



DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

February 22, 2018

The Honorable William M. Thornberry
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman,

In accordance with 10 U.S. Code § 222(a), I am submitting the enclosed list of unfunded contributors to naval power for Fiscal Year (FY) 2019. I am grateful for the hard work of Congress to provide a FY19 funding level that is critical to accelerate readiness recovery and the path to the larger and more lethal Navy that the nation needs. In FY17, the Request for Additional Appropriations arrested readiness decline. The FY18 and FY19 budget requests further restore readiness while beginning to build required capacity and lethality. Having said that, the accumulated effects of the budget control act and repeated Continuing Resolutions created additional opportunity to restore readiness and warfighting capability and capacity. My highest priority request is enactment of the FY19 President's Budget by the start of the FY. To be clear, the FY19 budget submission reflects the best balance and prioritization for the Navy that the nation needs. However, as directed by 10 U.S. Code § 222(a), the enclosed list provides opportunities to further accelerate readiness recovery and increase lethality should additional funding become available. This includes:

Munitions

Opportunities exist to accelerate procurement of several key munitions to include AIM-9X Blk II Sidewinder, Harpoon Blk II+, MK-48 Heavy Weight Torpedo, and Long Range Anti-Ship Missile in order to achieve munitions warfighting and training objectives sooner, increasing the Navy's ability to compete, deter and win against near-peer competitors.

Cyber Threats/Resiliency

Additional funding will accelerate our ability to counter network threats and increase network resiliency. Funding would accelerate the integration of existing sensor capabilities and ship system protection against cyber threats with investments in Ship's Signal Exploitation Equipment Family of Systems Wholeness and Cyber Boundary Defense on non-Consolidated Afloat Network Enterprise Systems networks.

Aviation

Accelerating recovery from the capacity/capability risk that has accumulated in Naval aviation is possible with additional investments in modernization programs for C/KC-130T, F/A-18E/F, and MQ-8; and acceleration of electronic/information warfare technological advancements, including F/A-18E/F Adaptive RADAR Countermeasures and EA-18G Cognitive Electronic Warfare and Special Mission Pods.

Surface Lethality

Opportunities exist to accelerate lethality and survivability through electronic warfare system upgrades, to include back fitting 19 Aegis TI-12H ships with more advanced combat system computer processors, and upgrading Aegis training and test sites with the latest hardware to provide improved training to future operators and maintainers.

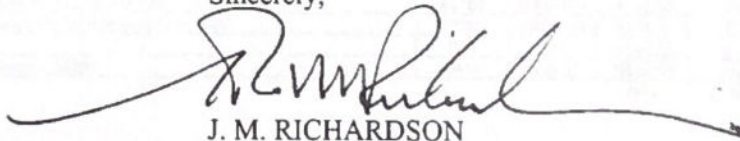
Shore Readiness

Increases in Facility Sustainment, Restoration, and Modernization funding will reduce substantial accumulated risk in infrastructure maintenance, repair, and recapitalization of mission essential facilities. Funding would accelerate readiness recovery by improving piers, airfields, aviation and ship maintenance facilities, and other warfighting enabling infrastructure. Additional funding can also accelerate the public shipyard recapitalization outlined in the Navy's Shipyard Infrastructure Optimization Plan.

The enclosure specifically outlines the unfunded priorities that will most accelerate readiness recovery and improve lethality.

A similar letter has been sent to the other congressional defense committees. I appreciate your support of the U.S. Navy and look forward to working together to get our Sailors the resources and support they need and deserve.

Sincerely,



J. M. RICHARDSON

Enclosure: Navy's Fiscal Year 2019 Unfunded Priorities List and Descriptions

Copy to:
The Honorable Adam Smith
Ranking Member

Navy's Fiscal Year 2019 Unfunded Priorities List

#	Navy FY19 Unfunded Priorities List (UPL)	Appn	LI	PE	TY\$M
1	SM-6 Blk 1B 21" Rocket Motor Development (Acceleration Acquisition Initiative)	RD TEN	0439	0604366N	\$19.0
2	LRASM Increase procurement to max capacity (from 25 to 35)	WPN	2291	0204157N	\$30.0
3	Harpoon Blk II+ Increase procurement to max capacity (from 52 to 100) to achieve requirement in FY20 vice FY21	WPN	2326	0204152N	\$12.0
4	AIM 9-X Sidewinder Increase procurement (from 192 to 250)	WPN	2209	0204162N	\$45.0
5	MK48 HWT Increase procurement to max capacity (from 45 to 50) in FY19	WPN	3117	0204284N	\$11.0
6	Integrated Fires: Develop, Integrate, & Test SSEE EMW and IF Integration for SSEE FoS Wholeness (not funded until FY23) and Distributed Common Groundstation Inc 2 Acceleration (Roll up)	RD TEN, OPN	Multiple	Multiple	\$19.4
7	Sonobouys	OPN	4048	0204271N	\$38.3
8	Supersonic Training Target Project	WPN	0609	0604258N	\$80.0
9	Cyber Boundary Defense: Platforms, Networks, Workforce (Roll up)	Multiple	Multiple	Multiple	\$95.4
	Cyber Boundary Defense: WIN10 on Non-CANES C4I Networks - Partially funded in FY19	OPN	2915	0303138N	\$14.4
	Cyber Boundary Defense: Aviation Land and Launch Enclave (ALLE) - Funded in FY20 and FY23	Multiple	Multiple	Multiple	\$13.1
	Cyber Boundary Defense: E-2D AHE - Funded in FY20 and FY23	RD TEN	3051	0604234N	\$27.5
	Cyber Boundary Defense: Cyber Security Workforce Training Mission Support Management - Funded in FY20 and FY23	OMN	1CCY	0708018N	\$3.1
	Cyber Boundary Defense: Common Control System (CCS) - Funded in FY20 and FY23 - Funded in FY20 and FY23	RD TEN	3379	0305205N	\$3.4
	Cyber Boundary Defense: SEA 05 Cross Platform System Development (CPSD) Cyber Security Capability Development - Funded in FY20 and FY23	RD TEN	3161	0603563N	\$9.0
	Cyber Boundary Defense: Strike Force Interoperability (SFI) - Funded in FY20 and FY23	RD TEN	0164	0603582N	\$10.7
	Cyber Boundary Defense: Network Situational Awareness (SA) - Funded in FY20 and FY23	OMN	85IT	0303113N	\$5.0
	Cyber Boundary Defense: Portable Electronic Maintenance Aids - Funded in FY20 and FY23	Multiple	Multiple	Multiple	\$4.5
	Cyber Boundary Defense: SPAWAR Cyber Response Team - Funded in FY20 and FY23	OMN	1C1C	0708012N	\$0.9
	Cyber Boundary Defense: SPAWAR Cyber Workforce Readiness - Funded in FY20 and FY23	OMN	1C1C	0708012N	\$0.6
	Cyber Boundary Defense: Navy Cyber Situational Awareness (NCSA) - Funded in FY20 and FY23	OMN	1CCY	0303140N	\$3.2
10	MQ-8 Mobile Mission Control Stations (MMCS) for shore-based training +3 kits	APN	0443	0305231N	\$34.3
11	Tactical Targeting Network Technology (TTNT) Acceleration	RD TEN	3020	0205604N	\$12.0
12	Classified Issue	RD TEN	0603525N	0603525N	\$10.0
13	E-2D Acceleration (+ 2 A/C) (from 4 to 6)	APN	0195	0204152N	\$340.0
14	C/KC-130T NP2000 Propeller System (+24 kits)	APN	0560	0502379N	\$121.0
15	DDG-51 Twisted Rudder	OPN	0200	0204228N	\$8.0
16	Aegis TI-12H BackFit	OPN	5231	0204228N	\$61.1
17	Aegis ACB 20 Phase 1 / TI MK 6 MOD 1 Sites Equipment	OPN	5231	0204228N	\$42.6
18	LPO 17 Class Shipboard Wide Area Network (SWAN) Obsolescence Replacement with CANES and SCDN	OPN	2915	0303138N	\$14.4
19	Naval Propulsion Foundry Center (NFPFC) Facility Power Upgrades (Roll up)	Multiple	Multiple	Multiple	\$31.0
20	F/A-18 E/F SuperHornet Engine Enhancements	RD TEN	1355	0205633N	\$15.0
21	F/A-18 E/F Adaptive RADAR Countermeasures (ARC) (+43 Kits)	APN	0576	0204161N	\$25.0
22	EA-18G Advanced Modes 1.2 & REAM / Cognitive EW (Currently starts in FY20) (acceleration) (roll up)	APN, RD TEN	Multiple	Multiple	\$109.2
	EA-18G Advanced Modes 1.2 & REAM / Cognitive EW (Currently starts in FY20) (acceleration)	APN	0525	0204154N	\$13.9
	EA-18G Advanced Modes 1.2 & REAM / Cognitive EW (Currently starts in FY20) (acceleration)	RD TEN	0604269N	0604269N	\$95.3
23	EA-18G - Offensive Airborne Electronic Attack Special Mission Pod (Currently starts in FY20)	RD TEN	0604270N	0604270N	\$31.6
24	Shipyard Investment Acceleration	OPN	1445	0702228N	\$176.0
25	San Diego Graving Drydock Upgrades to support DDG51 Berthing (FSRM)	OMN	BSM1	0203176N	\$121.0
				Total	\$1,502.27

Fiscal Year 2019 Unfunded Priorities List Descriptions

1. **Development of 21" Rocket Motor for SM-6 Blk 1B (Acceleration Acquisition Initiative) - \$19M:**
FY19 RDTEN funding for 21" rocket motor will inform Engineering and Manufacturing Development (EMD) for fully qualified system. CNO approved SM-6 Blk 1B acceleration on 17JAN during Accelerated Acquisition Board of Directors (AA BoD) meeting.
2. **LRASM increase (+10 missiles) (From 25 to 35) - \$30M**
Procures 10 additional LRASM missiles to achieve maximum production capacity in FY19.
3. **Harpoon Blk II+ increase (+48 missiles) (From 52 to 100) - \$12M**
Procures 48 additional Harpoon Blk II+ missiles to achieve requirement in FY20 vice FY21.
4. **AIM-9X Blk II Sidewinder increase (+58 missiles) (From 192 to 250) - \$45M**
Procures 58 additional AIM-9X Blk II missiles to achieve industry's maximum production capacity in FY19.
5. **MK48 Heavyweight Torpedo (HWT) increase (+5 torpedoes) (From 45 to 50) - \$11M**
Procures 5 additional MK48 HWT torpedoes to achieve industry's maximum production capacity in FY19.
6. **Develop, Integrate & Test Electromagnetic Maneuver Warfare / Integrated Fires (EMW/IF) Integration for Ship's Signal Exploitation Equipment (SSEE) Family of Systems (FoS) Wholeness and DCGS Acceleration - \$19M:**
Funds Combat System (CS) integration, track fusion and battle management aids by FY22. Cross-queuing between SSEE and CS sensors will enable detection, tracking, and engagement of targets kinetically and non-kinetically. DCGS-N Inc 2 will automate fusion, exploitation and detection capabilities while solving usability and visualization challenges. Replaces eight afloat Increment 1 installations with Increment 2 variants over FY 19-20.
7. **Sonobuoys - \$38M:**
Sonobuoys are expendable electro-mechanical Air Anti-Submarine Warfare (ASW) acoustic sensors used to locate, track and obtain attack criteria on threat submarines and are fundamental to the execution of Air ASW in both training and operational scenarios. FY18 increased unplanned expenditures due to east coast activity. The Air ASW community is migrating from a primarily passive to a more capable Multi-static Active Coherent (MAC) wide area search Concept of Operations (CONOPS).
8. **Supersonic Target - \$80M:**
Develop a supersonic aerial target system capable of high altitude cruise, lower altitude cruise, and tactical ballistic and lofted missile profiles.
9. **Cyber Boundary Defense: Platforms, Networks, Workforce: \$95.4M:**
Win 10 on Non-CANES C4I Networks- (\$14.4M):
Provides funding for Windows 10 Secure Host Baseline for AS, MCM, and PC class ships in accordance with DoD Memo dated 20 Nov 2015.
Aviation Land and Launch Enclave (ALLE); (ALRE / NATMS Systems) – (\$13.1M):
Provides cyber resiliency within the ALLE to enhance network segmentation, device hardening, centralized monitoring, increased cyber situational awareness and incident response.

Cyber Boundary Defense: E-2D AHE – (\$27.5M):

Funds RDTEN for implementation of Committee on National Security Systems Instruction (CNSSI) 1253 Controls and Overlays in accordance with National Institute for Science and Technology (NIST) 800-53 control requirements.

Cyber Security Workforce Training – (\$3.1M):

Provides funding for cybersecurity workforce training.

Common Control System (CCS) FOL Cyber Security – (\$3.4M):

Funds Cyber Security for CCS to support MQ-25 and future unmanned systems.

Cyber Boundary Defense: SEA 05 Cross Platform System Development (CPSD) – (\$9M):

Funds the cross-enclave, multi-platform cyber resiliency engineering to accelerate delivery of a robust defensive cyber capability to the fleet. Includes network diagram generation, advancement of capability of solutions, platform specific engineering for boundary defense, situational awareness, and other embedded solutions for each enclave.

Strike Force Interoperability (SFI) Cyber Security Cert – (\$10.7M):

Funds the provision of warfare system cybersecurity risk assessment and certification in accordance with Navy policy and programs. This program is essential to ensure that individual ship's and Strike Groups' have necessary cybersecurity/resiliency capabilities to operate against cyber threats.

Cyber Resiliency: Network Situational Awareness (SA) – (\$5M):

Cyber Domain (Resiliency): Provides capability to collect and index machine data in real time from applications, web servers, databases, networks, virtual machines, and mobile devices.

Standard PEMA Cyber Solutions, POM-19 (PEMA Cyber Security Solutions) – (\$4.5M):

Funds the Cyber Security solution for Portable Electronic Maintenance Aids (PEMAs). PEMAs are ruggedized commercial laptops used by maintenance crews to host a variety of interactive electronic technical manuals (IETMs) and diagnostic applications necessary for aircraft repair.

Cyber Resiliency: SPAWAR Cyber Response Team – (\$0.9M):

Cyber Domain (Resiliency): Addresses evolving Cyber threat and provides SPAWAR with a coordinated and comprehensive Cyber Response Team.

Cyber Resiliency: SPAWAR Cyber Workforce Readiness – (\$0.6M):

Cyber Domain (Resiliency): Funds additional resources required to fund qualification training and annual continuing training to meet Cyber Workforce requirements. Also required to execute requirements to manually maintain all Cyber Workforce records and training in Total Workforce Management Services (TWMS).

Cyber Resiliency: Navy Cyber Situational Awareness (NCSA) Wholeness – (\$3.2M):

IW Domain: Maritime Cyber SA requirement defends Maritime Cyber Key Terrain (CKT) and provides a composite view of all cyber operational risk (Blue, Red, and White cyber pictures).

10. MQ-8 Mobile Mission Control Stations (MMCS) +3 kits - \$34M:

Mobile Mission Control Stations support Fleet training and readiness requirements. Currently the only method of conducting live training and readiness sorties with MQ-8 is during an LCS underway period. The use of a MMCS reduces demand on in-service LCS to support Fire Scout training and AVDET certification

activities during high demand LCS pre-deployment operations. CNAF, in coordination with the HSC wings, identified a requirement for four MMCS to meet training and readiness requirements; one was procured in FY17. Funding in FY19 (\$34.3M) will provide for an additional three MMCS, meeting the fleet requirement of four.

11. Tactical Targeting Network Technology (TTNT) Acceleration - \$12M

The TTNT is a cutting edge network that supports Naval Integrated Fire Control-Counter Air (NIFC-CA), and Offensive Anti Surface Warfare (OASuW). Funds will be utilized to accelerate the TTNT capability into the Multi-functional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) accelerating platform integration for the E-2D, E/A-18G, and F/A-18 E/F to achieve an Initial Operational Capability (IOC) of 2021.

12. Classified Issue - \$10M:

13. E-2D Advanced Hawkeye (+2 Aircraft) (Accelerates Buy; reduces 2 in FY23) - \$340M:

The E-2D Advanced Hawkeye (AHE) is an all-weather, twin engine, carrier-based, Airborne Command, Control and Surveillance aircraft designed to provide advance warning of approaching enemy surface units and aircraft, to vector interceptors or strike aircraft to attack, and to provide area surveillance, intercept, search and rescue, communications relay, and strike/air traffic control. The additional E-2D aircraft will enable the early transition of two Carrier Airborne Early Warning Weapons School (CAEWWS) E-2Cs in Fallon, NV, giving them the needed assets to develop and refine E-2D advanced tactics and aligns the force structure with the requirements to support the National Defense Strategy.

14. C/KC-130T NP2000 Propeller System (+24 kits) - \$121M:

The Navy's C/KC-130T fleet is the only medium lift aircraft capable of supporting outsize cargo and operating in remote or unprepared airfields in support of Naval expeditionary logistics. The C/KC-130T fleet (21 of 25 aircraft) has been grounded due to safety concerns with the legacy propeller system. The NP2000 will address the number one aircraft readiness degrader and provide commonality with existing systems on E-2/C-2 aircraft.

15. DDG-51 Twisted Rudder - \$8M:

Funds backfit of twisted rudder on 2 ships (DDG 71 and DDG 81) to reduce the impact of cavitation on DDG 51 class rudders, which has resulted in fatigue-related cracks at the rudder face weld joints. Backfit estimated to be \$4M per ship set (2 rudders) with rudder stock replacement, including procurement (\$2.7M) and installation (\$1.3M).

16. Aegis TI-12H Back Fit - \$61M:

Funds the backfit of 19 TI-12 ships and 2 Aegis Ashore sites. This upgrade resolves sustainment issues created by the sale of IBM servers to Lenovo and related cyber security risks. TI-12H hardware enables accelerated future Aegis base line updates through its open architecture design. This computer processor upgrade will double the number of ships in 2025 able to host critical future Aegis Baseline updates such as NIFC-CA Inc II/III, SBT Inc II, SEWIP Blk II integration, SM-6 BLK IA/IB, ESSM Blk II, HELIOS and SM-2 Blk IIIC.

17. Aegis Advanced Capability Build (ACB) 20 Phase 1/TI MK6 Mod 1 Sites Equipment - \$43M:

Designs, procures and installs the Technology Insertion (TI) equipment for the 3 Aegis Land Based Test and Training Sites (LBTTs), Aegis Training and Readiness Center (ATRC) and the Naval Surface Computing Center (NSCC) located at Dahlgren, VA, the Combat Systems Engineering Development Site (CSEDS) located at Moorestown, NJ, and the Surface Combat Systems Center located at Wallops, VA.

This upgrade enables procurement of the TI-16 hardware for the Aegis Combat System and the Aegis Weapons System, site switching infrastructure, simulation equipment, cables, and facility improvements. These sites perform testing, integration, certification, and training for all future operators and maintainers aboard Flt III DDGs and Aegis Mod DDGs.

18. Accelerate LPD 17 SWAN Replacement - \$14M:

Funding is required to accelerate procurement, integration and installation of Ship Control Deterministic Network (SCDN) in LPD 17 class for ships to remain operational after accelerated Consolidate Afloat Network Enterprise Systems (CANES) installations. SWAN is the Shipboard Wide Area Network, unique to the LPD 17 class LPDs and is no longer supported. PB19 added funding to accelerate CANES installations in the Surface Fleet to include the LPD class of ships. These CANES installations for non-HM&E systems and SCDN for HM&E control MUST coincide for the ship to remain operational.

19. Naval Foundry and Propeller Center (NFPC) Facility Improvement - \$31M

This funding expands NFPC capabilities to include COLUMBIA class propulsor production, reducing schedule risk. This funding also provides facility power upgrades in support of VIRIGINA class propulsor production. \$18M in SCN bridges the gap between the initial estimate of \$27M and the final estimate of \$45M for the NFPC power upgrade. \$13M in RDTEN supports preparing NFPC for the installation, acceptance, demonstration and operation of new equipment required for the COLUMBIA class propulsor.

20. F/A-18 E/F Super Hornet Engine Enhancements - \$15M:

Accelerates the design and development of F/A-18 E/F Super Hornet engine enhancements to address range, speed, efficiency, and survivability improvements.

21. Adaptive RADAR Countermeasure (ARC) - \$25M:

Adaptive RADAR Countermeasure (ARC) provides increased strike fighter survivability through network data sharing, enhanced displays via mission computer, receiver improvements for ARC, and enhanced Electronic Countermeasures (ECM). RDTEN/APN supports the procurement and retrofit of 43 Digital Receiver and Technique Generator (DRTG) Shop Replaceable Assemblies (SRAs) into existing ALQ-214 (V) 4/5 systems. DRTG SRA retrofit is required to support Adaptive RADAR Countermeasure (ARC) processing requirements.

22. E/A-18G Cognitive EW (REAM) - \$109M:

E/A-18G Cognitive EW (REAM) (APN-5) – (\$14M):

EA-18G software modifications are budgeted to support and stay aligned with emerging electronic warfare threats and the software modifications required to react to those threats. Funding ensures that Reactive Electronic Attack Measures (REAM) technology will bring Cognitive Electronic Warfare capability to the platform in alignment with the delivery of Software Configuration Set (SCS) H-18 in FY23.

E/A-18G Cognitive EW (REAM) (RDTEN) – (\$95M):

Funds added for Transitioning Reactive Electronic Attack Measures (REAM) technology from a ONR future naval capabilities (FNC) science and technology effort to the platform. This technology and hardware upgrade of the Electronic Attack Unit (EAU) will bring Cognitive Electronic Warfare capability to the platform and is the start to EA-18G BLK II modernization as well as development and integration of special mission pods in support of BLK II modernization.

23. E/A-18G Offensive Airborne Electronic Attack Pod - \$32M:

The Special Mission Pod (SMP) is a new start acquisition program intended to provide a special purpose mission pod to address emergent PACOM operational gaps. Projected EOC is 4QFY21. The SMP system will address emerging advanced threats, and increased threat density, by utilizing combined wide spectrum digital apertures, software defined radios and software based technologies. Funding will produce, integrate, test and field in two expeditionary squadrons in FY21.

24. Shipyard Investment Acceleration - \$176M:

Provides funding for industrial plant equipment procurement for items greater than \$250k for the Naval Shipyards. At PB-19 funding levels (\$197M) the Navy is on a trajectory to reduce the aging plant inventory to the 15 year industry standard over the next 20 years. This increase of +\$176M would accelerate the time to get to the Navy's current goal.

25. Graving Drydock Repairs - \$121M:

Funds an upgrade to the existing Naval Base San Diego graving dry-dock to accommodate the DDG-51 class. Upgrades includes the addition of a SONAR PIT, dry-dock electrical and de-watering modifications and dredging of the channel to accommodate the ships draft.