



Rebuttal of CATO's/PDA's "Defense Sense" defense cuts proposals

By [Zbigniew Mazurak](#) - 12/5/12

In May 2012, the CATO Institute and the extremely-leftist, Massachusetts-based "Project on Defense Alternatives" wrote and published a garbage pamphlet ridiculously titled "Defense Sense" (it should actually have been titled "Defense Nonsense"). In it, they have proposed deep, devastating cuts in military modernization programs across the board; cuts which, if implemented, would effectively mean completely cancelling the US military's modernization and equipment recapitalization and saddling it with dwindling inventories of obsolete, ineffective, expensive-to-maintain, unsurvivable weapons. Here's my rebuttal of their garbage proposals.

CATO and the PDA proposed, inter alia, to:

Cancel or at least delay the Long Range Strike Bomber program.

Despite their false claims that existing B-52 and B-1 bombers can fill the long-range strike role for decades to come, that is not true. That is a blatant lie (just like the rest of the claims they made in that pamphlet.) Their radar signatures are so big that they are easy to detect and shoot down – even for legacy Soviet air defense systems such as the SA-2/3/4/5/6, not to mention modern, 21st century Russian and Chinese air defense systems like the S-300 series, the S-400, and the HQ-9. (Modern IADSeS have proliferated from Russia and China to [Iran](#), Venezuela, Syria, and many other countries, and can effortlessly shoot down these nonstealthy bombers.) Moreover, the cost of maintaining old bombers (especially B-1s) is significant and rising due to their old age. A few years ago, the USAF considered retiring half of the B-1 fleet due to these costs.

That the B-52 and B-1 have decades of service lives remaining is irrelevant, as they are unsurvivable in any contested airspace, easy to shoot down even for legacy Soviet SAM systems like the SA-2 and SA-5, and therefore utterly useless. Furthermore, projections of them serving until the 2040s are based on *peacetime* usage rates, not the *wartime* rates seen in Afghanistan, Iraq, and Libya. Even then, keeping these bombers in service, especially until 2045, will require costly upgrades.

These old nonstealthy bombers are also easy to shoot down and therefore unsurvivable in any environment except the most permissive ones, where the enemy is an insurgency or a weak country

unable to contest control of the air. **Yet, this kind of war environments is scarce and becoming even less frequent.** Countries such as China, Russia, North Korea, [Iran](#), and Venezuela have advanced Integrated Air Defense Systems (imported and [indigenous ones](#)) and, in China's, Russia's, and Venezuela's case, advanced fighterplanes.

These heavily-defended theaters will be those in which the USAF will be forced to operate in the future in almost any contingency. Yet, **the only** current USAF bombers capable of surviving in such an environment are **a handful (20) of B-2s**. 20 aircraft are insufficient to deal with anyone but a trivial opponent, due to, among other things, the sheer number of sorties that would have to be generated in a conflict with China or Iran. And even they won't remain stealthy forever: their stealth technology is 1980s' vintage. [By the 2020s or the 2030s at the latest, they will lose their ability to penetrate enemy airspace as well.](#)

Today, neither jamming nor anti-SAM missiles are effective measures any longer. Modern SAM systems have radars too powerful to be jammed, even with the Navy's Next Generation Jammer (let alone the ALQ-99), and anti-SAM missiles such as the AGM-88 HARM can be easily shot down by point-defense counter-PGM systems such as the Tor-M1 and the Pantsir-S1, both of which have been exported globally and protect long-range anti-aircraft SAM systems, as well the latter systems themselves.

This means that the only way to survive in any airspace defended by such systems is to be undetected, i.e. stealthy. This requires all-aspect, multi-band stealthy aircraft.

The B-52 and the B-1 stand zero chance of surviving in such airspace. They would be easily detected, even from a long range, by the radar of any air defense systems, even the most primitive ones such as the SA-2 and SA-3, and shot down mercilessly.

Jammers might jam the radar of legacy SAM systems such as the SA-2 and SA-3, but not that of modern systems like the S-300, S-400, S-500, Tor-M1, Pantsir-S1, and HQ-9. Moreover, passive anti-radar homing missiles, even variants of the SA-2 and SA-3 missiles, can home on the emissions of American jammers and thus shoot the aircraft carrying those jammers down, as the Viets repeatedly did during the Vietnam War. Moreover, all Russian and Chinese air defense systems except the SA-2 and the SA-5 are mobile, and can thus relocate in minutes rather than hours or days, and are thus even more deadly than they'd otherwise be, because they can employ "hide, shoot, and scoot" tactics. The S-300, S-400, HQ-9, SA-4, SA-6, SA-11/17, and SA-19 were built for such tactics from the start.

As Jamestown's Dr Carlo Kopp [writes](#):

"China's air defense system is maturing into the largest, most capable and technically advanced in Asia, and will be capable of inflicting very heavy attrition on any aircraft other than upper tier U.S. stealth systems. Until the U.S. deploys its planned "New Generation Bomber" post-2020, the United States will have only 180 F-22 Raptors and 20 B-2A Spirit bombers capable of penetrating the PLA's defensive shield. This may not be enough to act as a credible non-nuclear strategic deterrent."

The only Western aircraft which can survive and prevail in such airspace are the F-22, the B-2, and the planned Next Generation Bomber (if its designers follow stealth shaping rules).

I am hardly the only person saying that the NGB is necessary. Successive SECDEFs from Rumsfeld to Panetta have said the same, as have the current CSAF and SECAF, their predecessors, their colleague Adm. Greenert, [former LTG David Deptula](#), [numerous former Air Force Secretaries, Chiefs of Staff, Generals, and other officials](#), and numerous outside experts from the CSBA[1][2][3], [Air Power Australia](#), and [the Heritage Foundation](#). (Please read their studies; they explain very well why the NGB is absolutely needed.) **This requirement has also been validated by two successive QDRs – those of 2006 and that of 2010[4]** – and by Secretary Gates, who started it and said that China's A2/AD weapons will put a

premium on America's ability to strike from the horizon and demand a family of long range strike systems. [As Gates rightly said in January 2011:](#)

"It is important that we begin this project now to ensure that a new bomber can be ready before the current aging fleet goes out of service. The follow on bomber represents a key component of a joint portfolio of conventional deep-strike capabilities – an area that should be a high priority for future defense investment given the anti-access challenges our military faces."

More on why the Next Generation Bomber (AKA the Long Range Strike Bomber) is absolutely necessary [here](#), [here](#), [here](#), and [here](#).

End production of the excellent, proven V-22 Osprey rotorcraft

The V-22 is an excellent VTOL plane capable of flying twice faster and twice farther than any helicopter. It has served extensively in Afghanistan, Iraq, and Libya. It has amassed over 150,000 flight hours. It is also much more survivable than helicopters – if you crash, you'll likely survive. Its problems have been solved long ago.

Yet, POGO (following Barney Frank's SDTF) demands that it be killed and says CH-53s and SH-60s can be bought instead. But these helicopters are NOT interchangeable nor comparable with the V-22.

Not only are they inferior to it (in terms of speed, range, and survivability), the H-60 is too small, too slow, and too light to do the V-22's tasks (which include CSAR), while the CH-53K is too big and too heavy (indeed, when it enters service, it will be the US military's **heaviest helicopter ever**). **The CH-53 is also twice as expensive as the V-22 (\$128 mn per copy, vs only \$69 mn for a V-22), costs twice as much to operate as the Osprey (\$20,000 vs \$10,000 per flight hour), and it won't be available until 2018.** These 3 designs represent 3 completely different weight and duty classes of VTOL aircraft and are meant for different duties. Only a totally ignorant person would equate them and suggest they are interchangeable.

The Marines are, by the way, buying the CH-53K... but to replace their older CH-53 Sea Stallion heavy helos, **not** the V-22 or the CH-46 (the V-22's predecessor). The CH-53K is designed for a totally different mission than the V-22.

The V-22 is an excellent, unmatched aircraft, as validated unanimously by all USMC leaders past and present, including the current Commandant, who is a Naval Aviator by trade. He, the expert, should be listened to – not anti-defense POGO hacks. **It has proven itself in three wars in three different countries – Iraq, Afghanistan, and Libya.** (When an F-15E crashed in Libya, it was a pair of V-22s that rescued the pilots.) It underwent its baptism of fire in Iraq in 2007, during the fiercest fighting there. POGO's claim that it is "neither cost- nor operationally-effective" is a blatant lie.

Most importantly, its primary users, Marine pilots, like it. Just listen to them. And watch [this film](#) about how the V-22 proved its mettle, proved itself to be far more capable and useful than any helicopter (its speed and service ceiling really matter in combat zones), and what the Marines say about it. Also listen to USMC Commandant Gen. James Amos, a Naval Aviator by trade, who has strongly praised the V-22 and urged its continued production. (Whom will you believe – a real Marine general or armchair generals?) [Also listen to his predecessor, Gen. James Conway.](#) More on why the V-22 is needed [here](#), in my rebuttal of POGO's similar (and similarly destructive) defense cuts proposals.

Cancel the Marine variant of the F-35, cut the USAF's and the USN's procurement of their F-35 variants by half, buy obsolete "new-old" F-16s and F/A-18s instead

CATO and the PDA, like other anti-defense groups, falsely claim that F-16s and F/A-18 Super Bug aircraft can still perform air superiority and strike missions as well as the F-35. This is not true and has never been, and cannot ever be, true, as these aircraft are kinematically and aerodynamically quite inferior to the F-35, have a combat radius far shorter than the F-35 (in all variants), lack the F-35's more powerful radar and DAS/IRST, and have huge radar signatures, while the F-35 is stealthy (for why stealthiness is important, refer the section on the Next Generation Bomber).

The F-16 and the Super Bug have NONE of the capabilities that the F-35 has.

Not turning capability, not agility, not thrust, not thrust/weight ratio, not speed, not range and combat radius, not stealthiness (and thus survivability), and not weapons possible for integration (the F-35 can, for example, be fitted with Meteor A2A missiles; the Super Bug cannot). The F-35 can perform 9Gs with a full combat load; the F-16 can do that only without external stores (i.e. missiles or fuel tanks), and the Super Bug can't do that even WITHOUT external stores – the most it can do is 7.6Gs. And the Super Bug's combat radius (350 nmi) is DECISIVELY inferior to that of the F-35B (450-500 nmi) and F-35C (650 nmi, making the F-35C the longest-ranged of the 3 F-35 models). **Range and endurance are absolutely vital for strike aircraft, as is stealthiness, because it determines survivability, which is key to winning ANY war. If a plane is not survivable, it's worthless – and that's exactly true of the Super Bug. And as stated above, stealthiness is necessary for any aircraft due to the proliferation and sophistication of enemy air defense systems.**

The "proven" Super Bug, like B-1s and B-52s, has "proven itself" only in permissive environments (Afghanistan and Iraq) where the only opponent is an insurgency unable to contest control of the air. It is useless for any war theaters in which the enemy is a country with advanced IADS and/or fighters. It's not even fit for any real A2A combat (and has not partaken in any), because it's not a real fighter, but rather an attack jet, and is decisively inferior against current and projected enemy fighters by all criteria. (For why it's inferior to the F-35, see here.) In any combat against a J-10, JF-17, Flanker, Rafale, Typhoon, Gripen, J-16, J-20, J-31, MiG-29, MiG-35, or PAKFA, the Super Bug would be slaughtered mercilessly.

And it doesn't have the STOVL capability required to take off from and land on amphib ships and primitive airfields, which is an absolute non-negotiable USMC requirement, [as confirmed by USMC Commandant Gen. Amos](#). There is no other STOVL aircraft in the market today. There is no substitute for the F-35B. Without the F-35B, the Marines won't have their own air cover when disembarking from ships and the Nation will lose 50% of its carrier-based strike aircraft fleet when the Harrier retires. Furthermore, cancelling the F-35 would relegate Marine and Naval Aviation solely to COIN environments, emasculating these services and barring them from any contested airspace – the kind of environment American servicemen will face in the future.

Put simply, the Super Bug is not an alternative to, or even a substitute for, the F-35. It's a facelifted model of an attack jet that first flew in the 1970s. The F-35 is a 21st century strike fighter. Both are strike aircraft with jet engines... and that's where the similarities end.

By the way, the Chinese have copied the F-35's design and plan to produce this aircraft for the PLA Navy and possibly also the PLAAF (as well as for export). If the F-35 is so bad, why is China emulating its design, planning to produce it for its Navy, and offering it for export (under the name of J-31)?

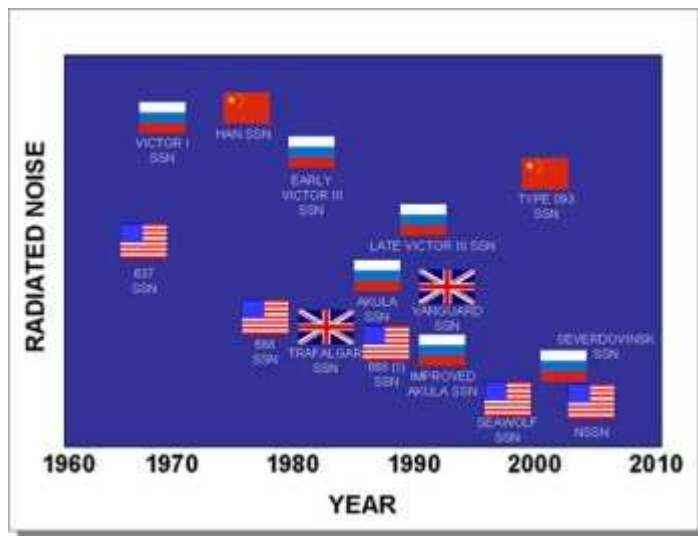
Cut missile defense investments and limit them to theater missile defense only

CATO and PDA propose to deeply cut spending on missile defense and to limit any procurement funding to theater missile defense systems only. This is ridiculous. While theater missile defense is important, homeland missile defense – funding for which CATO and PDA want the Congress to cut off – is even more important, as it is about protecting the US itself, not foreign lands and US troops deployed in those countries.

That being the case, the isolationist CATO Institute should support prioritizing homeland missile defense. But it doesn't. It wants that sector of BMD to be limited to RnD programs. This means that, for example, the East Coast would indefinitely remain unprotected against any ICBMs Iran might field in the future.

Dramatically slow down the procurement of the Virginia class

The Virginia class is necessary to replace old, aging, obsolete Los Angeles class attack submarines which are nearing the end of their service lives and are too noisy to be viable (they are noisier than many submarine classes of America's enemies, including the Russian Improved Akula and Severodvinsk/Yasen classes and the Chinese Type 095). The Russian Improved Akula and Severodvinsk classes are the quietest submarine classes in the world, excluding only the Seawolf and Virginia classes. (See the ONI graph below.)



Yet, CATO and the PDA want Virginia class procurement to be dramatically slowed down. They falsely claim that these subs only utility is to hunt down Russian submarines and that the Russian submarine fleet no longer exists. This is a blatant lie, because 1) the Russian Navy has 67 submarines of all types, including over 30 nuclear-propelled submarines; and 2) the Virginia class can do much more than just hunting other submarines. It can also perform intelligence, land attack, SpecOps personnel deployment/recovery, UAV launching, underwater unmanned vehicle launch and recovery, demining, and fighting surface ships. It's an enormously versatile platform useful for any operation. And cheap, at just 2.4 bn per copy.

Besides Russia's submarine fleet, there is also China's even larger (and rapidly growing) underwater fleet to monitor and sink if need be: 68 submarines of all types, almost as many as the USN has (70). China's air independent propulsion conventional subs and Type 095 nuclear submarines are quieter than any submarine class in the world except the Seawolf, Virginia, Improved Akula, and Severodvinsk/Yasen classes. Iran has its own quiet Kilo class submarines (which are aided by the noisy waters of the Persian Gulf, just like Chinese subs are aided by the noisy waters neighboring its shores in the East and South China Seas, as well as in the Sea of Japan).

Slowing Virginia class procurement down would not only leave the USN with a dwindling fleet of obsolete, noisy LA class submarines with too few boats available for any missions, it would also make VA class procurement more inefficient, because ships (like other weapons) are cheaper to buy if bought faster and in larger quantities. So if the goal is to save taxpayers money, CATO's and the PDA's recommendation is the worst possible way to do so.

Slow down or cancel the procurement of P-8 Poseidon maritime aircraft

CATO and the PDA falsely claim that this aircraft is not needed and that its missions can be done by the old, propeller-driven P-3 Orion aircraft it is designed to replace. But they can't, and the P-8 aircraft is absolutely needed. Here's why.

- The P-3 Orion entered service in 1963 and has been heavily used since then, first as an ASW/maritime patrol plane during the Cold War and the 1990s, and since 2001 as an ISR plane. The P-3 aircraft fleet is wearing out, nearing the end of its service life.
- The slow, propeller-driven P-3 Orion is obsolete.
- The aperture on the P-3 is also obsolete, and decisively inferior to the one used on the modern P-8 Poseidon (a modified Boeing 737).
- The P-3 fleet is dwindling, while the demand for fixed-wing ASW aircraft is growing and shows no signs of abating. The USN needs many P-8 planes, and it cannot afford to slow down their procurement, for that would cause the P-3 plane to shrink even faster.
- The EP-3 ELINT/ISR aircraft also needs to be replaced, and the only aircraft type that can do that is the P-8 Poseidon.

Cancel the construction of the Uranium Production Facility (UPF)

This facility is absolutely necessary to replace old uranium production facilities and thus to produce enough highly enriched uranium (HEU) to prolong the service lives of America's current nuclear warheads, build new ones to replace old ones, and increase the arsenal if a future administration decides to do so. Cancelling UPF construction would be a huge step towards America's unilateral nuclear disarmament; other countries are not going to forego HEU production.

These are just several of the destructive, highly damaging defense cuts that CATO and the PDA have proposed. Most of them are discredited, recycled defense cuts proposals borrowed from other anti-defense groups (and ones which I have already refuted thoroughly). In any case, all of CATO's and PDA's defense cuts proposals should be completely rejected.