



THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 9, 2017

MEMORANDUM FOR SECRETARY OF DEFENSE

SUBJECT: United States Navy Accelerated Fleet Plan

Today's Navy is under significant strain resulting from the imbalance between the size of the fleet, the operational demands placed upon the fleet, and the impact resulting from time and resource constraints on the maintenance, modernization, and readiness of the fleet. Our most immediate challenge to restore the health of the current force can be alleviated by making the investments in readiness as identified in the Department of the Navy's Unfunded Priorities List. The growing operational demands of an increasingly complex global security environment require further investments to increase the size and capability of the fleet.

Attached you will find a white paper that offers a path to expeditiously build capacity and improve lethality of the fleet. This paper offers a first step towards a framework to develop strategic guidance and identify the investments needed to reinvigorate our naval forces.

As we chart our course, there are three factors that drive how rapidly the Navy can increase its force structure: the impact on operations and readiness caused by prolonged deficits to fleet size; optimal rates of production that would yield greatest efficiencies and cost benefits; and affordability constraints imposed today upon our procurement and in the future upon our operations. These factors and the anticipated national security and defense strategies will be key components of the analysis regarding the size of our future fleet. Breaking from the historically budget driven process, the Navy has completed an internal review that has attempted to answer a very different question - - "How rapidly could the Navy increase its force size guided by operational requirements, industrial base capacity, and good stewardship of the taxpayers' money?" In answering that question, the accelerated fleet plan provides one comprehensive view that encompasses the great number of investment decisions required to grow the fleet.

The elements presented in this proposal are ambitious by some measures - this proposal could be considered as a "bounding case" for a future plan to recover from a long period of deficit investment. The argument to increase the size of our fleet will continue to be challenged by reluctance to increase spending on national defense. Accordingly, the Department of the Navy is fully committed to ensuring that every investment toward our future fleet is backed by credible analysis and provides the best value for the taxpayers' dollars.

The Chief of Naval Operations and I look forward to discussing this plan with you at your earliest opportunity.

A handwritten signature in black ink, appearing to read "Sean J. Stackley", is located below the text.

Sean J. Stackley
Acting

Attachments:
As stated

UNITED STATES NAVY ACCELERATED FLEET PLAN

The U.S. Navy protects America from attack and preserves America's strategic influence in key regions of the world. By being globally present, capable and ready, the Navy-Marine Corps team provides timely, agile, and effective options to national leaders as they seek to advance American security and prosperity. The Navy operates beyond the horizon, far from our shores. It provides the undersea leg of our strategic deterrent, and signals American resolve to control the seas and project land and air forces ashore. Ideally, this combat capability and inherent responsiveness allow the Navy to deter conflict. But if conflict breaks out, the U.S. Navy remains ready to conduct prompt and sustained combat at sea to achieve the nation's goals.

Sustaining the operations that carry out the Navy's mission has placed a significant strain on the fleet. The Navy has also forgone necessary investments that posture it for success in an increasingly complex and fast-paced security environment. To address these realities, the Navy requires immediate investments to restore the health of what it has today. And looking forward, multiple recent and independent analyses conclude that the Navy must grow, both in number and capability. Doing so as quickly as possible will shore up and maintain U.S. influence abroad, now and in the future.

Why an Accelerated Fleet Plan? A Return to Naval Competition

The post-cold war era of uncontested naval supremacy is over. In the maritime environment, the most capable potential competitors are Russia and China, both of whom are enhancing their naval power. Russian defense spending has more than doubled since 2000, and Chinese defense investments have quadrupled. Much of this growth has been directed toward their navies.

Russia's latest maritime doctrine makes clear why this is so. It emphasizes Russia's intent to counter the North Atlantic Treaty Organization, "integrate Crimea and the Sevastopol naval base into the Russian economy, and ... reestablish a permanent Russian Navy presence in the Mediterranean." As well, Russia has begun an aggressive buildup of forces in the Arctic region. In support of these efforts, Russia has adopted a broad shipbuilding plan that includes new classes of submarines, destroyers, frigates, and a next generation aircraft carrier. All are intended to incorporate the latest advances in weapons, sensors, command and control, and deception technologies. Russia also continues to develop an advanced fighter jet akin to the most advanced

U.S. fighter aircraft. The Russian Navy is flexing its growing muscle as it returns to places it has not operated in for decades, sailing its aircraft carrier in the Mediterranean Sea, its submarines off of America's Atlantic Coast, and firing missiles into Syria from the Mediterranean and Caspian Seas.

The Chinese Navy is also quickly advancing, and is the fastest growing navy of any major power. Chinese shipyards have more than doubled their production of destroyers and frigates in the past decade; some analysts project that China will have more combat ships than the U.S. by this decade's end. These more modern ships are being complemented by increasingly capable aircraft and long range cruise missiles, several aircraft carriers (including the first to be domestically produced), ballistic missile submarines, and possibly an amphibious ship, all pushing further out into the oceans to support China's expansive maritime claims. These actions are consistent with President Xi Jinping's exhortation that China "continually do more to promote China's efforts to become a maritime power."

As Russia and China put more, and more capable, ships to sea, other challenges persist. North Korea's provocative behavior continues, as do its efforts to advance the size and sophistication of its ballistic missile program. Iran remains, according to the intelligence community, the foremost state sponsor of terrorism, especially within its own region. At sea, the Iranian Navy, in concert with irregular Islamic Revolutionary Guard Corps—Navy (IRGC-N) forces, maintains a fleet of fast attack and small boats that routinely engage in harassing and sometimes dangerous behavior in the Arabian Gulf, creating tension and opportunities for miscalculation. They also continue to invest in mines and multiple types of missiles that pose threats in constrained waterways. And terrorism by the Islamic State of Iraq and Syria and other extremist groups remains a threat to Americans and their allies and partners around the globe.

The Navy's Readiness Debt

In the face of multiple challengers of increasing sophistication, the demand for U.S. Naval forces around the world is rising. For over a decade, the fleet has sustained a very high operational tempo. The effects manifest themselves through increased wear and tear on Sailors and their families, and on Navy ships and naval aircraft. As deployments are extended beyond what was expected, Sailors miss planned rotations or schools and training, and restorative time with their families. Intense operations and increased use are also causing naval equipment to

degrade faster than anticipated. For example, the average amount of repair and maintenance work for ships in private shipyards is exceeding projections by 35 percent. Maintenance for older aircraft is taking almost twice as long as planned to restore those planes to safe flying status.

The fleet's continued high operational tempo represents just one aspect of the "triple whammy" facing the Navy. Operational stress has been exacerbated by overall funding reductions and persistent uncertainty about when budgets will be approved. The combination of these three factors -- high operational demand, and insufficient and unpredictable funding -- has resulted in Navy incurring substantial "readiness debt." That debt is manifest now, and, absent change, will only get worse in the future.

The Navy the Nation Needs and Expects

In order to pay down that debt and restore a forward, ready, and capable fleet that can meet the demands of the nation, the Navy must restore *wholeness*. Wholeness requires an appropriately sized and well trained Navy Team; modern and well-maintained platforms; sufficient numbers of repair parts and weapons; and the necessary infrastructure to support successful mission execution.

Restoring Readiness

The Navy's most critical immediate concern is restoring and improving operational and warfighting readiness. To address this, the Navy and Marine Corps have submitted a list of prioritized actions (called the Unfunded Priorities List) that could be immediately executed to alleviate our most pressing concerns. The funding for these projects would allow ships and crews to sail for training; pilots to fly the hours they need to be proficient warfighters; make needed improvements in cybersecurity and information warfare; support training and weapons development; and increase planning time for our Sailors and their families to move from one homeport to another as they change stations.. It would also enable the Navy to complete critical and backlogged maintenance and repairs, and to restore parts supplies -- to get ships to sea instead of alongside the pier.

While restoring the health of the current fleet is the Navy's top priority, it is not enough to ensure the Navy's continued success. As potential adversaries advance, the Navy must as well. To do so, the Navy needs to address shortfalls in programs that modernize its existing ships,

aircraft, and weapons to make them more capable. It also needs to build those advances into its new platforms, and to buy more of them. Our Unfunded Priorities List includes items to start enhancing our existing systems and platforms this year; we will identify additional modernization investments as part of our update to the FY 2018 President’s Budget Request. That List also includes some of the FY 2017 ship and aircraft purchases that are described in more detail in Appendix A.

Build Capacity and Improve Lethality

The Navy’s current budget, as amended per the discussion above, would set a course to restore wholeness. But more is needed, and more quickly. The Navy’s most recent force structure assessment concludes that addressing the current and future threats to U.S. security will require a larger Navy of about 350-360 ships. Accelerating the Navy’s progress toward that goal would relieve some of the current pressure on the fleet, enhance the credibility of naval forces seeking to deter potential aggression, and create opportunities to drive down costs.

Table 1 depicts the maximum number of additional ships and aircraft that the Navy could purchase over the next seven years to get to required fleet levels as quickly as possible, relative to the current budget plan. This accelerated plan could provide for an additional 29 ships and 342 aircraft over the next seven years.

Table 1. Proposed Procurement Increases over the FY17 President’s Budget

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Total
FY17 President’s Budget (ships)	7	8	7	8	8	10	11	59
<i>Accelerated plan</i>	12	12	11	13	13	13	14	88
Delta	+5	+4	+4	+5	+5	+3	+3	+29
FY17 President’s Budget (aircraft)	86	95	101	76	93	98	107	656
<i>Accelerated plan</i>	137	140	156	144	142	145	134	998
Delta	+51	+45	+55	+68	+49	+47	+27	+342

The Navy’s accelerated plan, as detailed further in Appendix A, sets the Navy on a path that is achievable with low levels of technical risk, reduces future costs, and provides capabilities that the Navy is highly confident will remain relevant over time. These increases would require a projected investment of \$61.8 billion over the next five years beyond the FY2017 President’s Budget request. For the two years that follow, total shipbuilding construction and aviation procurement would require \$90.5 billion. While this is a large number, through the use of multi-

year or block buy contracting approaches and purchases set at the most efficient production levels, the Navy could achieve substantial per unit cost savings - millions to billions of dollars. The predictability and stability inherent in larger purchase quantities would also give the Navy's industrial partners the confidence to invest in people and improvements to production processes. That in turn would lead to badly needed ships and aircraft getting to the fleet faster and at lower cost.

Buying more ships and aircraft is necessary but will not be sufficient. Just like automobiles, ships and aircraft need scheduled maintenance to stay fit to fight, and they must also be periodically modernized to stay ahead of the threat. Naval bases will also need new berths and piers, additional shore power, and other infrastructure. And most importantly, as new ships and aircraft are fielded, the Navy must recruit, train, and retain all of the Sailors to operate and maintain them. Those costs are not reflected in this paper, but will be included into future, more detailed budget conversations.

The additional investment proposed here would also reinvigorate what has become a fragile industrial base. History shows that the nation needs a strong and vibrant foundation of industrial capability and capacity -- able to surge if needed -- to ensure that our Sailors are never in a fair fight. That industrial health is an ever more important factor underpinning the Navy's ability to respond quickly in an increasingly uncertain and volatile security environment.

Conclusion

The Navy needs to restore readiness today, and modernize and build for the future. There has been a persistent gap between the demands on the Navy and the ability of the current and planned fleet to meet them. That gap has imposed stress on Sailors and their families. It has run down our ships and aircraft, and precluded the full range investments to keep the Navy ahead of its potential competitors. Increasing investments in current and future readiness, coupled with accelerated production of ships, aircraft, and other key capabilities, will ensure that America's current and future leaders will have the timely, agile, and effective options they need to protect the nation's interests at home and around the world.

APPENDIX A

Readiness and the Acceleration of Ship and Aircraft Production

As the Navy explored opportunities to accelerate enhancements to fleet capacity and capability, it did so with four basic principles in mind. First, all proposed investments would be achievable; that is, there must be sufficient time and industrial base capacity to perform the proposed work. Second, cost estimates would be based on quantities that allow for the most economic prices, enabled by stable and predictable workflow and optimized supply lines. Third, Navy plans would enhance that predictability by pursuing continued, and where applicable expanded, use of Multi-Year Procurement and block buy contracting approaches. These methods substantially reduce per unit cost by creating long-term production and supplier efficiencies not available through normal annual procurement contracts. Fourth, to enhance the reliability of proposed timelines and cost estimates, where appropriate, the Navy would leverage active production lines to the maximum extent possible, relying on established designs, defined production schedules, known technical baselines, an active supplier base, and clear and well understood warfighting requirements. These principles are reflected in the analysis that follows. Immediate steps to restore fleet readiness are captured in our Unfunded Priorities List, which has been provided separately. That list includes some of the additional ships and aircraft described below.

Accelerating ship and aircraft procurement

While the funding proposed above will provide immediate relief to the fleet, putting the Navy on a sustainable long term path to meet operational demands will require more, and more capable, platforms. The Navy's specific proposals to accelerate shipbuilding and aircraft production, in support of both Navy and Marine Corps (naval) missions, follow.

Shipbuilding

The Navy currently has active production lines for multiple ship classes (SSN 774, DDG 51, CVN 78, and Small Surface Combatants), and is finishing series production on the last ships of another three ship classes (LPD 17, T-EPF, and T-ESB). Over the next six years, the Navy is also starting to design and build several new classes of ships, designated as the SSBN 826 COLUMBIA class (previously SSBN(X)), LHA-8, LX(R), T-AO 205 (formerly T-AO(X)), and

T-ATS.

Many of these ships (SSN 774, CVN 78, Small Surface Combatants, and DDG 51) have already-planned capability upgrades to provide needed warfighting capability. Production rates for these modernized classes can be expanded almost immediately at substantially reduced technical risk and cost compared with new design classes. Of the three ship classes approaching the end of planned production runs (LPD 17, T-EPF and T-ESB), additional ships can also be procured quickly and affordably, leveraging existing active supplier and production lines.

Accelerating the new design ship classes will prove more challenging. The imperative to recapitalize the undersea leg of America’s nuclear triad has already caused the Navy to compress the SSBN 826 class construction schedule as much as is feasible. The remaining classes (LHA-8, LX(R), T-AO 205, and T-ATS) must complete their detailed design and first-of-class construction phases, at which point they can also be procured at faster rates.

Exploratory analysis indicates that existing shipyards have sufficient production capacity to accept additional orders for ships already under construction. This applies to DDG 51, Small Surface Combatants, LPD 17, T-EPF and T-ESB classes in particular. SSN 774 and CVN 78 classes have additional shipyard and supplier constraints that may limit their ability to expand production rates as rapidly as other classes in the near term; however, the Navy is continuing to thoroughly explore, with the assistance of our industrial partners, opportunities to optimize the integrated build plans already underway. Table 2 below provides additional detail on proposed adjustments.

Table 2. Ship procurement quantities - FY2017 President’s Budget vs. Accelerated Plan

		FY17	FY18	FY19	FY20	FY21	FY22	FY23	Total
CVN	PB-17		1					1	2
	<i>Accelerated plan</i>		1				1		2
DDG-51FIIIA	PB-17								0
	<i>Accelerated plan</i>	1							1
DDG-51FIIII	PB-17	2	2	2	2	2	2	2	14
	<i>Accelerated plan</i>	2	3	3	3	3	3	3	20
LCS	PB-17	2	1						3
	<i>Accelerated plan</i>	2							2

SSC	PB-17			1	1	2	2	2	8
	<i>Accelerated plan</i>		2	2	2	2	2	2	12
SSN-774	PB-17	2	2	2	2	1	2	2	13
	<i>Accelerated plan</i>	2	2	2	2	2	3	3	16
SSBN(X)	PB-17					1			1
	<i>Accelerated plan</i>					1			1
LPD-17	PB-17								0
	<i>Accelerated plan</i>	1							1
LX(R)	PB-17				1		1	1	3
	<i>Accelerated plan</i>			1	1	1	1	1	5
LHA Flt	PB-17	1							1
	<i>Accelerated plan</i>	1			1			1	3
T-AO 205	PB-17		1	1	1	1	1	1	6
	<i>Accelerated plan</i>	1	1	1	2	2	2	2	11
AS(X)	PB-17							1	1
	<i>Accelerated plan</i>								0
T- AGOS(X)	PB-17						1		1
	<i>Accelerated plan</i>					1		1	2
T-ATS(X)	PB-17		1	1	1	1	1	1	6
	<i>Accelerated plan</i>	1	1	1	1	1	1	1	7
T-EPF	PB-17								0
	<i>Accelerated plan</i>	1	1						2
T-ESB	PB-17								0
	<i>Accelerated plan</i>		1	1	1				3
Total	PB-17	7	8	7	8	8	10	11	59
	<i>Accelerated plan</i>	12	12	11	13	13	13	14	88
	Delta	+5	+4	+4	+5	+5	+3	+3	+29

As reflected above, the Navy proposes increasing minimum production rates to get to the required fleet size expeditiously and at best value. Specifically, the Navy would accelerate production of:

- CVNs to one ship every 3.5 (vice 5) years, and to contract for them two at a time (starting with CVNs 80 and 81) until reaching a steady state inventory of 12. Delivery of CVNs 81, 82 and 83 would be accelerated by one, two, and five years, respectively. The Navy

projects this would result in savings of over \$1.3 billion on the first ship, with significant potential for further savings on subsequent hulls.

- **SSNs** to two boats per year, plus a third boat in years that would limit impact to SSBN 826 Columbia class. The SSN 774 class is also executing its third successful Multi Year Procurement contract, an approach the Navy would seek to continue.
- **LHAs** to one ship every three (vice four to five) years, and faster transition to the **LX(R)**. To meet mission needs, the Navy requires 38 amphibious ships: 12 LHA-8 (and prior)-class ships, 13 LPD 17-class ships, and 13 LX(R)-class ships. To achieve this as quickly as possible, the Navy proposes to procure an additional, final LPD 17-class ship (LPD 29) and then accelerate procurement of the LX(R). The Navy would seek to transition the LX(R) program to a Multi-Year Procurement contract as soon as feasible, generating expected savings of between 8 and 10 percent (c. \$2 billion). Producing LHAs on three year centers would accelerate production learning, create incentives for private investments in facilities upgrades, and enable economic order quantity purchases of equipment and reduce overhead costs; cumulatively, these could reduce the cost per ship by as much as 11 percent, and would also accelerate the delivery of USMC Joint Strike Fighter (F-35B)-capable amphibious ships to the fleet.
- **Small Surface Combatants** to two ships every year after LCS is completed.
- **Large Surface Combatants** to three (vice two) ships every year, using the existing Multi Year Procurement model to compete additional blocks of 15 ships from the current DDG 51 shipyards until the class build plan is completed. The Navy estimates that this could reduce expected costs by up to six percent (\$1.7 billion); and
- **T-AO 205** to two (vice one) ship per year once the lead ship is completed in FY2020. In addition to providing a more combat-ready double-hulled design to more quickly replace vulnerable existing single-hull designs, the higher build rate would result in expected savings of over \$1 billion across the class.

The cost of adding 29 Battle Force ships over the next seven years to the current Navy shipbuilding plan would require about \$30 billion more over the next five years, and about \$55 billion in total ship construction funding in fiscal years 2022 and 2023. However, doing so at the accelerated rates and employing the contracting strategies described above would result in

billions of avoided costs. The projected amounts of new construction funding in the Shipbuilding Construction, Navy (SCN) appropriation to support the Navy's proposed plan are detailed below.

Table 3. Funding required for accelerated ship procurement, FY2017-2023
(Then-Year \$ Millions)*

	FY17	FY18	FY19	FY20	FY21	FY22	FY23
CVN	\$2,663	\$5,031	\$2,496	\$3,391	\$4,057	\$3,287	\$4,472
DDG-51 Fit IIA	\$433	\$0	\$0	\$0	\$0	\$0	\$0
DDG-51 Fit III	\$3,211	\$4,968	\$5,265	\$5,148	\$4,788	\$4,823	\$5,399
LCS	\$1,125	\$0	\$0	\$0	\$0	\$0	\$0
SSC	\$0	\$1,653	\$1,503	\$1,516	\$1,541	\$1,568	\$1,597
SSN 774	\$4,955	\$5,305	\$7,647	\$8,088	\$7,568	\$8,645	\$9,116
SSBN (X)	\$773	\$841	\$2,999	\$1,474	\$4,238	\$4,261	\$4,041
LPD 17	\$1,844	\$0	\$0	\$0	\$0	\$0	\$0
LX(R)	\$0	\$0	\$1,550	\$1,606	\$1,626	\$1,644	\$1,669
LHA Fit1	\$1,623	\$1,711	\$0	\$1,763	\$1,835	\$288	\$1,740
T-AO 205	\$620	\$520	\$624	\$1,046	\$1,090	\$1,046	\$1,048
T-AGOS	\$0	\$0	\$0	\$0	\$355	\$0	\$310
T-ATS(X)	\$75	\$76	\$78	\$79	\$75	\$76	\$83
T-EPF	\$216	\$220	\$0	\$0	\$0	\$0	\$0
T-ESB	\$68	\$522	\$590	\$600	\$0	\$0	\$0
Accelerated plan	\$17,606	\$20,847	\$22,751	\$24,712	\$27,175	\$25,639**	\$29,475**
President's Budget 2017	\$14,424	\$16,674	\$16,163	\$16,828	\$16,795	N/A	N/A
Delta	\$3,182	\$4,173	\$6,588	\$7,884	\$10,380	\$25,639**	\$29,475**

* Costs include new construction battle force ships only, not outfitting, post-delivery, completion of prior year shipbuilding, or refueling overhaul.

** Because the PB 2017 only extended through FY2021, the FY22 and FY23 columns represent total SCN funding for those years to support the accelerated plan.

The Navy would continue to seek opportunities to reduce costs and reduce schedule pressures still further through the use of other financial and acquisition tools and strategies, such as authorization to purchase multiple shipsets of material at the beginning of a multi-ship block construction and selective strategic bulk buy procurements of long lead materials. The Navy would also look to leverage tools such as Advance Construction and Continuous Production where applicable, and to employ innovative material procurement strategies that take advantage of favorable conditions in commodities markets. Finally, the Navy has been able to create robust

competitive markets for several ship classes, including the DDG 51, LHA-8 and T-AO 205 classes and Small Surface Combatants. This has kept costs down and substantially improved production efficiencies. To grow the fleet rapidly and affordably, the Navy would seek to retain and expand these competitive markets to the greatest extent possible.

While the Navy needs additional ships as quickly as is feasible, it also must ensure that new platforms' combat and command, control, and communications systems are postured to address rapidly evolving threats. The Navy has a robust modernization plan that includes the fielding of new Air and Missile Defense Radars, Enterprise Air Surveillance radars, electronic warfare systems, and shipboard satellite, communications, cyber security and computer network systems for new construction ships. While some early risk would exist as first-of-kind installations are completed in ships already under contract, Navy analysis indicates that this sector is robust enough to fully support an accelerated shipbuilding procurement plan, and -- as with shipbuilding -- at reduced cost. The Navy would seek to cut costs still further in this area by extending the submarine force's use of standardized designs that enable common hardware to future surface ships as well.

Finally, while most are not part of the Battle Force inventory described above, the Navy operates a support, logistics and Maritime Prepositioning Fleet of 64 ships, all of which will reach their end of service life over the next two decades. These ships are a disparate collection of unique, special mission and special purpose ships that were built with systems and technologies that are, in many cases, out of date and inefficient to operate. Recapitalizing the sealift fleet into a common, modern and efficient propulsion and modular, as-common-as-possible hull design over the next two decades would save the Navy substantial day-to-day operating costs, build a necessary sealift fleet for the rest of the 21st century, and engage a segment of the shipbuilding industrial base that would otherwise not be involved in expanding the Navy's battle fleet.

Aircraft

Some of the additional ships envisioned in an expanded fleet will embark aviation elements. These fixed, tilt-rotor, and rotary-wing aircraft conduct numerous missions that range from strike, intelligence, surveillance and reconnaissance, electronic warfare, air-to-air combat, close air support and air-to-ground attack, logistics and resupply, and command and control. To

meet these needs, as well as maintain additional airframes to support scheduled and unscheduled maintenance and major modifications, the Navy proposes to buy an additional 342 Navy and Marine Corps aircraft beyond the current plan.

The FY2017 President’s Budget proposed a reduction to nine carrier air wings (CVNs) in order to better align aircraft inventories with available aircraft carriers. As the Navy seeks to increase its carrier fleet to a deployable fleet of ten or more, this wing would need to be reestablished when the 12th carrier delivers. (A CVW is composed of strike fighter, electronic attack, command and control, rotary and onboard delivery aircraft.) Other non-carrier based platforms would also enhance the Navy and Marine Corps’ warfighting capabilities.

Table 4 depicts an accelerated aircraft procurement plan that buys aircraft at efficient rates within existing manufacturing capacity. Aircraft production lines that have the greatest amount of unused capacity include F-35, F/A-18 E/F, V-22 (both CMV-22 and MV-22), MQ-4C, E-2D, and KC-130J. As with shipbuilding, the Navy would intend to use Multi-Year Procurement (MYP) contracts and block buys to achieve additional savings, expanding upon current efforts to enter into a third MYP contract for V-22 and a second MYP contract for E-2D.

Table 4. Aircraft procurement quantities - FY2017 President’s Budget vs. Accelerated Plan
 If aircraft are procured at the production rates reflected in Table 4, potential impacts include:

		FY17	FY18	FY19	FY20	FY21	FY22	FY23	TOTAL
AH-1Z	PB-17	24	27	27					78
	<i>Accelerated plan</i>	27	27	27					81
CH-53K	PB-17	2	4	7	13	14	21	24	85
	<i>Accelerated plan</i>	2	6	7	11	14	24	24	88
CMV-22B	PB-17		6	6	6	6	6	6	36
	<i>Accelerated plan</i>		10	10	10	10	7		47
MV-22B	PB-17	16				8	8	8	40
	<i>Accelerated plan</i>	19	9	9	9	9	5		60
C-40A	PB-17						3	1	4
	<i>Accelerated plan</i>	4							4
E-2D	PB-17	6	5	3	4	5	5	5	33
	<i>Accelerated plan</i>	6	7	7	7	7	7	8	49
EA-18G	PB-17								0
	<i>Accelerated plan</i>							18	18
F/A-18E	PB-17	2	14						16
	<i>Accelerated plan</i>	12	8	20	14	12	12		78
F/A-18F	PB-17								0
	<i>Accelerated plan</i>	14	16	4	10	12	12		68
F-35B	PB-17	16	20	20	20	21	21	21	139

	<i>Accelerated plan</i>	19	23	23	23	30	35	37	190
F-35C	PB-17	4	6	12	18	24	24	24	112
	<i>Accelerated plan</i>	6	12	18	24	30	30	30	150
KC-130J	PB-17	2	2	2	2	2	2	7	19
	<i>Accelerated plan</i>	4	5	5	5	5	5	5	34
MQ-4C	PB-17	2	3	3	5	6	4	4	27
	<i>Accelerated plan</i>	2	5	5	5	6	6	6	35
MQ-8C	PB-17	1	2	2	2	2	2		11
	<i>Accelerated plan</i>	1	2	2	2	2	2		11
P-8A	PB-17	11	6	13					30
	<i>Accelerated plan</i>	17	10	13	18				58
T-44C RPL	PB-17						2	6	8
	<i>Accelerated plan</i>							6	6
UC-12W	PB-17							1	1
	<i>Accelerated plan</i>	4							4
VH-92A	PB-17			6	6	5			17
	<i>Accelerated plan</i>			6	6	5			17
TOTAL	PB-17	86	95	101	76	93	98	107	656
	<i>Accelerated plan</i>	137	140	156	144	142	145	134	998
	Delta	+51	+45	+55	+68	+49	+47	+27	+342

- Increasing F/A-18 E/F production results in 130 additional aircraft by FY22, and helps mitigate the current strike-fighter inventory shortfall as older F/A-18 E/Fs are modernized with their service life-extended. Additionally, rapidly replacing legacy F/A-18 C/Ds with more modern and capable strike-fighters results in an expected cost avoidance of approximately \$290 million.
- Increasing MQ-4C production to 6 aircraft per year by FY2021 (completing production by FY2028, five years earlier than the current plan), at a projected savings of nearly \$1.3 billion under the production cost baseline;
- Increasing the F-35B procurement rate to complete production in FY2026 (four years earlier than the current plan), generating expected cost savings of \$1.2 billion;
- Increasing production of E-2Ds to a rate of 7 per year, resulting in 20 additional aircraft through FY2024 at an expected cost reduction of \$1.2 billion; and
- Accelerating completion of KC-130J procurement to FY2022, producing savings estimated at over \$400 million.

The Aircraft Procurement, Navy (APN) funding (Budget Activities 1-4 and 6) required to

support the proposed additional aircraft is depicted in Table 5 below.

**Table 5. Funding required for accelerated aircraft procurement, FY2017-2023
(Then-Year \$ Millions)**

	FY17	FY18	FY19	FY20	FY21	FY22	FY23
AH-1Z	\$914	\$887	\$967	\$6	\$6	\$0	\$0
CH-53K	\$488	\$1,035	\$1,253	\$1,669	\$2,078	\$2,721	\$2,749
CMV-22B	\$20	\$977	\$1,020	\$1,044	\$1,078	\$768	\$32
MV-22B	\$1,520	\$854	\$858	\$869	\$849	\$538	\$32
C-40A	\$427	\$0	\$0	\$0	\$0	\$0	\$0
E-2D	\$1,062	\$1,083	\$1,431	\$1,469	\$1,480	\$1,501	\$1,727
EA-18G	\$0	\$0	\$0	\$0	\$0	\$52	\$2,045
F/A-18E	\$1,026	\$723	\$1,882	\$1,343	\$1,172	\$1,156	\$0
F/A-18F	\$1,197	\$1,447	\$376	\$959	\$1,172	\$1,156	\$0
F-35B	\$2,934	\$3,707	\$3,185	\$3,280	\$4,158	\$4,792	\$5,065
F-35C	\$1,294	\$2,068	\$2,500	\$3,118	\$3,753	\$3,832	\$4,082
KC-130J	\$334	\$466	\$525	\$591	\$629	\$650	\$683
MQ-4C	\$579	\$851	\$895	\$801	\$858	\$826	\$714
MQ-8C	\$74	\$109	\$156	\$127	\$133	\$148	\$31
P-8A	\$3,028	\$2,037	\$2,740	\$3,068	\$97	\$0	\$0
T-44C RPL	\$0	\$0	\$0	\$0	\$0	\$0	\$23
UC-12W	\$59	\$0	\$0	\$0	\$0	\$0	\$0
VH-92A	\$0	\$0	\$794	\$775	\$816	\$67	
Accelerated Plan	\$14,958	\$16,244	\$18,583	\$19,119	\$18,281	\$18,207*	\$17,183*
President's Budget 2017	\$10,212	\$11,212	\$12,763	\$10,823	\$12,588	N/A	N/A
Delta	\$4,746	\$5,032	\$5,820	\$8,296	\$5,693	\$18,207*	\$17,183*

* Because the PB 2017 only extended through FY2021, the FY22 and FY23 columns represent total aircraft procurement funding for those years to support the accelerated plan.

The above estimates reflect the Navy's best understanding of the most rapid production increases possible to enhance the capability and capacity of the Fleet. Should these increases be approved, as platforms come on line they will require additional investment in personnel to operate and maintain them and infrastructure to support them, as well as funding to support training and deployments. The Navy is currently analyzing these costs, and will make that information available as those estimates are further refined.