

NOT FOR PUBLICATION UNTIL RELEASED BY
THE HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON TACTICAL AVIATION AND LAND FORCES

STATEMENT OF

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BEFORE THE

TACTICAL AIR AND LAND FORCES SUBCOMMITTEE OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

DEPARTMENT OF THE NAVY FISCAL YEAR 2025 BUDGET REQUEST FOR TACTICAL
AVIATION

APRIL 16, 2024

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Chairman Wittman, Ranking Member Norcross and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to address the Department of the Navy's Fiscal Year (FY) 2025 budget request and the state of our Tactical Aviation (TACAIR) programs.

Today's tumultuous strategic environment demands an advanced, properly trained, and effectively crewed TACAIR force equipped with superior technology. Equally important, it demands sufficient, ready, and relevant capacity to forward posture or deploy whenever and wherever necessary to ensure open and free sea lanes, deter adversary aggression, and decisively win in conflict if required. The Department's investments in 4th and 5th generation aircraft, critical munitions capacity, and advanced enabling capabilities does just that. Our carrier strike groups, expeditionary strike groups, and land-based expeditionary forces require deliberate, prioritized investment choices to project power across the globe to fulfill our mandate directed in the National Defense Strategy (NDS) and in support of our Chief of Naval Operations and Commandant of the Marine Corps priorities. Thank you to the Congress and this Committee for your support in the FY24 Authorization and Appropriation Acts and we look forward to support and oversight on the FY25 budget request.

The security of the Nation is founded on a powerful Naval Force guided by a comprehensive maritime strategy that can anticipate and adapt to an evolving geopolitical challenge around the world. Near peer power competition will undoubtedly continue to contest the global commons and threaten peace and stability across the globe. The Department continually assess these challenges, prioritizes our investments in current and future warfighting capabilities, remain innovative in our capability development approach, and seeks every opportunity to accelerate our acquisition processes to support our force design initiatives. Our investment strategy is focused on striking a balance between current readiness, capability modernization, and sufficient warfighting capacity to maximize our lethality, support Combatant Commanders demand for naval power, and build our critical network of Allies and Partners.

Your DON has made progress in recapitalizing Naval Aviation. Last year we delivered 60 new aircraft for the Navy and Marine Corps team, including F/A-18E/F production and ongoing procurement and fleet integration of F-35, E-2D, V-22, P-8, KC-130J, CH-53K, VH-92A, and unmanned aircraft MQ-4C and MQ-9A Medium Altitude Long Endurance (MALE). Naval Aviation is now predominantly comprised of new airframes made possible through a deliberate

strategy of evolutionary, controlled technical risk development programs. Our speed of modernization matters, and we continue to navigate the ever-evolving challenges of stabilizing the industrial base, managing risks within our supply chains, and reacting to the very real challenges presented by inflation. Our investment decisions and investment strategies remain founded on ensuring affordability and maintaining accountability to the taxpayer. As we continue to look to the future of warfare, we must continue to balance the (1) readiness and relevance of our current capabilities, (2) our long-term modernization efforts to deliver advanced capabilities, and (3) our ability to sustain the force in increasing contested environments.

The Department continues to be focused on advancing the capabilities of our current critical weapon systems while ensuring we provide operational commanders available and ready systems. Building off the principles and success of performance-to-plan (P2P) and Naval Sustainment System -Aviation (NSS-A) efforts, Naval Aviation has centered on the identification and balancing of critical benchmarks for all type/model/series in regards to Capability, Affordability, Availability, Safety, and Training. Through this intentional focus, we continue to see an increase in sustained readiness that will persist over the Future Years Defense Program (FYDP).

While we continue to emphasize all critical aspects of delivered systems, our efforts are driven by the timely delivery of needed capability to the Fleet and Fleet Marine Force. As an example, in January 2023 the F-35 Program executed its first flight in the Technology Refresh (TR)-3 configuration. TR-3, a combination of software and hardware, is the foundation for Block 4 modernization critical to delivering advanced warfighting capabilities necessary to counter adversaries. We continue to work through challenges presented by TR-3 development and testing and appreciate this Subcommittee's continued support and oversight. A software independent review team was established to evaluate the F-35 software architecture which provided numerous recommendations to resolve these challenges in an expeditious manner. In a continued effort to increase our 4th and 5th generation aircraft capabilities, we invested in the research and development of advanced sensor and Electronic Warfare (EW) capabilities such as Next Generation Jammer (NGJ) that will significantly increase our capability against adversary radar, communications, and non-traditional EW targets. Additionally, we began the test and integration of the production version of Infrared Search and Track (IRST) Block II which provides our TACAIR fleet a "beyond visual range" radio frequency-denied air-to-air kill chain.

The Department continues to modernize and transition its TACAIR fleet of the future. In January and February 2022, two F-35C squadrons, VFA-147 aboard the USS Carl Vinson and VMFA-314 aboard the USS Abraham Lincoln, trained, prepared, deployed, and operated together in the INDOPACOM AOR marking the first time the DoN deployed two F-35C squadrons concurrently.

For the Marine Corps, VMFA-225 is currently on the 15th MEU, bringing 10 F-35Bs in support of INDOPACOM. VMFA-314 is getting ready to deploy once again aboard the aircraft carrier supporting USMC TACAIR Integration with the Navy. Additionally, VMFA-242 and VMFA-121 continue to support the 31st MEU as part of the Marine Corps' Forward Deployed Naval Force efforts. Marine Aviation's TACAIR transition plan is continuing to progress with VMFA-542 recently achieving full operational capability at Marine Corps Air Station (MCAS) Cherry Point, NC earlier this month and VMFA-311 continuing its transition at MCAS Miramar, CA. Later this year VMFA-533 and VMFA-251 will receive their first aircraft at MCAS Beaufort, SC and MCAS Cherry Point, NC respectively. The end of fiscal year 2024 will mark the halfway point in Marine Aviation's transition to the F-35B/C. Although late aircraft deliveries are delaying these squadron's ability to meet IOC and FOC requirement, there is currently no impact to Global Force Management requirements, but the transition plan has no more margin and cannot absorb any additional delays.

For the Navy, in March 2023, VFA-97 will receive its final aircraft to become the first F-35C squadron to achieve 14 PAA. Earlier this year, VFA-97 completed its deployment as the third F-35C squadron to deploy with the Carrier Air Wing. Later this year we will reposition VFA-147 forward as the Navy's first FDNF squadron equipped with the F-35C. The F-35C Fleet Replacement Squadron, VFA-125, increased its aircraft inventory by eight additional aircraft in 2023 enhancing pilot throughput.

The Fiscal Year 2025 President's Budget Request

The President's FY 2025 budget provides the resources necessary to continue to implement the 2022 National Defense Strategy and build and sustain the right mix of capabilities ensuring freedom prevails in the maritime commons. In alignment with Secretary of the Navy's priorities, the budget request enables the Department to build on our readiness, capacity, and capabilities while continuing our culture of warfighting excellence and enhancing our strategic partnerships.

The DON requests \$16.2 billion in FY 2025 and includes 75 fixed-wing, rotary-wing, and uncrewed aircraft to modernize our capabilities that can achieve lethal and persistent effects inside adversary weapon engagement zones. This budget funds 53 fixed-wing aircraft to include 13 F-35B and 13 F-35C Lightning II strike fighters to continue transitioning our 4th generation fighter squadron and 27 T-54A multi-engine training system aircraft. Lastly, three MQ-25 Stingrays are requested to conduct aerial refueling and Intelligence, surveillance, and reconnaissance (ISR).

The F/A-18E/F Super Hornet will remain the predominant component of the CVW through the 2030s. The service life modification (SLM) effort and capability upgrades to the equivalent of a new production Block III will maintain the tactical superiority of the F/A-18 E/F and bolster the Navy's Strike Fighter inventory into the 2030's. These ongoing SLM efforts underway at both industry sites and fleet readiness centers (FRCs), are increasing Super Hornet service life to 10,000 hours and are significantly enhancing lethality and survivability via on-board and shared high-fidelity sensor data and improved aircrew tactical decision aids.

Marine Corps' top highlights are our commitments to the modernization of our current and future fleet, weapons integration and the execution of our transition plan. Our commitment to a full Block 4 fleet will be achieved through aircraft modernizations and future procurements. We intend to incorporate future weapons capabilities into our aircraft. This will be facilitated with more flight science aircraft to help speed up weapons testing and integration. As our transition plan continues to be executed, we are investing in RDTE money into LRASM C-3 upgrades, the procurement of sixteen LRASM C-1, and the expansion TACAIR mission sets through experimentation of crewed-uncrewed teaming with F-35 and XQ-58 Valkyrie.

Continued congressional support of F-35 Block 4 modernization efforts remain critical, including modernization kits to ensure earlier lot aircraft are rapidly modified to the critical TR-3 / Block 4 configuration. These efforts complement planned TR-3 / Block 4 production aircraft and ensure the DoN Fleet has the vital capability in the necessary capacity. As directed by this Congress in NDAA FY2024, we are establishing a sub-program for Engine and Power Thermal Management modernization. This is necessary to recapture engine life for increased affordability and additional power and cooling capacity to support future mission system enhancements. We are focused on ensuring this upgrade can be retrofit to earlier lot aircraft and standardize a

common ECU configuration across all Fleet F-35 variants. Air systems modernization is also underway to support the mission systems modernization and weapons system integration efforts.

Munitions are a critical national priority. The ongoing support to Ukraine and current conflicts in the Red Sea have highlighted the importance of a resilient munitions industrial base and the need to improve capacity and replenishment throughput as we prepare for potential contingencies in the Pacific. The President's budget request maximizes funding for weapons procurement, prioritizing funding for munitions development and production. This budget makes full use of the authorities granted in the FY 2024 NDAA to streamline multiyear procurement (MYP) contracts for critical munitions in order to generate economic order quantity (EOQ) savings, increase production capacity, stabilize the demand signal to the industrial base, and enable the Department to respond quickly to future contingencies.

Summary

The DON continues to meet challenges head on with critical investments in our force structure and readiness. We persist to be ready to meet any competition to our national interest -- on the sea, under the sea, and in the air, at any time. With Congress' support, we will provide the Nation with the combat-credible, dominant naval force to keep the sea lanes open and free, deter conflict, and when called upon, decisively win our Nation's wars.

Programmatic details regarding Navy and Marine Corps capabilities are summarized in the following section.

U.S. NAVY AND MARINE CORPS TACTICAL AVIATION CAPABILITIES
TACTICAL AVIATION

Carrier Air Wing (CVW)

The striking power of the CVW remains the cornerstone of power projection capability from 11 of the world's most survivable airfields, our aircraft carriers (CVNs). The modernization of the air wing and its weapons keeps the aircraft carrier relevant through the ship's 50 year service life. Today's air wing is transitioning to a mixture of 4th and 5th generation strike fighter aircraft that continue to incorporate advanced capabilities to support the objectives of the NDS. The F-35C is replacing the early lot F/A-18E/Fs. E-2Ds, with an advanced airborne radar, networking, and aerial refueling capability are replacing the legacy E-2C. Next Generation Jammer (NGJ) pods will augment and eventually replace the legacy ALQ-99 pods on the EA-18G and provide full spectrum integrated non-kinetic effects.

The Air Wing of the Future

The Air Wing of the Future (AWOTF) refers to the evolution and composition of the CVW as it on-ramps advanced capabilities and capacity, measured at key milestones in the near, mid, and long term. The CVW is adapting and transforming from an all "crewed" to a teamed "crewed-uncrewed" force structure over the next two decades.

In the near-term, the AWOTF completes transition to the E-2D, continues transition to the CMV-22, achieves a mix of F-35C Lightning II, F/A-18E/F Block III Super Hornet strike fighters, and EA-18G Growlers, and introduces the MQ-25 Stingray unmanned air vehicle (UAV). The MQ-25 will take over the air wing's organic aerial refueling mission, extending strike range and persistence, enhancing maneuverability, and enabling all strike fighters to focus directly on delivering effects in the high-end fight. In the mid and long term, the AWOTF will deliver game-changing lethality and survivability through the Next Generation Air Dominance Fighter (F/A-XX), further development and capability integration of uncrewed systems, and continued development of jointly integrated multi-domain kill-chains.

The 2024 NDAA granted the Navy relief from the Title 10 requirement to stand up a 10th CVW by October 1, 2025 pending SECNAV submission of a report to congress analyzing potential approaches to the manning, operation, and deployment of a 10th CVW. That report is on schedule to be submitted by the end of the current fiscal year. The current CVN maintenance

schedule efficiently pairs nine CVWs to nine operational CVNs according to ship availability; 11 total CVNs with two under planned service-life maintenance. With an 11 CVN force structure, nine CVW are the optimal number of air wings for readiness, capability, and force generation.

Marine Expeditionary Unit (MEU) Aviation Combat Element (ACE)

The Marine Expeditionary Unit (MEU) is the embodiment of the Marine Air-Ground Task Force (MAGTF), providing the nation with a critical strategic capability for naval campaigning, crisis response, and contingency operations. Deployed on a 3-ship Amphibious Ready Group (ARG), Marines and Sailors leverage the maritime domain as maneuver space to posture without the constraints and restraints of access, basing, and overflight. The self-sustained and flexible ARG/MEU can swiftly transition from steady-state competition and campaigning to crisis response or high-end warfighting without external augmentation, playing a vital role in integrated deterrence, global campaigning, and reinforcing American resolve.

As a lethal, forward-deployed, sea-based expeditionary force, the ARG/MEU operates across a spectrum of military operations with a tailorable and uniquely suited complement of aircraft. The MEU's Aviation Combat Element (ACE) inventory includes the AV-8B, F-35B, MV-22B, H-1, and CH-53E/K. The F-35B, the sole 5th Generation platform designed for amphibious warfare ships and expeditionary landing fields, stands as a cornerstone of Marine Corps' modernization efforts, integral to the Stand-in Force concept, and a crucial enabler for the Joint Force. Offering strategic agility, enhanced situational awareness, and increased maneuverability in contested environments, the F-35B provides commanders with a decisive advantage. Marine Corps F-35C aircraft completed their first deployment in support of CVW efforts as part of the service's continued commitment to TACAIR integration with USN. F-35C aircraft will also deploy in support of the Unit Deployment Program along with F-35B aircraft supporting future forward deployed naval forces efforts.

The ARG/MEU team represents one of the nation's most capable crisis response tools, persistently forward deployed and ready to provide Combatant Commanders with options across the spectrum of military operations. With its complement of capable aviation platforms, the MEU ACE ensures seamless projection of power from the sea, air, and land, bolstering the ARG/MEU's organic operational mobility.

Collaborative Combat Aircraft (CCA)

The Marine Corps is a signatory to the Tri-Service CCA Vision Alignment memo and continues to coordinate with the USN to develop its MAGTF UAS Expeditionary (MUX) Family of Systems. These efforts include accelerating prototyping and experimentation of uncrewed logistics and tactical aircraft, and a system control architecture for these platforms that is Joint, common, and interoperable. To date, the Marine Corps has completed two successful XQ-58 flights, which are informing the service requirements for an eventual MUX TACAIR CCA program of record. These efforts and additional operational analysis complement the work done to date supported by both prioritized Marine Corps funding and Rapid Development Experimentation and Research resources.

Next Generation Air Dominance (NGAD)

The NGAD FoS is comprised of crewed and uncrewed tactical platforms, advanced weapons, sensors and networks to attain and maintain air superiority. F/A-XX is the strike fighter component of the NGAD FoS and is the designated replacement for the F/A-18E/F. Design maturation efforts remain on track and the program is now considered to be in a source selection environment. The Navy released a request for proposal (RFP) for a follow-on development contract in December 2023 to Boeing, Northrop Grumman, and Lockheed Martin. F/A-XX is designed from the outset to incorporate crewed and uncrewed teaming. Included in the uncrewed tactical platforms for the NGAD FoS are the family of CCA's. Navy and Marine CCA's will augment current and next generation crewed platforms with multiple lower cost, complementary capabilities to increase combat effectiveness in highly contested environments.

Strike Fighter Inventory Management (SFIM)

Strike Fighter Inventory Management (SFIM) is the process the DON uses to manage the capacity and capability required to support the CVWs. SFIM is dependent on three critical and independent factors: the depots ability to maintain and sustain the fleet; new procurement to replace or extend end-of-service life aircraft; and utilization rates required for force generation. The Department has appropriate levers in place to manage the strike fighter inventory through the combination of F-35C procurement and SLM of F/A-18E/F Block II aircraft. These tools have enabled DON to close the Strike Fighter inventory gap by 2025 and enable the DON to meet

current Global Force Management requirements, ensuring the necessary capability is available for current and future conflicts, and managing overall strike fighter inventory into the 2030's.

SLM has two phases. Phase 1 was 'SLM specification' (commenced in 2018) and extended F/A-18E/F service life from 6,000 to 7,500 flight hours. The planned 'crawl' and 'walk' phases of SLM specification continued through 4QFY2022. Phase 2 is 'Full kit SLM' and commenced 1QFY2023, which extends the airframe to 10,000 flight hours along with incorporating Block III capability upgrades, essentially matching Block III production aircraft. SLM inductions will continue across FYDP and are estimated to cost less than 1/3 of the price of a new procurement aircraft, while providing similar capabilities. SLM delivered 51 F/A-18E/F as of March 6, 2024. Currently, there are 155 planned SLM inductions across the FYDP. Once the aircraft are inducted, there is a 12-month turnaround time for all future jet inductions.

Pilot and Aircrew Shortfalls and Mitigation Strategies

The Navy's focus on recovering student pilot throughput is bearing fruit. We are projecting production at or above the annual requirement, which will continue to bring down the number of students waiting to start training. In particular, we are slightly above projected student strike pilot throughput with 106 out of a desired 98 FY 2024 graduates through the end of February and we are projecting 155 of a planned 143 FY 2024 graduates by the end of April. We remain focused on creating and maintaining conditions to ensure steady and fulsome student pilot production.

The Navy and Marine Corps are investing in talent management and producing more capable Sailors and Marines while increasing our ability to attract and retain the most talented individuals across the force. For Naval Aviation, we continue to meet all fleet requirements and are evaluating and analyzing diversity, equity, and inclusion within the Naval Aviation Enterprise. This analysis has informed our lines of effort for broadening recruitment and outreach efforts to attract underrepresented talent, as well as focusing on retention efforts to ensure the Department retains those with the qualifications needed. The DON continues to focus on retention, merit-based bonuses and incentive pay, as well as non-monetary incentives, to keep talented aviators across different levels of rank. We narrowly focus our bonuses and special pay based on specific community shortages, critical skills, and retention goals. The Department expects competition for

talent with industry will continue, requiring a robust and competitive compensation program to recruit, retain, and distribute the force.

F-35 Joint Strike Fighter

The F-35 is the core of the future fighter fleet and plays a critical role in the Navy and Marine Corps' future Distributed Maritime Operations and Expeditionary Advanced Base Operations (EABO) warfighting concepts, providing a lethal and survivable strike and sensor platform. Ship and land-based F-35Bs and F-35Cs will continue to be the backbone of the DoN air combat superiority complimenting MAGTF and strike group commanders with a dominant, multirole, 5th generation aircraft capable of projecting U.S. power, keeping pace with threats in contested scenarios, and deterring potential adversaries.

The Navy has established one Fleet Replacement Training Squadron, one operational test squadron, one developmental test squadron, two operational squadrons with a third standing up this year and have assigned five F-35Cs to the Naval Aviation Warfare Development Center (TOPGUN) to support 4th and 5th generation Fighter integration training events. Through current operations around the globe, we continue to prove the F-35's unprecedented and unmatched capabilities.

Depot activation remains critical to long-term air system affordability and availability. By executing its Global Support Solution (GSS), the F-35 Enterprise is establishing air vehicle, propulsion, and component repair facilities in the North American, European, and Asia-Pacific regions. In FY22, the Lot 15-17 contract allocated significant funds towards air vehicle and component depot capacity establishment, demonstrating the Department's commitment to this strategy. This investment will support the F-35 Joint Program Office (JPO) in delivering depot repair capacity.

The DoN continue to work through challenges presented by TR-3. We are in the final phase of integration and testing to deliver TR-3 to the warfighter. Together with my colleague Honorable Andrew Hunter, we established a software independent review team to evaluate the F-35 software architecture. The SW IRT provided several short terms and long-term recommendations we are confident in implementing and believe it will enable continued software development efficiencies for the next generation of capabilities for the F-35 to keep pace and win against a future threat. As directed by this Congress in NDAA FY2024, we are

establishing a sub-program for Engine Core Upgrade (ECU) and Power Thermal Management System (PTMS) upgrade. Establishing this new sub-program will recapture engine life for increased affordability and additional power and cooling capacity to support future mission system enhancements. We are focused on this upgrade being retrofittable to keep costs low while maintaining commonality across the fleet of F-35 variants. I am appreciative for Congressional funding in FY-22 that allowed F-135 engine enhancements, beginning the modernization efforts. Air systems modernization is also underway to support the mission systems modernization and weapons system integration efforts.

The DoN remains focused on enterprise affordability and cost reduction across the F-35 acquisition lifecycle. We continue to support the PEO on the F-35 “War on Cost” to tackle affordability challenges in new and innovative ways. In the 2023 Annual Cost Estimate (ACE), the F-35 JPO captured an additional \$13.6B in sustainment cost reductions over program’s lifecycle, bringing the total captured savings to date to \$33.7B. This results from reliability and maintainability projects, propulsion component improvement efforts, capability updates (including engine core upgrade), and workforce efficiencies driven by the National Autonomic Logistics Information System (ALIS) Support Center activation. The DoN in close coordination with the F-35 Joint Program Office has driven F-35B Cost Per Tail Per Year (CPTPY) down from \$7.0M in 2020 to \$5.74M in 2022 (CY12\$) and for the Navy F-35C from \$9.4M in 2020 to \$7.5M in 2020.

The DoN remains committed to reducing F-35 costs for both production and sustainment as well as improving mission readiness. To get after readiness concerns, the DoN has incorporated the F-35 into the Naval Sustainment System-Aviation (NSS-A) ecosystem. Through the involvement of the Fleet’s Maintenance Operations Cell (MOC) Aircraft on Ground (AOG) with PEO-JSF Lightning Sustainment Center, coordination of unit prioritization and allocation of DoN resources across DoN aircraft has helped reduce aircraft turnaround times and improve readiness. In March 2023, PEO-JSF set a target of increasing the U.S. fleet-wide F-35 mission capable rate by 10% (to 64%). To achieve this, the F-35 JPO assembled a team dedicated to understanding and addressing complex challenges associated with top degraders, supply and maintenance challenges, and issues affecting long-term-down and out-of-reporting aircraft. Today, our U.S. F-35 fleet mission capable rate averages 57.5% – up over 4% since Dec 2023.

Though the F-35 JPO has not hit the 64% target yet, this initiative is accelerating maturation of an ecosystem that supports the program's long-term sustainment goals.

Prior to the 2022 National Defense Authorization Act (NDAA) Section 142 (i.e., transition integrated product support elements to U.S. Service-led), the GSS was operating in a hybrid sustainment infrastructure leveraging legacy U.S. service providers, prime Industry and our International Partners and Allies. Since then, our air vehicle CONUS depot core activations began transitioning OEM repairs to all Air Logistics Centers (ALCs) and Fleet Readiness Centers (FRCs); our egress explosive devices (i.e., CAD/PADs) for Production and Sustainment are procured from U.S. service-led Indian Head; our common support equipment are procured by NAWC Lakehurst; our Heavy Air Vehicle Mod depots are provided by Ogden ALC and FRC-E; our North America warehouse is provided by DLA and our global transportation is now provided by U.S. Transportation Command (USTC). As the U.S. services codify NDAA 142 requirements, we will continue to add U.S. service-led capability to the GSS infrastructure. These capabilities, complemented by our forward-positioned global footprint of Partner/FMS depots and regional warehousing, helps deliver the integrated deterrence doctrine of the National Defense Strategy.

The Marine Corps Program of Record (POR) for F-35 is 420. Marine Aviation remains fully committed to the F-35 and is continuing with the transition to an all-F35 5th Generation TACAIR force, in line with Commandant's Force Design guidance. The updated Force Design TACAIR Transition Plans call for a Primary Aircraft Authorization (PAA) for 18 squadrons of 12 aircraft which supports all MEU, Unit Deployment Program, Tactical Aviation Integration (TAI), and Combatant Command (COCOM) Global Force Management requirements at a 1:3 deployment to dwell. This 12 aircraft squadron construct allows the Marine Corps the flexibility to tailor deployments to theater commander requirements, while adjusting to a pacing threat.

The Marine Corps has established two Fleet Replacement Squadrons, one operational test squadron, and nine operational line squadrons deploying regularly with two additional line squadron activations occurring this summer. Building on relationships strengthened during the service's partnership with the United Kingdom aboard HMS *Queen Elizabeth* and with Japan aboard JS *Izumo*, the Marine Corps continues to work with our allies to enhance flexibility and lethality through operations from multiple allied partnerships.

The tactical unit of employment coupled with sortie generation rates have driven the squadron composition to adjust to 12 jets. Commanders retain the flexibility to deploy 10-12 F-35Bs aboard our MEUs compared to the traditional six AV-8B ACE contingent; offering the COCOMs a 66 percent increase in TACAIR – 5th Generation aircraft – with our MEUs. F-35C squadrons will fill both UDP (land-based) and TAI (aircraft carrier) deployments with a full complement of 12 aircraft. The change from 10 to 12 PAA has been analyzed in depth and can be supported without adjusting the POR of 420 aircraft.

Beginning in PB26, Marine Aviation will change its F-35B/C mix to 12x F-35B squadrons and 6x F-35C squadrons. This is not a change to the POR number, but rather an adjustment to the mix between types. Instead of the previous numbers of 353 F-35Bs and 67 F-35Cs, Marine Aviation will adjust procurement to 310 F-35Bs and 110 F-35Cs in support of Force Design. The final two active component transitioning squadrons (VMFA-323 and VMFA-232) will transition to the F-35C instead of the F-35B.

TR-3 and block 4 capability development schedule and cost remain a concern for the Marine Corps. Specifically, weapons integration timelines need to be maintained. We are working closely with the JPO and other services to ensure vital weapons capabilities are delivered to the fleet on an acceptable timeline and without unacceptable cost growth.

Both F135 and PTMS upgrades are necessary to meet future capability enhancements and reduce future sustainment costs. As the F-35 continues to see upgrades in its mission systems capabilities, the requirement for increased cooling capacity continues to grow to ensure lethality for the remainder of its expected service life. The Marine Corps is aligned with the Air Force and the Navy in prioritizing the ECU and PTMS upgrade. The service intends to invest over \$600M in development across the FY25 FYDP. The ECU upgrade will drive down lifetime engine sustainment costs by reducing the total overhauls required during the program's life.

The DoN maintains its commitment to reducing F-35 costs for both production and sustainment while also enhancing mission readiness. The F-35 program is advancing towards a supply chain with a demand-reduction Performance Based Logistics (PBL) contract, aiming to prioritize availability and affordability outcomes across the F-35 enterprise. In alignment with recent congressional direction, the DoN is collaborating with the program office to assume greater management, planning, and execution responsibilities for F-35 sustainment functions which hold the potential to further reduce sustainment costs.

F/A-18 A/B/C/D Hornet

Service Life Extension Program (SLEP), High Flight Hour (HFH), and Center Barrel Replacement (CBR+) efforts extend the F/A-18C/D beyond its original service life of 6,000 hours, to 8,000 hours. Additional service life extension authorizations extend service life to 9,000 hours, and up to 10,000 hours for select aircraft. Eight aircraft were inducted for HFH and/or CBR+ and included SLEP modifications in FY 2023, with 19 aircraft planned for delivery in FY 2024. Along with flight hour extensions, these aircraft require capability upgrades to their radars, radios, electronic warfare suites, software and avionics systems to maintain lethality, survivability, and availability to meet the documented Marine Corps requirement for tactical aircraft that can support the NDS and National Military Strategy through 2030. It also includes the implementation of the Automated Ground Collision Avoidance System (Auto-GCAS) to mitigate Controlled Flight into Terrain (CFIT) and has consistently been a top platform safety priority in Naval Aviation readiness groups, operational advisory groups and the systems safety working groups. The Embedded National Tactical Receiver will be installed in these aircraft that will enable them to receive Integrated Broadcast Service. This service provides beyond line of sight reception of intelligence information. These capability requirements enable the Marine Corps to operate the F/A-18C/D through FY 2030 while supporting the TACAIR transition to F-35B/C.

The FY 2025 President's Budget requests \$116.6 million in APN for F/A-18C/D. This includes funding to implement aircraft commonality programs, improve reliability, and ensure structural safety of the F/A-18C/D inventory, and funds the continuation of Hornet capability enhancements.

F/A-18E/F Super Hornet

The F/A-18E/F Super Hornet is a 4th generation multi-mission aircraft serving as the predominant strike-fighter in the CVW into the 2030s. On March 19, 2024, 17 F/A-18E/F Block III aircraft were placed on contract with Boeing with the final F/A-18E/F scheduled to deliver in FY 2027. This contract also procures critical technical data absolutely necessary for the Navy to organically maintain the F/A-18E/F after the production line shuts down.

In tandem with these Block III deliveries, SLM initiatives and capability upgrades enhance our inventory by maintaining the tactical relevance of the F/A18 E/F. IRST Block II, is in flight

testing and on track to declare initial operating capability (IOC) in 4QFY2024, bringing critical out-of-band detection and weapon-quality-track capability against advanced air threats. Super Hornet continues to integrate new capability in support of joint warfighting capability, to include beyond line-of-sight communications and Open Mission Systems architecture and MUM-T in support of NGAD and the AWOTF.

The FY 2025 President's Budget requests \$1.3 billion of APN for F/A-18 E/F and EA-18G modernization and sustainment, IRST, and F/A-18 series. Additionally, the budget requests \$122.7 million of APN for installation costs associated with the delivery of F/A-18 E/F/G aircraft. Finally, the FY 2025 budget requests \$358.5 million of RDT&E for improvements, radar upgrades and advanced aircraft system capabilities. This funding is critical to develop and sustain the warfighting capabilities of the Navy's predominant carrier aviation platform.

AV-8B Harrier

The AV-8B Harrier program is critical to the Marine Corps' transition to F-35B. The platform has completed upgrades to enhance lethality, increase readiness, and improve supply chain asset management. The program executed the development of final fit capabilities, including Sidewinder Air-Intercept Missile (AIM-9X) integration, expanded Joint Standoff Weapon (JSOW) and Joint Direct Attack Munition (JDAM) capabilities, and enhanced Link-16 functionality. These functionalities enable the platform to be relevant for operational deployments through fiscal year 2026.

The FY 2024 budget request continues a time-phased budget transition from investment accounts toward Operations and Maintenance to support platform sustainment during sundown. \$8.3 million in RDT&E funds continue the design, development, integration, and testing of Operational Flight Program upgrades, weapons integration improvements, flight test requirements, and safety and reliability improvements to the airframe and engine to mitigate obsolescence issues. \$22.8 million in APN continues the incorporation of Obsolescence Replacement/Readiness Management Plan systems, electrical and structural enhancements, LITENING Pod upgrades, engine safety, digital interoperability updates that include Link-16 systems, and inventory sustainment upgrade efforts to offset obsolescence and attrition.

AIRBORNE ELECTRONIC ATTACK (AEA)

EA-18G Growler

The EA-18G Growler is a critical enabler for the Joint force, bringing fully netted electronic warfare capabilities to the fight and providing essential capabilities in the electromagnetic maneuver warfare environment. The FY 2025 budget retains and fully funds the EA-18G aircraft and squadrons across the FYDP. Along with the electronic attack suite, the Growler also features the APG-79 Active Electronically Scanned Array (AESA) radar. Growler integrates the latest electronic attack technology, including the ALQ-218 receiver, jamming pods, communication countermeasures, and satellite communications. The Growler Capability Modification (GCM) Program, the first major effort to upgrade EA-18G capabilities in the history of the program, commenced at Naval Air Station Whidbey Island, Washington, in March 2021. Thus far, 40 aircraft have completed the modification, bringing this capability to five squadrons across the fleet.

Growler Block 2 (GB2) will deliver capabilities to the warfighter to detect, locate, identify and counter advanced integrated air defense systems (IADS) and complex emitters. GB2 utilizes a phased approach for continued spiral development of AEA capabilities to modernize processing, sensors and aircrew decision aids to maintain dominance in the modern electromagnetic spectrum. Phase 1 will include an upgraded Next Generation Electronic Attack Unit with open mission systems architecture, multi-level security, and incorporation of the Reactive Electronic Attack Measures capability. Phase 2 is the addition of the Beowulf advanced multi-function array into the inboard leading-edge flaps of the aircraft, augmenting the ALQ-218 functionality and capability. GB2 serves as a critical technology development and risk reduction effort to support Naval Aviation's AWOTF.

NEXT GENERATION JAMMER

NGJ is the evolution of electronic warfare capability to counter the adversary electromagnetic spectrum threat. NGJ pods will augment and eventually replace the legacy ALQ-99 pods on the EA-18G and provide full spectrum integrated non-kinetic effects. The delivery of NGJ Mid-Band (MB) increases EA-18G Growler's lethality today providing a multi-generational leap in capability against adversary radars and communication targets utilizing advanced EA techniques as well as improved reliability and maintainability over legacy ALQ systems. NGJ is

phased by threat, with initial focus on mid-band spectrum capability, followed in the future by Low-Band (LB). NGJ High Band remains unfunded.

NGJ-MB is a cooperative development and production program with Australia, with two pods comprising a single shipset. A full rate production decision is expected in 3QFY2024. Three LRIP I shipsets were delivered in FY 2023. The first LRIP II shipset was delivered in 2QFY2024 with the remaining four LRIP II shipsets planned for delivery in FY 2024. Upon conclusion of operational test, IOC and initial deployment will occur this FY. The FY 2025 budget includes \$86.7 million in RDT&E funding to continue development of the NGJ-MB Extended (MBX) engineering change proposal (ECP) to extend the upper frequency range coverage limit of the system to counter modern and adaptive threats with initial deliveries planned for FY 2028. The FY 2025 budget request also includes \$453.2 million in APN-5 funding for ten Lot 5 shipsets, associated support equipment, training equipment and production support.

NGJ-LB is also a cooperative development program with Australia and represents AEA capability improvement to augment and replace the legacy ALQ-99 Tactical Jamming System in low frequency bands where modern adversary radars have proliferated posing significant threats to joint forces. The FY 2025 budget request \$209.6 million RDT&E for NGJ-LB to focus on pod design, advanced capabilities development, and the build of aeromechanical and mission systems test pods to support ground and flight testing.

INTREPID TIGER II

The Marine Corps, through the INTREPID TIGER II program, is bringing advanced Electronic Warfare (EW) to all its aviation platforms, and is focused on crewed-uncrewed teaming to answer the MAGTF's requirements for AEA. The Marine Corps has worked in conjunction with OSD to purchase the first two XQ-58 Valkyrie CCA platforms to test EW effects in partnership with F-35 and our Assault Support platforms.

WEAPONS PROGRAMS

The FY 2025 President's Budget request invests \$6.6 billion in critical Navy munitions and builds off of FY 2023 and FY 2024 weapons industrial base and procurement investments. We continue to work with industry to identify manufacturing challenges and provide investment opportunities to streamline testing and increase production. The Navy is investing funds in both industry and its

organic industrial base to ensure we can ramp up production in the immediate future. The FY 2025 budget request protects investment in critical munitions via investment in the industrial base, specifically through multi-year purchases. The budget prioritizes procurement of Tomahawk, Long Range Anti-Ship Missile (LRASM), Advanced Anti-Radiation Guided Missile Extended-Range (AARGM-ER), Sidewinder Air-Intercept Missile (AIM-9X), Advanced Medium-Range Air-to-Air Missile (AMRAAM), Small Diameter Bomb II (SDB II), Rotary Wing Long Range Attack Missile (LRAM), Joint Direct Attack Munitions (JDAM) kits and General Purpose Bombs (GPB). The Navy welcomes and appreciates supplemental funding requests to help replenish munitions provided in support of Ukraine and expended in the Red Sea.

Munitions Inventory and Industrial Base

The DON is working closely with industry to expedite replenishment of stocks provided to Ukraine, engaging with industry partners to understand the barriers to accelerating production and determine how and where the Department can make strategic investments to improve inventory, capability, and capacity. The Department is investing in the industrial base to expand and accelerate production throughput, streamline testing, and strengthen critical component suppliers. Simultaneously, the Department is placing investments into recertification as a cost-effective way to improve near-term inventories. Coupled with the ongoing replenishment of Navy stocks, these investments into the munitions industrial base send the demand signal that building munitions inventories is a top priority.

The DON is leveraging the authorities granted in the FY 2024 NDAA to pursue MYP contracts for critical munitions programs. MYP contracts for AMRAAM and LRASM will be joint efforts with the USAF. Increased procurement budgets in the President's Budget 2025 seek to capitalize on these investments to further build critical munitions inventories and accelerate fielding of emerging technologies to fleet squadrons. This strategy allows the Department to use savings generated through the use of EOQ financing to procure additional missiles under a buy-to-budget concept, further improving efficiencies and yields.

Offensive Anti-Surface Warfare (OASuW) Increment 1/ LRASM C-1/C-3 and OASuW Increment 2 / Hypersonic Air Launched OASuW (HALO)

The LRASM C-1 and C-3 variants add near-term, cost-effective capacity to the DON's long range strike capability while enhancing the OASuW mission. The FY 2025 President's Budget requests \$102.5 million in procurement funding to buy 30 DON LRASM C-1 weapon systems with associated support and complete operational test for the C-1 configuration. The FY 2025 President's Budget request also includes \$163.2 million in RDT&E funding for the continuing development of the LRASM C-3 capability improvement. Navy AGM-158 development efforts involve integration of a beyond line-of-sight radio subsystem to enable enhanced operational flexibility.

The FY 2025 President's Budget continues developing the AGM-158 C-3 variant through software development and test, platform integration, and entry into integrated test. The FY 2025 President's Budget request also includes \$223.9 million for procurement of 60 LRASM in the C-3 configuration migrating the primary production line to the more-capable C-3 configuration as the program reaches sufficient maturity.

The FY 2025 President's Budget includes \$178.6 million for development of OASuW Increment 2, which is now referred to HALO. HALO supports the national imperative to mature hypersonic capabilities and transition them into warfighting systems, increasing the lethality and deterrent effect of our air carrier wings. The program represents a longer-term capability that encompasses increased performance and will provide the Navy with the necessary air-launched, carrier-based weapon to address evolving long range high speed threats from peer and near peer competitors. HALO will complete Milestone B and enter formal engineering and manufacturing development, to include a competitive contract award during FY 2025.

AARGM & AARGM-ER

AARGM domestic procurement completed in FY 2021 with the award of the last DON full rate production (FRP) contract. There have been 1450 AARGMs (all up rounds (AUR), training missiles, and spares) delivered to the fleet as of March 2024. Program of record delivery is 1803 missiles. Deliveries continue through FY 2025 in support of the transition to AARGM-ER. AARGM-ER provides the DON with a 5th generation compatible extended range asset to project power and provide suppression of enemy air defenses (SEAD), both at-sea and on land. The first

AARGM-ER delivery is scheduled for 3QFY2024. The FY 2025 President's Budget requests \$22.3 million in RDT&E to support operational and integrated flight testing of production representative hardware. The budget requests \$248.6 million in Weapons Procurement, Navy (WPN) to procure 151 AARGM-ER AURs, six captive air training missiles (CATM) and advanced procurement.

AIM-9X

The AIM-9X (Sidewinder) missile is a datalink-enabled, launch and leave, air combat munition that uses passive infrared energy to acquire and track enemy air targets. The FY 2025 budget requests \$31.4 million in RDT&E that will be applied to development of hardware and software to improve performance against evolving threat platforms and countermeasures. The budget also includes \$86 million in WPN funding to procure a combined 116 AURs and 41 CATM's and associated missile/trainer related hardware.

AMRAAM/AIM-120D

The AMRAAM program provides for the acquisition and upgrade of the Department's advanced all-weather, all-environment medium range air-to-air missile system. AMRAAM, a joint program with the U.S. Air Force, provides for a more lethal naval fighting force capable of continued maritime dominance and power projection, while also supporting the North Atlantic Treaty Organization and 43 allied countries.

The FY 2025 budget request maximizes AMRAAM production capacity and completes USN procurement requirements within the FYDP. The DON is leveraging the authorities granted in the FY 2023 NDAA to pursue MYP contracts for critical munitions. The strategy allows the DON to use savings generated through the use of EOQ financing to procure additional lots of missiles under a buy-to-budget concept and improve warfighting readiness, stabilize the defense supply base with predictable production. The program is working with the Department of Defense to layout a MYP strategy with the USAF as the lead. The FY 2025 budget includes \$29.6 million in RDT&E to further develop software capability enhancements to counter emerging threats as well as test and evaluation activities that support fleet release of system improvement program (SIP) efforts. The budget also includes \$279.6 million in WPN funding to procure 261 AURs and associated missile/trainer related hardware. AMRAAM WPN and RDT&E funding directly

supports the Pacific Deterrence Initiative by increasing joint force lethality through increased missile inventory and weapon effectiveness.

Small Diameter Bomb II (SDB II)

Small Diameter Bomb Increment II (SDB II) is an Air Force led, joint program that provides the warfighter a capability to attack mobile targets in all weather conditions from stand-off range. The FY 2025 budget requests \$19.7 million in RDT&E for continued development and test of the SDB II weapon, F-35 developmental testing and integration, Boeing BRU-61 integration and support for integration of BRU-55 racks on F-18 stations. Early operational capability fielding was approved for the F/A-18E/F on 3 October 2023 and with F-35C planned for 1QFY 2025. The DON also requests \$76.1 million in WPN funding to procure 280 AURs.

Rotary Wing Long Range Attack Missile (LRAM)

In order to address capability gaps inherent in its rotary wing and future vertical takeoff and landing (VTOL) systems, the Marine Corps requests RDTEN funding in FY 2025 to further develop a long-range, precision guided munition capable of engaging mobile land and maritime targets from standoff ranges greater than 150 nautical miles. This munition will enable the Marine Corps' extensive rotary wing fleet, and future VTOL aircraft, to deliver precision effects from standoff ranges and expeditionary air sites in collaboration with 5th generation aircraft and network-enabled targeting sources. The FY 2025 President's Budget requests \$20.3 million in RDTEN to transition the LRAM project from a Defense Innovation Acceleration (formerly Joint Capability Technology Demonstration) project to a formal Program of Record capable of fielding operational missiles to the Marine Corps' rotary wing fleet in FY 2027.

Direct Attack Weapons and General Purpose Bombs

Fully funding the GPB and JDAM line items is critical to building and maintaining the Navy's direct attack weapons inventory. The FY 2025 budget requests \$33.2 million for GPB's, \$75.1 million to procure 1,460 SABR-M(V3) JDAM kits, and \$56.7 million for more affordable practice bombs to enhance readiness and prepare for future contingencies.

DEPOT MAINTENANCE

The FRCs perform a vital role in national defense by executing maintenance, repair, overhaul, and upgrades (MRO&U) on aircraft, engines, and components, providing combat-ready weapons systems to the fleet. The FRCs' infrastructure consists primarily of World War II and Vietnam era facilities in need of major upgrades and reconfiguration in order to support aviation readiness. The FRC Infrastructure Optimization and Modernization Plan (FIOP) was developed to guide strategic investments in infrastructure improvements, while including advanced technology opportunities, optimization of workflow, and environmental and energy resiliency. When fully executed, FIOP will deliver required maintenance hangar repairs and upgrades to support current and next generation aviation weapons systems, optimize workflow within the depots through significant configuration changes to their physical layout, and recapitalize obsolete industrial plant equipment with modern technology that will substantially increase productivity and safety.

In the last five years, the DON has procured more than 330 industrial equipment assets with modern interfaces and globally recognized standards with continued construction on: the F-35B Vertical Lift Fan Test Facility, Fleet Readiness Center East (FRCE), MCAS Cherry Point, NC; the Aircraft Paint Complex, Fleet Readiness Center Southwest (FRCSW), NAS North Island, CA; broke ground on a CMV-22 maintenance hangar at FRCSW, NAS North Island, CA; constructed the Targeting and Surveillance Systems Facility, Fleet Readiness Center Southeast (FRCSE), NAS Jacksonville, FL; design and continued efforts for the F135 Engine Test Cell Facility Modification design at FRCSE, NAS Jacksonville, FL. Additionally, established a public-public partnership between the Navy and the State of North Carolina's Global TransPark (GTP) Authority to construct a \$350M MRO&U facility in support of FRCE mission and workforce with no Navy or DoD funding.

The Navy has instituted an acquisition program-equivalent measure of oversight for FIOP to provide DON leadership the ability to effectively and efficiently meet industrial sustainment goals. The FY 2025 budget requests approximately \$407 million in support of increasing aviation weapons systems maintenance throughput. The PB25 request of \$2.3 billion across the FYDP continues supporting the reconstitution of facilities, infrastructure, and recapitalization of obsolete and degraded industrial support equipment critical to meeting depot production requirements.