁵⁵

The fate of the GBSD program could ultimately be determined by larger budgetary considerations. Trillion-dollar deficits and the need for additional spending to reverse a deep recession will put pressure on the Pentagon's top line, as will other priorities like pandemic response, combatting climate change, and addressing racial and economic inequality. The GBSD program will also feel pressure from within the Pentagon budget, as goals such as a 500 ship Navy, the purchase of 2,400 costly F-35 aircraft, and investments in a new refueling tanker, a new nuclear bomber, a new generation of unmanned vehicles, and increased spending on hypersonic weapons and artificial intelligence compete for funds with the new ICBM. As former Air Force Chief of Staff Gen. Dave Goldfein has noted, "this will be the first time the nation has tried to simultaneously modernize the nuclear enterprise while it's trying to modernize an aging conventional enterprise.

The current budget does not allow you to do both."⁵⁶ The estimated \$264 billion price tag for developing, building, operating and maintaining the GBSD and related warheads may be a tempting budgetary target, especially in tandem with questions about its strategic value.⁵⁷

“TRILLION-DOLLAR DEFICITS AND THE NEED FOR ADDITIONAL SPENDING TO REVERSE A DEEP RECESSION WILL PUT PRESSURE ON THE PENTAGON'S TOP LINE, AS WILL OTHER PRIORITIES LIKE PANDEMIC RESPONSE, COMBATTING CLIMATE CHANGE, AND ADDRESSING RACIAL AND ECONOMIC INEQUALITY. “

54. Matt Korda, "Alternatives to the Ground-Based Strategic Deterrent," Federation of American Scientists, February 2021, <https://fas.org/wp-content/uploads/2021/02/Alternatives-to-the-GBSD-Feb.-2021.pdf>

55. Ibid., p. 17 and p. 25; Congressional Budget Office, "Approaches for Managing the Costs of U.S. Nuclear Forces, 2017 to 2046," October 31, 2017, p. 41 and p. 43, <https://www.cbo.gov/system/files/115th-congress-2017-2018/reports/53211-nuclearforces.pdf>

56. Marcus Weisgerber, "We Don't Have Enough Cash to Build New Nuclear Weapons, Says Air Force Chief," Defense One, July 1, 2020, <https://www.defenseone.com/policy/2020/07/we-dont-have-enough-cash-build-new-nuclear-weapons-says-air-force-chief/166598/>

57. On the costs of the GBSD, see Capaccio, op. cit., note 5.

Recommendations

To ensure the greatest margin of safety for the United States and the world, the following recommendations should be implemented:

Strategic Recommendations

- Take existing ICBMs off of high alert. This would reduce the risks of an accidental launch of land-based nuclear missiles based on a false warning.⁵⁸
- Adopt a policy of no first use of nuclear weapons. This would provide an additional margin of safety to avoid a mistaken launch of nuclear weapons in a crisis without undermining U.S. deterrence. Furthermore, it would be a signaling device to adversaries that in the midst of a crisis, the U.S. is not planning on launching nuclear weapons. Invulnerable submarine launched ballistic missiles would provide an ability to respond to any attack on the United States with a devastating counterstrike, thereby dissuading any nation from attacking the United States with a nuclear weapon. As Daryl G. Kimball of the Arms Control Association has noted, “[g]iven the size, accuracy, and diversity of U.S. forces, the remaining nuclear force would be more than sufficient to deliver a devastating blow to any nuclear aggressor.”⁵⁹
- Forgo building a new ICBM and the related warhead, as a first step towards eliminating ICBMs from the U.S. nuclear force. Doing so could save over \$110 billion in procurement costs and a total of over \$264 billion once the costs of operating and supporting a new ICBM are taken into account.⁶⁰

Economic and Political Recommendations

- Impose stricter campaign finance limits and create a system of public financing of national elections that would reduce the influence of ICBM contractors and other special interest groups on key members of Congress.⁶¹ Ultimately what is needed is a constitutional amendment to overturn the Citizens United Supreme Court decision, which, as Common Cause has noted, has “allowed corporations and special interest groups to spend unlimited amounts to influence elections, potentially giving them a

58. Union of Concerned Scientists, “Rethinking ICBMs,” op. cit., p. 22, <https://www.ucsusa.org/sites/default/files/2020-06/rethinking-land-based-nuclear-missiles.pdf>

59. Daryl G. Kimball, “The Case for a No-First-Use Policy,” *Arms Control Today*, October 2018, <https://armscontrol.org/act/2018-10/focus/case-us-first-use-policy>

60. Anthony Capaccio, op. cit., note 5.

61. Common Cause, “Limits on the Influence of Money in Politics,” <https://www.commoncause.org/our-work/money-influence/campaign-finance/limits-on-the-influence-of-money-in-politics/>

dangerous amount of influence over decisions that should be left to individual voters.”⁶²

- Reduce the influence of the revolving door by requiring greater transparency in reporting the movement of key officials back and forth between government and the defense industry and disclosing their political activities once they commence employment with arms contractors. Create a five-year cooling off period before Pentagon officials can go to work for defense contractors engage in lobbying on their behalf, or serve as consultants to them, and prohibit political appointees and senior policy makers “from being able to seek employment from companies materially impacted by—including financially benefitting from—the policies they helped draft.”⁶³
- Provide more federal transition assistance – both planning and financial – to communities impacted by the closing of ICBM bases.

62. Common Cause, “Citizens United and Amending the U.S. Constitution,” <https://www.commoncause.org/our-work/money-influence/campaign-finance/citizens-united-amending-the-u-s-constitution/>

63. For a more detailed set of recommendations regarding the revolving door between the Pentagon and the defense industry, see Brass Parachutes: Defense Contractors’ Capture of Pentagon Officials Through the Revolving Door, November 5, 2018, pp. 39-40, https://s3.amazonaws.com/docs.pogo.org/report/2018/POGO_Brass_Parachutes_DoD_Revolving_Door_Report_2018-11-05.pdf

APPENDIX: Origins of the ICBM: Interservice Rivalry and Pork Barrel Politics

From the beginning, the development of ICBMs was propelled by interservice rivalry and the fight for shares of the Pentagon budget. The nuclear triad of manned bombers, land-based missiles, and submarine-launched ballistic missiles evolved as a way to split up nuclear weapons funding, which was a major feature of the Eisenhower administration's military strategy. As a 2013 Cato Institute report noted, "the triad grew from the military services' competition to meet the Soviet threat. The argument for it arrived to rationalize the components."⁶⁴

Benjamin Friedman, a coauthor of the Cato report, underscored this point:

"The triad grew from bureaucratic compromise, not strategic necessity. After World War II, nukes seemed like the weapon of the future. The Air Force saw their delivery as part of the strategic bombing mission that had just given their service independence. Their ownership of that mission, and eventually land-based intercontinental ballistic missiles, won them budget share at the expense of other services. The Navy, eager to avoid a becoming something like a transoceanic bus service, found an ingenious way to get into the nuclear game: they put missiles on submarines."⁶⁵

Interservice competition for the nuclear mission was particularly fierce in the 1950s because that's where the money was. President Eisenhower's nuclear doctrine was premised on the idea that the threat of a massive nuclear attack would not only deter the Soviet Union from striking the United States with nuclear weapons, but that it would also dissuade Moscow from invading Western Europe with conventional military forces.⁶⁶ A Soviet invasion was an unlikely scenario, but one that the Eisenhower administration took seriously, nonetheless. The emphasis on nuclear weapons was partly budgetary. Building up conventional forces to match Soviet power in the European theater would be considerably more expensive than a policy of nuclear threats, and Eisenhower was determined not to spend too much on the military at the expense of a more balanced budgetary approach.⁶⁷ As Eisenhower put it, "Too much [defense spending] could reduce the United States to being a garrison state or

64. Benjamin Friedman, Christopher Preble, and Matt Fay, "The End of Overkill? Reassessing U.S. Nuclear Weapons Policy," Cato Institute White Paper, September 24, 2013, <https://www.cato.org/publications/white-paper/end-overkill-reassessing-us-nuclear-weapons-policy>

65. Benjamin H. Friedman, "How to Kill the Nuclear Triad," The Hill, May 18, 2012, <https://thehill.com/blogs/congress-blog/foreign-policy/228323-how-to-kill-the-nuclear-triad>

66. For a discussion of Eisenhower's nuclear doctrine see Friedman, Preble, and Fay, op. cit., p. 2.

67. Eisenhower's Secretary of State John Foster Dulles summarized the administration's strategic and economic reasons for embracing a strategy of massive retaliation in a January 1954 speech to the Council on Foreign Relations. See "Dulles Announces Policy of 'Massive Retaliation,'" History.com, accessed November 8, 2018.

ruin the free economy of the nation.”⁶⁸

All of the above boded well for the Air Force, which controlled two of the three legs of the nuclear triad – bombers and land-based missiles, while the Navy hustled to catch up by developing submarine-based nuclear missiles. As a result, the Air Force controlled roughly 45% of the Pentagon budget in the 1950s, versus about one-third in recent decades.⁶⁹

In the battle for funds, the Air Force and Navy peddled competing nuclear doctrines, each of which, not surprisingly, was tailored to the kinds of weapons each service possessed. The Air Force, working with concepts developed at the RAND Corporation, a think tank heavily funded by the Air Force, favored a counterforce doctrine which involved using ICBMs, which were more accurate than submarine-based missiles, to strike Soviet military sites. As Fred Kaplan noted in his seminal study *Wizards of Armageddon*, “the Air Force was locked in a ferocious battle with the Navy, and counterforce seemed just the weapon to help them win the war.”⁷⁰

For its part, the Navy supported a doctrine of “finite deterrence” that relied on knocking out Soviet population centers, a mission more suited to submarine-launched ballistic missiles, which at the time were less accurate than ICBMs. In both internal briefings and public presentations, the services and their representatives promoted their dueling doctrines.⁷¹

A key turning point in the battle was the Air Force’s success in winning control of nuclear targeting; which targets were picked would determine in large part what kinds of nuclear weapons were needed to hit them. Admiral Arleigh Burke denounced what he viewed as improper backroom maneuvering in the fight for the targeting mission, and said of the Air Force leadership that “they’re smart and they’re ruthless . . . It’s the same way as the Communists.”⁷² If the Air Force controlled targeting, Burke complained, “then our [Navy] budget is going to be in a very sad way indeed.”⁷³

ICBMs received a boost in the late 1950s as a result of the alleged “missile gap” between the United States and the Soviet Union, which was peddled particularly vigorously by Air Force intelligence and arms contractors and raised as a major political issue by Sen. John F. Kenne-

68. Peter J. Roman, *Eisenhower and the Missile Gap*, (Cornell University Press, 1995), p. 122.

69. Friedman, Preble, and Fay, *op. cit.*, note 4.

70. Fred Kaplan, *Wizards of Armageddon*, (Stanford University Press, 1983), pp. 232.

71. *Ibid.*, p. 235.

72. *Ibid.*, p.265, citing Transcript, “Adm. Burke’s Conversation With Secretary Franke, 22 August 1960,” Arleigh Burke Papers, SIOP/NSTL Briefing Folder, Navy Yard, Washington, DC.

73. *Ibid.*, p. 266, citing “Minutes of CNO Deputies’ Conference , 18 August 1960,” Arleigh Burke Papers, Transcripts and Phonecons, SIOP/NSTL Briefing folder.

dy in the run-up to the 1960 presidential elections.⁷⁴ Ultimately, Eisenhower saw the missile gap for the fiction it was or, as he put it, a useful piece of political demagoguery for his opponents. “Munitions makers,” he insisted, “are making tremendous efforts towards getting more contracts and in fact seem to be exerting undue influence over the Senators.”⁷⁵

For his part, John F. Kennedy saw increasing military spending in general and funding for ICBMs in particular as a way to curry favor with defense workers, a crucial voting bloc, as Christopher Preble has noted in his book on Kennedy and the missile gap:

“Kennedy believed that military spending could be used to boost regional economic development. He explicitly appealed for support from defense workers who had been adversely affected by the economics of the New Look [Eisenhower’s approach of relying on nuclear forces as a way to curb total military spending] . . . When Kennedy promised to boost spending on the very weapons systems needed to close the missile gap the men and women responsible for building those weapons understood precisely what such a policy meant for them.”⁷⁶

But as Kennedy himself learned when he took office, there was no missile gap – in fact the United States had considerably more land-based ballistic missiles than the Soviet Union.⁷⁷ His administration proceeded to realign the Pentagon budget to create more balance in the funding of the three legs of the triad while diverting funds towards the counterinsurgency mission, which got increasing attention as the United States stepped up its involvement in the Vietnam War throughout the 1960s. ICBMs no longer possessed a privileged budgetary status relative to other programs, and the services largely patched up their differences and pushed for more nuclear weapons spending across the board rather than competing over the budget for nuclear delivery vehicles. But the concept of the nuclear triad was consolidated in the Kennedy/Johnson years and has remained at the heart of U.S. military doctrine ever since.

74. Christopher A. Preble, *John F. Kennedy and the Missile Gap*, (Northern Illinois Press, 2004).

75. Peter J. Roman, *Eisenhower and the Missile Gap*, (Cornell University Press, 1995), p. 132.

76. Preble, *op. cit.*, p. 8.

77. “What Missile Gap?,” *The Atlantic*, accessed December 22, 2020, <https://www.theatlantic.com/magazine/archive/2013/08/what-missile-gap/309484/> ; and Greg Thielman, “The Missile Gap Myth and Its Progeny,” *Arms Control Today*, accessed December 22, 2020, <https://www.armscontrol.org/act/2011-05/missile-gap-myth-its-progeny>



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