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Major Weapon Systems

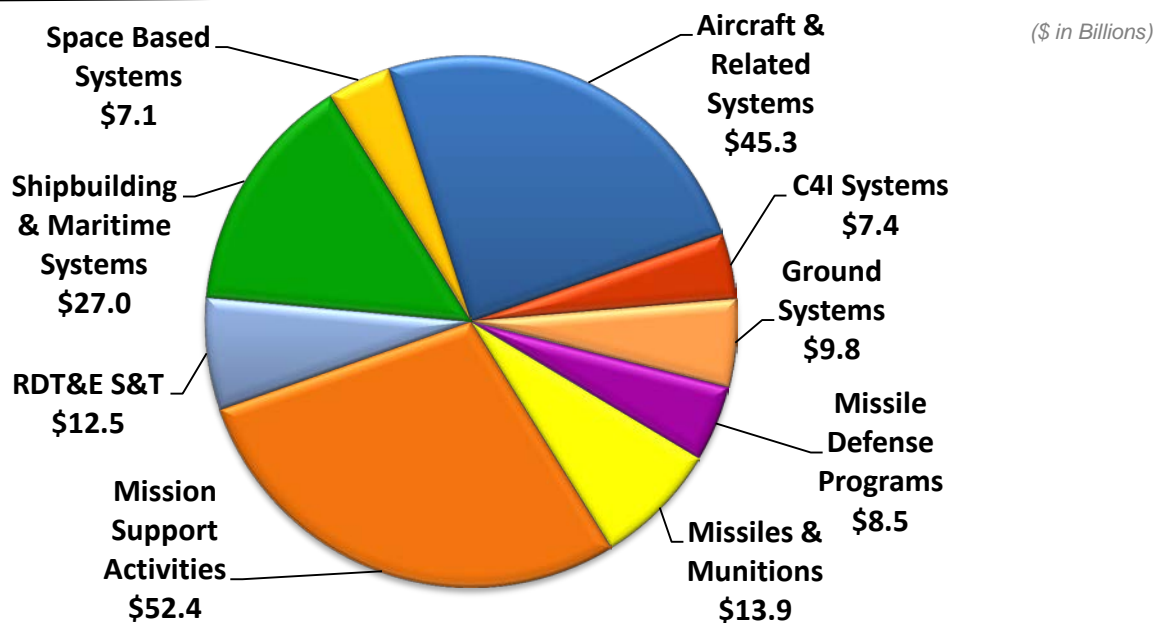
OVERVIEW

The combined capabilities and performance of United States (U.S.) weapon systems are unmatched throughout the world, ensuring that U.S. military forces have the advantage over any adversary. The Fiscal Year (FY) 2017 acquisition funding request for the Department of Defense (DoD) budget totals \$183.9 billion, which includes base funding and Overseas Contingency Operations (OCO) funding., \$112.1 billion for Procurement funded programs and \$71.8 billion for Research, Development, Test, and Evaluation (RDT&E) funded programs. Of the \$183.9 billion, \$72.7 billion is for programs that have been designated as Major Defense Acquisition Programs (MDAPs) or Major Automated Information Systems (MAIS). This book focuses on all funding for the key MDAP/MAIS programs. To simplify the display of the various weapon systems, this book is organized by the following mission area categories:

Mission Area Categories

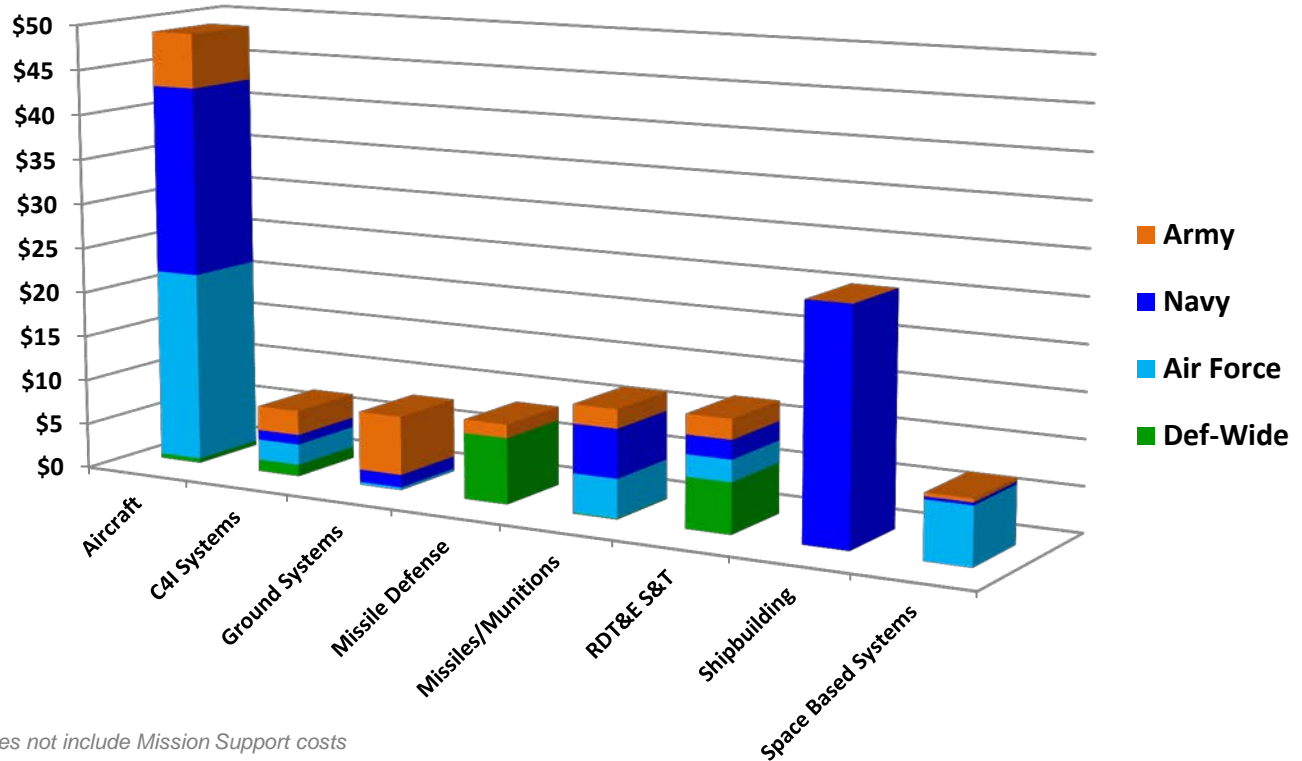
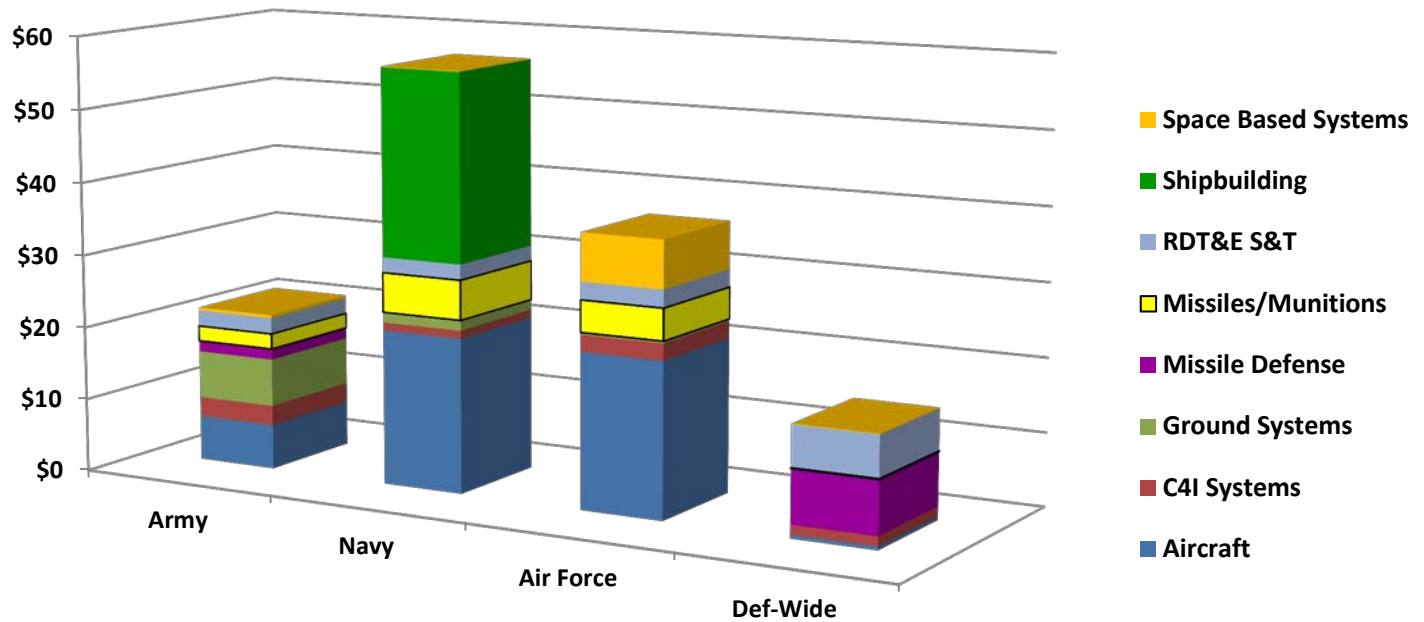
- Aircraft & Related Systems
- Command, Control, Communications, Computers, and Intelligence (C4I) Systems
- Ground Systems
- Missile Defense Programs
- Missiles and Munitions
- Mission Support Activities
- RDT&E Science & Technology
- Shipbuilding and Maritime Systems
- Space Based Systems

FY 2017 Modernization – Total: \$183.9 Billion



FY 2017 Program Acquisition Cost by Weapon System

THE DISTRIBUTION OF FUNDING IN FY 2017 FOR PROCUREMENT AND RDT&E, BY COMPONENT AND BY CATEGORY * (Dollars in Billions)

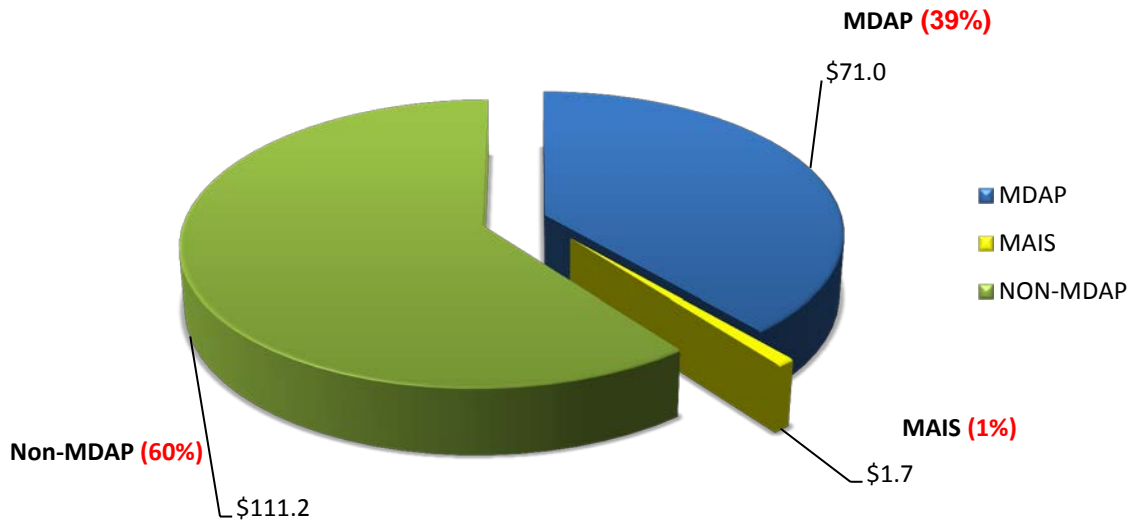


* Does not include Mission Support costs

Numbers may not add due to rounding

FY 2017 Program Acquisition Cost by Weapon System

TOTAL REQUESTED PROCUREMENT AND RDT&E FUNDING DURING FY 2017, FOR MDAP, MAIS, AND NON-MDAP PROGRAMS (Dollars in Billions)

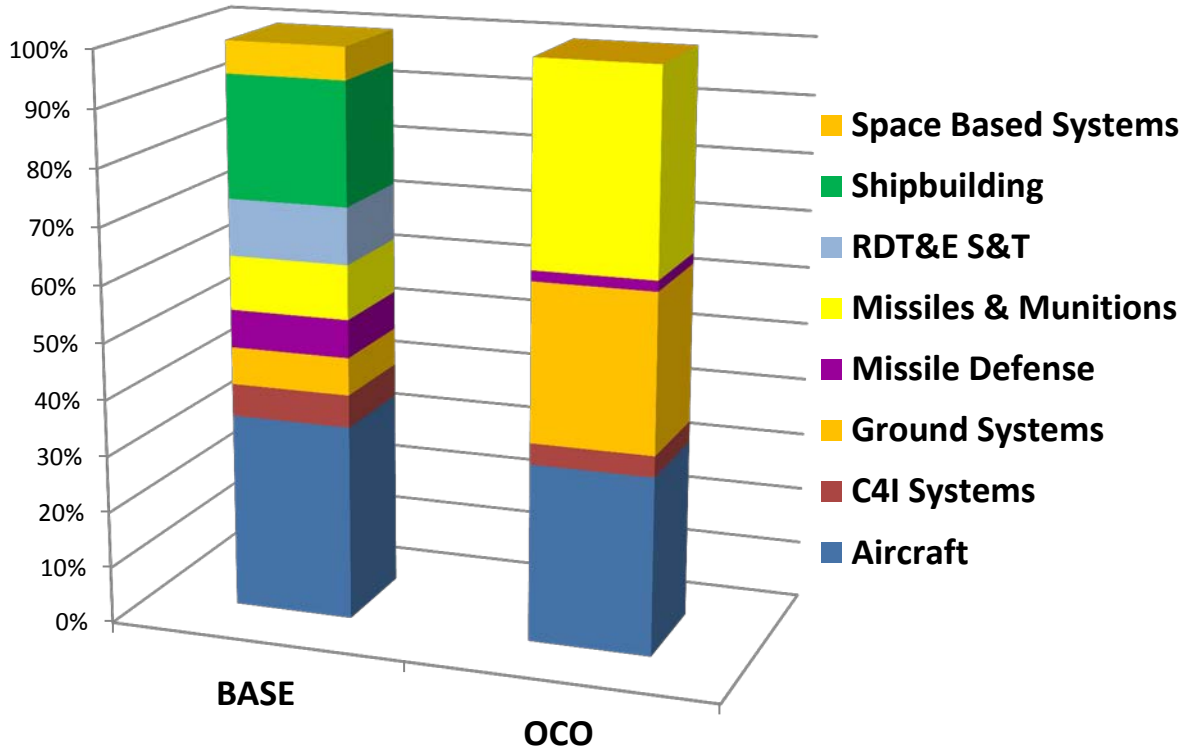


The FY 2017 President's budget request for modernization in the RDT&E and Procurement titles is comprised of 2,107 Program, Project, and Activity (PPA) line items, a portion of which finances the development and procurement of Major Defense Acquisition Programs (MDAPs) or Major Automated Information Systems (MAIS). Many MAIS and MDAP programs (Acquisition Category (ACAT) I) are not represented in this booklet because they fall below reporting criteria. In this booklet there are 62 MDAP programs that would consume \$183.9 billion in FY 2017. No MAIS programs are represented in this booklet because they fall below the nominal dollar threshold.

The purpose of the above chart is to illustrate the share in funding allotted to the MDAP, the MAIS, and the non-MDAP/MAIS efforts. While non-MDAP and non-MAIS individual programs are smaller in dollar value, they are essential to developing future technologies and procuring a wide assortment of equipment, munitions, vehicles, and weapons. The MDAP and the MAIS programs consume approximately \$72.7 billion, or 40 percent of the FY 2017 modernization funding (\$183.9 billion).

FY 2017 Program Acquisition Cost by Weapon System

FY 2017 FUNDING REQUEST FOR BASE BUDGET & OVERSEAS CONTINGENCY OPERATIONS (OCO)* (Dollars Represented by Percent)



The FY 2017 President's Budget for Investment accounts (Research, Development, Test, and Evaluation (RDT&E) and Procurement) totals \$183.9 billion, of which \$174.0 billion is requested in the Base budget, and \$9.9 billion is requested in the OCO.

The above graph illustrates the differences in content between the Base and OCO budget requests as a percent of funding in each request. Not surprisingly, the OCO finances a larger percent of missiles and munitions (yellow) and ground systems (orange) than the Base request (62 percent vs. 16 percent). These funds will be used to replenish munitions that were expended in training or combat operations, or to replace military equipment that, due to combat operations, are damaged or not economical to repair. Also funds the procurement of critical preferred munitions, which are needed to increase inventories that are low due to sustained combat operations.

The percent requested in both the Base and OCO budgets for aircraft related costs is similar (35 percent for Base, and 31 percent for OCO). The \$1.7 billion requested in the OCO budget for aircraft related costs provides for the procurement of 4 AH-64 attack helicopters, 1 C-130J transport aircraft, 24 MQ-9 Reaper Unmanned Aircraft, along with other related equipment.

* Totals exclude funding in the FY 2017 PB for Mission Support activities

Major Weapon Systems Summary				2017			Page
				Base	OCO	Total	
(\$ in Millions)		FY 2015	FY 2016	Budget	Budget	Request	
Aircraft and Related Systems – Joint Service							
MQ-1B/MQ-1C	Predator/Gray Eagle	337.5	453.6	120.8	-	120.8	1-2
MQ-9	Reaper	873.8	1,102.9	520.8	565.1	1,085.9	1-3
RQ-4 / MQ-4C	Global Hawk/Triton/NATO AGS	1,078.4	1,384.0	1,102.2	-	1,102.2	1-4
RQ-7/RQ-11/ RQ-21	Shadow, Raven, and Blackjack	285.9	278.1	222.3	75.6	297.9	1-5
C-130J	Hercules	1,570.9	2,462.2	1,266.1	73.0	1,339.1	1-6
F-35	Joint Strike Fighter	8,600.9	11,602.4	10,504.5	-	10,504.5	1-7
V-22	Osprey	1,649.8	1,609.0	1,474.9	-	1,474.9	1-8
Aircraft and Related Systems – US Army (USA)							
AH-64E	Apache: Remanufacture/New Build	1,209.4	1,419.0	1,054.6	78.0	1,132.6	1-9
CH-47	Chinook	1,052.5	1,136.3	681.8	-	681.8	1-10
UH-60	Black Hawk	1,517.1	1,768.5	976.1	-	976.1	1-11
Aircraft and Related Systems – US Navy (USN) / US Marine Corps (USMC)							
E-2D	Advanced Hawkeye	1,311.7	1,249.9	1,399.6	-	1,399.6	1-12
H-1	AH-1Z Viper/ UH-1Y Venom	942.0	867.3	844.4	-	844.4	1-13
P-8A	Poseidon	2,384.0	3,372.7	2,165.2	-	2,165.2	1-14
CH-53K	Heavy Lift Replacement Helicopter	538.2	633.6	841.8	-	841.8	1-15
VH-92A	Presidential Helicopter	356.6	507.1	338.4	-	338.4	1-16
FA-18	Super Hornet	-	350.5	-	184.9	184.9	1-17
Aircraft and Related Systems – US Air Force (USAF)							
LRS	Long Range Strike	1,568.9	1,508.3	2,197.7	-	2,197.7	1-18
F-22	Raptor	518.9	556.6	704.4	-	704.4	1-19
KC-46A	Tanker	2,336.4	2,995.9	3,318.5	-	3,318.5	1-20
F-15	Eagle	786.3	1,041.3	768.5	-	768.5	1-21
CRH	Combat Rescue Helicopter	100.0	156.1	319.3	-	319.3	1-22
C4I Systems – USA							
WIN-T	Warfighter Information Network – Tactical	802.2	771.9	452.3	9.6	461.9	2-2
HMS	Handheld, Manpack, and Small Form Fit Radios	50.2	59.1	292.4	-	292.4	2-3
Ground Systems – Joint Service							
JLTV	Joint Light Tactical Vehicle	224.3	374.5	735.4	-	735.4	3-2
Ground Systems – USA							
AMPV	Armored Multi-Purpose Vehicle	89.8	226.2	184.2	-	184.2	3-3
FHTV	Family Of Heavy Tactical Vehicles	91.2	27.5	51.0	6.1	57.1	3-4
M-1	Abrams Tank Modification	335.6	508.5	558.7	-	558.7	3-5
PIM	Paladin Integrated Management	324.6	426.2	510.8	125.2	636.0	3-6
FMTV	Family of Medium Tactical Vehicles	195.6	334.0	53.3	299.5	352.8	3-7
Stryker	Stryker	560.6	1,181.1	727.1	-	727.1	3-8
Ground Systems – USMC							
ACV	Amphibious Combat Vehicle	101.2	212.2	158.7	-	158.7	3-9
Missile Defense Programs – Joint Service							
AEGIS	AEGIS Ballistic Missile Defense	1,513.0	1,621.1	1,568.0	-	1,568.0	4-2
THAAD	Terminal High Altitude Area Defense	720.2	686.5	639.9	-	639.9	4-3

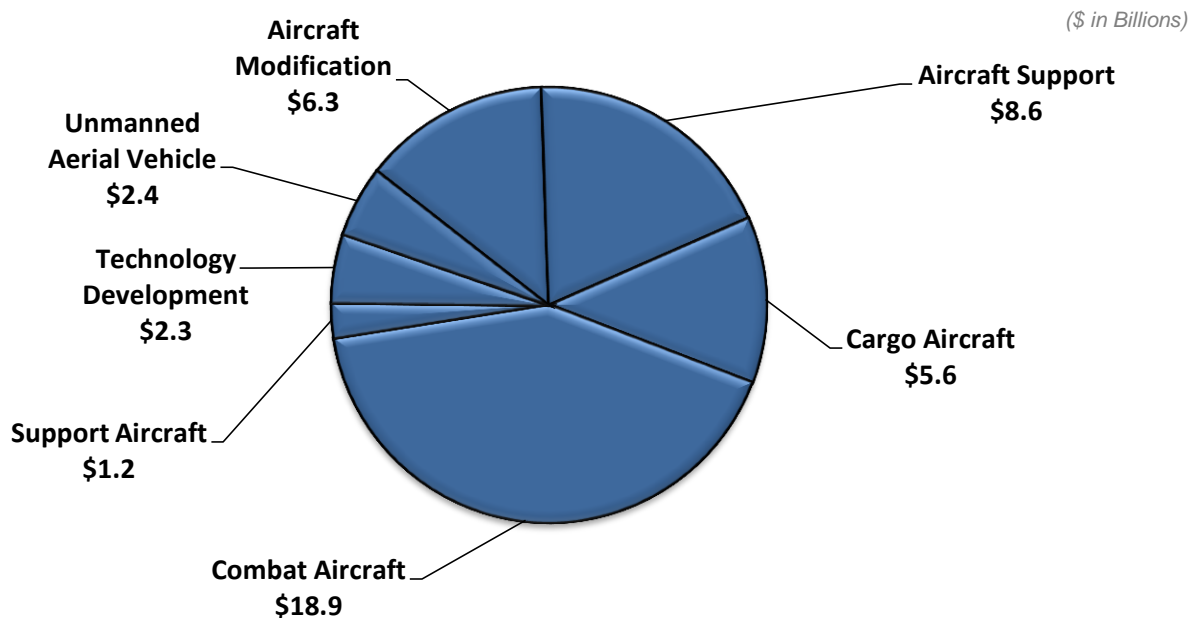
Major Weapon Systems Summary				2017			Page
				Base	OCO	Total	
(\$ in Millions)		FY 2015	FY 2016	Budget	Budget	Request	
GMD	Ground-Based Midcourse Defense	1,040.2	1,613.5	1,192.7	-	1,192.7	4-4
Missile Defense Programs – USA							
Patriot/PAC-3	Patriot Advanced Capability	278.7	364.4	315.7	-	315.7	4-5
PAC-3/MSE Missile	PAC-3/Missile Segment Enhancement Missile	566.3	517.2	423.2	-	423.2	4-6
Missiles and Munitions – Joint Service							
AMRAAM	Advanced Medium Range Air-to-Air Missile	424.3	665.4	661.7	-	661.7	5-2
AIM-9X	Air Intercept Missile - 9X	276.1	417.9	326.3	-	326.3	5-3
Chem-Demil	Chemical Demilitarization	825.5	699.8	551.0	-	551.0	5-4
JASSM	Joint Air-to-Surface Standoff Missile	341.6	436.2	462.0	-	462.0	5-5
JDAM	Joint Direct Attack Munition	249.5	563.3	351.7	427.2	778.9	5-6
SDB	Small Diameter Bomb	179.6	224.5	255.4	167.8	423.2	5-7
Hellfire	Hellfire Missiles	395.9	762.9	76.0	609.5	685.5	5-8
Missiles and Munitions – USA							
Javelin	Javelin Advanced Anti-Tank Weapon	94.4	228.0	94.5	17.2	111.7	5-9
GMLRS	Guided Multiple Launch Rocket System	170.9	287.8	194.1	76.0	270.1	5-10
Missiles and Munitions – USN							
RAM	Rolling Airframe Missile	89.1	88.9	89.7	-	89.7	5-11
Standard	Standard Family of Missiles	470.9	550.0	626.7	-	626.7	5-12
Tomahawk	Tactical Tomahawk Cruise Missile	348.7	297.8	298.1	-	298.1	5-13
Trident II	Trident II Ballistic Missile Modification	1,231.4	1,199.0	1,220.6	-	1,220.6	5-14
OASUW	Offensive Anti-Surface Weapon	181.7	285.8	341.5	-	341.5	5-15
Missiles and Munitions – USAF							
B61	B61 Tail Kit Assembly	148.3	212.1	137.9	-	137.9	5-16
Shipbuilding and Maritime Systems – USN							
CVN 78	GERALD R. FORD Class Nuclear Aircraft Carrier	2,070.7	2,771.9	2,786.4	-	2,786.4	6-2
DDG 51	ARLEIGH BURKE Class Destroyer	3,020.0	4,449.1	3,498.3	-	3,498.3	6-3
LCS	Littoral Combat Ship	1,805.7	1,816.3	1,598.9	-	1,598.9	6-4
SSN 774	VIRGINIA Class Submarine	6,162.4	5,741.7	5,322.3	-	5,322.3	6-5
SSC	Ship to Shore Connector	201.2	218.4	139.2	-	139.2	6-6
ORP	Ohio Replacement Program	1,203.2	1,390.7	1,864.3	-	1,864.3	6-7
CVN	Refueling Complex Overhaul	537.6	672.6	1,991.8	-	1,991.8	6-8
LHA(R)	America Class Amphibious Assault Ship	71.8	497.7	1,648.2	-	1,648.2	6-9
Space Based Systems – USAF							
AEHF	Advanced Extremely High Frequency	592.9	555.5	904.7	-	904.7	7-2
EELV	Evolved Expendable Launch Vehicle	1,645.3	1,478.7	1,803.0	-	1,803.0	7-3
GPS	Global Positioning System	1,004.0	870.6	847.4	-	847.4	7-4
SBIRS	Space Based Infrared System	754.4	834.4	544.5	-	544.5	7-5

Aircraft & Related Systems

Aviation forces - including fighter/attack, bomber, mobility (cargo/tanker), and specialized support aircraft, including unmanned aircraft systems — provide a versatile strike force capable of rapid deployment worldwide. These forces can quickly gain and sustain air dominance over regional aggressors, permitting rapid attacks on enemy targets while providing security to exploit the air for logistics, command and control, intelligence, and other functions. Fighter/attack aircraft operate from both land bases and aircraft carriers to combat enemy fighters and attack ground and ship targets. Bombers provide an intercontinental capability to rapidly strike surface targets. The specialized aircraft supporting conventional operations perform functions such as intelligence, surveillance, and reconnaissance; airborne warning and control; air battle management; suppression of enemy air defenses; and combat search and rescue. In addition to these forces, the U.S. military operates a variety of air mobility forces including cargo, aerial-refueling aircraft, helicopters, and support aircraft.

The FY 2017 Base and OCO funding provides for the procurement of 63 F-35 jets, 29 logistics support aircraft, 152 helicopters, and 35 Unmanned Aerial Vehicles (UAV). In addition, the funding in this category provides for the development of aircraft related technology, the procurement of aerospace equipment and systems, various modifications to existing aircraft, and the procurement of initial spares.

FY 2017 Aircraft & Related Systems – Total: \$45.3 Billion



Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

MQ-1B Predator / MQ-1C Gray Eagle

DOD - JOINT

The U.S. Air Force (USAF) MQ-1B Predator and the Army MQ-1C Gray Eagle Unmanned Aircraft Systems are comprised of aircraft configured with a multi-spectral targeting systems (electro-optical, infra-red (IR), laser designator, and IR illuminator)



providing real-time full motion video, weapons, data links, and ground control stations with communications equipment providing line-of-sight and beyond-line-of-sight control. Both systems include single-engine, propeller-driven unmanned aircraft. Special Operations Command (SOCOM) divested the MQ-1 in FY 2015, and the Air Force is in the process of divesting the MQ-1 and replacing all aircraft with MQ-9s. Starting with the FY 2015 procurement, the MQ-1C Gray Eagle will include the Improved Gray Eagle (IGE) Engineering Change Proposal (ECP), which will extend the range and endurance of the Aircraft.

Missions: Operates over-the-horizon at medium altitude for long endurance and provides real-time intelligence, surveillance, reconnaissance, and target acquisition, and strike capability to aggressively prosecute time-sensitive targets. The Army MQ-1C Gray Eagle also adds a Synthetic Aperture Radar (SAR) Ground Moving Target Indicator (GMTI), a communications relay capability, a heavy fuel engine, encrypted tactical common data link, and greater weapons capability.

FY 2017 Programs: Funds the continued development and integration of the Universal Ground Control Station and a signals intelligence capability for the MQ-1C Gray Eagle. The last year of procurement for the Army's MQ-1C Gray Eagle was FY 2016.

Prime Contractor: General Atomics–Aeronautical Systems Incorporated; San Diego, CA

MQ-1B Predator / MQ-1C Gray Eagle										
	FY 2015		FY 2016*		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E										
Gray Eagle USA	69.3	-	13.2	-	21.7	-	-	-	21.7	-
Procurement										
Predator USAF	4.8	-	3.2	-	-	-	-	-	-	-
Gray Eagle USA	263.4	19	435.3	17	99.1	-	-	-	99.1	-
SOCOM	-	-	1.9	-	-	-	-	-	-	-
Subtotal	268.2	19	440.4	17	99.1	-	-	-	99.1	-
Total	337.5	19	453.6	17	120.8	-	-	-	120.8	-

Note: FY 2016 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2016 includes \$25.2 million of OCO funding

FY 2017 Program Acquisition Costs by Weapon System

MQ-9 Reaper

DOD - JOINT

The U.S. Air Force MQ-9 Reaper Unmanned Aircraft System (UAS) Program is comprised of an aircraft segment consisting of aircraft configured with an array of sensors to include day/night Full Motion Video (FMV), Signals Intelligence (SIGINT), and Synthetic Aperture Radar (SAR) sensor payloads, avionics, data links and weapons; a Ground control segment consisting of a Launch and Recovery Element, and a Mission Control Element with embedded Line-of-Sight and Beyond-Line-of-Sight communications equipment. The Reaper is a single-engine, turbo-prop, remotely piloted armed reconnaissance aircraft designed to operate over-the-horizon at medium altitude for long endurance.



Mission: Provides reconnaissance and embedded strike capability against time-critical targets.

FY 2017 Program: Funds the continued development, transformation and fielding of Reaper aircraft and ground stations. The base request includes the procurement of 26 fixed ground control stations, a training simulator, and continues the modification of MQ-9s to the extended range configuration. The OCO request includes the procurement of 24 additional aircraft, updated multi-spectral sensors and payload modifications.

Prime Contractor: General Atomics–Aeronautical Systems Incorporated; San Diego, CA

MQ-9 Reaper										
	FY 2015*		FY 2016**		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E										
USAF	141.5	-	122.7	-	151.4	-	-	-	151.4	-
SOCOM	14.4	-	22.2	-	17.8	-	-	-	17.8	-
Subtotal	155.9	-	144.9	-	169.2	-	-	-	169.2	-
Procurement										
USAF	699.3	24	940.8	33	341.0	-	565.1	24	906.1	24
SOCOM	18.6	-	17.2	-	10.6	-	-	-	10.6	-
Subtotal	717.9	24	958.0	33	351.6	-	565.1	24	916.7	24
Total	873.8	24	1,102.9	33	520.8	-	565.1	24	1,085.9	24

Note: FY 2015 & FY 2016 include Base and OCO funding
Procurement funding includes mods, spares and other production support

Numbers may not add due to rounding

* FY 2015 includes \$10.9 million of OCO funding

** FY 2016 includes \$82.5 million of OCO funding

FY 2017 Program Acquisition Costs by Weapon System

RQ-4 Global Hawk / MQ-4C Triton / NATO AGS DOD - JOINT

The U.S. Air Force (USAF) RQ-4 Global Hawk, Navy MQ-4C Triton, and NATO Alliance Ground Surveillance (AGS) Unmanned Aircraft System programs provide high altitude long endurance Intelligence, Surveillance, and Reconnaissance (ISR)



capabilities. The RQ-4 Block 30 includes a multi-intelligence suite for imagery and signals intelligence collection, and the Block 40 includes multi-platform radar technology for synthetic aperture radar (SAR) imaging and moving target detection. The final three RQ-4 Block 30 aircraft will be delivered in FY 2017. The MQ-4C will provide the Navy with a persistent maritime ISR capability. Mission systems include inverse SAR, Electro-optical/Infra-red Full Motion Video, maritime moving target detection, Electronic Support Measures (ESM), Automatic Identification System (AIS), a basic communications relay capability, and Link-16. Five NATO AGS aircraft are being procured with development funding and will complete deliveries by mid-FY 2017.

Mission: The USAF and NATO AGS RQ-4 systems perform high-altitude, near-real-time, high-resolution ISR collection, while the MQ-4C provides persistent maritime ISR. Both AF and Navy systems support Combatant Commander requirements, while the MQ-4C also supports the numbered Fleet commanders from five worldwide sites.

FY 2017 Program: RQ-4: Funds the development and modification efforts for the Block 30, Block 40, ground stations, and Multi-Platform Radar Technology Insertion programs; the Global Hawk modernization program; and the U.S. contribution to the NATO AGS. MQ-4C: Funds the procurement of 2 Low Rate Initial Production (LRIP) systems and continues to fund development activities associated with software upgrades and the multi-intelligence effort.

Prime Contractor: Northrop Grumman; Rancho Bernardo, CA

RQ-4 Global Hawk / MQ-4C Triton / NATO AGS										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget \$M	Qty	OCO Budget \$M	Qty	Total Request \$M	Qty
RDT&E										
RQ-4, USAF	241.8	-	188.1	-	256.3	-	-	-	256.3	-
RQ-4, NATO	232.9	-	138.4	-	38.9	-	-	-	38.9	-
MQ-4, USN	449.2	-	357.0	-	293.0	-	-	-	293.0	-
Subtotal	923.9	-	683.5	-	588.2	-	-	-	588.2	-
Procurement										
RQ-4, USAF	86.8	-	80.8	-	49.3	-	-	-	49.3	-
MQ-4, USN	67.7	-	619.7	4	464.7	2	-	-	464.7	2
Subtotal	154.5	-	700.5	4	514.0	2	-	-	514.0	2
Total	1,078.4	-	1,384.0	4	1,102.2	2	-	-	1,102.2	2

Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

Small Tactical Unmanned Aircraft Systems

DOD - JOINT

The RQ-7 Shadow, RQ-11 Raven, RQ-20 Puma and RQ-21 Blackjack Unmanned Aircraft Systems (UAS) provide organic Reconnaissance, Surveillance, Target Acquisition (RSTA) capabilities and are embedded in maneuver formations capable of providing crucial information to the ground commander.



Mission: The Army/USMC RQ-7 Shadow and USMC/Navy RQ-21 Blackjack provide the tactical maneuver commander near real-time RSTA and force protection during day/night and limited adverse weather conditions. The Army/USMC/SOCOM multi-sensor RQ-11 Raven and USMC/SOCOM RQ-20 Puma provides an “over-the-hill,” rucksack-portable, day/night, limited adverse weather, remotely-operated capability that supports selected combat and combat support units. The multi-sensor RQ-21 Blackjack is runway independent, requiring minimal space for takeoff and recovery from an unimproved expeditionary/urban environment, as well as from the decks of Navy ships.

FY 2017 Program: Funds upgrades to system hardware and payloads for the RQ-7 Shadow. Procures upgrades and provides training and contractor logistics support for the RQ-11 Raven. Procures RQ-20 Puma systems for the USMC and SOCOM. Procures a total of 8 systems (base and OCO) and provides contractor logistics support for the RQ-21 Blackjack.

Prime Contractors: RQ-7 Shadow: Textron Systems Unmanned Systems; Hunt Valley, MD
RQ-20 Puma: AeroVironment, Incorporated; Simi Valley, CA
RQ-21 Blackjack: INSITU, Incorporated; Bingen, WA

RQ-7 Shadow / RQ-11 Raven / RQ-20 Puma / RQ-21 Blackjack										
	FY 2015 **		FY 2016 ***		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E *	31.3	-	20.4	-	44.2	-	-	-	44.2	-
Procurement										
Shadow/Raven (Army)	129.4	-	89.7	-	71.2	-	1.8	-	73.0	-
Shadow/Puma (USMC)	4.5	-	17.2	-	5.5	-	3.8	-	9.3	-
Puma (SOCOM)	6.4	-	15.6	-	21.2	-	-	-	21.2	-
Blackjack (Navy)	45.0	3	57.3	3	-	-	70.0	4	70.0	4
Blackjack (USMC)	69.3	3	77.9	3	80.2	4	-	-	80.2	4
Subtotal	254.6	6	257.7	6	178.1	4	75.6	4	253.7	8
Total	285.9	6	278.1	6	222.3	4	75.6	4	297.9	8

* Reflects total RDT&E funding for all three systems across the Army, USMC and SOCOM

Numbers may not add due to rounding

Note: FY 2015 & FY 2016 include Base and OCO funding

** FY 2015 includes \$56.7 million of OCO funding

*** FY 2016 includes \$75.5 million of OCO funding

FY 2017 Program Acquisition Costs by Weapon System

C-130J Hercules

DOD - JOINT

The C-130J Hercules is a medium-sized tactical transport airlift aircraft that is modernizing the U.S. tactical airlift capability. It is capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments including deployment and redeployment of troops and/or supplies within/between command areas in a theater of operation, aeromedical evacuation, air logistics support, and augmentation of strategic airlift forces. The C-130J aircraft, with its extended fuselage, provides additional cargo carrying capacity for the Air Force combat delivery mission compared to the legacy C-130E/H and the C-130J (short) aircraft. Special mission variants of the C-130J conduct airborne psychological operations (EC-130J), weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). The KC-130J provides the Marine Corps with air-to-air refueling/tactical transport capability; airborne radio relay; intelligence, surveillance, and reconnaissance; and close air support to replace the KC-130 F/R/T aircraft.



Mission: Provides responsive air movement and delivery of combat troops/supplies directly into objective areas through air landing, extraction, and airdrop and the air logistic support of theater forces.

FY 2017 Program: Continues the Multiyear Procurement (MYP) for C-130J aircraft from FY 2014 to FY 2018, procuring 14 aircraft in FY 2017.

Prime Contractor: Lockheed Martin Corporation; Marietta, GA

C-130J Hercules										
	FY 2015*		FY 2016		FY 2017**					
	M	Qty	M	Qty	Base Budget		OCO Budget		Total Request	
					M	Qty	M	Qty	M	Qty
RDT&E										
HC/MC-130	4.5	-	10.8		14.0	-	-	-	14.0	-
C-130J	26.7	-	25.0		16.8	-	-	-	16.8	-
Subtotal	31.2	-	35.8	-	30.8	-	-	-	30.8	-
Procurement										
C-130J	692.4	8	891.6	14	145.7	2	73.0	1	218.7	3
HC/MC-130	755.0	7	1,325.3	13	935.9	9	-	-	935.9	9
Subtotal	1,447.4	15	2,216.9	27	1,081.6	11	73	1	1,154.6	12
Procurement										
KC-130J	92.3	1	209.5	2	153.7	2	-	-	153.7	2
Subtotal	92.3	1	209.5	2	153.7	2	-	-	153.7	2
Spares										
	-	-	-	-	-	-	-	-	-	-
Total	1,570.9	16	2,462.2	29	1,266.1	13	73.0	1	1,339.1	14

* FY 2015 includes \$70 million of OCO funding for one C-130J aircraft

Numbers may not add due to rounding

** FY 2017 includes \$73 million of OCO funding for one C-130J aircraft

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

F-35 Joint Strike Fighter

DOD - JOINT

The F-35 Joint Strike Fighter (JSF) is the next-generation strike fighter for the Navy, Marine Corps, Air Force, and U.S. Allies. The F-35 consists of three variants: the F-35A Conventional Take-Off and Landing (CTOL), the F-35B Short Take-Off and Vertical Landing (STOVL), and the F-35C Carrier variant (CV). The F-35A CTOL replaces the Air Force F-16 and A-10, and complements the F-22; the F-35B STOVL replaces the Marine Corps AV-8B and F/A-18A/C/D; the F-35C CV complements the F/A-18E/F for the Navy, and will also be flown by the Marine Corps.



Mission: Provides all-weather, precision, stealthy, air-to-air, and ground strike capability, including direct attack on the most lethal surface-to-air missiles and air defenses.

FY 2017 Program: Continues development of the air system, F135 single engine propulsion system, and conducts systems engineering, development and operational testing, and supports Follow-on Development. Procures a total of 63 aircraft: 43 CTOL for the Air Force, 16 STOVL for the Marine Corps, and 4 CV for the Navy in FY 2017.

Prime Contractors: Lockheed Martin Corporation; Fort Worth, TX
Pratt & Whitney; Hartford, CT

F-35 Joint Strike Fighter										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E										
USN	995.3	-	1,084.6	-	1,197.8	-	-	-	1,197.8	-
USAF	606.2	-	640.9	-	603.5	-	-	-	603.5	-
Subtotal	1,601.5	-	1,725.5	-	1,801.3	-	-	-	1,801.3	-
Procurement										
USN	2,442.6	10	3,685.5	21	3,303.9	20	-	-	3,303.9	20
USAF	4,232.4	28	5,790.2	47	4,982.2	43	-	-	4,982.2	43
Subtotal	6,674.9	38	9,475.8	68	8,286.1	63	-	-	8,286.1	63
Spares	324.4	-	401.1	-	417.1	-	-	-	417.1	-
Total	8,600.9	38	11,602.4	68	10,504.5	63	-	-	10,504.5	63

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

V-22 Osprey

DOD - JOINT

The V-22 Osprey is a tilt-rotor, vertical takeoff and landing aircraft designed to meet the amphibious/vertical assault needs of the Marine Corps, the strike rescue needs of the Navy, and the long range special operations forces (SOF) missions for U.S. Special Operations Command (SOCOM). The aircraft is designed to fly 2,100 miles with one in-flight refueling, giving the Services the advantage of a vertical and/or short takeoff and landing aircraft that can rapidly self-deploy to any location in the world.



Mission: Conducts airborne assault, vertical lift, combat search and rescue, and special operations missions.

FY 2017 Program: Funds the fifth and final year of a follow-on 5-year multiyear procurement contract (FY 2013 to 2017) with the procurement of 16 MV-22 aircraft for the U. S. Marine Corps. The last year of procurement for the Air Force-SOCOM CV-22 was FY 2014; however, the FY 2016 Appropriations Act added one CV-22 for Air Force attrition reserve.

Prime Contractor: Bell Helicopter Textron, Incorporated; Fort Worth, TX
The Boeing Company; Philadelphia, PA

V-22 Osprey										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E										
USN	50.2	-	76.5	-	174.4	-	-	-	174.4	-
USAF	37.7	-	27.8	-	16.7	-	-	-	16.7	-
Subtotal	87.9	-	104.3	-	191.1	-	-	-	191.1	-
Procurement										
USN	1,546.9	19	1,440.2	19	1,283.8	16	-	-	1,283.8	16
USAF	15.0	-	64.5	1	-	-	-	-	-	-
Subtotal	1,561.9	19	1,504.7	20	1,283.8	16	-	-	1,283.8	16
USN Subtotal	1,597.1	19	1,516.7	19	1,458.2	16	-	-	1,458.2	16
USAF Subtotal	52.7	-	92.3	1	16.7	-	-	-	16.7	-
Total	1,649.8	19	1,609.0	20	1,474.9	16	-	-	1,474.9	16

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

AH-64E Apache

USA

The AH-64E Apache program is a remanufacture effort, which integrates a mast-mounted fire control radar into an upgraded and enhanced AH-64 airframe.

The remanufacture effort results in a zero-time Longbow Apache, which restarts its service life and upgrades the aircraft with updated technologies and performance enhancements to keep the Apache viable throughout its lifecycle. This program also provides for the installation of the Target Acquisition

Designation Sight and Pilot Night Vision Sensors, plus other safety and reliability enhancements.

Mission: Conducts armed reconnaissance, close combat, mobile strike, and vertical maneuver missions in day, night, obscured battlefield, and adverse weather conditions.

FY 2017 Program: Funds the remanufacture of 48 AH-64D aircraft to the AH-64E configuration in the first year of a 5-year multiyear procurement (MYP) contract (FY 2017 – FY 2021) and continued development of upgrades to enhance operational capabilities. Procures 4 AH-64E aircraft in the Overseas Contingency Operations request.

Prime Contractors: Apache: The Boeing Company; Mesa, AZ

Integration: Northrop Grumman Corporation; Baltimore, MD
Lockheed Martin Corporation; Oswego, NY



US Army Photo

AH-64E Apache										
	FY 2015 *		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	86.1	-	65.6	-	66.4	-			66.4	-
Procurement	1,123.3	48	1,353.4	64	988.2	48	78.0	4	1,066.2	52
Total	1,209.4	48	1,419.0	64	1,054.6	48	78.0	4	1,132.6	52

Note: FY 2015 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2015 includes \$394.0 million of OCO funding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

CH-47 Chinook

USA

The CH-47F Improved Cargo Helicopter program procures new and remanufactured Service Life Extension Program CH-47F helicopters.

The aircraft includes an upgraded digital cockpit and

modifications to the airframe

to reduce vibration. The upgraded cockpit includes a digital data bus that

permits installation of enhanced communications and navigation equipment

for improved situational awareness, mission performance,

and survivability. The new aircraft uses more powerful T55-GA-714A engines that improve fuel efficiency and enhance lift performance. These aircraft are fielded to heavy helicopter companies and Special Operations Aviation. The New Build program procured all new CH-47F aircraft and procured 8 new MH-47G aircraft for the U.S. Special Operations Command (SOCOM). The last year of procurement for the SOCOM MH-47G aircraft was FY 2013 and the last year of procurement of the CH-47F new build aircraft was FY 2016. The CH-47F ReNew/Service Life Extension Program (SLEP) program rebuilds and replaces CH-47Ds to the CH-47F configuration and upgrades 59 Special Operation MH-47s to the MH-47G configuration. The CH-47F is expected to remain the Army's heavy lift helicopter until at least the 2038 timeframe.

Mission: Transports ground forces, supplies, ammunition, and other battle-critical cargo in support of worldwide combat and contingency operations.

FY 2017 Program: Funds the fifth and final year of a 5-year multiyear procurement (MYP) contract (FY 2013 - FY 2017) with the procurement of 22 ReNew/SLEP aircraft.

Prime Contractor: The Boeing Company; Philadelphia, PA

CH-47 Chinook

	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	35.4	-	32.4	-	91.8	-	-	-	91.8	-
Procurement										
USA	994.9	32	1,103.9	39	565.0	22	-	-	565.0	22
SOCOM	22.2	-	-	-	25.0	-	-	-	25.0	-
Subtotal	1,017.1	32	1,103.9	39	590.0	22	-	-	590.0	22
Total	1,052.5	32	1,136.3	39	681.8	22	-	-	681.8	22

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

UH-60 Black Hawk

The UH-60 Black Hawk is a twin engine, single-rotor, four bladed utility helicopter that is designed to carry a crew of four and a combat equipped squad of 11 or an external load up to 9,000 lbs. The UH-60 comes in many variants, and with many different modifications. Variants may have different capabilities and equipment in order to fulfill different roles. The Army variants can be fitted with stub wings to carry additional fuel tanks or weapons.

US Army Photo



The UH-60M Black Hawk is a digital networked platform with greater range and lift to support maneuver Commanders through air assault, general support command and control, and aeromedical evacuation. An HH-60M is a UH-60M Black Hawk integrated with the Medical Evacuation (MEDEVAC) Mission Equipment Package (MEP) kit, which provides day/night and adverse weather emergency evacuation of casualties.

Mission: Provides a highly maneuverable, air transportable, troop carrying helicopter for all intensities of conflict, without regard to geographical location or environmental conditions. It moves troops, equipment, and supplies into combat and performs aeromedical evacuation and multiple functions in support of the Army's air mobility doctrine for employment of ground forces.

FY 2017 Program: Funds the procurement of 36 UH-60M aircraft in the first year of a follow-on 5-year multiyear procurement (MYP) contract (FY 2017 – FY 2021). Also funds the continued development of the digital upgrades to the UH-60L, now designated as the UH-60V.

Prime Contractor: Sikorsky Aircraft; Stratford, CT

UH-60 Black Hawk										
	FY 2015 *		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	48.4	-	66.7	-	46.8	-	-	-	46.8	-
Procurement	1,468.7	105	1,701.8	107	929.3	36	-	-	929.3	36
Total	1,517.1	105	1,768.5	107	976.1	36	-	-	976.1	36

Note: FY 2015 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2015 includes \$16.2 million of OCO funding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

E-2D Advanced Hawkeye

The E-2D Advanced Hawkeye is an airborne early warning, all weather, twin-engine, carrier-based aircraft designed to extend task force defense perimeters. The Advanced Hawkeye provides improved battlespace target detection and situational awareness, especially in the littorals; supports the Theater Air and Missile Defense operations; and improves operational availability for the radar system. Relative to the E-2C, this variant of the E-2 provides increased electrical power, a strengthened fuselage, and upgraded radar system, communications suite, and mission computer.



Mission: Provides theater air and missile sensing and early warning; battlefield management command and control; acquisition tracking and targeting of surface warfare contacts; surveillance of littoral area objectives and target; and tracking of strike warfare assets.

FY 2017 Program: Funds six E-2D aircraft in the fourth year of a multiyear procurement contract, associated support, and funds advance procurement for future aircraft.

Prime Contractors: Airframe: Northrop Grumman Corporation; Bethpage, NY (Engineering) and St. Augustine, FL (Manufacturing)
 Engine: Rolls-Royce Corporation; Indianapolis, IN
 Radar: Lockheed Martin Corporation; Syracuse, NY

E-2D Advanced Hawkeye										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	171.2	-	217.6	-	363.8	-	-	-	363.8	-
Procurement	1,128.9	5	1,024.5	5	1,015.5	6	-	-	1,015.5	6
Spares	11.6	-	7.8	-	20.4	-	-	-	20.4	-
Total	1,311.7	5	1,249.9	5	1,399.6	6	-	-	1,399.6	6

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

H-I Program: AH-IZ Viper / UH-IY Venom



The H-I program replaces the AH-1W Super Cobra and the UH-1N Huey helicopters with the AH-IZ Viper and UH-IY Venom, the next generation of USMC Attack and Utility aircraft. Speed, range, and payload have been increased significantly, while supportability demands, training timelines, and total ownership cost have decreased.



The advanced cockpit is common to both aircraft, reduces operator workload, improves situational awareness, and provides growth potential for future weapons and joint digital interoperability enhancements. The cockpit systems assimilate onboard planning, communications, digital fire control, all weather navigation, day/night targeting, and weapons systems in mirror-imaged crew stations. The procurement strategy converts 37 AH-1W helicopters into AH-IZs, builds 152 new AH-IZs, remanufactures 10 H-1N helicopters into UH-IYs, and builds 150 new UH-IYs. Both aircraft are in full rate production. The FY 2016 procurement of 13 UH-IY aircraft completed the program of record procurement of 160 UH-IY aircraft.

Mission: AH-IZ: Provides close air support, air interdiction, armed reconnaissance, strike coordination and reconnaissance, forward air control (airborne), and aerial escort during day/night operations in support of naval expeditionary operations or joint and combined operations. UH-IY: Provides combat assault transport, close air support, armed reconnaissance, strike coordination and reconnaissance, forward air control (airborne), air delivery, airborne command and control, aerial escort and air evacuation during day/night and reduced weather conditions.

FY 2017 Program: Funds the procurement of 24 new build AH-IZ aircraft. Funds developmental efforts to support follow-on improvements to sensors and weapons integration, avionics, and air vehicle components that will address deficiencies, systems safety, obsolescence, reliability, and cost growth issues for both the AH-IZ and UH-IY helicopters.

Prime Contractor: Bell Helicopter Textron, Incorporated; Fort Worth, TX

H-I Program (AH-IZ Viper / UH-IY Venom)										
	FY 2015 *		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	43.5	-	27.2	-	27.4	-	-	-	27.4	-
Procurement	898.5	28	840.1	29	817.0	24	-	-	817.0	24
Total	942.0	28	867.3	29	844.4	24	-	-	844.4	24

Note: FY 2015 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2015 includes \$30.0 million of OCO funding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

P-8A Poseidon

The P-8A Poseidon is an multi-mission platform designed to replace the P-3C Orion propeller driven aircraft. This derivative of the Boeing 737 aircraft is an all weather, twin engine, maritime patrol aircraft designed to sustain and improve armed maritime and littoral



capabilities in traditional, joint, and combined roles to counter changing and emerging threats. All sensors onboard contribute to a single fused tactical situation display, which is then shared over both military standard and internet protocol data links, allowing for seamless delivery of information between U.S. and allied forces. The P-8A will carry a new radar array, which is a modernized version of the Raytheon APS-149 Littoral Surveillance Radar System.

Mission: Provides Maritime Patrol Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASuW), and armed Intelligence, Surveillance and Reconnaissance (ISR) capabilities in maritime and littoral areas above, on, and below the surface of the ocean.

FY 2017 Program: Procures 11 P-8A aircraft, support equipment and spares, and provides advance procurement for future aircraft. Continues research and development on the P-8A capabilities to meet the ASW, ASuW, and ISR objectives that will be delivered incrementally while full rate production continues for the baseline aircraft.

Prime Contractors: Airframe: Boeing; Seattle, WA
Engine: CFM International; Cincinnati, OH

P-8A Poseidon										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	212.6	-	142.3	-	57.1	-	-	-	57.1	-
Procurement	2,171.1	9	3,228.8	17	2,063.4	11	-	-	2,063.4	11
Spares	0.2	-	1.6	-	44.7	-	-	-	44.7	-
Total	2,384.0	9	3,372.7	17	2,165.2	11	-	-	2,165.2	11

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

CH-53K Heavy Lift Replacement Helicopter



The CH-53K is a maritized heavy-lift helicopter that replaces the U. S. Marine Corps (USMC) CH-53E, which was introduced in 1980. The CH-53K will provide improvements in lift and range capabilities, performance, commonality, cargo-handling,



reliability, maintainability, interoperability, ship integration, survivability, and force protection. The CH-53K is designed to support Marine Air-Ground Task Force (MAGTF) heavy-lift requirements in the 21st century joint environment, and is the only heavy-lift platform that can lift the MAGTF ashore. It will provide an unparalleled high-altitude lift capability with nearly three times the external lift capacity of the CH-53E. A total of 194 aircraft are planned for procurement. First flight was completed in October 2015, and the program is working towards a Milestone C decision in early FY 2017.

Mission: Conducts expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from a sea-based center of operations.

FY 2017 Program: Funds the continuing Engineering and Manufacturing Development (EMD) effort and the procurement of the first two Low-Rate Initial Production (LRIP) aircraft.

Prime Contractor: Sikorsky Aircraft Corporation; Stratford, CT

CH-53K Heavy Lift Replacement Helicopter										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	538.2	-	592.3	-	404.8	-	-	-	404.8	-
Procurement	-	-	41.3	-	437.0	2	-	-	437.0	2
Total	538.2	-	633.6	-	841.8	2	-	-	841.8	2

Numbers may not add due to rounding

AIRCRAFT

FY 2017 Program Acquisition Costs by Weapon System

VH-92A Presidential Helicopter



The VH-92A replaces the legacy Presidential Helicopter fleet – the VH-3D, which was fielded in 1974 and the VH-60N, which was fielded in 1989. The VH-92A will be based on Sikorsky’s commercial S-92A helicopter. The VH-92A’s acquisition Strategy involves the integration of mature government-defined mission systems and an executive interior into an existing air vehicle.



Acquisition Milestone B was achieved in April 2014, and the Engineering and Manufacturing Development (EMD) contract was awarded to Sikorsky

Aircraft Corporation in May 2014. A total of 21 operational aircraft will be procured. Two Engineering Development Model (EDM) and four System Demonstration Test Article (SDTA) aircraft will be delivered during EMD. The two EDM aircraft were acquired in FY 2015. The first two SDTA aircraft were acquired in FY 2016.

Mission: Provide safe, reliable and timely transportation for the President, Vice President, Foreign Heads of State, and other official parties as directed by the Director of the White House Military Office. Mission tasking includes administrative lift and contingency operations.

FY 2017 Program: Funds the continuing EMD effort, including: the integration of systems; production, qualification, and support of test articles; logistics products development; and the demonstration of system integration, interoperability, safety and utility. Also, funds the acquisition of the remaining two SDTA aircraft.

Prime Contractor: Sikorsky Aircraft Corporation; Stratford, CT

VH-92A Presidential Helicopter										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	356.6	-	507.1	-	338.4	-	-	-	338.4	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	356.6	-	507.1	-	338.4	-	-	-	338.4	-

Numbers may not add due to rounding

AIRCRAFT

FY 2017 Program Acquisition Costs by Weapon System

F/A – 18 Super Hornet



The F/A-18 E/F Super Hornet is a carrier-based multi-role tactical fighter and attack aircraft. Two versions are being produced: the single-seat E model and the two-seat model.

The Super Hornet is an attack aircraft as well as a fighter through selected use of external equipment and advanced networking capabilities to accomplish specific missions. This “force multiplier” capability gives the operational commander more flexibility in employing tactical aircraft in a rapidly changing battle scenario. In its fighter mode, it serves

as escort and fleet air defense. In its attack mode, it provides force projection, interdiction, and close and deep air support. In FY 2017, there are no EA-18G (Growler) aircraft scheduled for procurement. In FY 2015, fifteen aircraft were procured at \$1.5 billion and in FY 2016, ten aircraft at \$0.9 billion.



Image courtesy of US Navy



Mission: Provides multi-role attack and strike fighter capability which includes the traditional applications, such as fighter escort and fleet air defense, combined with the attack applications, such as interdiction and close air support.

FY 2017 Program: Procures two aircraft to replace combat losses

Prime Contractors: Airframe: Boeing; St. Louis, MO
Engine: General Electric Company; Lynn, MA

F/A-18 E/F Super Hornet										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	-	-	-	-	-	-	-	-	-	-
Procurement	-	-	350.0	5	-	-	184.9	2	184.9	2
Spares	-	-	-	-	-	-	-	-	-	-
Total	-	-	350.0	5	-	-	184.9	2	184.9	2

Note: Table includes funding for FA-18 E/F aircraft only

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Long Range Strike

Long Range Strike (LRS) is intended to counter post-2020 challenges to DoD's power projection capabilities. The LRS initiatives, collectively termed "Family of Systems" (FoS), will provide a synergistic, more cost-effective force multiplier power projection capability in the post-2020 threat environment. LRS includes the next generation and legacy bombers. Current bombers in the Air Force inventory are the B-1, B-2, and B-52 aircraft. The Long Range Strike Bomber (LRS-B) is a new, high-tech long range bomber that will eventually replace the Air Force's aging bomber fleet. The next generation follow-on bomber, the LRS-B, will be a key component of the joint portfolio of conventional and nuclear deep-strike capabilities.



Mission: Flies into enemy territory to destroy strategic targets such as major military installations, factories and cities to debilitate an adversary's capacity to wage war. The B-1 bomber can perform a variety of missions, including that of conventional carrier for theater operations and can rapidly deliver massive quantities of precision and non-precision weapons against any adversary, worldwide, at any time. The B-2 aircraft delivers both conventional and nuclear munitions, capable of massive firepower in short time anywhere. The B-52 aircraft maintains nuclear or conventional missions. Mission details of the LRS-B are currently classified.

FY 2017 Program: Begins engineering and manufacturing development of the next generation LRS-B and continues the modernization of legacy strategic bombers.

Prime Contractors: Northrop Grumman Aerospace Systems; Palmdale, CA

Long Range Strike										
	FY 2015*		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	1,136.8	-	1,193.1	-	1,910.5	-	-	-	1,910.5	-
Procurement	399.6	-	291.5	-	272.1	-	-	-	272.1	-
Spares	32.5	-	23.6	-	15.1	-	-	-	15.1	-
Total	1,568.9	-	1,508.3	-	2,197.7	-	-	-	2,197.7	-

*FY 2015 includes \$91.9 million OCO funding for B-1B modifications.

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

F-22 Raptor



The F-22 Raptor program is a fifth generation air Superiority aircraft fighter. The F-22 will penetrate enemy airspace and achieve first-look, first-kill capability against multiple targets. It has unprecedented survivability and lethality, ensuring the Joint Forces have freedom from attack, freedom to maneuver, and freedom to attack.



Mission: Provides enhanced U.S. air superiority/global strike capability to counter and defeat air-air and air-ground threats in a highly contested environment by conducting counter air, Destruction of Enemy Air Defenses (DEAD), and cruise missile defense missions.

FY 2017 Program: Continues critical planned modernization for F-22 aircraft via incremental capability upgrades and key reliability and maintainability improvements. Continues development and test of advanced air superiority capabilities to include integration of AIM-120D and AIM-9X, additional electronic protection, and improved geolocation. Continues fielding of Increment 3.1 advanced Global Strike capabilities such as Small Diameter Bomb I, Synthetic Aperture Radar and Geolocation, and funding to support 3.2B retrofit in FY 2017.

Prime Contractors: Lockheed Martin; Marietta, GA and Fort Worth, TX
Boeing; Seattle, WA
Pratt & Whitney; Hartford, CT

F-22 Raptor										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	310.2	-	372.2	-	457.9	-	-	-	457.9	-
Procurement	208.7	-	180.4	-	241.4	-	-	-	241.4	-
Spares	-	-	2.9	-	5.2	-	-	-	5.2	-
Total	518.9	-	555.6	-	704.4	-	-	-	704.4	-

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

KC-46A Tanker

The KC-46, an aerial refueling tanker, will provide aerial refueling support to the Air Force, Navy, and Marine Corps as well as U.S. Allies aircraft. The aircraft provides increased refueling capacity, improved efficiency, and increased cargo and aeromedical evacuation capability over the current KC-135 Stratotanker, which is more than 50 years old. The first phase of aerial refueling tanker recapitalization will procure 179 aircraft, approximately one-third of the current KC-135 tanker fleet. Envisioned KC-Y and KC-Z programs will ultimately recapitalize the entire tanker fleet over a period of more than 30 years. The KC-46 aircraft will be assembled on the existing commercial 767 production line and militarized in the Everett Modification Center, both of which are located in Everett, Washington.



Mission: Provides the capability to refuel joint and coalition receivers via a boom or drogue system and will augment the airlift fleet with cargo, passenger and aeromedical evacuation capabilities. Aerial refueling forces perform these missions at the strategic, operational, and tactical level across the entire spectrum of military operations. The KC-46 aircraft will operate in day/night and adverse weather to enable deployment, employment, sustainment, and redeployment of U.S. and Coalition forces.

FY 2017 Program: Continues the development efforts of a militarized variant of the Boeing 767-2C aircraft, the building and integration of military capabilities into four development aircraft, and developmental and operational testing. Also includes funding for the development of technical manuals, continued Type I training, and collection of simulator and maintenance data. Continues a third year of Low Rate Initial Production (LRIP), procuring 15 aircraft in FY 2017.

Prime Contractor: The Boeing Company; Seattle, WA

KC-46A Tanker										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	763.2	-	592.4	-	261.7	-	-	-	261.7	-
Procurement	1,573.2	7	2,350.6	12	2,884.6	15	-	-	2,884.6	15
Spares	-	-	53.0	-	172.2	-	-	-	172.2	-
Total	2,336.4	7	2,995.9	12	3,318.5	15	-	-	3,318.5	15

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

F-15 Eagle

The F-15C/D is a twin engine, single seat, supersonic, all-weather, day/night, air superiority fighter. The F-15E is a twin engine, two seat, supersonic dual-role, day/night, all-weather, deep interdiction fighter with multi-role air-to-air capabilities.



Mission: Provides the Air Force with the capability to gain and maintain air supremacy over the battlefield.

FY 2017 Program: Continues the F-15E Radar Modernization Program (RMP), which replaces the legacy radar using existing technology from other aviation platforms and solves parts obsolescence problems to provide improved reliability and performance (increased synthetic aperture radar range and resolution), including air-to-air and air-to-ground modes. Continues the F-15 C/D radar upgrade program, which replaces the mechanically-scanned antenna on F-15C/D aircraft with an active electronically scanned array (AESA) and technology maturation and risk reduction efforts for the Eagle Passive/Active Warning Survivability System, which is intended to improve F-15 survivability by enhancing the ability to detect, deny, or defeat air and ground threats.

Prime Contractor: Raytheon; El Segundo, CA and Forest, MS

F-15 Eagle										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	271.6	-	386.7	-	613.4	-	-	-	613.4	-
Procurement	498.3	-	598.9	-	105.7	-	-	-	105.7	-
Spares	16.4	-	55.7	-	49.5	-	-	-	49.5	-
Total	786.3	-	1,041.3	-	768.5	-	-	-	768.5	-

Numbers may not add due to rounding

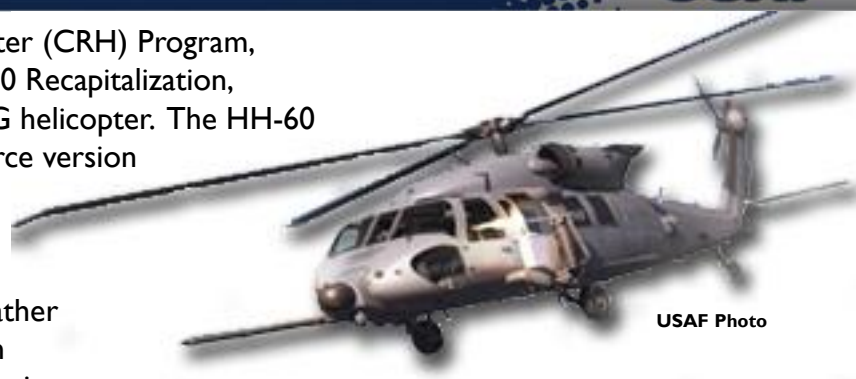
AIRCRAFT & RELATED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Combat Rescue Helicopter (CRH)



The Combat Rescue Helicopter (CRH) Program, formerly referred to as HH-60 Recapitalization, will replace the aging HH-60G helicopter. The HH-60 Pave Hawk is the U.S. Air Force version of the U.S. Army's UH-60 Black Hawk, modified for Combat Search and Rescue (CSAR) in all weather situations. The CRH program will leverage in-service production



air vehicles and training systems and then integrate existing technologies and missions systems to acquire a new system. Onboard defensive capabilities will permit the CRH system to operate in an increased threat environment. An in-flight refueling capability will provide an airborne ready alert capability and extend its combat mission range. The CRH program plans to procure a total of 112 aircraft.

Mission: Conduct day and night marginal weather CSAR in order to recover downed aircrew and isolated personnel in hostile environments. The CRH will perform a wide array of collateral missions, including casualty evacuation (CASEVAC), medical evacuation (MEDEVAC), non-combat evacuation operations, civil search and rescue, international aid, disaster humanitarian relief, and insertion/extraction of combat forces.

FY 2017 Program: Funds Engineering and Manufacturing Development (EMD) activities, including developmental efforts on aircraft, missions systems, training systems and associated product support. Also funds the acquisition of the five System Demonstration Test Article (SDTA) aircraft.

Prime Contractor: Sikorsky Aircraft Corporation; Stratford, CT

Combat Rescue Helicopter										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	100.0	-	156.1	-	319.3	-	-	-	319.3	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	100.0	-	156.1	-	319.3	-	-	-	319.3	-

Numbers may not add due to rounding

AIRCRAFT & RELATED SYSTEMS

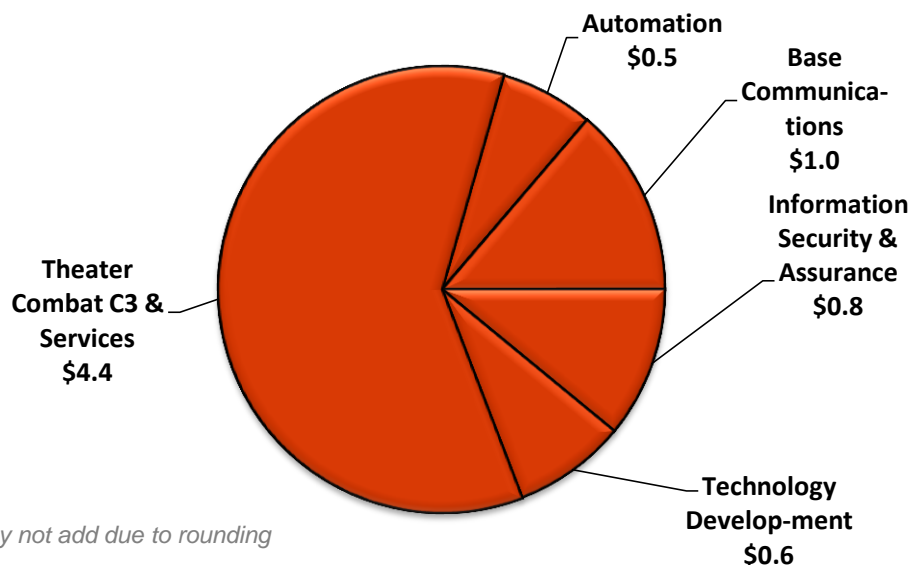
Command, Control, Communications, Computers, and Intelligence (C4I) Systems

The Department is well underway in transforming and developing new concepts for the conduct of future joint military operations to achieve full spectrum dominance. This overarching goal to defeat any adversary or control any situation across the full range of military operations is achieved through a broad array of capabilities enabled by an interconnected network of sensors, shooters, command, control, and intelligence. Net-centricity transformed the way that information is managed to accelerate decision making, improve joint warfighting, and create intelligence advantages. U.S. forces are heavily-networked and require reliable secure trusted access to information and depend upon network-based interconnectivity for increased operational effectiveness. By enhancing information sharing, dispersed forces are able to communicate, maneuver, share a common user - defined operating picture, and successfully complete assigned missions more efficiently.

The FY 2017 budget request supports the net-centricity service-based architecture pattern for information sharing. It is being implemented by the C4I community via building joint architectures and roadmaps for integrating joint airborne networking capabilities with the evolving ground, maritime, and space networks. It encompasses the development of technologies like gateways, waveforms, network management, and information assurance.

FY 2017 Command, Control, Communications, Computers, and Intelligence (C4I) Systems – Total: **\$7.4 Billion**

(\$ in Billions)



Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

Warfighter Information Network - Tactical

The Warfighter Information Network-Tactical (WIN-T) is the cornerstone for Army's high speed, high capability backbone communications network, linking Warfighters in the battlefield with the Global Information Grid. The network is intended to provide command, control, communications, computers, intelligence, surveillance, and reconnaissance. The system is developed as a network for reliable, secure, and seamless video, data, imagery, and voice services for the Warfighters in theater to enable decisive combat actions. The WIN-T program development consists of four increments. Increment 1 (Inc 1) provides "networking at the halt" by upgrading the Joint Network Node (JNN) satellite capability to access the Wideband Global Satellite. Increment 2 (Inc 2) provides networking on-the-move to the company level. Increment 3 (Inc 3) provides Integrated Network Operations development.



Mission: Provides the Army with a transformational modernized network. Using satellite and ground layers, it delivers fully mobile, flexible, dynamic networking capability enabling Joint land forces to engage enemy forces deeper and more effectively. The WIN-T Inc 2 introduces a mobile, ad-hoc, self-configuring, self-healing network using satellite on-the-move capabilities, robust network management, and high-bandwidth radio systems to keep mobile forces connected, communicating, and synchronized.

FY 2017 Program: Funds the tech refresh of obsolete commercial off the shelf components for 34 WIN-T Inc 1 units. Adds X-Band terminals to Regional Hub Nodes. The WIN-T Inc 2 funding supports procurement of 12 communications nodes (6 Tactical Communications Nodes and 6 Points of Presence), and continues fielding and support for previously procured Low Rate Initial Production equipment. Procures and fields 283 Battlefield Video-Teleconferencing Center III systems. Provides program management support for Single Shelter Switch, High Capability Line of Sight, and Troposcatter Communications systems as they are transitioned to sustainment by the end of FY 2017.

Prime Contractor: General Dynamics Corporation; Taunton, MA
Lockheed Martin Corporation; Gaithersburg, MD

Warfighter Information Network-Tactical										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	112.0	-	37.3	-	4.9	-	-	-	4.9	-
Procurement	664.1	-	695.1	-	427.6	-	9.6	-	437.2	-
Spares	26.1	-	39.5	-	19.8	-	-	-	19.8	-
Total	802.2	-	771.9	-	452.3	-	9.6	-	461.9	-

Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

Handheld, Manpack, and Small Form Fit Radio **DOD - JOINT**

The Handheld, Manpack, and Small Form Fit (HMS) program procures radios that are software reprogrammable, networkable, multi-mode system (of systems) capable of simultaneous voice, data and video communications. The HMS has three product lines: the Rifleman Radio, the Manpack Radio, and the Small Form Factor Radios. The Manpack Radio is for use in a classified environment and supports the following waveforms:



the Soldier Radio Waveform (SRW), the Single Channel Ground to Air Radio System, the Satellite Communications, and the Mobile-User Objective System. The Rifleman Radio is a secret and below capable radio and supports the SRW waveform. The embedded Small Form Factor radios may be used for Unmanned Vehicles and other platform applications.

Mission: Provides voice and data communications to the tactical edge/most disadvantaged Warfighter with an on-the-move, at-the-halt, and stationary Line of Sight/Beyond Line of Sight capability for both dismounted personnel and mounted platforms. The Manpack and the Rifleman Radios extend the network down to the Squad/Team leader. These networking tactical radio systems meet requirements for the Army, Navy, Marine Corps, and Special Operations Command and are interoperable with specified radios in the current forces.

FY 2017 Program: Provides funding that is necessary to execute the required full and open competition contract strategy for the Rifleman Radio and the Manpack radios. Conducts testing for the Manpack and the Rifleman candidate products to demonstrate compliance with program requirements to assess effectiveness, suitability, and survivability and to obtain material release for Full Rate Production. Funds support safety, spectrum supportability, and other certifications necessary to prepare the products for fielding. Funds the procurement of the Rifleman and the Manpack Radios, support equipment, fielding, non-recurring engineering, and platform vehicle integration.

Prime Contractors: General Dynamics C4 Systems Incorporated; Scottsdale, AZ
 Harris Radio Corporation; Rochester, NY
 Thales Communications Incorporated; Clarksburg, MD

Handheld, Manpack, and Small Form Fit										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	9.5	-	4.5	-	18.8	-	-	-	18.8	-
Procurement	40.7	-	54.6	-	273.6	5,656	-	-	273.6	5,656
Spares	-	-	-	-	-	-	-	-	-	-
Total	50.2	-	59.1	-	292.4	5,656	-	-	292.4	5,656

Numbers may not add due to rounding



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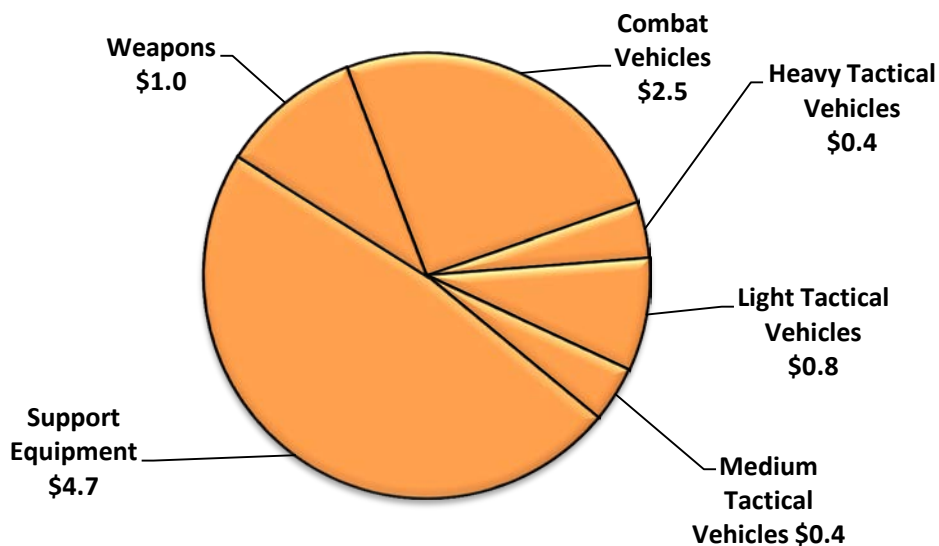
Ground Systems

The Department is modernizing its ground force capabilities to ensure the United States remains a dominant force capable of operating in all environments across the full spectrum of conflict. The Army and Marine Corps equip each soldier and Marine with the best equipment available to succeed in both today’s and tomorrow’s operations. Ongoing technology research and concept exploration will benefit future Army and Marine Corps combat portfolios.

The Army continues to modernize and upgrade select Major Defense Acquisition Programs in FY 2017, including Stryker vehicles, Abrams Tanks, Bradley Fighting Vehicles, and Paladin 155mm Howitzers. The Marine’s ground force focus in FY 2017 is on the Amphibious Combat Vehicle (ACV). The ACV will deliver shore and sea-based infantry to the battlefield in vehicles designed for future operational environments. Both services procure the final year of Low Rate Initial Production (LRIP) of the Joint Light Tactical Vehicle (JLTV).

FY 2017 Ground Systems – Total: **\$9.8 Billion**

(\$ in Billions)



Numbers may not add due to rounding

GROUND SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Joint Light Tactical Vehicle

DOD - JOINT

The Joint Light Tactical Vehicle (JLTV) is a joint program currently in development for the Army and Marine Corps. The JLTV is intended to replace the High Mobility Multipurpose Wheeled Vehicle (HMMWV), which is the current light tactical vehicle. The JLTV concept is based on a family of vehicles focused on scalable armor protection and vehicle agility, and mobility required of the light tactical vehicle fleet.



The JLTV will provide defensive measures to protect troops while in transport, increase payload capability, and achieve commonality of parts and components to reduce the overall life cycle cost of the vehicle. The JLTV project seeks to optimize performance, payload, and protection of the crew and vehicle while ensuring a design that is transportable by CH-47, CH-53, and C-130 aircraft. The program achieved Milestone C in October 2015.

Mission: Provides a light tactical vehicle capable of performing multiple mission roles, and providing protected, sustained, networked mobility for personnel and payloads across the full range of military operations. There are two variants planned: Combat Support Vehicles (3,500 lb) and Combat Tactical Vehicles (5,100 lb).

FY 2017 Program: Funds the third and final year of Low Rate Initial Production (LRIP), procuring 2,020 trucks. Continues Full Up System Level (FUSL) testing, including Live Fire testing.

Prime Contractor: Oshkosh Corporation; Oshkosh, WI

Joint Light Tactical Vehicle										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E USA	43.3	-	32.5	-	11.5	-	-	-	11.5	-
RDT&E USMC	9.0	-	32.1	-	23.2	-	-	-	23.2	-
Procurement USA	164.6	176	249.9	686	587.5	1,828	-	-	587.5	1,828
Procurement USMC	7.4	6	60.0	118	113.2	192	-	-	113.2	192
Total	224.3	182	374.5	804	735.4	2,020	-	-	735.4	2,020

Numbers may not add due to rounding

GROUND SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Armored Multi-Purpose Vehicle (AMPV)

USA

The Armored Multi-Purpose Vehicle (AMPV) will replace the M113 Armored Personnel Carrier program that was terminated in 2007. The AMPV will have five mission roles: General Purpose, Medical Treatment, Medical Evacuation, Mortar Carrier and Mission Command. The current M113 Armored Personnel Carrier Mission Equipment Packages (MEPs) will be integrated onto a new hull structure based on the Bradley Fighting Vehicle design to give the Army its required capability at an affordable cost.



Mission: Enables the Armored Brigade Combat Team (ABCT) commander to control a relentless tempo that overwhelms the threat with synchronized and integrated assaults that transition rapidly to the next engagement.

FY 2017 Program: Funds the integration, assembly, checkout, and shipment of 29 prototype AMPVs. Begins vehicle shakedown testing.

Prime Contractor: BAE Systems; York, PA

Armored Multi-Purpose Vehicle (AMPV)										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	89.8	-	226.2	-	184.2	-	-	-	184.2	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	89.8	-	226.2	-	184.2	-	-	-	184.2	-

Numbers may not add due to rounding

GROUND SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Family of Heavy Tactical Vehicles

USA

The Family of Heavy Tactical Vehicles (FHTV) consists of the Palletized Load System (PLS) and the Heavy Expanded Mobility Tactical Truck (HEMTT). The PLS entered service in 1993 and consists of a 16.5 ton, 10 wheel tactical truck with self load/unload capability.



The PLS carry payload on flat rack cargo bed, trailer, or International Standards Organization (ISO) containers. The HEMTT is a 10 ton, 8 wheel (8x8) truck that comes in several configurations: Tanker to refuel tactical vehicles and helicopters, Tractor to tow the Patriot missile system and Multi-Launch Rocket System (MLRS), Wrecker to recover vehicles, and Cargo truck with a materiel handling crane. The HEMTT family entered service in 1982.

Mission: Provides transportation of heavy cargo to supply and re-supply combat vehicles and weapons systems. The PLS is fielded to transportation units, ammunition units, and to forward support battalions with the capability to self-load and transport a 20 ft. ISO container. The upgraded HEMTT A4 is an important truck to transport logistics behind quick-moving forces such as the M-1 Abrams and Stryker. The HEMTT family carries all types of cargo, especially ammunition and fuel, and is used for line haul, local haul, unit resupply, and other missions throughout the tactical environment to support modern and highly mobile combat units.

FY 2017 Program: Procures 481 FHTVs, as well as trailers and tracking systems to modernize the heavy tactical vehicle fleet for the Active, National Guard, and Reserve units and to fill urgent theater requirements.

Prime Contractor: Oshkosh Corporation; Oshkosh, WI

Family of Heavy Tactical Vehicles										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	12.8	-	-	-	11.4	-	-	-	11.4	-
Procurement	78.4	253	27.5	340	39.6	430	6.1	51	45.7	481
Total	91.2	253	27.5	340	51.0	430	6.1	51	57.1	481

Numbers may not add due to rounding

GROUND SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

M-I Abrams Tank Modification

The M1A2 Abrams is the Army's main battle tank, which first entered service in 1980.

It was produced from 1978 until 1994. Since then, the

Army has modernized it with a series of upgrades to improve its capabilities, collectively known as

the System Enhancement Package (SEP) and the Tank Urban Survival Kit (TUSK). Current modifications to the M1 Abrams include Vehicle Health Management and Power Train Improvement & Integration Optimization, which provide more reliability, durability and fuel efficiency. Survivability enhancements include armor upgrades.

US Army Photo



Mission: Provides mobile and protected firepower for battlefield superiority against heavy armor forces.

FY 2017 Program: Funds development of mine blast survivability improvements and continues Engineering Change Proposal (ECP) IB (lethality improvements) development. Continues procuring hardware for ECP IA for installation during vehicle recapitalization in FY 2018, as well as numerous approved modifications to fielded M1A2 Abrams tanks, including the Ammunition Data Link (ADL) to enable firing of the Army's new smart 120mm ammunition, and the Low Profile Commander's Remote Operating Weapon Station (CROWS).

Prime Contractor: General Dynamics Corporation; Sterling Heights, MI

M-I Abrams Tank (Modification)										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	98.6	-	77.6	-	78.5	-	-	-	78.5	-
Procurement	237.0	-	430.9	-	480.2	-	-	-	480.2	-
Total	335.6	-	508.5	-	558.7	-	-	-	558.7	-

Numbers may not add due to rounding

GROUND SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Paladin Integrated Management (PIM) **USA**

The M109 Family of Vehicles (FOV) consists of the M109A6 Paladin 155mm Howitzer, the most advanced self-propelled cannon system in the Army, and the Field M992A2 Artillery Ammunition Support Vehicle (FAASV), an armored resupply vehicle. The Paladin Integrated Management (PIM) program addresses obsolescence, space, weight, and power concerns and Ensures sustainment of the M109 FOV through 2050. The PIM replaces the current M109A6 Paladin and M992A2 FAASV vehicles with a more robust platform, incorporating the M2 Bradley common drive train and suspension components. The PIM fills the capability gap created by cancellation of the Non-Line of Sight Cannon (NLOS-C) (a component of the Future Combat System program) in 2009. The PIM is in Low Rate Initial Production (LRIP).



Mission: Provides the primary indirect fire support for Armored Brigade Combat Teams, armored and mechanized infantry divisions as well as an armored resupply vehicle.

FY 2017 Program: Supports final Developmental Testing (DT) and procures 48 PIM systems.

Prime Contractor: BAE Systems; York, PA

Paladin Integrated Management (PIM)										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	77.2	-	152.3	-	41.5	-	-	-	41.5	-
Procurement	247.4	18	273.9	30	469.3	36	125.2	12	594.5	48
Total	324.6	18	426.2	30	510.8	36	125.2	12	636.0	48

Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

Family of Medium Tactical Vehicles

USA

The Family of Medium Tactical Vehicles (FMTV) is a family of diesel powered trucks in the 2½-ton and 5-ton payload class. The vehicle first went into service in 1996. It capitalizes on the current state of automotive technology including a diesel engine, automatic transmission, and central tire inflation system (CTIS). The family of vehicles significantly reduces logistics burden and operating costs, taking advantage of over 80 percent parts commonality. Numerous models perform a wide variety of missions including cargo transport (cargo model), vehicle recovery operations (wrecker), construction (dump), line haul (tractor), airdrop missions, and civil disaster relief. The FMTV also serves as the platform for the High Mobility Artillery Rocket System (HIMARS) and support vehicle for the Patriot missile. It is strategically deployable in C-5, C-17, and C-130 aircraft. Experience in Iraq led to the development of an up-armored cab known as the Low Signature Armored Cab (LSAC) for installation on FMTV vehicles that adds ballistic and mine blast protection for the crew.



DoD Photo

Mission: Provides unit mobility and resupply of equipment and personnel for rapidly deployable worldwide operations on primary and secondary roads, trails, cross-country terrain, and in all climatic conditions.

FY 2017 Program: Procures 1,100 Medium Tactical Vehicles to support the Army modular transformation effort to modernize the tactical wheeled vehicle fleet for medium size trucks.

Prime Contractor: Oshkosh Corporation; Oshkosh, WI

Family of Medium Tactical Vehicles (FMTV)										
	FY 2015*		FY 2016**		FY 2017					
					Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	-	-	-	-	-	-	-	-	-	-
Procurement	195.6	496	334.0	1,155	53.3	8	299.5	1,092	352.8	1,100
Total	195.6	496	334.0	1,155	53.3	8	299.5	1,092	352.8	1,100

Note: FY 2015 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2015 includes \$95.6 million of OCO funding

** FY 2016 excludes \$244.0 million (1,191 vehicles) of OCO funding

GROUND SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Stryker Family of Armored Vehicles

USA

Stryker is a 19-ton wheeled armored vehicle that provides the Army with a family of ten different vehicles. The Stryker can be deployed by C-130, C-17, and C-5 aircraft and be combat-capable upon arrival in any contingency area. There are two basic versions, which include the Infantry Carrier Vehicle (ICV) and the Mobile Gun System (MGS).



There are eight different configurations, which include the Reconnaissance Vehicle (RV);

Anti-Tank Guided Missile (ATGM); Nuclear, Biological, Chemical, and Radiological Vehicle (NBCRV); Medical Evacuation Vehicle (MEV); Commander's Vehicle (CV); Fire Support Vehicle (FSV); Mortar Carrier (MC); and Engineer Squad Vehicle (ESV). Existing Strykers are being upgraded with a Double-V Hull (DVH) for improved protection against Improvised Explosive Devices (IEDs), and a major Engineering Change Proposal (ECP) is being implemented to improve mechanical and electrical power, upgrade the chassis and modernize the electronics network. There are 81 vehicles that are receiving the Stryker Lethality Upgrade funded by the European Assurance Initiative (ERI) in FY 2016.

Mission: The Stryker vehicle is designed to enable the Brigade Combat Team to maneuver more easily in close and urban terrain while providing protection in open terrain. It fills the Army's current transformation goal to equip a strategically deployable brigade using a C-17 or C-5 and an operationally deployable brigade using a C-130 that is capable of rapid movement anywhere on the globe in a combat ready configuration.

FY 2017 Program: Completes fielding of the third DVH Stryker Brigade Combat Team (SBCT). Converts 123 Stryker vehicles to the DVH configuration to support the fourth DVH SBCT.

Prime Contractor: General Dynamics Corporation; Sterling Heights, MI

Stryker										
	FY 2015		FY 2016*		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	125.5	-	203.3	-	136.5	-	-	-	136.5	-
Procurement	435.1	-	977.8	-	590.6	-	-	-	590.6	-
Total	560.6	-	1,181.1	-	727.1	-	-	-	727.1	-

*\$420.6 million in FY 2016 is for European Reassurance Initiative (ERI)

Numbers may not add due to rounding

GROUND SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Amphibious Combat Vehicle (ACV)



The Amphibious Combat Vehicle (ACV) is a Major Defense Acquisition Program. The ACV will replace the aging Amphibious Assault Vehicle. The Marine Corps has refined its ACV strategy based on several factors, including knowledge gained through multi-year analysis and ongoing development of its Ground Combat Vehicle Strategy. The ACV program achieved Milestone B in November 2015.



Mission: The ACV will provide an armored personnel carrier balanced in performance, protection, and payload for employment with the Ground Combat Element across the range of military operations, including a swim capability. The program has been structured to provide a phased, incremental capability.

FY 2017 Program: Funds manufacturing and delivery of 32 Engineering, Manufacturing and Development (EMD) test vehicles; and conducts contractor development test activities supporting the ACV Increment I.1 program.

Prime Contractors: BAE Systems; York, PA
Science Applications International Corporation (SAIC); McClean, VA

Amphibious Combat Vehicle (ACV)										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	101.2	-	212.2	-	158.7	-	-	-	158.7	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	101.2	-	212.2	-	158.7	-	-	-	158.7	-

Numbers may not add due to rounding

GROUND SYSTEMS



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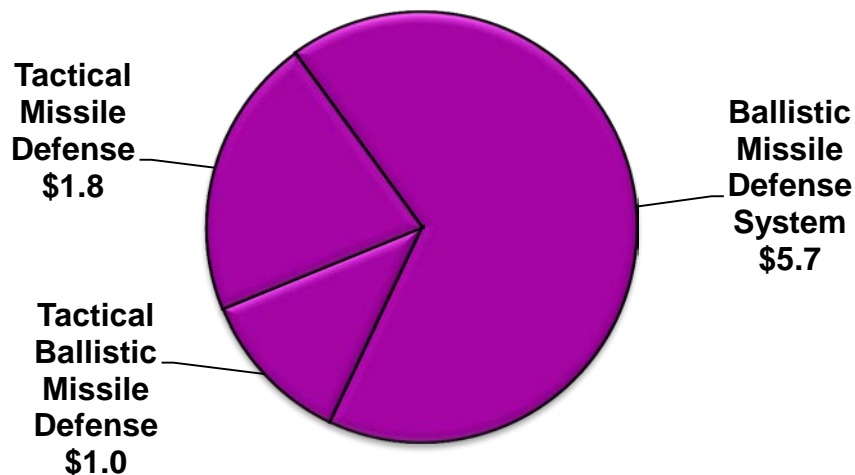
Missile Defense Programs

Missile Defense is a general term for air and missile defense. This category includes cruise missile, air and ballistic missile defense systems program development. The Missile Defense Agency, Army, and the Navy are the program developers. Missile Defense includes all components designed to defeat hostile ballistic missiles of various ranges. A missile defense system includes interceptor missiles, as well as the associated sensors and command, control, battle management, and communications. Other significant investments include construction; targets and countermeasures; and the research, development, testing, and evaluation activities. Encompassed in this category are all programs that are either critical to the functionality of missile defense or support missile defense as a primary mission. The Aegis Ballistic Missile Defense System (BMDS) is the naval element of the Ballistic Missile Defense (BMD) and provides an enduring, operationally effective and supportable BMD capability on Aegis cruisers, destroyers, and Ashore.

The FY 2017 budget request continues to invest and build inventories of air and missile defense capabilities, such as the Patriot Advanced Capability-3 (PAC-3) missiles, PAC-3 Missile Segment Enhancements (MSE) interceptors, Standard Missile-3 (SM-3) interceptors, Terminal High Altitude Area Defense (THAAD) interceptors, and the Army Navy/Transportable Radar Surveillance-2 (AN/TPY-2) radar. Further, the Department continues to seek expanded international efforts for missile defense with allies and partners to provide pragmatic and cost-effective missile defense capabilities.

FY 2017 Missile Defense Programs – Total: **\$8.5 Billion**

(\$ in Billions)



Numbers may not add due to rounding

Note: \$8.5 billion does not include the Missile Defense Agency's (MDA) Science and Technology (\$200 million), Military Construction (\$179 million), or the Operation and Maintenance (\$447 million) funding. The total MDA funding is \$7.5 billion for the FY 2017 request.

FY 2017 Program Acquisition Costs by Weapon System

Aegis Ballistic Missile Defense

DOD - JOINT

The Aegis Ballistic Missile Defense (BMD) is the naval element of the Ballistic Missile Defense System (BMDS) and provides an enduring, operationally effective and supportable BMD capability on Aegis cruisers, destroyers, and Ashore. The Aegis BMD builds upon the existing Navy Aegis Weapons System (AWS) and Standard Missile-3 (SM-3) design. Upgrades are being made to the weapon system and SM to expand capability through a series of incremental, evolutionary improvements to counter more sophisticated and longer range threats.



Mission: Provides a forward-deployable, mobile and Ashore capability to detect and track ballistic missiles of all ranges in all phases of flight with the ability to destroy short- through intermediate-range ballistic missiles in the midcourse and terminal phases. The Aegis BMD delivers an enduring, operationally effective and supportable capability on Aegis cruisers, destroyers, and Ashore to defend the U.S., deployed forces, and our allies.

FY 2017 Program: Supports procurement of 35 SM-3 Block IB missiles. Procures BMD upgrades for four Aegis ships and the installation onboard two Aegis ships/Ashore sites. Continues the development of the Aegis BMD 5.1 Weapon Systems and begins development of Aegis BMD 6.

Prime Contractors: Aegis Weapon System: Lockheed Martin Corporation; Moorestown, NJ
SM-3 Interceptor: Raytheon Company; Tucson, AZ and Huntsville, AL

AEGIS Ballistic Missile Defense										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	849.7	-	909.1	-	1,054.1	-	-	-	1,054.1	-
Procurement	663.3	52	712.0	49	513.9	35	-	-	513.9	35
Total	1,513.0	52	1,621.1	49	1,568.0	35	-	-	1,568.0	35

Numbers may not add due to rounding

MISSILE DEFENSE PROGRAMS

FY 2017 Program Acquisition Costs by Weapon System

THAAD Ballistic Missile Defense **DOD - JOINT**

The Terminal High Altitude Area Defense (THAAD) is a key element of the Ballistic Missile Defense System. The THAAD Battery will provide transportable interceptors, using “Hit-To-Kill” technology to destroy ballistic missiles inside and outside the atmosphere. A Battery consists of 6 truck-mounted launchers, 48 interceptors (8 per launcher), 1 AN/TPY-2 radar, and 1 Tactical Fire Control/Communications component.



Mission: Provides Combatant Commanders with a deployable, ground-based missile defense capability against short and medium-range ballistic missiles and asymmetric threats inside and outside the atmosphere.

FY 2017 Program: Supports the procurement of 24 interceptors and associated components, as well as support and training equipment. Funds the development of the initial Build 2.0 capability, and continues development, flight, and ground testing of the THAAD components. Provides support for the six THAAD batteries as well as the planned delivery of the seventh battery in FY 2017. Continues concept development for the THAAD follow-on capability.

Prime Contractor: Lockheed Martin Corporation; Sunnyvale, CA

Terminal High Altitude Area Defense (THAAD)										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	270.7	-	238.5	-	270.3	-	-	-	270.3	-
Procurement	449.5	38	448.0	34	369.6	24	-	-	369.6	24
Total	720.2	38	686.5	34	639.9	24	-	-	639.9	24

Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

Ground-based Midcourse Defense

DOD - JOINT

The Ground-based Midcourse Defense (GMD) element is a Missile Defense Agency program and a key component of the Ballistic Missile Defense System (BMDS), providing Combatant Commanders with the capability to engage ballistic missiles in the midcourse phase of flight. This phase, compared to boost or terminal, allows significant time for sensor viewing from multiple platforms and, thus, provides multiple engagement opportunities for hit-to-kill interceptors. The Ground-Based Interceptor (GBI) is made up of a three-stage, solid fuel booster and an Exoatmospheric kill vehicle. When launched, the multi-stage, solid fuel booster missile carries the kill vehicle toward the target's predicted location in space. Once released from the booster, the kill vehicle uses data received in-flight from ground-based radars and its own on-board sensors to defeat the incoming missile by ramming the warhead with a closing speed of approximately 15,000 miles per hour. Interceptors are currently emplaced at Fort Greely, Alaska (AK), and Vandenberg Air Force Base (AFB), California (CA). The GMD fire control centers are established in Colorado and Alaska.



DoD Missile Defense Agency Photo

Mission: Provides the Combatant Commanders with the capability to defend the United States, including Hawaii and Alaska, against long range ballistic missiles during the midcourse phase of flight.

FY 2017 Program: Continues to develop, operate, and sustain the GMD weapon system, which includes the planned deployment of 40 Ground-based Interceptors (GBIs) at Fort Greely, AK, and 4 GBIs at Vandenburg AFB, CA by FY 2017, for a total of 44 GBIs. Funds flight testing supporting the Integrated Master Test Plan (IMTP) requirements and enhances the Stockpile Reliability Program (SRP) and component aging testing to understand and maintain the health of the deployed assets. Supports the development of the GMD Redesigned Kill Vehicle (RKV) for improved reliability, availability, performance, and producibility.

Prime Contractor: Boeing Defense and Space (BDS); St. Louis, MO

Ground-based Midcourse Defense										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	1,040.2	-	1,613.5	-	1,192.7	-	-	-	1,192.7	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	1,040.2	-	1,613.5	-	1,192.7	-	-	-	1,192.7	-

Numbers may not add due to rounding

MISSILE DEFENSE PROGRAMS

FY 2017 Program Acquisition Costs by Weapon System

Patriot/PAC-3

USA

The Army's Patriot air and missile defense system, which includes the Advanced Capability (PAC-3) missile, is the only combat-proven system capable of defeating Tactical Ballistic Missiles (TBMs), Cruise Missiles, and Air-Breathing threats worldwide. Joint efforts between the Army and the Missile Defense Agency have been successful in integrating PAC-3 capabilities into the Ballistic Missile Defense System (BMDS). The PAC-3 units are the Combatant Commanders' most capable asset to protect forward deployed forces.



Mission: Contributes to the BMDS overall situational awareness for short range terminal ballistic missile threats. It can cue other systems while protecting Joint assets. The Patriot force is 15 battalions, and many remain forward stationed in multiple theaters of operation.

FY 2017 Program: Continues improvements in software for further reduction to probability of fratricide; improved communications, interoperability, supportability, electronic warfare capabilities; and supports transition to the Integrated Air and Missile Defense (IAMD) architecture. Procures 8 Enhanced Launcher Electronics Systems (ELES) to increase the warfighter's PAC-3 capability.

Prime Contractors: Raytheon Integrated Defense Systems; Tewksbury, MA
Lockheed Martin Missiles and Fire Control; Dallas, TX

Patriot/PAC-3										
	FY 2015		FY 2016		FY 2017					
					Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	58.0	-	89.8	-	84.6	-	-	-	84.6	-
Procurement	183.8	-	241.9	-	197.1	-	-	-	197.1	-
Spares	36.9	-	32.7	-	34.0	-	-	-	34.0	-
Total	278.7	-	364.4	-	315.7	-	-	-	315.7	-

Numbers may not add due to rounding

MISSILE DEFENSE PROGRAMS

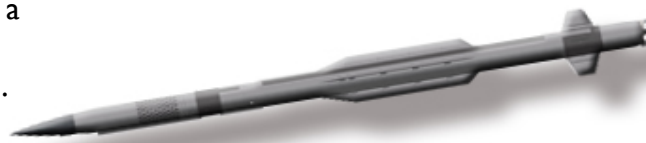
FY 2017 Program Acquisition Costs by Weapon System

PAC-3/MSE Missile



The Missile Segment Enhancement (MSE) is a performance improvement to the existing Patriot Advanced Capability (PAC-3) missile.

The MSE upgrade enhances the PAC-3 missile by adding a dual pulse, 11-inch diameter Solid Rocket Motor (SRM), improved lethality enhancer, a thermally hardened front-end, upgraded batteries, enlarged fixed fins, more responsive control surfaces, and upgraded guidance software. These improvements result in a more agile, lethal interceptor missile with enhanced Insensitive Munitions (IM) compliance. The PAC-3 MSE can be fired from a Patriot system.



Mission: Provides the Combatant Commanders with a hit-to-kill, surface-to-air missile that can intercept tactical ballistic missiles, cruise missiles, and air-breathing threats that have chemical, biological, radiological, nuclear, and conventional high explosive warheads. The MSE extends the PAC-3 range, filling a critical performance gap, and affords greater protection for U.S. and allied forces.

FY 2017 Program: Procures 85 MSE interceptors to increase range and altitude capability, meeting the ever-changing threat.

Prime Contractor: Lockheed Martin Missiles and Fire Control; Dallas, TX

PAC-3/MSE										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	33.7	-	2.3	-	-	-	-	-	-	-
Procurement	532.6	108	514.9	112	423.2	85	-	-	423.2	85
Total	566.3	108	517.2	112	423.2	85	-	-	423.2	85

Numbers may not add due to rounding

MISSILE DEFENSE PROGRAMS

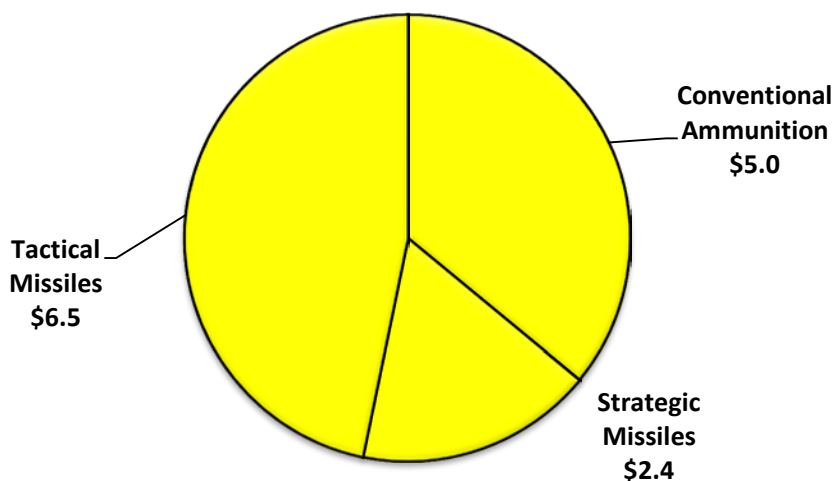
Missiles and Munitions

Munitions is a general term for ammunition and missiles. Ammunition are explosives consisting of all kinds of bombs, grenades, rockets, mines, projectiles, and other similar devices. There are conventional and nuclear missiles used for both tactical and strategic purposes. Many missiles are precision guided with the technical sophistication to allow guidance corrections during flight-to-target. Some programs include non-explosive articles that enhance the performance of other munitions. For example, the Joint Direct Attack Munitions (JDAM) adds guidance capability when attached to a gravity bomb, making it a “smart” bomb.

In FY 2017, the Department continues to execute a balanced munitions procurement strategy in response to both current operations and advanced, long-term threats. The Department is increasing procurement of JDAM, General Purpose Bombs and the Hellfire missile to ensure sufficiency for today’s warfighter, while expanding industrial capacity to meet increasing demands. In parallel, the Department continues to accelerate inventories of the next generation of standoff weapons for high value land attack targets such as the Joint Air-to-Surface Standoff Missile-Extended Range. Procurement of the Small Diameter Bomb II provides an all-weather capability against moving targets. The Navy will commence development of a Maritime Strike variant of Tactical Tomahawk to engage surface threats, which supplements the air-launched Long Range Anti-Ship Missile (LRASM), with the ability to engage heavily defended maritime targets at standoff ranges and increased survivability. Investment also continues in shipboard air defense missiles such as the Standard Missile-6 to enhance the ships survivability.

FY 2017 Missiles and Munitions – Total: \$13.9 Billion

(\$ in Billions)



Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

Advanced Medium Range Air-to-Air Missile

DOD - JOINT



The Advanced Medium Range Air-to-Air Missile (AMRAAM) is an all-weather, all-environment radar guided missile developed to improve capabilities against very low-altitude and high-altitude, high-speed targets in an electronic countermeasures environment. The AMRAAM is a joint Navy/Air Force program led by the Air Force.

Mission: Destroys low and high altitude, high-speed enemy targets in an electronic countermeasures environment. The AMRAAM is a fire-and-forget air-to-air missile, and has replaced the AIM-7 Sparrow as the U.S. military's standard beyond visual range intercept missile. The missile has undergone various service life improvements. The current generation, AIM-120D, has a two-way data link, Global Position System-enhanced Inertial Measurement Unit, an expanded no-escape envelope, improved High-Angle Off-Boresight capability, and increased range over previous variants.

FY 2017 Program: Continues production as well as product improvements such as fuzing, guidance, and kinematics.

Prime Contractor: Raytheon Company; Tucson, AZ

Advanced Medium Range Air-to-Air Missile										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E										
Air Force	79.8	-	46.2	-	62.5	-	-	-	62.5	-
Navy	9.8	-	32.2	-	40.4	-	-	-	40.4	-
Subtotal	89.6	-	78.4	-	102.9	-	-	-	102.9	-
Procurement										
Air Force	329.6	223	380.0	262	350.1	256	-	-	350.1	256
Navy	2.2	-	202.8	167	204.7	163	-	-	204.7	163
Subtotal	331.8	223	582.8	429	554.8	419	-	-	554.8	419
Spares										
	2.9	-	4.2	-	4.0	-	-	-	4.0	-
Total	424.3	223	665.4	429	661.7	419	-	-	661.7	419

Numbers may not add due to rounding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Air Intercept Missile – 9X

DOD - JOINT



USAF Image

The Air Intercept Missile-9X (AIM-9X), also known as SIDEWINDER, is a short range air-to-air missile that provides launch-and-leave warfighting capability. The AIM-9X/Block II features a fifth generation staring focal plane array imaging infrared seeker with high off boresight capability. It is mounted on a highly maneuverable (thrust vectored) airframe, along with digital guidance and IR signal processing that results in enhanced acquisition ranges, improved IR counter-countermeasures capability, and robust engagement zones for first shot/first kill air-to-air performance. The AIM-9X is a joint Navy/Air Force program led by the Navy.

Mission: Destroys low and high altitude, high-speed enemy targets in an electronic countermeasures environment.

FY 2017 Program: Continues AIM-9X Block II full rate production and planning/research for future warfighting improvements.

Prime Contractor: Raytheon Missile Systems; Tucson, AZ

Air Intercept Missile – 9X										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E										
Air Force	28.8	-	43.4	-	52.9	-	-	-	52.9	-
Navy	36.4	-	71.0	-	56.3	-	-	-	56.3	-
Subtotal	65.2	-	114.4	-	109.2	-	-	-	109.2	-
Procurement										
Air Force	129.1	303	198.2	506	127.4	287	-	-	127.4	287
Navy	68.2	167	92.5	227	70.9	152	-	-	70.9	152
Subtotal	197.3	470	290.7	733	198.3	439	-	-	198.3	439
Spares										
	13.6	-	12.8	-	18.8	-	-	-	18.8	-
Total	276.1	470	417.9	733	326.3	439	-	-	326.3	439

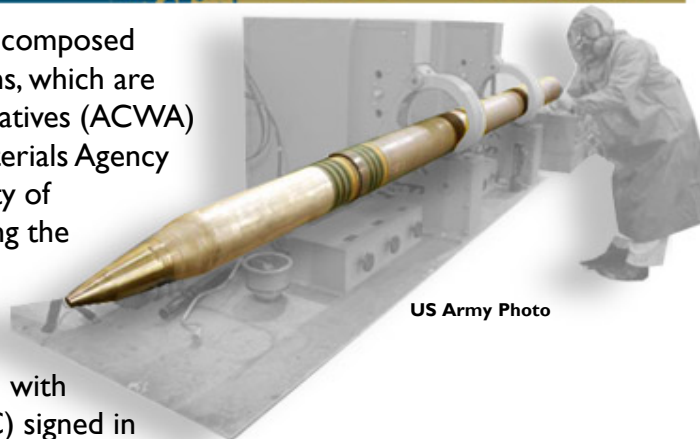
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FY 2017 Program Acquisition Costs by Weapon System

Chemical Demilitarization

DOD - JOINT

The Chemical Demilitarization Program is composed of two Major Defense Acquisition Programs, which are The Assembled Chemical Weapons Alternatives (ACWA) Program and the U. S. Army Chemical Materials Agency (CMA), with the goal of destroying a variety of U.S. chemical agents and weapons, including the destruction of former chemical weapon production facilities. This program is designed to eliminate the existing U.S. chemical weapons stockpile in compliance with the Chemical Weapons Convention (CWC) signed in 1997 – while ensuring the safety and security of the workers, the public, and the environment.



US Army Photo

Mission: There are four mission areas within the Chemical Demilitarization Program:

1. Destroy the remaining 10 percent of the U.S. chemical weapons stockpile at the ACWA Program sites (Colorado and Kentucky);
2. Close the remaining CMA sites, which completed destruction of nearly 90 percent of the U.S. stockpile;
3. Chemical stockpile emergency preparedness (CSEP) and emergency response planning;
4. Assess and destroy recovered chemical warfare material (RCWM) within the U.S. , and pending authorization, the ex gratia destruction of eight identified World War II-era U.S. origin chemical munitions located on San Jose Island, Republic of Panama.

FY 2017 Program: Continues systemization activities and destruction operations at the ACWA Program sites. Continues the CSEP and the emergency response planning at Colorado and Kentucky. Pending authorization, ex gratia destruction of the eight World War II-era U.S. origin chemical munitions located on San Jose Island, Republic of Panama.

Prime Contractors: Bechtel National Incorporated; Pueblo, CO
Bechtel Parsons, Joint Venture; Richmond, KY

Chemical Demilitarization										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
Chemical Agents and Munitions Destruction	786.8	-	699.8	-	551.0	-	-	-	551.0	-
MILCON	38.7	-	-	-	-	-	-	-	-	-
Total	825.5	-	699.8	-	551.0	-	-	-	551.0	-

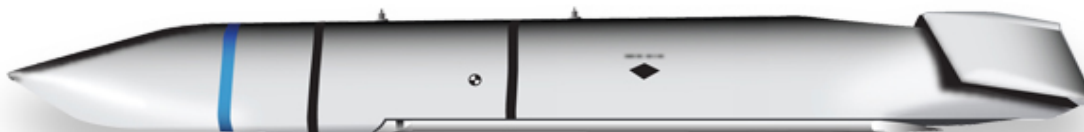
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MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Joint Air to Surface Standoff Missile

DOD - JOINT



USAF Image

The Joint Air-to-Surface Standoff Missile (JASSM) Baseline provides a survivable, precision cruise missile to kill hard, medium, and soft targets. It is a 2,000-pound class weapon with a 1,000-pound multi-purpose, hardened (blast/frag/penetrator) warhead. The JASSM can cruise autonomously in adverse weather, day or night, to defeat high value targets even when protected by next generation defenses. The JASSM navigates to a pre-planned target using a Global Positioning System-aided Inertial Navigation System and transitions to automatic target correlation using an imaging infrared seeker in the terminal phase of flight. Maximum unclassified range for the baseline JASSM variant is greater than 200 nautical miles. The JASSM is integrated on the F-15E, F-16, B-52, B-1, and B-2 aircraft. Production of JASSM Baseline concludes in FY 2016.

The JASSM-Extended Range (ER) increment is highly common with the JASSM Baseline variant, offers a more fuel-efficient engine and greater fuel capacity, and adds 2.5 times the standoff range (>500nm). The JASSM-ER maintains the same outer mold line and low-observable properties as JASSM Baseline, but replaces the turbojet engine (Teledyne) with higher thrust, more fuel efficient turbofan engine (Williams International). Maximum unclassified range for the JASSM-ER variant is greater than 500 nautical miles. The JASSM-ER is currently only integrated on the B-1 aircraft with integration on the F-15E, F-16, B-52, and B-2 by FY 2019.

Mission: Destroys targets from a long-range standoff position deliverable by fighter and bomber aircraft.

FY 2017 Program: Continues Full Rate Production for JASSM-ER.

Prime Contractor: Lockheed Martin Corporation; Troy, AL

Joint Air to Surface Standoff Missile										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	12.4	-	9.8	-	30.0	-	-	-	30.0	-
Procurement	329.2	240	425.6	340	431.6	360	-	-	431.6	360
Spares	-	-	0.8	-	0.4	-	-	-	0.4	-
Total	341.6	240	436.2	340	462.0	360	-	-	462.0	360

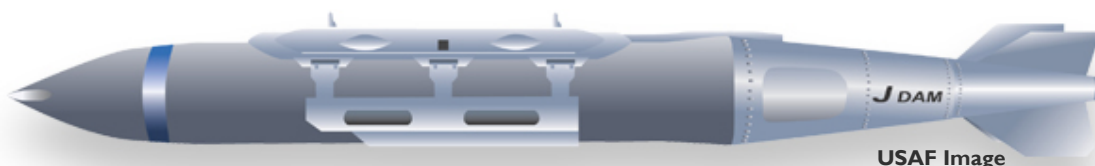
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MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Joint Direct Attack Munition

DOD - JOINT



The Joint Direct Attack Munition (JDAM) is a joint Air Force and Navy program led by the Air Force. The JDAM improves the existing inventory of general purpose gravity bombs by integrating a Global Positioning System (GPS)/inertial navigation guidance capability that improves accuracy and adverse weather capability.

A Laser JDAM (LJDAM) variant increases operational flexibility for an expanded target set. The laser sensor kit added to the JDAM weapon kit provides the ability to attack targets of opportunity, including land-moving and maritime targets, when designated by an airborne or ground laser.

Mission: Enhances DoD conventional strike system capabilities by providing the ability to precisely attack time-critical, high value fixed or maritime targets under adverse environmental conditions and from all altitudes.

FY 2017 Program: Continues full-rate production of the system; factory capacity will increase from 18,900 to 36,500 units per year by 4th quarter FY 2017.

Prime Contractor: The Boeing Company; St. Charles, MO

Joint Direct Attack Munition										
	FY 2015*		FY 2016**		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	2.4	-	-	-	10.0	-	-	-	10.0	-
Procurement										
Air Force	228.4	8,786	534.0	22,359	304.0	12,133	403.1	18,531	707.1	30,664
Navy	18.7	876	31.3	1,437	37.7	1,696	24.1	1,083	61.8	2,779
Subtotal	247.1	9,662	565.3	23,796	341.7	13,829	427.2	19,614	768.9	33,443
Total	249.5	9,662	565.3	23,796	351.7	13,829	427.2	19,614	778.9	33,443

Note: FY 2015 and FY 2016 includes Base and OCO

Numbers may not add due to rounding

* FY 2015 includes \$117 million of OCO funding

** FY 2016 includes \$184 million of OCO funding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

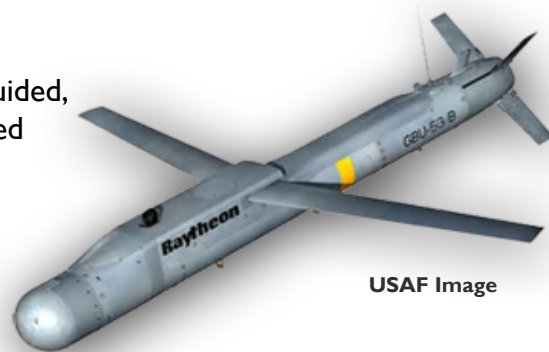
Small Diameter Bomb (SDB)

DOD - JOINT

The Small Diameter Bomb (SDB) II is a joint Air Force and Navy program led by the Air Force to provide a conventional small sized, precision guided, standoff air-to-ground weapon that can be delivered from both fighter and bomber aircraft.

The SDB I is a fixed target attack weapon.

The SDB-II incorporates a seeker and data link, which expands the use to moving targets.



USAF Image

Mission: Destroys targets from a medium-range standoff position deliverable by both fighter and bomber aircraft, with higher load-out and less collateral damage compared to other weapons. SDB II integration and testing activities continue on the F-15E aircraft.

FY 2017 Program: Continues Engineering and Manufacturing Development (EMD) and Low Rate Initial Production of SDB II missiles for use against moving, relocatable, and fixed targets.

Prime Contractor: Boeing Company; St. Charles, MO (SDB I)
Raytheon Missile Systems; Tucson, AZ (SDB II)

Small Diameter Bomb										
	FY 2015*		FY 2016**		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E										
Air Force	66.4	-	29.1	-	54.8	-	-	-	54.8	-
Navy	54.0	-	57.1	-	97.6	-	-	-	97.6	-
Subtotal	120.4	-	86.2	-	152.4	-	-	-	152.4	-
Procurement										
Air Force	51.3	443	135.1	1,977	92.4	312	167.8	4,195	260.2	4,507
Spares	7.9		3.2		10.6	-			10.6	-
Total	179.6	443	224.5	1,977	255.4	312	167.8	4,195	423.2	4,507

Note: FY 2015 and FY 2016 includes Base and OCO

* FY 2015 includes \$10.7 million of OCO funding

** FY 2016 includes \$2.5 million of OCO funding

Numbers may not add due to rounding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Hellfire Missiles

DOD - JOINT

The Laser HELLFIRE II system family of air-to-ground missiles (all variants) provides attack helicopters and unmanned aircraft systems (UAS) with point-target precision strike capability to defeat heavy, advanced armor, individual hard point and non-traditional targets. HELLFIRE II Missiles use a semi-active laser terminal guidance and are the primary armament of the AH-64 Apache, OH-58 Kiowa Warrior, Army UAS and Special Operations aircraft. The HELLFIRE II AGM-114R is 64 inches in length and weighs 108 lbs. Weapons range is approximately 8 kilometers.



The HELLFIRE II includes Electro-Optical Countermeasure capability, warhead

improvements and an updated electronic fuze. The AGM-114R HELLFIRE II missile will be the single variant that replaces all other HELLFIRE II missile configurations (K/N/M/P).

Mission: Engages and defeats individual moving or stationary ground targets such as armor, mechanized, or vehicular targets, building, or bunkers.

FY 2017 Program: Continues at full-rate production; factory capacity will increase from 6,600 to 8,000 per year by FY 2018.

Prime Contractor: Lockheed Martin; Orlando, FL

Hellfire Missiles										
	FY 2015*		FY 2016**		FY 2017					
					Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	-	-	-	-	-	-	-	-	-	-
Procurement										
Army	36.6	262	65.2	383	42.0	155	455.8	4,055	497.8	4,210
Air Force	359.3	3,143	697.7	6,256	34.0	284	145.1	1,252	179.1	1,536
Navy	-	-	-	-	-	-	8.6	100	8.6	100
Total	395.9	3,405	762.9	6,639	76.0	439	609.5	5,407	685.5	5,846

Note: FY 2015 & FY 2016 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2015 includes \$347.6 million of OCO funding

** FY 2016 includes \$318.2 million of OCO funding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Javelin Advanced Anti-Tank Weapon System - Medium

USA

The Javelin is highly effective against a variety of targets at extended ranges under day/night, battlefield obscurants, adverse weather, and multiple counter-measure conditions. The system's soft-launch feature permits firing from enclosures commonly found in complex urban terrain. The system consists of a reusable command launch unit (CLU) and a modular missile encased in a disposable launch tube assembly. The CLU provides stand-alone all-weather and day/night surveillance capability.



Javelin provides precision effects in either a top-attack or direct-attack mode to defeat armored vehicles, fortifications and soft targets in full spectrum operations. It uses an imaging infrared two-dimensional staring focal plane array seeker and a tandem warhead with two shaped charges: a precursor warhead to defeat reactive armor, and a primary warhead to penetrate base armor and other structures. It is effective against stationary and moving targets.

Mission: Provides the dismounted soldier with a man-portable, fire-and-forget system that is highly lethal against targets ranging from main battle tanks to fleeting targets of opportunity found in current threat environments.

FY 2017 Program: Continues procurement of FGM-148F (F model) Javelin missiles with a new Multi-Purpose Warhead, which improves lethality against exposed personnel. Continues development of a lightweight CLU to reduce soldier burden and bulk.

Prime Contractor: Raytheon Missile Systems/Lockheed Martin Javelin Joint Venture; Tucson, AZ and Orlando, FL

Javelin Advanced Anti-Tank Weapon System - Medium										
	FY 2015*		FY 2016**		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	4.0	-	4.0	-	20.0	-	-	-	20.0	-
Procurement										
Army	72.9	311	168.2	850	73.5	309	15.6	83	89.1	392
Navy	17.5	88	55.8	289	1.0	-	1.6	9	2.6	9
Subtotal	90.4	399	224.0	1,139	74.5	309	17.2	92	91.7	401
Total	94.4	399	228.0	1,139	94.5	309	17.2	92	111.7	401

Note: FY 2015 & FY 2016 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2015 includes \$17.1 million of OCO funding

** FY 2016 includes \$7.7 million of OCO funding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Guided Multiple Launch Rocket System

The Guided Multiple Launch Rocket System (GMLRS) provides a persistent, responsive, all-weather, rapidly-deployable and long range precision strike capability.

The GMLRS is fired by the M142 High Mobility Artillery Rocket System (HIMARS) and the M270A1 Multiple

Launch Rocket System (MLRS) launchers. The GMLRS uses an on-board Inertial Measurement Unit (IMU) in combination with a Global Positioning System (GPS) guidance system to provide improved performance. The missile has a range of approximately 70 kilometers and can carry a variety of different warheads servicing point and area targets. The third GMLRS increment, GMLRS Alternative Warhead (AW), is in production and will replace GMLRS Dual Purpose Improved Conventional Munition to meet requirements outlined in the 2008 Department of Defense Cluster Munitions Policy. The GMLRS AW will be produced on a shared production line and is about 90% common with the GMLRS Unitary increment.



Mission: Neutralizes or suppresses enemy field artillery and air defense systems and supplements cannon artillery fires.

FY 2017 Program: Continues at full rate production of GMLRS (AW/Unitary) as well as product improvements such as insensitive munition development.

Prime Contractor: Lockheed Martin Corporation; Dallas, TX

Guided Multiple Launch Rocket System

	FY 2015		FY 2016		FY 2017					
					Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	43.8	-	36.7	-	22.0	-	-	-	22.0	-
Procurement	127.1	768	251.1	1,866	172.1	1,068	76.0	698	248.1	1,766
Total	170.9	768	287.8	1,866	194.1	1,068	76.0	698	270.1	1,766

Numbers may not add due to rounding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Rolling Airframe Missile

The Rolling Airframe Missile (RAM) is a high firepower, lightweight complementary self-defense system to engage anti-ship cruise missiles.

The systems design is based upon the infra-red seeker of the Stinger (FIM-92) missile, and the warhead, rocket motor, and fuse from the Sidewinder (AIM-9) missile. The missile uses Radio Frequency (RF) for midcourse guidance, and transitions to Infrared (IR) guidance for terminal engagement. Currently there are two RIM-116 configurations: Block I (RIM-116B) and Block 2 (RIM-116C).



Mission: Provides high firepower close-in defense of combatant and auxiliary ships by utilizing a dual mode, passive radio frequency/infrared missile in a compact 21 missile launcher.

FY 2017 Program: Continues low rate of production for the Block II (RIM-116C) missile as well as operational testing.

Prime Contractor: Raytheon Missile Systems; Tucson, AZ

Rolling Airframe Missile										
	FY 2015		FY 2016		FY 2017					
					Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	12.3	-	14.3	-	18.1	-	-	-	18.1	-
Procurement	76.8	90	74.6	90	71.6	90	-	-	71.6	90
Total	89.1	90	88.9	90	89.7	90	-	-	89.7	90

Numbers may not add due to rounding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Standard Family of Missiles



US Navy Photo



The STANDARD missile family consists of various air defense missiles including supersonic, medium and extended range; surface-to-air. The Standard Missile-6 is a surface Navy Anti-Air Warfare (AAW) missile that provides area and ship self defense. The missile is intended to project power and contribute to raid annihilation by destroying manned fixed and rotary wing aircraft, Unmanned Aerial Vehicles (UAV), Land Attack Cruise Missiles (LACM), and Anti-Ship Cruise Missiles (ASCM) in flight. It was designed to fulfill the need for a vertically launched, extended range missile compatible with the Aegis Weapon System (AWS) to be used against extended range threats at-sea, near land, and overland. The SM-6 combines the tested legacy of STANDARD Missile-2 (SM-2) propulsion and ordnance with an active Radio Frequency (RF) seeker modified from the AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM), allowing for over-the-horizon engagements, enhanced capability at extended ranges, and increased firepower.

Mission: Provides all-weather, anti-aircraft armament for cruisers, destroyers, and guided missile frigates. The most recent variant of Standard Missile is SM-6, which incorporates an AMRAAM seeker for increased performance, including overland capability.

FY 2017 Program: Continues production of the SM-6 variant.

Prime Contractor: Raytheon Missile Systems; Tucson, AZ

Standard Family of Missiles										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	50.2	-	115.6	-	120.6	-	-	-	120.6	-
Procurement	404.5	100	417.3	113	501.2	125	-	-	501.2	125
Spares	16.2		17.1	-	4.9	-	-	-	4.9	-
Total	470.9	100	550.0	113	626.7	125	-	-	626.7	125

Numbers may not add due to rounding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Tactical Tomahawk Cruise Missile



Tomahawk is a long range cruise missile used for deep land-attack strike warfare that is launched from U.S. Navy surface combatants and submarines. Tomahawk Block IV features an improved navigation/guidance computer; robust anti-jam Global Positioning System (GPS) capabilities; increased responsiveness and flexibility via satellite communications for in-flight re-targeting; a loiter capability; and the ability to transmit a Battle Damage Indication (BDI) prior to impact.

Block IV Tomahawk delivers a 1,000 lb class unitary warhead at a range of 900 nm. Block IV Tomahawk employs inertial guidance or GPS over water to follow a preset course; once over land, the missile's guidance system is aided by Terrain Contour Matching (TERCOM). Terminal guidance is provided by the Digital Scene Matching Area Correlation (DSMAC) system or GPS, enabling highly accurate precision attack.

Mission: Provides precision strike against long and medium range tactical targets.

FY 2017 Program: Continues production Tomahawk Block IV missiles. Funds the development of a maritime strike variant to engage surface targets.

Prime Contractor: Raytheon Missile Systems; Tucson, AZ

Tactical Tomahawk Cruise Missile										
	FY 2015*		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	23.8	-	25.2	-	71.4	-	-	-	71.4	-
Procurement	317.5	243	202.3	149	186.9	100	-	-	186.9	100
Spares	7.4	-	70.3	-	39.8	-	-	-	39.8	-
Total	348.7	243	297.8	149	298.1	100	-	-	298.1	100

Note: FY 2015 includes Base and OCO funding

Numbers may not add due to rounding

* FY 2015 includes \$45.5 million of OCO funding.

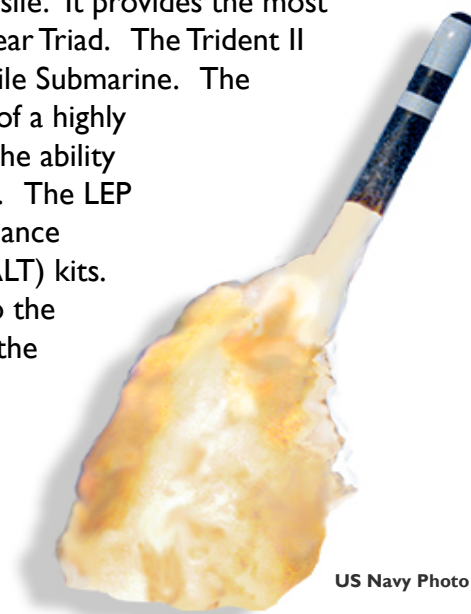
MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Trident II Ballistic Missile Modifications



The Trident II (D5) is a submarine launched ballistic missile. It provides the most survivable, second-strike capability in our nation's nuclear Triad. The Trident II missile is carried on the OHIO-class Fleet Ballistic Missile Submarine. The ongoing Life Extension Program (LEP) ensures viability of a highly survivable strategic deterrent through 2042, providing the ability to precisely attack time-critical, high value, fixed targets. The LEP includes the procurement of missile electronic and guidance Supportability Mods/Strategic Programs Alteration (SPALT) kits. The importance of this program as a key component to the sea-based leg of the nuclear triad was re-confirmed by the President and Congress with the ratification of the New START Treaty in 2011.



US Navy Photo

Mission: Aboard a virtually undetectable platform, the submarine launched fleet ballistic missile deters nuclear war by means of assured second-strike capability in response to a major attack on the United States or its allies.

FY 2017 Program: Funds the development of advanced components to improve the reliability, safety and security of Arming, Fuzing and Firing systems and studies to support the National Nuclear Security Administration W88 ALT 370. Funds the procurement of flight test instrumentation, 13 Boost Rocket Motors, 13 Post Boost Control System Gas Generators, 42 Life Extension Program (LEP) kits, support equipment, and spares.

Prime Contractor: Lockheed Martin Corporation; Sunnyvale, CA

Trident II Ballistic Missile Mods										
	FY 2015		FY 2016		FY 2017					
					Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	70.1	-	109.9	-	117.5	-	-	-	117.5	-
Procurement	1,161.3	-	1,089.1	-	1,103.1	-	-	-	1,103.1	-
Total	1,231.4	-	1,199.0	-	1,220.6	-	-	-	1,220.6	-

Numbers may not add due to rounding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

Offensive Anti-Surface Weapon (OASuW)



The Offensive Anti-Surface Warfare (OASuW) Increment I is an accelerated acquisition program to develop the Long-Range Anti-Surface Warfare Missile (LRASM). LRASM is a precision-guided anti-ship missile with semi-autonomous guidance, day/night and all-weather capability. LRASM integrates a multi-modal sensor suite, a weapons data-link, enhanced digital anti-jam Global Positioning System capabilities, and a 1,000lb penetrator/blast fragmentation warhead. Increment I provides Combatant Commanders the ability to conduct Anti-Surface Warfare operations against high value surface combatants protected by Integrated Air Defense System with long range surface-to-air missiles and denies the adversary sanctuary of maneuver. The Increment I program has completed transition from Defense Advanced Research Projects Agency to Navy leadership and is scheduled to field on the Air Force B-1 Bomber by the end of Fiscal Year 2018 and F/A-18E/F by the end of Fiscal Year 2019. The OASuW Increment I is a joint Navy/Air Force program led by the Navy.

Mission: Provide robust anti-surface warfare capability to ensure freedom of maneuver, maintain sea lines-of-communication, and extend joint warfighter combat reach in contested maritime environments.

FY 2017 Program: Continue technology development and initiate the integration and test phase of the air-launched OASuW Increment I (LRASM) program.

Prime Contractor: Lockheed Martin Missiles and Fire Control Strike Weapons;
Orlando, FL

Offensive Anti-Surface Weapon (OASuW)										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	181.7	-	285.8	-	252.4	-	-	-	252.4	-
Procurement	-	-	-	-	-	-	-	-	-	-
Navy	-	-	-	-	29.6	10	-	-	29.6	10
Air Force	-	-	-	-	59.5	20	-	-	59.5	20
Subtotal	-	-	-	-	89.1	30	-	-	89.1	30
Total	181.7	-	285.8	-	341.5	30	-	-	341.5	30

Numbers may not add due to rounding

MISSILES AND MUNITIONS

FY 2017 Program Acquisition Costs by Weapon System

B61 Tail Kit Assembly (TKA)



The B61 is a nuclear gravity bomb developed by the Department of Energy / National Nuclear Security Administration (DOE/NNSA) for the Department of Defense. Current versions in the inventory were fielded between 1978-1990 and require component refurbishment and replacement to maintain a safe, secure and effective capability.



Mission: Provides strategic gravity weapons for the bomber leg of the nuclear triad, and non-strategic gravity weapons for dual-capable aircraft in support of NATO's nuclear deterrent mission. To extend the life of this weapon, the DOE/NNSA and the Air Force are executing a Life Extension Program (LEP) to refurbish legacy B61 gravity bombs and replace the legacy parachute delivery system with a guidance-capable Tail Kit Assembly (TKA) that enables the refurbished weapon's yield to be reduced. When completed, the B61-12 LEP will consolidate four legacy B61 variants into a single variant that will be carried by the B-2, F-15E, F-16, and NATO aircraft as well as the F-35 and the Next Generation Bomber. The First Production Unit for the B61-12 is scheduled for delivery in 2020. The Air Force is responsible for the TKA program, and for collaborating with DOE/NNSA on various LEP efforts including technical integration and system qualification.

FY 2017 Program: Continues the development, design, test, integration, qualification and nuclear certification activities in support of the B61-12 LEP; Engineering and Manufacturing Development Phase 2 of the contract. Phase 2, which involves aircraft testing and integration efforts, to include software development to ensure compatibility with fighter and bomber aircraft.

Prime Contractor: Boeing Company

B61 Tail Kit Assembly (TKA)										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	148.3	-	212.1	-	137.9	-	-	-	137.9	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	148.3	-	212.1	-	137.9	-	-	-	137.9	-

Numbers may not add due to rounding

MISSILES AND MUNITIONS

Shipbuilding and Maritime Systems

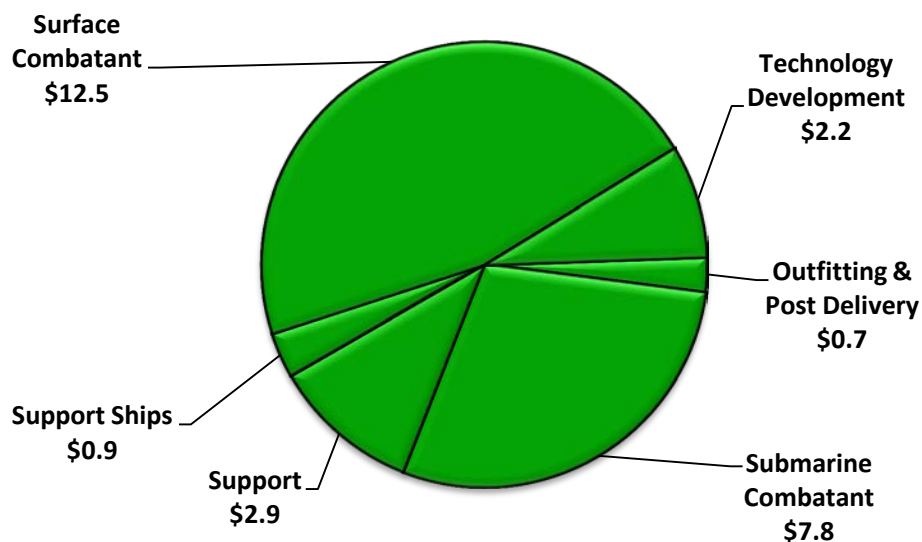
A central principle to the United States Maritime Strategy is forward presence, which promotes conflict deterrence by ensuring forces are in a position to expeditiously respond to conflict. Therefore, sea services must procure, build, and maintain maritime systems in accordance with mission need.

The Shipbuilding Portfolio for FY 2017 includes the funding for the construction of 10 ships (2 SSN 774 Virginia Class nuclear attack submarines; 2 DDG 51 Arleigh Burke Class destroyers; 2 Littoral Combat Ships (LCS); 1 Landing Helicopter Dock Amphibious (LHA) ship); 1 Moored Training Ship; and 2 Ship to Shore Connector craft. In addition, funding is included in the FY 2017 request for ongoing incremental costs for the construction of nuclear aircraft carriers USS JOHN F. KENNEDY (CVN 79) and USS ENTERPRISE (CVN 80); and the initial Advance Procurement funding to support detail design activities for the Ohio Replacement Program (ORP) Fleet Ballistic Missile Submarine (SSBN).

The funding in this category finances the developmental efforts, the equipment procurements, and the construction of ships that will allow the U.S. Navy to maintain maritime superiority well into the 21st century.

FY 2017 Shipbuilding and Maritime Systems – Total: **\$27.0 Billion**

(\$ in Billions)



Numbers may not add due to rounding

SHIPBUILDING AND MARITIME SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

CVN 78 *Gerald R. Ford* Class Nuclear Aircraft Carrier



Aircraft carriers are the centerpiece of U.S. Naval forces.

The CVN 78 class ships will include new technologies and improvements to improve efficiency and operating costs as well as reduced crew requirements. This new class brings improved warfighting capability, quality-of-life improvements for Sailors, and reduced total ownership costs. USS *Gerald R. Ford* is the first aircraft carrier designed with all electric utilities, eliminating steam service lines from the ship, reducing maintenance requirements and improving corrosion control. The new AIB reactor, Electromagnetic Aircraft Launch System (EMALS), Advanced Arresting Gear (AAG) and Dual Band Radar (DBR) all offer enhanced capability with reduced manning. The ship's systems and configuration are optimized to maximize the sortie generation rate (SGR) of attached strike aircraft.



US Navy Image

Mission: Provides the United States with the core capabilities for forward presence, deterrence, sea control, power projection, maritime security and humanitarian assistance. The *Gerald R. Ford* class will be the premier forward asset for crisis response and early decisive striking power in a major combat operation.

FY 2017 Program: Funds fifth year of construction costs for USS *John F. Kennedy* (CVN 79), long lead items for USS *Enterprise* (CVN 80), outfitting and training costs, and continued development of ship systems.

Prime Contractor: Huntington Ingalls Industries; Newport News, VA

CVN 78 <i>Gerald R. Ford</i> Class Nuclear Aircraft Carrier										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	128.7	-	116.7	-	121.4	-	-	-	121.4	-
Procurement	1,942.0	-	2,655.2	-	2,664.9	-	-	-	2,664.9	-
Total	2,070.7	-	2,771.9	-	2,786.4	-	-	-	2,786.4	-

Numbers may not add due to rounding

SHIPBUILDING AND MARITIME SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

DDG 51 *Arleigh Burke* Class Destroyer



The DDG 51 class guided missile destroyers provide a wide range of warfighting capabilities in multi-threat air, surface, and subsurface environments. The DDG 51 class ship is armed with a vertical launching system, which accommodates 96 missiles, and a 5-inch gun that provides Naval Surface Fire Support to forces ashore and anti-ship gunnery capability against other ships. This is the first class of destroyers



US Navy Photo

with a ballistic missile defense capability. The *Arleigh Burke* class is comprised of four separate variants; DDG 51-71 represent the original design, designated Flight I ships, and are being modernized to current capability standards; DDG 72-78 are Flight II ships; DDG 79-123 ships are Flight IIA ships; DDG 124 will become the first Flight III variant. Flight III ships will feature the Air and Missile Defense Radar (AMDR) capability.

Mission: Provides air and maritime dominance and land attack capability with its AEGIS Weapon System, AN/SQQ-89 Anti-Submarine Warfare System, and Tomahawk Weapon Systems.

FY 2017 Program: Funds two Flight III DDG 51 AEGIS-class destroyers as part of a multiyear procurement for ten ships from FY 2013 - FY 2017 and outfitting costs.

Prime Contractors: General Dynamics Corporation; Bath, ME
Huntington Ingalls Industries; Pascagoula, MS

DDG 51 <i>Arleigh Burke</i> Class Destroyer										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	87.1	-	182.3	-	149.4	-	-	-	149.4	-
Procurement	2,932.9	2	4,266.8	2	3,348.9	2	-	-	3,348.9	2
Total	3,020.0	2	4,449.1	2	3,498.3	2	-	-	3,498.3	2

Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

Littoral Combat Ship (LCS)



The Littoral Combat Ship (LCS) is a small surface combatant capable of operations close to shore. The design emphasizes speed, flexibility, and shallow draft. The LCS is designed for operations in three primary anti-access mission areas: Surface Warfare (SUW) Operations emphasizing defeat of small boats, Mine Warfare (MIW), and Anti-Submarine Warfare (ASW). The ships are reconfigured for various operational roles by changing the mission module, each of which have mission area-specific equipment, vehicles, and crews. The modules are used to counter anti-access threats close to shore such as mines, quiet diesel submarines, and swarming small boats. The seaframe acquisition strategy procures two seaframe designs which are a separate and distinct acquisition program from the mission module program. The two programs are synchronized to ensure combined capability.

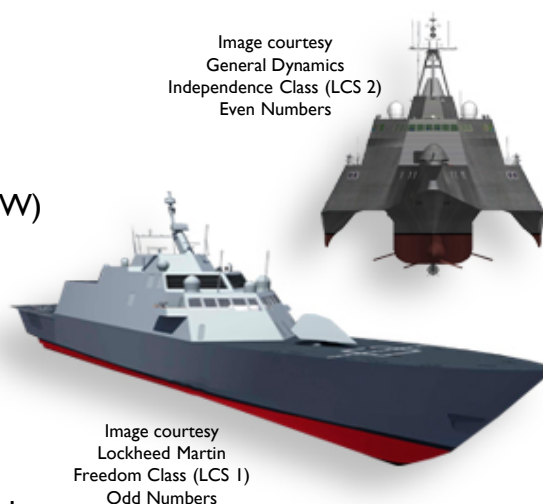


Image courtesy
General Dynamics
Independence Class (LCS 2)
Even Numbers

Image courtesy
Lockheed Martin
Freedom Class (LCS 1)
Odd Numbers

Mission: Defeats asymmetric threats and assures naval and joint forces access into contested littoral regions by prosecuting small boats and craft, conducting mine countermeasures, and performing anti-submarine warfare.

FY 2017 Program: Funds construction of two LCS seaframes, outfitting, trainers, and other support equipment.

Prime Contractors: Lockheed Martin; Middle River, MD
Austal USA; Mobile, AL

Littoral Combat Ship										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	80.2	-	121.4	-	136.5	-	-	-	136.5	-
Procurement	1,725.5	3	1,694.9	3	1,462.4	2	-	-	1,462.4	2
Total	1,805.7	3	1,816.3	3	1,598.9	2	-	-	1,598.9	2

Numbers may not add due to rounding

SHIPBUILDING AND MARITIME SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

SSN 774 Virginia Class Submarine



The *Virginia* Class Submarine is a multi mission nuclear-powered attack submarine that provides the Navy with the capabilities to maintain undersea supremacy in the 21st century. Characterized by advanced stealth and enhanced features for

Special Operations Forces, this submarine is able to operate in deep water and littoral environments. Equipped with vertical launchers and torpedo tubes, the submarine is able to launch Tomahawk cruise missiles as well as heavyweight torpedoes.



Mission: Seeks and destroys enemy ships and submarines across a wide spectrum of scenarios, working independently and in concert with a battle group, separate ships, and independent units. Provides theater commanders with time sensitive critical information for accurate knowledge of the battlefield.

FY 2017 Program: Funds two ships as part of a multiyear procurement contract, advance procurement for two ships in future years, and outfitting and support items. Continues funding for the development of the *Virginia* Payload Module, technology, prototype components, and systems engineering needed for design and construction.

Prime Contractors: General Dynamics Corporation; Groton, CT
Huntington Ingalls Industries; Newport News, VA

SSN 774 Virginia Class Submarine										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	189.4	-	317.2	-	208.5	-	-	-	208.5	-
Procurement	5,973.0	2	5,424.5	2	5,113.9	2	-	-	5,113.9	2
Total	6,162.4	2	5,741.7	2	5,322.3	2	-	-	5,322.3	2

Numbers may not add due to rounding

SHIPBUILDING AND MARITIME SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Ship to Shore Connector



The Ship to Shore Connector (SSC) is the functional replacement for the existing fleet of Landing Craft, Air Cushioned (LCAC) vehicles, which are nearing the end of their service life. The SSC is an air-cushioned landing craft intended to transport personnel, weapon systems, equipment, and cargo from amphibious vessels to shore. The vessel can rapidly move assault forces to conduct amphibious operations and operate over the high water mark to include movements over ice, mud, and swamps.

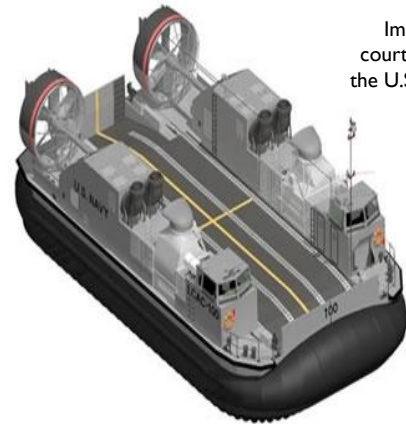


Image courtesy of the U.S. Navy

Mission: Transports vehicles, heavy equipment, and supplies through varied environmental conditions from amphibious ships to shore. Enhances the Navy and Marine Corps capability to execute a broad spectrum of missions from humanitarian assistance and disaster response to multidimensional amphibious assault.

FY 2017 Program: Procures two vessels and continues research and development of ship construction (craft 100) and testing.

Prime Contractor: Textron Incorporated; New Orleans, LA

Ship to Shore Connector										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	41.6	-	7.8	-	11.1	-	-	-	11.1	-
Procurement	159.6	3	210.6	4	128.1	2	-	-	128.1	2
Total	201.2	3	218.4	4	139.2	2	-	-	139.2	2

Numbers may not add due to rounding

SHIPBUILDING AND MARITIME SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

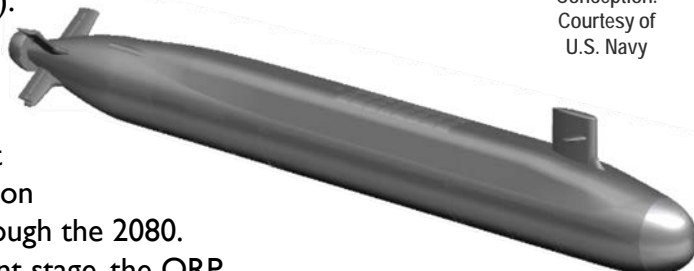
Ohio Replacement (OR) Program



The *Ohio* Replacement Program (ORP) is designed to replace the current *Ohio* class of Fleet Ballistic Missile Submarine (SSBN).

The ORP will deliver 12 SSBNs with the necessary capability and capacity to meet the sea based strategic deterrence mission beyond retirement of the current submarines force and with sufficient mission capability to counter credible threats through the 2080.

Currently in the research and development stage, the ORP requirements and specifications are being refined. The ships will begin construction in FY 2021 for FY 2028 delivery when the first *Ohio* class ships are due to be decommissioned. The nuclear propulsion systems for the ORP will be acquired from the nuclear industrial base under the direction of Naval Reactors, under U.S. Department of Energy authorities. The program included the development and construction of a Common Missile Compartment (CMC) capable of hosting the existing TRIDENT II missile system, which is conducted jointly with the United Kingdom (UK) to support its SUCCESSOR Class SSBN.



Artist Conception. Courtesy of U.S. Navy

Mission: Provides a sea-based strategic nuclear force.

FY 2017 Program: Funds advance procurement for long-lead items, detail design, and research and development of nuclear technologies and ship systems such as the propulsion system, combat systems technology, and the common missile compartment.

Prime Contractor: TBD

Ohio Replacement (OR) Program										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget \$M	Qty	OCO Budget \$M	Qty	Total Request \$M	Qty
RDT&E	1,203.2	-	1,390.7	-	1,091.1	-	-	-	1,091.1	-
Procurement	-	-	-	-	773.1	-	-	-	773.1	-
Total	1,203.2	-	1,390.7	-	1,864.3	-	-	-	1,864.3	-

Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

CVN Refueling Complex Overhaul



The CVN Refueling Complex Overhaul (RCOH) life extension program provides for the modernization of nuclear powered fleet aircraft carriers. During the RCOH, the nuclear fuel is replaced, and major system modernization activities are implemented to extend the useful operational life of the ship. An RCOH is performed midway through the ship's lifespan, which, for *Nimitz* class carriers, is approximately 25 years and can take nearly four to complete.



Photo Courtesy of Northrop Grumman

Mission: The RCOH program refuels and upgrades the *Nimitz* class aircraft carriers at mid-life to ensure reliable operations during the remaining ship life.

FY 2017 Program: Continues funding for the RCOH for USS *George Washington* (CVN 73) and procurement of long-lead items and long-lead efforts for USS *John C. Stennis* (CVN 74) scheduled to begin in FY 2020.

Prime Contractor: Huntington Ingalls Incorporated; Newport News, VA

CVN Refueling Complex Overhaul										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	-	-	-	-	-	-	-	-	-	-
Procurement	537.6	-	672.6	1	1,991.8	-	-	-	1,991.8	-
Total	537.6	-	672.6	1	1,991.8	-	-	-	1,991.8	-

Numbers may not add due to rounding

FY 2017 Program Acquisition Costs by Weapon System

LHA(R) America Class Amphibious Assault Ship



USS America (LHA 6) class ships are large-deck, amphibious assault ships designed to land and support ground forces.

This class can transport a combination of helicopters and vertical take off and landing aircraft.

The first two ships, LHA 6 and USS Tripoli LHA 7, are designated as Flight 0 Variants and include an enlarged hangar deck, enhanced aviation maintenance facilities, increased aviation fuel capacity, and additional aviation storerooms as compared to the previous Tarawa (LHA 1) class ships. LHA 8 will be designated the first Flight 1 ship and will reincorporate a well deck for operational flexibility. The well deck will enable surface operations while maintaining the aviation capabilities.



Mission: Provides forward presence and power projection as an integral part of joint, interagency, and multinational maritime expeditionary forces. Operates for sustained periods in transit to and operations in an Amphibious Objective Area to include the embarkation, deployment, and landing of a Marine Landing Force and supporting forces by helicopters and tilt rotors supported by Joint Strike Fighters F-35B.

FY 2017 Program: Funds construction of LHA 8, outfitting costs, and continuing R&D efforts.

Prime Contractor: Huntington Ingalls Industries Incorporated; Pascagoula, MS

LHA(R) America Class Amphibious Assault Ship										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	7.1	-	8.5	-	9.5	-	-	-	9.5	-
Procurement	64.7	-	489.2	-	1,638.8	1	-	-	1,638.8	1
Total	71.8	-	497.7	-	1,648.2	1	-	-	1,648.2	1

Numbers may not add due to rounding

SHIPBUILDING AND MARITIME SYSTEMS



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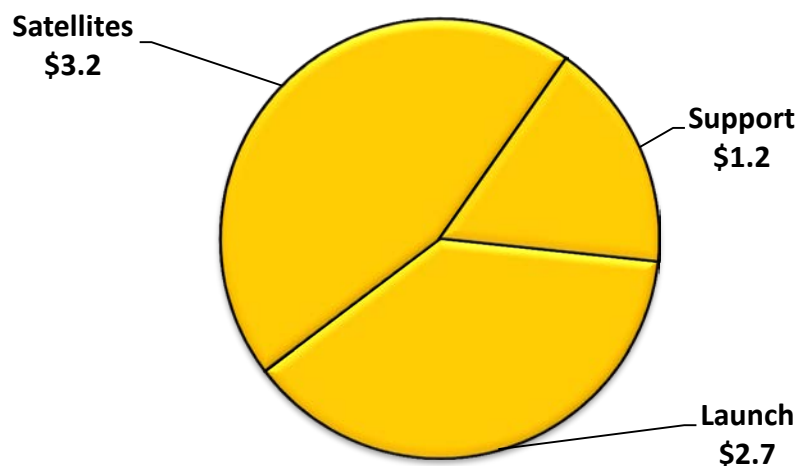
Space Based Systems

Space assets support deployed U. S. forces by providing communications services, navigation capabilities, and information collected by remote sensors such as weather satellites and intelligence collection systems. Space forces contribute to the overall effectiveness of U.S. military forces by acting as a force multiplier that enhances combat power. This investment addresses growing threats, complicating an adversary’s ability to counter U.S. space superiority, while enhancing the Department’s ability to identify, characterize, and attribute all threatening actions in space. The capability to control space contributes to achieving information superiority and battle space dominance. Procurement of launch vehicles and launch services are typically funded 2 years prior to launch. Generally speaking, the first two satellites of a new system are purchased with Research, Development, Test and Evaluation (RDT&E) funding and the remainder of the satellites are purchased with Procurement funding.

The FY 2017 budget highlights include transferring all space-like Other Procurement, Air Force funding to the Space Procurement, Air Force account, to continue funding the procurement of space vehicles (i.e., Advanced Extremely High Frequency (AEHF)-5, AEHF-6, Space Based Infrared System (SBIRS) Geosynchronous Earth Orbit (GEO)-5 and GEO-6), and continues the Space Modernization Initiative RDT&E activities. Also funds the procurement of the block buy of Evolved Expendable Launch Vehicle (EELV) Launch Services, specifically five launch vehicles, and up to eight Launch Capability activities per year.

FY 2017 Space Based Systems – Total: \$7.1 Billion

(\$ in Billions)



Does not include MDA or S&T Space related funding

SPACE BASED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Advanced Extremely High Frequency



The Advanced Extremely High Frequency (AEHF) system will be a four satellite constellation of communications satellites in geosynchronous orbit that will replenish the existing EHF system, Military Strategic Tactical Relay (MILSTAR), at a much higher capacity and data rate capability.



- 24-hour low, medium, and extended data rate satellite connectivity from 65 N to 65 S latitude worldwide
- 8 full-time spot beam antennas @ 75 bps to 8.192 Mbps data rate
- 24 time-shared spot beam coverages @ 75 bps to 2.048 Mbps data rate
- 2 crosslink antennas per satellite (60 Mbps)
- AEHF-1, AEHF-2, and AEHF-3 are in orbit and operational
- The launch of AEHF-4 is planned for 2017; AEHF-5 and AEHF-6 are scheduled to replace AEHF-1 and AEHF-2 at the end of their useful life

Mission: Provides survivable, anti-jam, low probability of detection/intercept, worldwide secure communications for tactical and strategic users and provides additional protection for strategic users against shocks from a nuclear attack. AEHF enables tactical users to obtain battlefield maps, share targeting data, and conduct voice calls. AEHF is a collaborative program that also includes resources for Canada, the United Kingdom, and the Netherlands.

FY 2017 Program: Continues funding for the procurement of the space vehicles AEHF-5 and AEHF-6, and continues selected MILSATCOM Space Modernization Initiative (SMI) development activities which are focused on inserting new technologies to replace obsolete parts and materials and to improve capabilities.

Prime Contractor: Lockheed Martin Corporation; Sunnyvale, CA

Advanced Extremely High Frequency										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	294.5	-	228.1	-	259.1	-	-	-	259.1	-
Procurement	298.5	-	327.4	-	645.6	-	-	-	645.6	-
Total	592.9	-	555.5	-	904.7	-	-	-	904.7	-

Numbers may not add due to rounding

SPACE BASED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Evolved Expendable Launch Vehicle

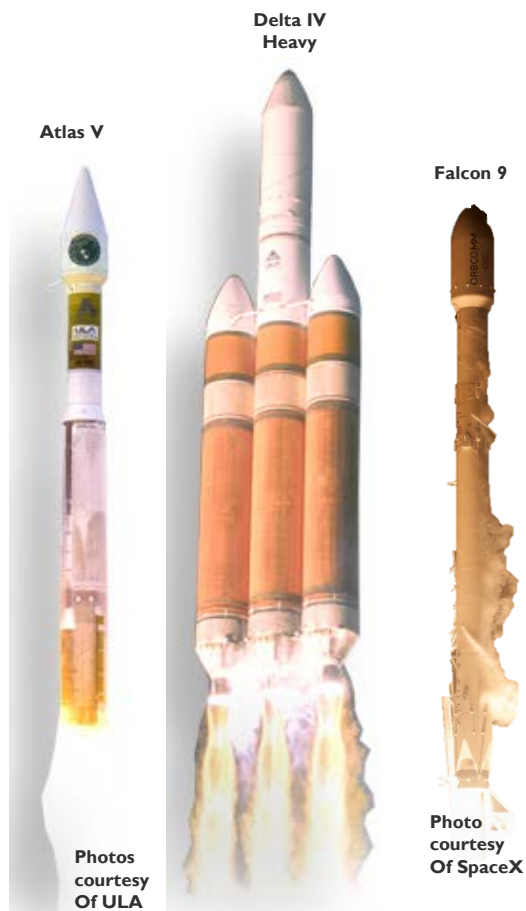


The Evolved Expendable Launch Vehicle (EELV) replaced the heritage Delta, Atlas, and Titan launch vehicle families. The EELV provides to the Air Force, Navy, and the National Reconnaissance Office (NRO), and other government and commercial purchasers of launch services medium to heavy lift class satellites.

- 90 consecutive successful operational launches.
- The Air Force certified SpaceX as an EELV provider on 19 May 2015.

Mission: Provides launch services and capability for medium and heavy class national security space satellites.

FY 2017 Program: Continues the block buy of EELV Launch Services (ELS); procures five Air Force launch services, three of which are set aside for competition and which are usually ordered no-later-than 24 months prior to the planned mission; and funds EELV Launch Capability (ELC) effort including mission assurance, program management, systems engineering, integration of the space vehicle with the launch vehicle, launch site and range operations, and launch infrastructure maintenance and sustainment. Continues EELV launch service investment to provide two commercially-viable, domestically-sourced space launch services with the objective of eliminating reliance on a foreign-made liquid rocket engine.



Prime Contractors: United Launch Alliance (ULA); Centennial, CO
SpaceX; Hawthorne, CA

Evolved Expendable Launch Vehicle										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	225.6	-	227.8	-	296.6	-	-	-	296.6	-
Procurement	1,419.7	4	1,250.9	4	1,506.4	5	-	-	1,506.4	5
Total	1,645.3	4	1,478.7	4	1,803.0	5	-	-	1,803.0	5

Numbers may not add due to rounding

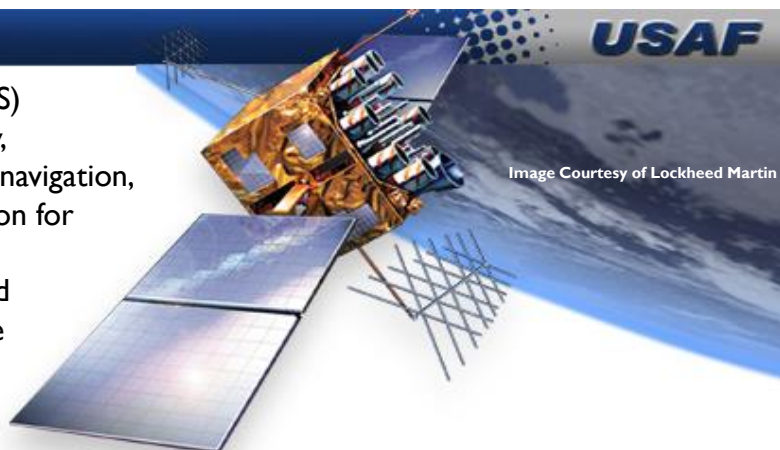
SPACE BASED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Global Positioning System

The Global Positioning System (GPS) provides world-wide, 24-hour a day, all weather 3-dimensional position, navigation, and precise timing (PNT) information for military and civil users. The GPS III space vehicles will be fully backward compatible with legacy signals while delivering new capabilities and enhancements to include a new Galileo-compatible signal (civil), a

more powerful M-code (military) signal, and the possibility to on-ramp future capabilities. The GPS Next Generation Operational Control System (OCX) will enable operational use of all modernized GPS signals, as well as enabling improved PNT performance.



Mission: Provides worldwide PNT to military and civilian users.

FY 2017 Program: Complete GPS III Space Vehicle (SV) 01 and 02 for available launch activities. Continues the development of GPS OCX Blocks 1 and 2. Funds the technology development and lead platform integration of Military GPS User Equipment (MGUE) Increment 1. Funds the GPS Program Office's responsibility as the Prime Integrator (Enterprise Integration) to synchronize space, control, and user segment programs and manage civil/military specifications and requirements.

Prime Contractors: GPS III: Lockheed Martin Corporation; Denver, CO
 GPS OCX: Raytheon Company; Aurora, CO
 GPS MGUE Inc I: L3 Interstate Electronics Corporation; Anaheim, CA
 Rockwell Collins International; Cedar Rapids, IA
 Raytheon Company; El Segundo, CA

Global Positioning System										
	FY 2015		FY 2016		FY 2017					
	\$M	Qty	\$M	Qty	Base Budget		OCO Budget		Total Request	
					\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	691.6	-	671.4	-	813.3	-	-	-	813.3	-
Procurement	312.3	1	199.2	1	34.1	-	-	-	34.1	-
Total	1,004.0	1	870.6	1	847.4	-	-	-	847.4	-

Numbers may not add due to rounding

SPACE BASED SYSTEMS

FY 2017 Program Acquisition Costs by Weapon System

Space Based Infrared System (SBIRS)

Space Based Infrared System (SBIRS) will field a four satellite constellation in Geosynchronous Earth Orbit (GEO) and a two hosted payload constellation in Highly Elliptical Orbit (HEO) with an integrated centralized ground station serving all SBIRS space elements. The SBIRS is the follow-on system to the Defense Support Program (DSP).



Image Courtesy of Lockheed Martin

The GEO payload consists of a scanning infrared (IR) sensor, which provides a higher revisit rate and more the sensitivity of DSP, and a staring IR sensor, which provides a higher fidelity and persistent coverage for areas of interest. The HEO payload consists of a single IR sensor.

- The HEO-3 payload was delivered to the host satellite program in June 2013 and is now on orbit; the HEO-4 payload was delivered in May 2015.
- The GEO-5 and GEO-6 satellites are scheduled to launch as replenishment satellites for GEO-1 and GEO-2 at the end of their useful lives.
- The GEO-3 satellite will be delivered from storage for launch in September 2017 as SBIRS Flight 4 and the GEO-4 satellite will be delivered directly from production for launch in July 2016 as SBIRS Flight 3.

Mission: Provides initial warning of strategic missile attack on the United States, its deployed forces, and its allies. Supports missile defense, battlespace awareness and technical intelligence.

FY 2017 Program: Continues incremental funding for procurement of the space vehicles GEO-5 and GEO-6, awarded June 2014; funds ground segment development, and continues the Space Modernization Initiative (SMI) development activities to reduce future production costs by improving insertion of new technologies to replace obsolete parts and materials.

Prime Contractor: Lockheed Martin Corporation; Sunnyvale, CA

Space Based Infrared System										
	FY 2015		FY 2016		FY 2017					
					Base Budget		OCO Budget		Total Request	
	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty	\$M	Qty
RDT&E	308.8	-	291.5	-	182.0	-	-	-	182.0	-
Procurement	445.6	-	542.7	-	362.5	-	-	-	362.5	-
Total	754.4	-	834.2	-	544.5	-	-	-	544.5	-

Numbers may not add due to rounding

SPACE BASED SYSTEMS



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