Office of the Under Secretary of Defense
(Comptroller)/CFO
February 2015

Program Acquisition Cost By Weapon System

United States Department of Defense
Fiscal Year 2016 Budget Request

Major Weapon Systems

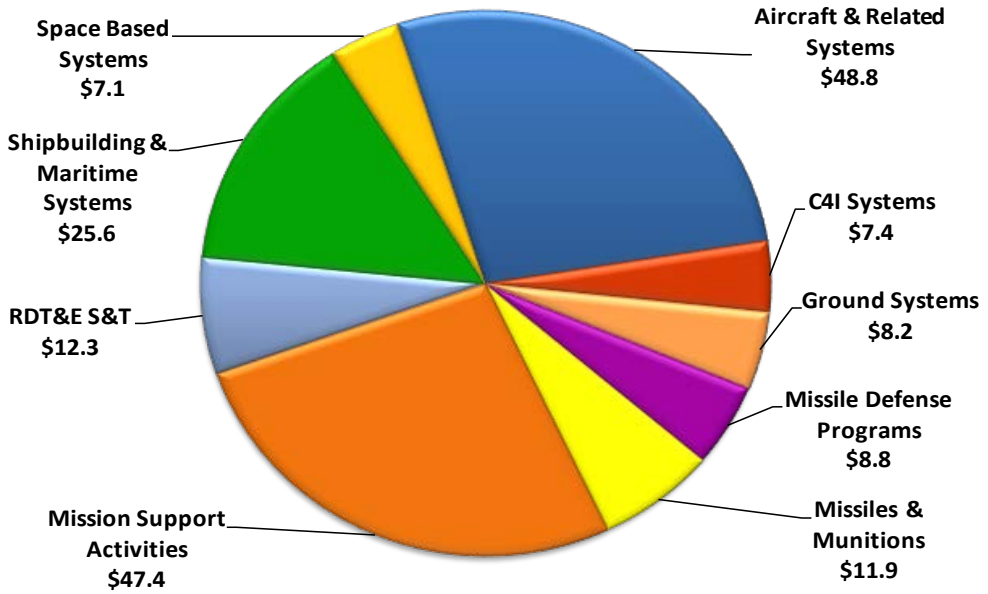
OVERVIEW

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) 2016 acquisition funding request for the Department of Defense (DoD) base budget totals $177.5 billion, which includes $107.7 billion for Procurement funded programs and $69.8 billion for Research, Development, Test, and Evaluation (RDT&E) funded programs. Of the $177.5 billion, $77.2 billion is for programs that have been designated as Major Defense Acquisition Programs (MDAPs) or Major Automated Information Systems (MAIS). Unless specifically identified as being for Overseas Contingency Operations (OCO), this book focuses on base 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

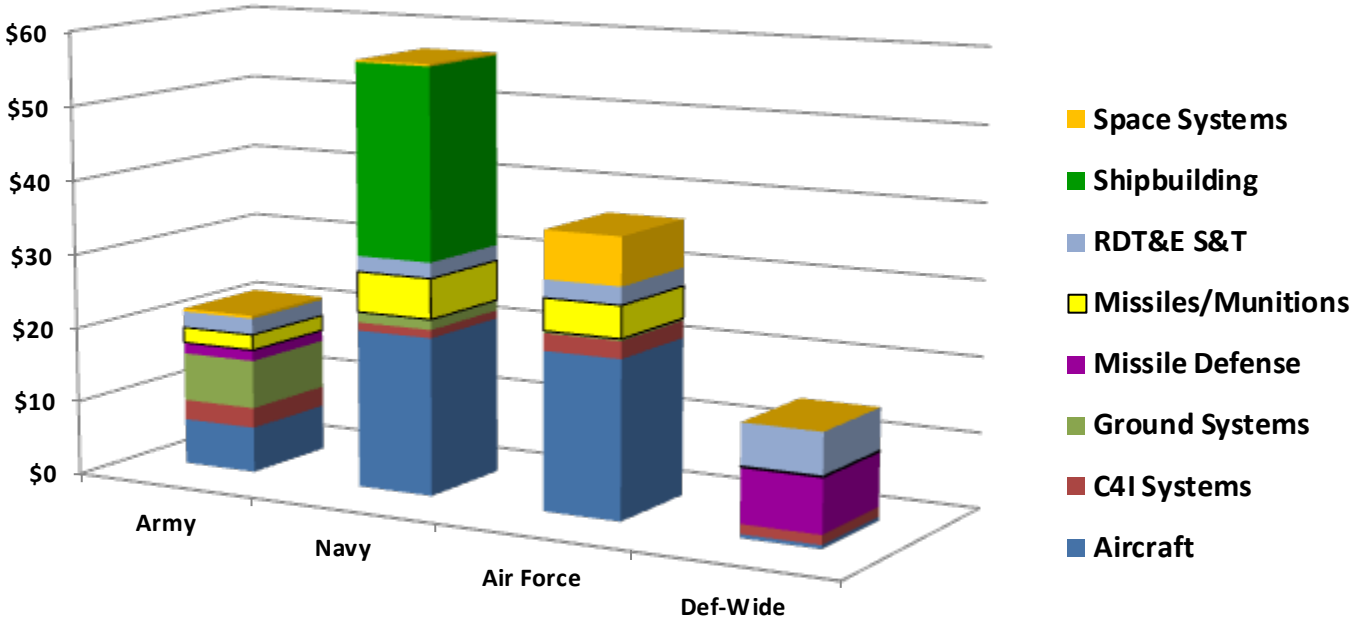
FY 2016 Modernization – Base: $177.5 Billion

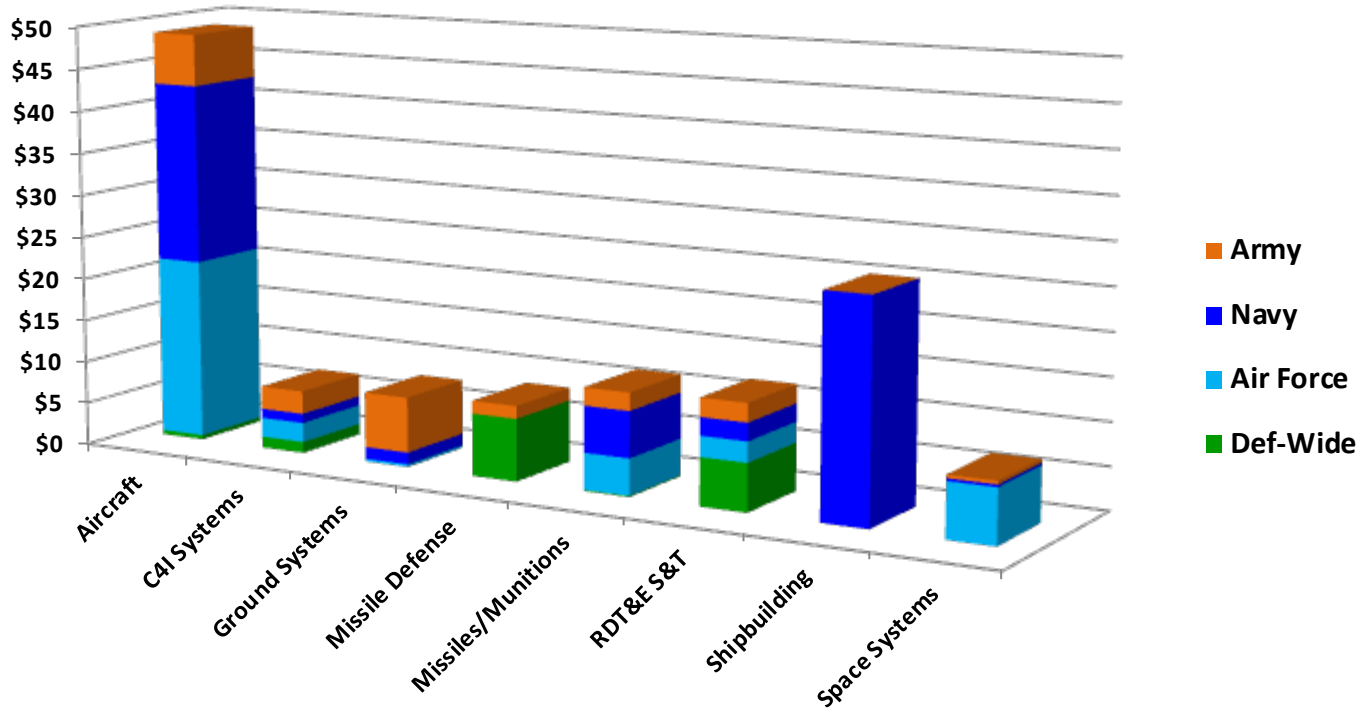


Numbers may not add due to rounding

FY 2016 Program Acquisition Cost by Weapon System

THE DISTRIBUTION OF FUNDING IN FY 2016 FOR PROCUREMENT AND RDT&E, BY COMPONENT AND BY CATEGORY *
(Dollars in Billions)

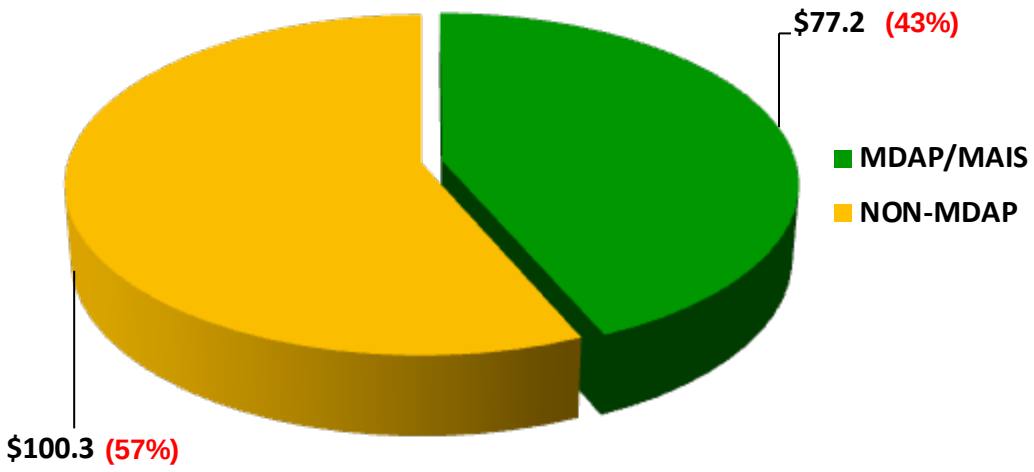




** Does not include Mission Support costs*

Numbers may not add due to rounding

COMPARISON BETWEEN THE TOTAL PROCUREMENT AND RDT&E FUNDING DURING FY 2016, FOR MDAP/MAIS AND NON-MDAP PROGRAMS (Dollars in Billions)



The FY 2016 President's base budget request for modernization in the RDT&E and Procurement titles is comprised of 2,361 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).

This booklet describes the funding requested for most of the MDAPs/MAIS that require FY 2016 funding. The purpose of the above chart is to illustrate the share in funding allotted to both MDAP/MAIS and non-MDAP/MAIS efforts. While non-MDAP/MAIS individual programs are smaller in dollar value, they are no less essential to developing future technologies and procuring a wide assortment of equipment, munitions, vehicles, and weapons. The MDAP/MAIS programs consume approximately $77.2 billion, or 43 percent of the FY 2016 modernization funding ($177.5 billion).

The estimated cost of report or study for the Department of Defense is approximately $41,275 for the 2015 Fiscal Year.

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Major Weapon Systems Summary

($ in Millions)		FY 2014	FY 2015	2016 Base	2016 OCO	2016 Total Request	Page
Aircraft and Related Systems – Joint Service							
MQ-1B/MQ-1C	Predator/Gray Eagle	654.9	337.5	376.9	25.2	402.1	1-2
MQ-9	Reaper	538.4	722.8	821.1	82.5	903.6	1-3
RQ-4 / MQ-4C	Global Hawk/Triton/NATO AGS	762.7	1,074.7	1,420.3	-	1,420.3	1-4
RQ-7/RQ-11/ RQ-21	Shadow, Raven, and Blackjack	258.9	295.8	214.1	66.7	280.8	1-5
C-130J	Hercules	1,849.5	1,570.9	2,580.0	-	2,580.0	1-6
F-35	Joint Strike Fighter	7,538.9	8,572.3	11,012.4	-	11,012.4	1-7
V-22	Osprey	1,797.8	1,641.1	1,582.4	-	1,582.4	1-8
Aircraft and Related Systems – US Army (USA)							
AH-64E	Apache: Remanufacture/New Build	1,007.0	959.4	1,448.3	-	1,448.3	1-9
CH-47	Chinook	967.4	1,052.5	1,161.3	-	1,161.3	1-10
UH-72	Lakota Light Utility Helicopter	256.4	401.6	187.2	-	187.2	1-11
UH-60	Black Hawk	1,295.5	1,521.8	1,629.7	-	1,629.7	1-12
Aircraft and Related Systems – US Navy (USN) / US Marine Corps (USMC)							
E-2D	Advanced Hawkeye	1,303.9	1,313.0	1,313.2	-	1,313.2	1-13
H-1	AH-1Z Viper/ UH-1Y Venom	709.6	946.5	883.4	-	883.4	1-14
MH-60R	Multi-Mission Helicopter	800.1	994.8	991.4	-	991.4	1-15
MH-60S	Fleet Combat Support Helicopter	417.0	208.0	33.4	-	33.4	1-16
P-8A	Poseidon	3,436.6	2,390.3	3,422.2	-	3,422.2	1-17
CH-53K	Heavy Lift Replacement Helicopter	447.5	559.7	673.4	-	673.4	1-18
VH-92A	Presidential Helicopter	92.8	368.1	507.1	-	507.1	1-19
Aircraft and Related Systems – US Air Force (USAF)							
LRS	Long Range Strike	971.5	1,623.6	2,023.3	-	2,023.3	1-20
F-22	Raptor	586.9	531.9	601.7	-	601.7	1-21
KC-46A	Tanker	1,505.5	2,359.6	3,008.0	-	3,008.0	1-22
F-15	Eagle	591.2	800.1	888.1	-	888.1	1-23
E-3	Sentry AWACS	293.6	391.5	374.5	-	374.5	1-24
CRH	Combat Rescue Helicopter	333.6	100.0	156.1	-	156.1	1-25
C4I Systems – USA							
WIN-T	Warfighter Information Network – Tactical	797.4	806.6	866.1	-	866.1	2-2
Ground Systems – Joint Service							
JTLV	Joint Light Tactical Vehicle	131.7	227.2	456.9	-	456.9	3-2
Ground Systems – USA							
AMPV	Armored Multi-Purpose Vehicle	27.3	92.3	230.2	-	230.2	3-3
FHTV	Family Of Heavy Tactical Vehicles	29.8	91.3	27.5	-	27.5	3-4
M-1	Abrams Tank Modification	276.0	339.5	445.5	-	445.5	3-5
PIM	Paladin Integrated Management	316.7	327.7	426.2	-	426.2	3-6
FMTV	Family of Medium Tactical Vehicles	307.8	291.2	90.0	244.0	334.0	3-7
Stryker	Stryker	493.9	594.0	666.9	-	666.9	3-8
Ground Systems – USMC							
ACV	Amphibious Combat Vehicle	35.0	105.7	219.1	-	219.1	3-9
Missile Defense Programs – Joint Service							
AEGIS	AEGIS Ballistic Missile Defense	1,466.5	1,497.6	1,605.2	-	1,605.2	4-2
THAAD	Terminal High Altitude Area Defense	823.7	725.1	718.2	-	718.2	4-3
GMD	Ground-Based Midcourse Defense	1,064.4	1,053.3	1,628.4	-	1,628.4	4-4
Missile Defense Programs – USA							
Patriot/PAC–3	Patriot Advanced Capability	369.8	277.6	380.4	-	380.4	4-5
PAC-3/MSE Missile	PAC-3/Missile Segment Enhancement Missile	776.6	567.6	417.2	-	417.2	4-6
Missiles and Munitions – Joint Service							
AMRAAM	Advanced Medium Range Air-to-Air Missile	473.4	427.1	665.6	-	665.6	5-2

Major Weapon Systems Summary

($ in Millions)		FY 2014	FY 2015	2016 Base	2016 OCO	2016 Total Request	Page
AIM-9X	Air Intercept Missile - 9X	240.5	272.7	424.1	-	424.1	5-3
Chem-Demil	Chemical Demilitarization	1,054.4	841.0	720.7	-	720.7	5-4
JASSM	Joint Air-to-Surface Standoff Missile	277.4	342.1	453.4	-	453.4	5-5
JDAM	Joint Direct Attack Munition	252.9	101.4	374.7	184.4	559.1	5-6
SDB	Small Diameter Bomb	133.8	184.2	266.5	2.5	269.0	5-7
Hellfire	Hellfire Missiles	138.8	205.9	451.0	318.2	769.2	5-8
Missiles and Munitions – USA							
Javelin	Javelin Advanced Anti-Tank Weapon	115.0	77.1	81.2	-	81.2	5-9
GMLRS	Guided Multiple Launch Rocket System	365.8	172.5	268.6	-	268.6	5-10
Missiles and Munitions – USN							
ESSM	Evolved Seasparrow Missile	119.2	213.8	144.0	-	144.0	5-11
RAM	Rolling Airframe Missile	67.2	89.5	95.1	-	95.1	5-12
Standard	Standard Family of Missiles	379.7	489.4	582.1	-	582.1	5-13
Tomahawk	Tactical Tomahawk Cruise Missile	319.5	343.6	210.0	-	210.0	5-14
Trident II	Trident II Ballistic Missile Modification	1,216.3	1,270.5	1,206.1	-	1,206.1	5-15
OASUW	Offensive Anti-Surface Weapon	86.7	181.9	285.8	-	285.8	5-16
Missiles and Munitions – USAF							
B61	B61 Tail Kit Assembly	33.0	168.4	212.1	-	212.1	5-17
Shipbuilding and Maritime Systems – USN							
CVN 78	GERALD R. FORD Class Nuclear Aircraft Carrier	1,692.1	2,051.2	2,808.3	-	2,808.3	6-2
DDG 51	ARLEIGH BURKE Class Destroyer	2,269.7	3,018.7	3,470.1	-	3,470.1	6-3
LCS	Littoral Combat Ship	2,096.4	1,818.5	1,859.5	-	1,859.5	6-4
SSN 774	VIRGINIA Class Submarine	6,673.8	6,181.5	5,741.0	-	5,741.0	6-5
SSC	Ship to Shore Connector	68.4	202.3	263.3	-	263.3	6-6
OR	Ohio Replacement Program	1,056.1	1,223.2	1,390.6	-	1,390.6	6-7
TAO(X)	Fleet Replenishment Oiler	11.1	-	674.1	-	674.1	6-8
LPD 17	SAN ANTONIO Class Amphibious Transport Dock Ship	59.6	1,074.5	668.7	-	668.7	6-9
Space Based Systems – USAF						-	
AEHF	Advanced Extremely High Frequency	590.0	606.0	561.0	-	561.0	7-2
EELV	Evolved Expendable Launch Vehicle	1,386.0	1,646.0	1,445.0	-	1,445.0	7-3
GPS	Global Positioning System	1,186.0	1,032.0	938.0	-	938.0	7-4
SBIRS	Space Based Infrared System	847.0	754.0	745.0	-	745.0	7-5

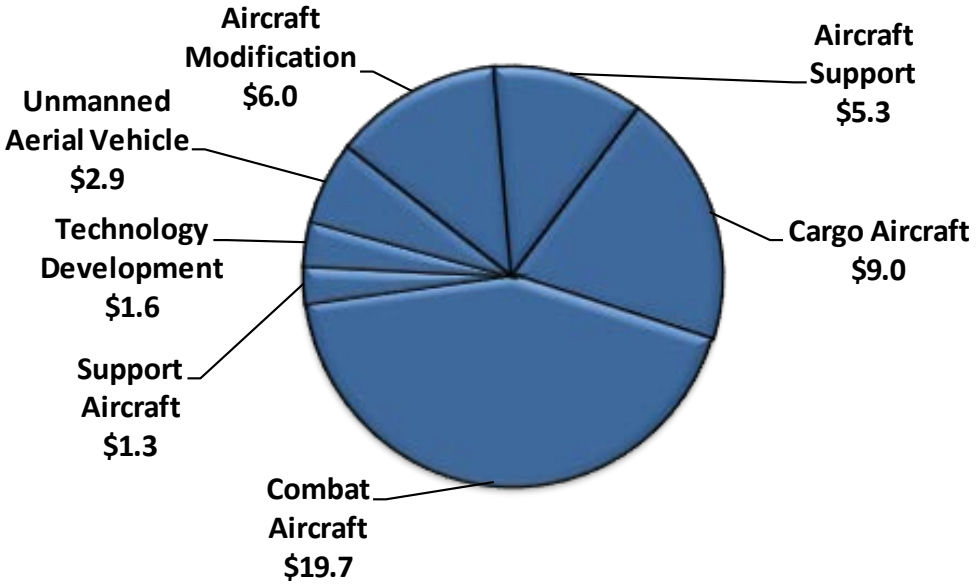
Aircraft & Related Systems

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 2016 funding provides for the procurement of 57 F-35 jets, 41 logistics support aircraft, 300 helicopters, and 53 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 2016 Aircraft & Related Systems – Base: $48.8 Billion

($ in Billions)



Numbers may not add due to rounding

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

DOD - JOINT

The U.S. Air Force (USAF) Predator and Army 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.

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 Synthetic Aperture Radar (SAR) Ground Moving Target Indicator (GMTI), a communications relay capability, a heavy fuel engine, tactical common data link, and greater weapons capability.

FY 2016 Programs: Predator: Funds development and fielding of USAF modifications to the airframe and ground station elements. Special Operations Command (SOCOM) divested the MQ-1 in FY 2015. Gray Eagle: Continues development and integration of the Universal Ground Control Station and a signals intelligence capability; and, procures an additional 15 Gray Eagle aircraft in the base budget and 2 in the OCO.

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

MQ–1B Predator / MQ-1C Gray Eagle

	FY 2014*		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
Predator USAF	0.8	-	-	-	0.7	-	-	-	0.7	-
Gray Eagle	46.6	-	69.3	-	13.2	-	-	-	13.2	-
USA										
SOCOM	0.6	-	-	-	-	-	-	-	-	-
Subtotal	**48.0**	**-**	**69.3**	**-**	**13.9**	**-**	**-**	**-**	**13.9**	**-**
Procurement									-	-
Predator USAF	6.5	-	4.8	-	3.2	-	-	-	3.2	-
Gray Eagle	598.3	23	263.4	19	357.9	15	25.2	2	383.1	17
USA										
SOCOM	2.1	-	-	-	1.9	-	-	-		-
Subtotal	**606.9**	**23**	**268.2**	**19**	**363.0**	**15**	**25.2**	**2**	**388.2**	**17**
Total	**654.9**	**23**	**337.5**	**19**	**376.9**	**15**	**25.2**	**2**	**402.1**	**17**

Note: FY 2014 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $70.0 million in support of OCO.

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; a support element; and trained personnel. 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 2016 Program: Funds the continued development, transformation and fielding of Reaper aircraft and ground stations. Includes the procurement of 29 aircraft, and 8 fixed and 2 mobile ground control stations; and continues the modification of MQ-9s to the extended range configuration.

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

MQ–9 Reaper

	FY 2014*		FY 2015**		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
USAF	104.0	-	148.6	-	123.4	-	-	-	123.4	-
SOCOM	13.3	-	14.9	-	18.2	-	-	-	18.2	-
Subtotal	**117.3**	**-**	**163.5**	**-**	**141.6**	**-**	**-**	**-**	**141.6**	**-**
Procurement									-	-
USAF	408.2	20	540.7	24	667.8	29	82.5	-	750.3	29
SOCOM	12.9	-	18.6	-	11.7	-	-	-	11.7	-
Subtotal	**421.1**	**20**	**559.3**	**24**	**679.5**	**29**	**82.5**	**-**	**762.0**	**29**
Total	**538.4**	**20**	**722.8**	**24**	**821.1**	**29**	**82.5**	**-**	**903.6**	**29**

Note: FY 2014 & FY 2015 include Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $12.0 million in support of OCO.

** FY 2015 includes $10.9 million in support of OCO.

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

The U.S. Air Force (USAF) RQ-4, Navy MQ-4C, 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 Block 30 USAF RQ-4s will be delivered in FY 2017. The Navy MQ-4C Triton provides 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.

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

FY 2016 Programs: RQ-4 Global Hawk: Funds the development and modification efforts for the Block 30, Block 40, ground stations, and Multi-Platform Radar Technology Insertion programs; and the U.S. contribution to the NATO AGS. MQ-4C Triton: Continues Engineering and Manufacturing Development efforts; and, procures three Low Rate Initial Production systems.

Prime Contractor: Northrop Grumman; Rancho Bernardo, CA

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

	FY 2014		FY 2015		FY 2016 Base Budget		FY 2016 OCO Budget		FY 2016 Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
RQ-4, USAF	120.2	-	241.8	-	208.1	-	-	-	208.1	-
RQ-4, NATO	221.6	2	232.9	-	197.5	-	-	-	197.5	-
MQ-4, USN	375.2	-	456.4	-	378.1	-	-	-	378.1	-
Subtotal	717.0	2	931.1	-	783.7	-	-	-	783.7	-
Procurement										
RQ-4, USAF	45.7	-	75.9	-	87.8	-	-	-	87.8	-
MQ-4, USN	-	-	67.7	-	548.8	3	-	-	548.8	-
Subtotal	45.7	-	143.6	-	636.6	3	-	-	636.6	3
Total	762.7	2	1,074.7	-	1,420.3	3	-	-	1,420.3	3

Numbers may not add due to rounding

RQ-7 Shadow / RQ-11 Raven / RQ-21 Blackjack — DOD - JOINT

The RQ-7, RQ-11, and RQ-21 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.


Shadow

US Army Photo


Blackjack

Navy Photo

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 provides an "over-the-hill," rucksack-portable, day/night, limited adverse weather, remotely-operated capability that supports combat battalions and below, and selected 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 2016 Program: Funds upgrades to system hardware and performance-based logistics support for the RQ-7 Shadow. Procures upgrades and provides training and contractor logistics support for the RQ-11 Raven. Procures a total of 7 systems (each system consists of five air vehicles, two ground control stations, payloads, launch/recovery system, and associated ground support equipment) and provides contractor logistics support for the RQ-21 Blackjack.

Prime Contractors: RQ-7 Shadow: AAI Corporation; Hunt Valley, MD
RQ-11 Raven: AeroVironment; Monrovia, CA
RQ-21 Blackjack: INSITU, Incorporated; Bingen, WA

RQ-7 Shadow / RQ-11 Raven / RQ-21 Blackjack

	FY 2014*		FY 2015**		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E *	34.8	-	31.3	-	20.4	-	-	-	20.4	-
Procurement									-	-
Shadow (Army)	121.9	-	125.4	-	81.4	-	8.3	-	89.7	-
Shadow (USMC)	20.4	-	-	-	3.8	-	-	-	3.8	-
Raven (Army)	10.4		4.0	-	-	-			-	-
Raven (USMC)	4.5	-	4.4	-	-	-	3.4	-	3.4	-
Raven (SOCOM)	0.9	-	6.4	-	20.1	-	-	-	20.1	-
Blackjack (Navy)	-	-	55.0	3	3.5		55.0	3	58.5	
Blackjack (USMC)	66.0	3	69.3	3	84.9	4	-	-	84.9	4
Subtotal	**224.1**	**3**	**264.5**	**6**	**193.7**	**4**	**66.7**	**3**	**260.4**	**7**
Total	**258.9**	**3**	**295.8**	**6**	**214.1**	**4**	**66.7**	**3**	**280.8**	**7**

Note: FY 2014 & FY 2015 include Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $8.4 million in support of OCO.

** FY 2015 includes $56.7 million in support of OCO.

C-130J Hercules

DOD - JOINT


USAF Photo

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 2016 Program: Continues the Multiyear Procurement (MYP) for C-130J aircraft from FY 2014 to FY 2018, procuring 29 aircraft in FY 2016.

Prime Contractor: Lockheed Martin Corporation, Marietta, GA

C-130J Hercules

	FY 2014		FY 2015*		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E					-		-	-		
HC/MC-130	2.6		4.5	-	10.8		-	-	10.8	-
C-130J	22.4		26.7	-	31.0		-	-	31.0	-
Subtotal	25.1	-	31.2	-	41.8	-	-	-	41.8	-
Procurement										
C-130J	639.5	6	692.4	7	939.2	14	-	-	939.2	14
HC/MC/AC-130	1,083.6	10	755.0	6	1,382.4	13	-	-	1,382.4	13
Subtotal	1,723.1	16	1,447.4	13	2,321.6	27	-	-	2,321.6	27
Procurement										
KC-130J	101.3	1	92.3	1	216.7	2			216.7	2
Subtotal	101.3	1	92.3	1	216.7	2	-	-	216.7	2
Spares	-	-	-	-	-	-	-	-	-	-
Total	1,849.5	17	1,570.9	14	2,580.0	29	-	-	2,580.0	29

Note: FY 2015 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2015 includes $70.0 million in support of OCO for one C-130J aircraft.

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 2016 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 57 aircraft: 44 CTOL for the Air Force, 9 STOVL for the Marine Corps, and 4 CV for the Navy in FY 2016.

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

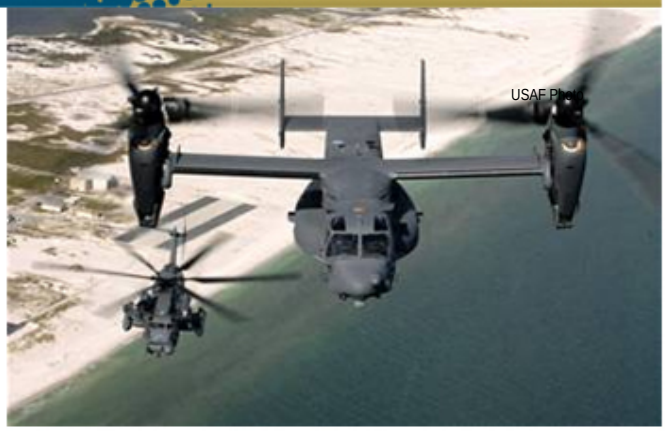
F-35 Joint Strike Fighter

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
USN	835.4		1,022.3	-	1,149.5	-	-	-	1,149.5	-
USAF	619.6		608.0	-	704.8	-	-	-	704.8	-
Subtotal	1,455.0	-	1,630.3	-	1,854.3	-	-	-	1,854.3	-
Procurement										
USN	2,524.0	10	2,442.6	10	2,957.3	13	-	-	2,957.3	13
USAF	3,353.1	19	4,170.6	28	5,790.6	44	-	-	5,790.6	44
Subtotal	5,877.0	29	6,613.1	38	8,747.9	57	-	-	8,747.9	57
Spares	206.9	-	328.8	-	410.2	-	-	-	410.2	-
Total	7,538.9	29	8,572.3	38	11,012.4	57	-	-	11,012.4	57

Numbers may not add due to rounding

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 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 could rapidly self-deploy to any location in the world.

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

FY 2016 Program: Funds the fourth year of a follow-on 5-year multiyear procurement contract (FY 2013 to 2017) with the procurement of 19 MV-22 aircraft for the U. S. Marine Corps. The last year of procurement for the Air Force-SOCOM CV-22 was FY 2014.

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

V–22 Osprey

	FY 2014 *		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
USN	42.2	-	57.7	-	58.9	-			**58.9**	**-**
USAF	46.7	-	38.7	-	36.6	-			**36.6**	**-**
Subtotal	**88.9**	**-**	**96.4**	**-**	**95.5**	**-**	**-**	**-**	**95.5**	**-**
Procurement										
USN	1,410.3	19	1,527.0	19	1,480.2	19			**1,480.2**	**19**
USAF	286.0	4	15.0	-	-	-	-	-	**-**	**-**
Subtotal	**1,696.3**	**23**	**1,542.0**	**19**	**1,480.2**	**19**	**-**	**-**	**1,480.2**	**19**
USN Spares	**0.7**	**-**	**-**	**-**	**0.5**	**-**	**-**		**0.5**	**-**
USAF Spares	**11.9**	**-**	**2.7**	**-**	**6.2**	**-**	**-**		**6.2**	**-**
Subtotal	**12.6**	**-**	**2.7**	**-**	**6.7**	**-**	**-**	**-**	**6.7**	**-**
USN Subtotal	1,453.2	19	**1,584.7**	**19**	1,539.6	19	-	-	**1,539.6**	**19**
USAF Subtotal	344.6	4	**56.4**	-	42.8	-	-	-	**42.8**	**-**
Total	**1,797.8**	**23**	**1,641.1**	**19**	**1,582.4**	**19**	**-**	**-**	**1,582.4**	**19**

Note: FY 2014 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $73.2 million in support of OCO.

AH-64E Apache: Remanufacture / New Build

USA


US Army Photo

The AH-64E Apache program consists of a remanufacture (A) and a new build (B) 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. The new build effort assembles all new components resulting in a completely new aircraft to fill shortages in the fleet due to combat losses. 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 2016 Program: Funds the remanufacture of 64 AH-64D aircraft to the AH-64E configuration and continued development of upgrades to enhance operational capabilities.

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

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

AH–64E Apache: Remanufacture / New Build

	FY 2014 *		FY 2015 **		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	112.4	-	86.1	-	69.9	-			69.9	-
Procurement										
(A) Remanufacture	752.6	42	873.3	35	1,378.4	64	-	-	1,378.4	64
(B) New Build	142.0	4	-	-	-	-	-	-	-	-
Subtotal	894.6	46	873.3	35	1,378.4	64	-	-	1,378.4	64
Grand Total	1,007.0	46	959.4	35	1,448.3	64	-	-	1,448.3	64

Note: FY 2014 & FY 2015 include Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $142.0 million in support of OCO.

** FY 2015 includes $144.0 million in support of OCO.

CH–47 Chinook

USA

US Army Photo

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 CH-47F ReNew program rebuilds and replaces CH-47Ds to the CH-47F configuration and 59 Special Operation MH-47s to the MH-47G configuration. The New Build program procures all new CH-47F aircraft and 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. 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 2016 Program: Funds the fourth year of a 5-year multiyear procurement contract (FY 2013 through FY 2017) with the procurement of 39 aircraft (12 New Build and 27 ReNew/Service Life Extension Program) aircraft.

Prime Contractor: The Boeing Company; Philadelphia, PA

CH–47 Chinook

	FY 2014 *		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	18.6	-	35.4	-	37.4	-			37.4	-
Procurement										
USA	929.0	29	994.9	32	1,123.9	39	-	-	1,123.9	39
SOCOM	19.8	-	22.2	-	-	-	-	-	-	-
Subtotal	948.8	29	1,017.1	32	1,123.9	39	-	-	1,123.9	39
Total	967.4	29	1,052.5	32	1,161.3	39	-	-	1,161.3	39

Note: FY 2014 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $39.0 million in support of OCO.

UH-72 Lakota Light Utility Helicopter (LUH) USA

The Army's UH-72A Light Utility Helicopter (LUH) is a utility helicopter that is replacing the UH-1 and the OH-58 Kiowa Warrior A and C models.

The UH-72A Lakota, which entered service in 2006, is a militarized version of the Eurocopter EC145 modified to an LUH configuration. It provides reliable and sustainable general and administrative support in permissive environments at reduced acquisition and operating costs. The LUH acquisition strategy is based on the competitive procurement of a commercial-off-the-shelf, non-developmental aircraft. There is no more developmental funding required for this program.

As part of the its aviation force restructure plan, the Army will divest the single-engine legacy aircraft in the training fleet and replace them with the UH-72A LUH. The procurement of the LUH is completed in FY 2016 with the purchase of 28 LUH aircraft.

Mission: Provides aerial transport for logistical and administrative support. Additionally, the Lakota provides a flexible response to Homeland Security requirements such as search and rescue operations, reconnaissance and surveillance, and medical evacuation missions.

FY 2016 Program: Funds the procurement of 28 aircraft.

Prime Contractor: AIRBUS Helicopters, Inc. ; Columbus, MS.

UH-72 Lakota Light Utility Helicopter (LUH)										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	-	-	-	-	-	-	-	-	-	-
Procurement	256.4	37	401.6	55	187.2	28	-	-	187.2	28
Total	256.4	37	401.6	55	187.2	28	-	-	187.2	28

Numbers may not add due to rounding

UH–60 Black Hawk

USA

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.


US Army Photo

The UH-60 comes in many variants, and many different modifications. The Army variants can be fitted with the stub wings to carry additional fuel tanks or weapons. Variants may have different capabilities and equipment in order to fulfill different roles. The Black Hawk series of aircraft can perform a wide array of missions, including the tactical transport of troops, electronic warfare, and aeromedical evacuation.

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 2016 Program: Funds the procurement of 94 UH-60M aircraft in the final year of a 5-year multiyear procurement (MYP) contract (FY 2012 – FY 2016). Also funds the continued development and testing of the improved turbine engine and digital upgrades to the UH-60L.

Prime Contractor: Sikorsky Aircraft; Stratford, CT

UH-60 Black Hawk

	FY 2014		FY 2015 *		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	94.5	-	48.4	-	66.7	-			66.7	-
Procurement	1,201.0	70	1,473.4	87	1,563.0	94	-	-	1,563.0	94
Total	1,295.5	70	1,521.8	87	1,629.7	94	-	-	1,629.7	94

Note: FY 2015 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2015 includes $16.2 million in support of OCO.

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 2016 Program: Funds five E-2D aircraft in the third year of a Multiyear Procurement contract, associated support, and funds advance procurement for future aircraft.

Prime Contractors: Airframe: Boeing, Seattle, WA
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 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	103.5	-	176.7	-	272.1	-	-	-	272.1	-
Procurement	1,193.0	5	1,128.8	5	1,033.4	5	-	-	1,033.4	5
Spares	7.4	-	7.5	-	7.7	-	-	-	7.7	-
Total	1,303.9	5	1,313.0	5	1,313.2	5	-	-	1,313.2	5

Numbers may not add due to rounding

H–1 Program: AH-1Z Viper / UH-1Y Venom

The H–1 program replaces the AH–1W Super Cobra and the UH–1N Huey helicopters with the AH–1Z Viper and UH–1Y 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-1Zs, builds 152 new AH-1Zs, remanufactures 10 H-1N helicopters into UH-1Ys, and builds 150 new UH-1Ys. Both aircraft are in full rate production.

Mission: AH-1Z: 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-1Y: 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 2016 Program: Funds the procurement of 28 new build aircraft (16 AH-1Z and 12 UH-1Y). 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.

Prime Contractor: Bell Helicopter; Fort Worth, TX

H–1 Program (AH-1Z Viper / UH-1Y Venom)

	FY 2014*		FY 2015**		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	49.0	-	44.1	-	27.2	-	-	-	27.2	-
Procurement	660.6	22	902.4	28	856.2	28	-	-	856.2	28
Total	709.6	22	946.5	28	883.4	28	-	-	883.4	28

Note: FY 2014 & FY 2015 include Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $29.5 million in support of OCO.

** FY 2015 includes $30.0 million in support of OCO.

MH-60R Multi-Mission Helicopter

The MH–60R Multi-Mission Helicopter program provides battle group protection, and adds significant capability in coastal littorals and regional conflicts. The MH-60R Multi-Mission Helicopter represents a significant avionics improvement to the H-60 series helicopters. Airborne Low Frequency Sonar (ALFS) is added to enhance the existing acoustics suite. An added multi-mode radar includes an inverse synthetic aperture radar mode, which permits stand-off classification and targeting. Additionally, an improved electronics surveillance system will enable passive detection and targeting of radar sources not currently detectable.

Mission: Conducts forward deployed Anti-Submarine and Anti-Surface warfare. Secondary mission areas include search and rescue, vertical replenishment, naval surface fire support, logistics support, personnel transport, medical evacuation, and communications relay.

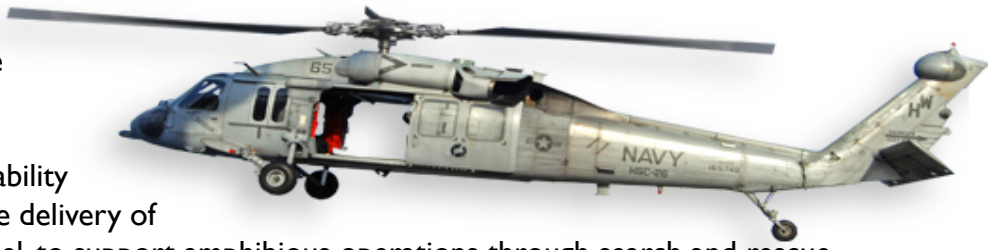
FY 2016 Program: Funds the procurement of 29 MH-60R aircraft in the final year of a continuing 5-year multiyear procurement (MYP) for MH-60 airframes (FY 2012 to FY 2016). Includes funds for a separate MYP of MH-60 cockpits and mission avionics for the same period. The Army serves as the executive agent for the UH-60 and MH-60 airframe MYP efforts. The Navy serves as the executive agent for the MH-60 cockpits and sensor MYP efforts.

Prime Contractors: Airframe: Sikorsky Aircraft; Stratford, CT
Cockpits and Mission Avionics; Lockheed Martin, Owego, NY

MH–60R Multi-Mission Helicopter										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	20.4	-	11.4	-	21.4	-	-	-	21.4	-
Procurement	779.7	19	983.4	29	970.0	29	-	-	970.0	29
Total	800.1	19	994.8	29	991.4	29	-	-	991.4	29

Numbers may not add due to rounding

MH–60S Fleet Combat Support Helicopter



The MH-60S is a versatile twin-engine helicopter used to maintain forward deployed fleet sustainability through rapid airborne delivery of materials and personnel, to support amphibious operations through search and rescue coverage and to provide an organic airborne mine countermeasures capability.

Mission: Conducts vertical replenishment, day/night ship-to-ship, ship-to-shore, and shore-to-ship external transfer of cargo; internal transport of passengers, mail and cargo, vertical onboard delivery; air operations; day/night search and rescue, medical evacuation, and humanitarian assistance and disaster relief. Armed Helo and Organic Airborne Mine Countermeasures (OAMCM) have been added as primary mission areas for the MH-60S, being completed as block upgrades to the platform.

FY 2016 Program: Funds the support for the final deliveries of aircraft, aircraft trainer, ancillary equipment, and program contract closeout costs associated with shutting down the MH-60S production line. The last year of procurement for the MH-60S was FY 2015.

Prime Contractor: Airframe: Sikorsky Aircraft; Stratford, CT
Cockpits and Mission Systems: Lockheed Martin; Oswego, NY

MH–60S Fleet Combat Support Helicopter										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	21.3	-	25.9	-	5.2	-			5.2	-
Procurement	395.7	18	182.1	8	28.2	-			28.2	-
Total	417.0	18	208.0	8	33.4	-	-	-	33.4	-

Numbers may not add due to rounding

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 2016 Program: Procures 16 P-8A aircraft, support equipment and spares, and provides advance procurement for future aircraft. The P-8A capabilities to meet the ASW, ASuW, and ISR objectives will be delivered incrementally to the aircraft requiring continued research and development while full rate production continues for the baseline aircraft.

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

P–8A Poseidon

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	220.1	-	219.0	-	142.3	-	-	-	142.3	-
Procurement	3,196.0	16	2,171.1	9	3,278.4	16	-	-	3,278.4	-
Spares	20.5	-	0.2	-	1.5	-	-	-	1.5	-
Total	3,436.6	16	2,390.3	9	3,422.2	16	-	-	3,422.2	

Numbers may not add due to rounding

CH–53K Heavy Lift Replacement Helicopter

The CH-53K is a marinized 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, 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 will be completed in FY 2015, and the program is working towards a Milestone C decision in FY 2016.

Mission: Provides the USMC with a marinized vertical heavy-lift capability. 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 2016 Program: Funds the continuing Engineering and Manufacturing Development (EMD) effort and the advance procurement for the first two Low-Rate Initial Production (LRIP) aircraft planned for FY 2017.

Prime Contractor: Sikorsky Aircraft; Stratford, CT

CH–53K Heavy Lift Replacement Helicopter										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	447.5	-	559.7	-	632.1	-	-	-	632.1	-
Procurement	-	-	-	-	41.3	-	-	-	41.3	-
Total	447.5	-	559.7	-	673.4	-	-	-	673.4	-

Numbers may not add due to rounding

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, beginning in FY 2019.

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.

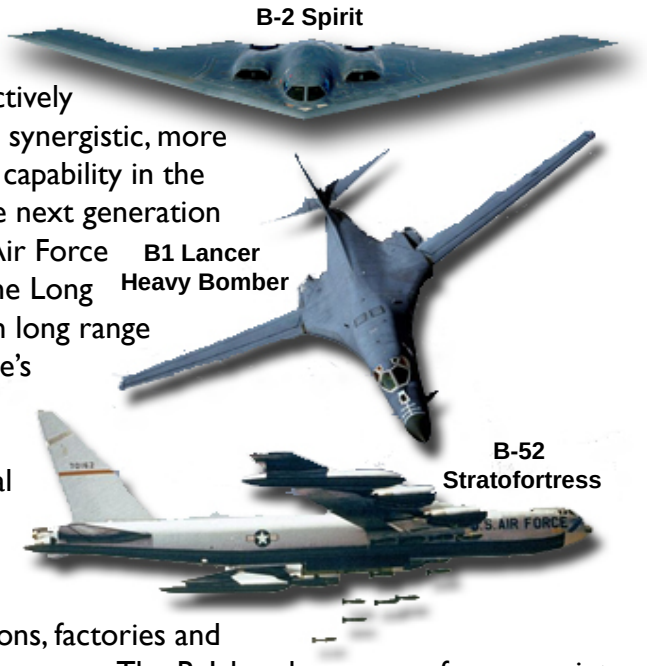
FY 2016 Program: Funds the continuing EMD effort, including: the integration of systems; production, qualification, and support of test articles; logistics products development; and the demonstration of system integration, interoperability, safety and utility. The FY 2016 request also includes funds for the first 2 System Demonstration Test Article aircraft.

Prime Contractor: Sikorsky Aircraft; Stratford, CT

VH–92A Presidential Helicopter										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	92.8	-	368.1	-	507.1	-	-	-	507.1	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	92.8	-	368.1	-	507.1	-	-	-	507.1	-

Numbers may not add due to rounding

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 2016 Program: Continues development of the next generation Long Range Bomber and modernization of legacy strategic bombers.

Prime Contractors: The Boeing Company, Oklahoma City, OK and Northrop Grumman Aerospace Systems, Palmdale, CA (Legacy Bombers Only)

Long Range Strike

	FY 2014*		FY 2015**		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	708.7	-	1,182.9	-	1,703.1	-	-	-	1,703.1	-
Procurement	247.0	-	418.2	-	295.6	-	-	-	295.6	-
Spares	15.9	-	22.5	-	24.6	-	-	-	24.6	-
Total	971.5	-	1,623.6	-	2,023.3	-	-	-	2,023.3	-

Note: FY 2014 & FY 2015 include Base and OCO *Numbers may not add due to rounding*

* FY 2014 includes $35.0 million for B-1B Modifications in support of OCO.

** FY 2015 includes $91.9 million for B-1B Modifications in support of OCO.

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 2016 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 procurement to support 3.2B retrofit in FY 2016.

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

F-22 Raptor

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	354.7	-	319.9	-	403.2	-	-	-	403.2	-
Procurement	232.2	-	208.7	-	195.5	-	-	-	195.5	-
Spares	0.1	-	3.2	-	3.1	-	-	-	3.1	-
Total	586.9	-	531.9	-	601.7	-	-	-	601.7	-

Numbers may not add due to rounding

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 in Everett, Washington, with militarization and final finishing at Boeing Field, 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 2016 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 the development of technical manuals, Type I training, simulator and maintenance data, and the purchase of live fire assets and Government Furnished Equipment. Continues the second year of Low Rate Initial Production (LRIP), procuring 12 aircraft in FY 2016.

Prime Contractor: The Boeing Company, Seattle, WA

KC–46A Tanker

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	1,505.5	-	786.4	-	602.4	-	-	-	602.4	-
Procurement	-	-	1,573.2	7	2,350.6	12	-	-	2,350.6	12
Spares	-	-	-	-	55.1	-	-	-	55.1	-
Total	1,505.5	-	2,359.6	7	3,008.0	12	-	-	3,008.0	12

Numbers may not add due to rounding

F-15 Eagle


USAF Photo

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 2016 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 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	227.1	-	280.9	-	365.8	-	-	-	365.8	-
Procurement	344.2	-	498.3	-	464.4	-	-	-	464.4	-
Spares	19.9	-	20.9	-	57.9	-	-	-	57.9	-
Total	591.2	-	800.1	-	888.1	-	-	-	888.1	-

Numbers may not add due to rounding

E-3 Sentry AWACS

The Airborne Warning and Control System (AWACS) is an airborne radar system designed to detect aircraft, ships, and vehicles at long ranges and perform control and command of the battle space in an air engagement by directing fighter and attack aircraft strikes. The four-engine E-3 is based on a modified Boeing 707 Airframe, which carries airborne radar and provides all-altitude air surveillance, threat warning, and control of theater air forces. Produced between 1971-1984, the Air Force currently has a total of 31 E-3s in the inventory.

Mission: Provides surveillance, command and control (C2), and Communications functions for tactical and defensive missions.

FY 2016 Program: Continues the modernization of AWACS aircraft. The primary modification budgeted in FY 2016 is the Block 40/45 Upgrade, which includes new open architecture PC-based mission systems, upgraded communications and navigation systems and enhanced electronic support measures.

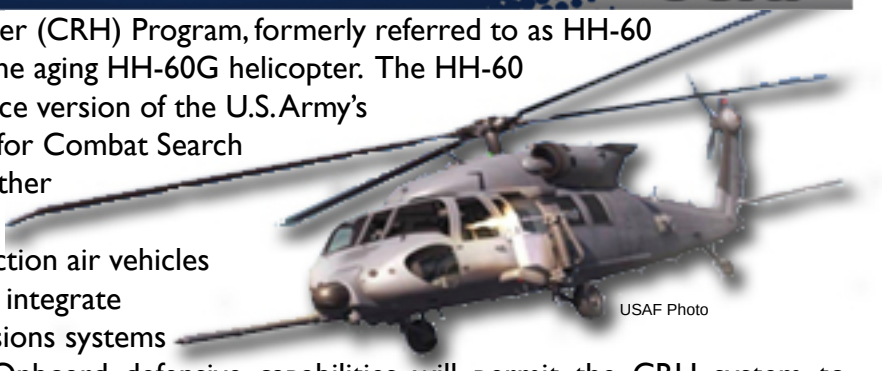
Prime Contractors: The Boeing Company, Seattle, WA

E-3

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	143.4	-	180.8	-	161.8	-	-	-	161.8	-
Procurement	138.5	-	207.8	-	196.5	-	-	-	196.5	-
Spares	11.7	-	3.0	-	16.2	-	-	-	16.2	-
Total	293.6	-	391.5	-	374.5	-	-	-	374.5	-

Numbers may not add due to rounding

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 2016 Program: Funds Engineering and Manufacturing Development (EMD) activities, including developmental efforts on aircraft, missions systems, training systems and associated product support. Some FY 2014 funds are being carried over to support necessary EMD activities through FY 2015. Four EMD aircraft are being acquired with development funding in FY 2014.

Prime Contractor: Sikorsky Aircraft; Stratford, CT

Combat Rescue Helicopter										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	333.6	-	100.0	-	156.1	-	-	-	156.1	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	333.6	-	100.0	-	156.1	-	-	-	156.1	-

Numbers may not add due to rounding

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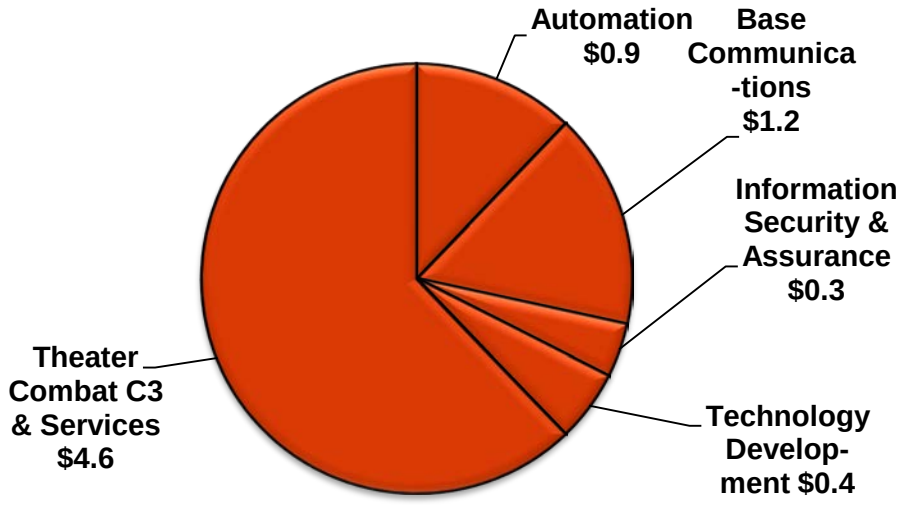
Command, Control, Communications, Computers, and Intelligence (C4I) Systems

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 decisionmaking, improve joint warfighting, and create intelligence advantages. Our 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 2016 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 2016 Command, Control, Communications, Computers, and Intelligence (C4I) Systems – Base: $7.4 Billion

($ in Billions)



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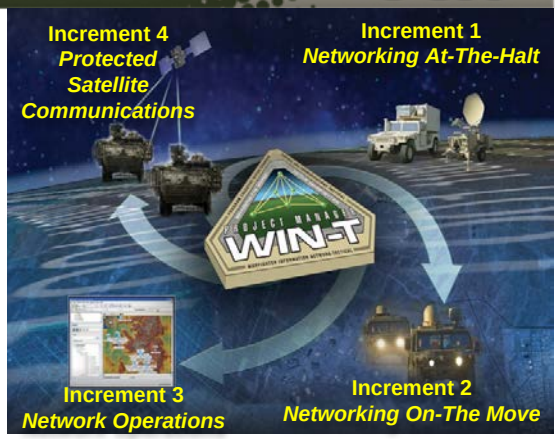
Warfighter Information Network - Tactical



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 (WGS). Increment 2 (Inc 2) provides networking on-the-move to the company level. Increment 3 (Inc 3) provides Integrated Network Operations development. Increment 4 (Inc 4) provides protected satellite communications on-the-move.

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 2016 Program: Funds the upgrade of 31 WIN-T Inc 1 units to enhance interoperability with units fielded with WIN-T Inc 2. Supports procurement of 248 communications nodes (39 Tactical Communications Nodes, 167 Soldier Network Extensions, and 42 Points of Presence) for WIN-T Inc 2, and continues fielding and support for previously procured Low Rate Initial Production equipment. Funds Network Operations software (Build 4 & 5) and waveform development as part of WIN-T Inc 3. Supports integration of 179 Modification kits for the AN/TRC-190 line-of-sight radio systems. Procures and fields Tactical NetOps Management Systems to 89 non-WIN-T units and 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
Subcontractor: Lockheed Martin Corporation, Gaithersburg, MD

Warfighter Information Network-Tactical

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	118.3	-	116.4	-	43.5	-	-	-	43.5	-
Procurement	657.5	-	664.1	-	783.1	-	-	-	783.1	-
Spares	21.6	-	26.1	-	39.5	-	-	-	39.5	-
Total	797.4	-	806.6	-	866.1	-	-	-	866.1	-

Numbers may not add due to rounding

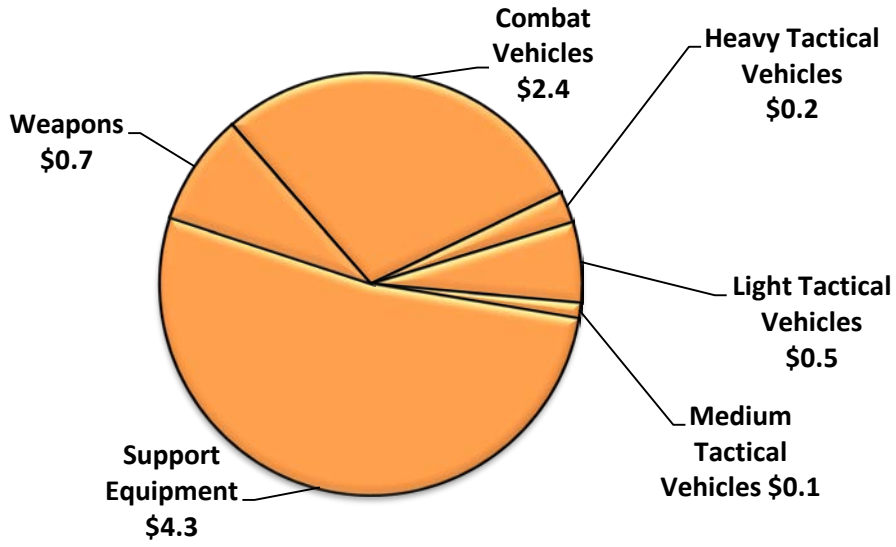
Ground Systems

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 (MDAPs) in FY 2016, including Stryker vehicles, Abrams Tanks, Bradley Fighting Vehicles, and Paladin 155mm Howitzers. The Marine's ground force focus in FY 2016 is on the Amphibious Combat Vehicle (ACV). The ACV is a Pre-MDAP that will deliver shore and sea-based infantry to the battlefield in vehicles designed for future operational environments. And both services procure the second year of Low Rate Initial Production (LRIP) of the Joint Light Tactical Vehicle (JLTV).

FY 2016 Ground Systems – Base: $8.2 Billion

($ in Billions)



Numbers may not add due to rounding

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.

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 2016 Program: Funds second Low Rate Initial Production (LRIP) buy of 559 trucks. Also fabricates assets for Live Fire Testing.

Prime Contractor: LRIP Request for Proposals (RFP) was released in December 2014. Contract award is expected in July 2015.88

Joint Light Tactical Vehicle										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E USA	81.4	-	45.7	-	32.5	-	-	-	32.5	-
RDT&E USMC	50.3	-	9.4	-	36.7	-	-	-	36.7	-
Procurement USA	-	-	164.6	184	308.3	450	-	-	308.3	450
Procurement USMC	-	-	7.5	7	79.4	109	-	-	79.4	109
Total	131.7	-	227.2	191	456.9	559	-	-	456.9	559

Numbers may not add due to rounding

Armored Multi-Purpose Vehicle (AMPV)

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 2016 Program: Funds final prototype designs and integration of components into the AMPV chassis.

Prime Contractor: BAE Systems, York, PA

Armored Multi-Purpose Vehicle (AMPV)										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	27.3	-	92.3	-	230.2	-	-	-	230.2	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	27.3	-	92.3	-	230.2	-	-	-	230.2	-

Numbers may not add due to rounding

Family of Heavy Tactical Vehicles

USA


Army photo of a PLS

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 2016 Program: Procures 273 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 2014*		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	23.9	-	12.9	-	-	-	-	-	-	-
Procurement	5.9	79	78.4	387	27.5	273	-	-	27.5	273
Total	29.8	79	91.3	387	27.5	273	-	-	27.5	273

Note: FY 2014 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $7.0 million in support of OCO.

M–1 Abrams Tank Modification


US Army Photo

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). Currently funded 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.

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

FY 2016 Program: Supports modifications and upgrades needed to maintain the armor facility at a sustainable level and minimize loss of skilled labor. Procures 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). Procures hardware for Engineering Change Proposal (ECP) 1A to begin installation during vehicle recapitalization in FY 2017.

Prime Contractor: General Dynamics Corporation, Sterling Heights, MI

M-1 Abrams Tank (Modification)

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	97.9	-	102.5	-	77.6	-	-	-	77.6	-
Procurement	178.1	-	237.0	-	367.9	-	-	-	367.9	-
Total	276.0	-	339.5	-	445.5	-	-	-	445.5	-

Numbers may not add due to rounding

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 concerns about obsolescence, space, weight, and power 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 2016 Program: Supports final Developmental Testing (DT) and procures 30 PIM systems.

Prime Contractor: BAE Systems, York, PA

Paladin Integrated Management (PIM)

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	117.2	1	80.3	-	152.3	-	-	-	152.3	-
Procurement	199.5	8	247.4	18	273.9	30	-	-	273.9	30
Total	316.7	9	327.7	18	426.2	30	-	-	426.2	30

Numbers may not add due to rounding

Family of Medium Tactical Vehicles

USA

DoD Photo

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 use of common chassis, engines, tires, and cabs are features over 80 percent in commonality of parts between models and weight classes, which significantly reduces the logistics burden and operating costs. Numerous models perform a wide variety of missions including cargo transport (cargo model), vehicle recovery operations (wrecker), construction (dump), line haul (tractor), and 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.

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 2016 Program: Procures 166 Medium Tactical Vehicles in the baseline budget request and 1,191 vehicles in the Overseas Contingency Operations budget request 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 2014		FY 2015*		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	2.1	-	-	-	-	-	-	-	-	-
Procurement	305.7	1,086	291.2	550	90.0	166	244.0	1,191	334.0	1,357
Total	307.8	1,086	291.2	550	90.0	166	244.0	1,191	334.0	1,357

Note: FY 2015 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2015 includes $95.6 million in support of OCO.

Stryker Family of Armored Vehicles

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.

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 2016 Program: Funds the completion of the ECP development and DVH conversion to 62 vehicles. Converts 13 additional Stryker vehicles to the DVH configuration.

Prime Contractor: General Dynamics Corporation, Sterling Heights, MI

Stryker

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	54.3	-	119.2	-	105.8	-	-	-	105.8	-
Procurement	439.6	-	474.8	-	561.1	62	-	-	561.1	62
Total	493.9	-	594.0	-	666.9	62	-	-	666.9	62

Numbers may not add due to rounding

Amphibious Combat Vehicle (ACV)

The Amphibious Combat Vehicle (ACV) is a Pre-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.

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 options, including a swim capability. The program has been structured to provide a phased, incremental capability.

FY 2016 Program: Supports ACV Increment 1.1 activities, including a Milestone B decision, competitive award of an Engineering, Manufacturing and Development (EMD) contract, and studies/technology development to advance high water speed capability.

Prime Contractor: TBD

Amphibious Combat Vehicle (ACV)										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	35.0	-	105.7	-	219.1	-	-	-	219.1	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	35.0	-	105.7	-	219.1	-	-	-	219.1	-

Numbers may not add due to rounding

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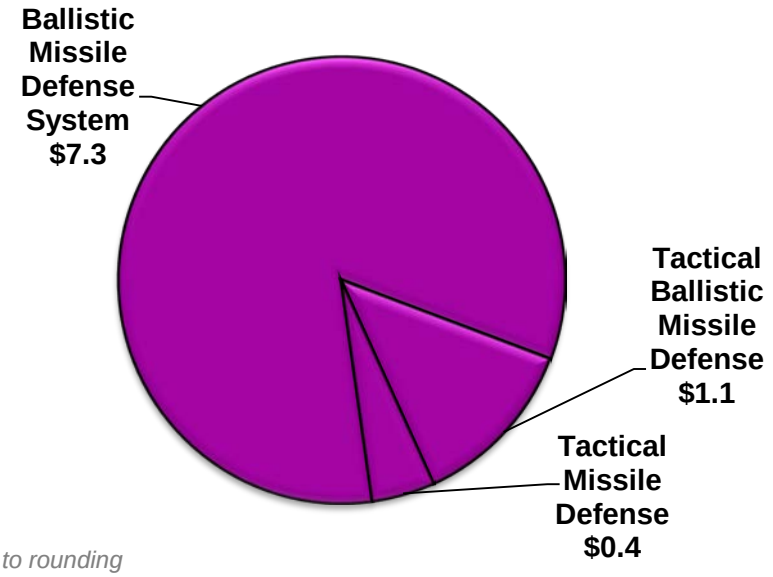
Missile Defense Programs

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 and the Army 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 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 a key sea-based element of the Ballistic Missile Defense (BMD) program and provides enduring, operationally effective and supportable BMD capability on Aegis cruisers and destroyers.

The FY 2016 budget request continues to invest and build inventories of air and missile defense capabilities, such as the Patriot Advanced Capability-3 (PAC-3) missiles, 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.8

FY 2016 Missile Defense Programs – Base: $8.8 Billion

($ in Billions)



Numbers may not add due to rounding

Note: $8.8 billion does not include the Missile Defense Agency's Science and Technology ($224.0 million), Military Construction ($169.2 million), nor the Operation and Maintenance ($432.1 million) funding. The total Ballistic Missile Defense funding is $9.6 billion for the FY 2016 request.

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 and destroyers. The Aegis BMD builds upon the existing Navy Aegis Weapons System (AWS) and Standard Missile-3 (SM-3) capabilities. The Aegis BMD upgrades expand capability through a series of incremental, evolutionary improvements to counter more sophisticated and longer range threats and provides engagements in the terminal phase of flight.

Mission: Provides a forward-deployable, mobile capability to detect and track ballistic missiles of all ranges, and the ability to destroy short- medium-, intermediate-range ballistic missiles, and selected long-range class threats in the midcourse phase of flight. The Aegis BMD delivers an enduring, operationally effective and supportable capability on Aegis cruisers and destroyers in defense of the U.S., deployed forces, and friends and allies.

FY 2016 Program: Supports procurement of 40 SM-3 Block IB missiles. Procures BMD upgrades for 15 Aegis ships and installation onboard 6 Aegis ships/sites. Continues the development of the Aegis BMD 5.0 and 5.1 Weapon Systems.

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

AEGIS Ballistic Missile Defense

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	885.7	-	853.8	-	898.5	-	-	-	898.5	-
Procurement	580.8	52	643.8	49	706.7	40	-	-	706.7	40
Total	1,466.5	52	1,497.6	49	1,605.2	40	-	-	1,605.2	40

Numbers may not add due to rounding

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 (TFCC) 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 2016 Program: Supports procurement of 30 interceptors and associated components, as well as support and training equipment. Supports the development of the initial Build 2.0 capability, and continues development and flight and ground testing of THAAD components. Provides support for the five THAAD batteries as well as the planned delivery of the sixth battery in FY 2016. Begins concept development for THAAD follow-on capability.

Prime Contractor: Lockheed Martin Corporation, Sunnyvale, CA

Terminal High Altitude Area Defense (THAAD)										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	251.9	-	275.3	-	254.2	-	-	-	254.2	-
Procurement	571.8	27	449.8	31	464.0	30	-	-	464.0	30
Total	823.7	27	725.1	31	718.2	30	-	-	718.2	30

Numbers may not add due to rounding

Ground-based Midcourse Defense

DOD - JOINT


DoD Missile Defense Agency Photo

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 exo-atmospheric kill vehicle. When launched, the booster missile carries the kill vehicle toward the target's predicted location in space. Once released from the booster, the 152 pound 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 have been established in Colorado and Alaska.

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 2016 Program: Supports our commitment 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. 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. Implements the Independent Expert Panel and Failure Review Board recommendations for GBI improved reliability. Funds the development of the GMD Redesigned Kill Vehicle (RKV) for improved reliability, availability, performance, and producibility and to conduct design and reliability characterization of the current GBI fleet.

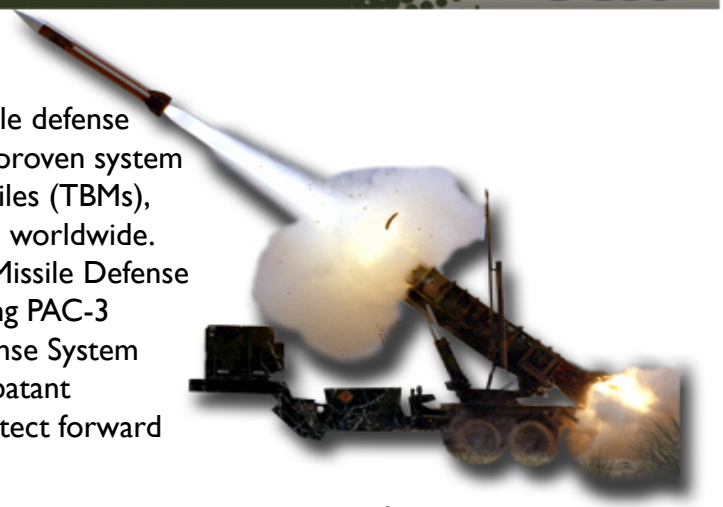
Prime Contractor: Boeing Defense and Space (BDS), St. Louis, MO

Ground-based Midcourse Defense										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	1,064.4	1	1,053.3	-	1,628.4	-	-	-	1,628.4	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	1,064.4	1	1,053.3	-	1,628.4	-	-	-	1,628.4	-

Numbers may not add due to rounding

Patriot/PAC-3

USA



The Army's Patriot Advanced Capability (PAC-3) missile is the latest improvement to the Patriot air and missile defense system. The Patriot 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 2016 Program: Continues improvements in software for further probability of fratricide reduction; improved communications, interoperability, supportability, electronic warfare capabilities; and support transition to the Integrated Air and Missile Defense (IAMD) architecture. Continues procurement of 10 Enhanced Launcher Electronics Systems (ELES) to increase the warfighter's PAC-3 capability.

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

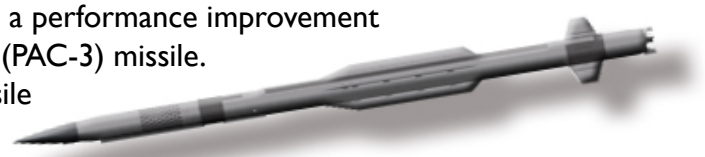
Patriot/PAC-3

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	33.9	-	58.0	-	105.8	-	-	-	105.8	-
Procurement	326.4	-	183.8	-	241.9	-	-	-	241.9	-
Spares	9.5	-	35.8	-	32.7	-	-	-	32.7	-
Total	369.8	-	277.6	-	380.4	-	-	-	380.4	-

Numbers may not add due to rounding

PAC-3/MSE Missile

USA



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, 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 2016 Program: Procures MSE interceptor (80 missiles) 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 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	86.2	-	35.0	-	2.3	-	-	-	2.3	-
Procurement	690.4	92	532.6	108	414.9	80	-	-	414.9	80
Total	776.6	92	567.6	108	417.2	80	-	-	417.2	80

Numbers may not add due to rounding

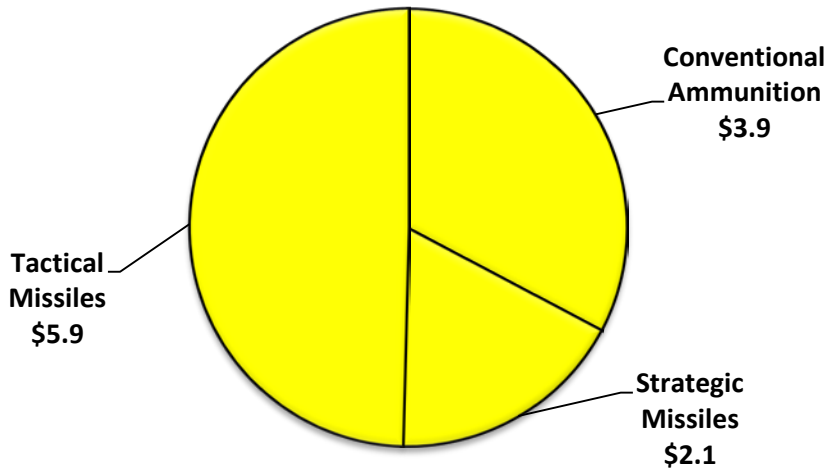
Missiles and Munitions

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. *Note: Interceptor missiles supporting the missile defense mission are included in the Missile Defense section.*

In FY 2016 the Department continues to build inventories in the next generation of standoff weapons for high value land attack targets such as the Joint Air-to-Surface Standoff Missile-Extended Range and Small Diameter Bomb II. The Long Range Anti-Ship Missile (LRASM) is in development for combat aircraft to engage heavily defended maritime targets at longer standoff ranges and increase survivability. Investment also continues in shipboard air defense missiles such as the Standard Missile-6 to enhance the ships survivability. The Department increased production of General Purpose Bombs and Joint Direct Attack Munitions to support warfighter demands.

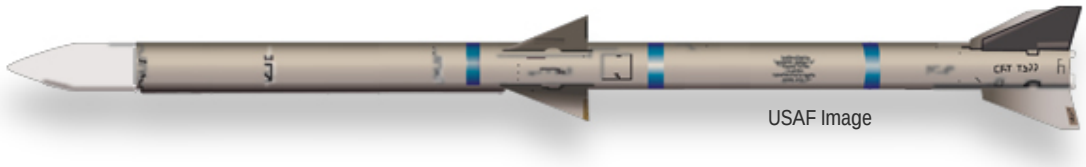
FY 2016 Missiles and Munitions – Base: $11.9 Billion

($ in Billions)



Numbers may not add due to rounding

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 2016 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 2014		FY 2015		FY 2016 Base Budget		FY 2016 OCO Budget		FY 2016 Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
Air Force	68.5	-	82.2	-	46.2	-	-	-	**46.2**	**-**
Navy	2.6	-	10.2	-	32.2	-	-	-	**32.2**	**-**
Subtotal	**71.1**	**-**	92.4	-	**78.4**	**-**	**-**	**-**	**78.4**	**-**
Procurement									**-**	**-**
Air Force	318.4	183	329.6	200	390.1	262	-	-	**390.1**	**262**
Navy	82.5	54	2.2	-	192.9	167	-	-	**192.9**	**167**
Subtotal	**400.9**	**237**	331.8	200	**583.0**	**429**	**-**	**-**	**583.0**	**429**
Spares	**1.4**	**-**	**2.9**	**-**	**4.2**	**-**	**-**	**-**	**4.2**	**-**
Total	**473.4**	**237**	**427.1**	**200**	**665.6**	**429**	**-**	**-**	**665.6**	**429**

Numbers may not add due to rounding

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 2016 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 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
Air Force	12.4	-	29.7	-	43.4	-	-	-	43.4	-
Navy	17.5	-	37.3	-	76.0	-	-	-	76.0	-
Subtotal	**29.9**	**-**	**67.0**	**-**	**119.4**	**-**	**-**	**-**	**119.4**	**-**
Procurement									-	-
Air Force	105.2	225	129.1	303	200.8	506	-	-	200.8	506
Navy	96.7	208	68.2	167	96.4	227	-	-	96.4	227
Subtotal	**201.9**	**433**	**197.3**	**470**	**297.2**	**733**	**-**	**-**	**297.2**	**733**
Spares	**8.7**	**-**	**8.4**	**-**	**7.5**	**-**	**-**	**-**	**7.5**	**-**
Total	**240.5**	**433**	**272.7**	**470**	**424.1**	**733**	**-**	**-**	**424.1**	**733**

Numbers may not add due to rounding

Chemical Demilitarization

DOD - JOINT


US Army Photo

The Chemical Demilitarization Program is composed of one Major Defense Acquisition Program, which is 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.

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;
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; and
4. Assess and destroy recovered chemical warfare material (RCWM) within the U.S.

FY 2016 Program: Continues closure activities at three CMA sites (Tooele, UT; Anniston, AL; and Umatilla, OR). Continues to assess and destroy RCWM. Completes construction efforts and continuous systemization activities at the ACWA Program sites (Pueblo, CO and Blue Grass, KY). Continues the CSEP and the emergency response planning at CO and KY.

Prime Contractors: AECOM (formerly URS Corporation), Arlington, VA; Bechtel National Incorporated, Pueblo, CO; Bechtel Parsons, Richmond, KY

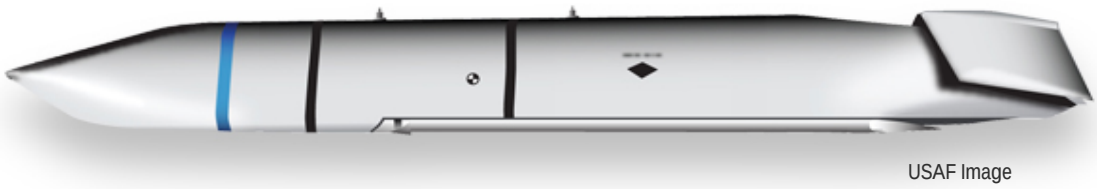
Chemical Demilitarization

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
Chemical Agents and Munitions Destruction	931.9	-	802.3	-	720.7	-	-	-	720.7	-
MILCON	122.5	-	38.7	-	-	-	-	-	-	-
Total	1,054.4	-	841.0	-	720.7	-	-	-	720.7	-

Numbers may not add due to rounding

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.

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.

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

FY 2016 Program: Continues Full Rate Production for JASSM and JASSM-ER.

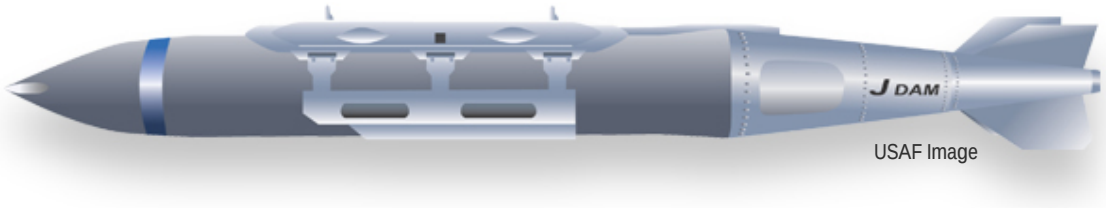
Prime Contractor: Lockheed Martin Corporation, Troy, AL

Joint Air to Surface Standoff Missile										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	6.2	-	12.9	-	12.8	-	-	-	12.8	-
Procurement	271.2	187	329.2	215	440.6	360	-	-	440.6	360
Total	277.4	187	342.1	215	453.4	360	-	-	453.4	360

Numbers may not add due to rounding

Joint Direct Attack Munition

DOD - JOINT



USAF Image

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 2016 Program: Continues full-rate production of the system.

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

Joint Direct Attack Munition

	FY 2014*		FY 2015**		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	2.4	-	-	-	-	-	-	-	-	-
Procurement										
Air Force	250.5	10,415	228.4	4,333	374.7	6,341	184.4	5,953	559.1	12,294
Total	**252.9**	**10,415**	**101.4**	**2,973**	**374.7**	**6,341**	**184.4**	**5,953**	**559.1**	**12,294**

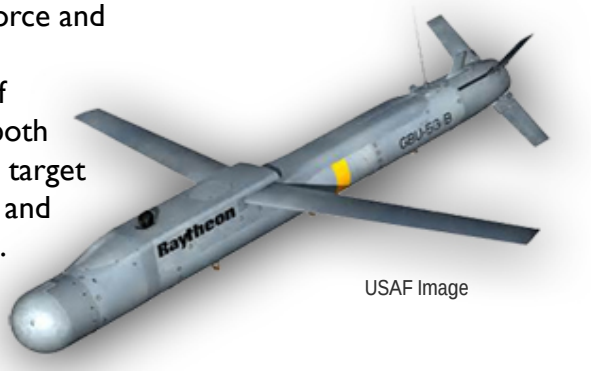
Note: FY 2014 & FY 2015 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $72.0 million in support of OCO.

** FY 2015 includes $117 million in support of OCO.

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 was 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.

FY 2016 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: Raytheon Missile Systems, Tucson, AZ (SDB II)

Small Diameter Bomb

	FY 2014		FY 2015*		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E										
Air Force	109.6	-	68.7	-	32.6	-	-	-	**32.6**	-
Navy	24.2	-	56.3	-	97.0	-	-	-	**97.0**	-
Subtotal	**133.8**	-	**125.0**	-	**129.6**	-	-	-	**129.6**	-
Procurement										
Air Force	-	-	51.3	144	133.7	1,942	2.5	63	**136.2**	**2,005**
Spares		-	**7.9**		**3.2**	-			**3.2**	-
Total	**133.8**	-	**184.2**	**144**	**266.5**	**1,942**	**2.5**	**63.0**	**269.0**	**2,005**

Note: FY 2015 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2015 includes $10.7 million in support of OCO.

Hellfire Missiles

DOD - JOINT

HELLFIRE II AGM-114R is laser-guided, anti-armor weapon which homes on a laser spot that can be projected by ground observers, the launching attack aircraft, or Unmanned Aerial Vehicle (UAV). HELLFIRE's ability to engage single or multiple targets and fire single, rapid, or salvo rounds gives combined arms forces a decided battlefield advantage. The HELLFIRE II AGM-114R is 64 inches in length and weighs 108lbs. Weapons range is approximately 8km.

HELLFIRE II (AGM-114R Model) Multi-Purpose Warhead Missile improvements over legacy HELLFIRE II models include variable-delay fuse settings, target-specific flight trajectories and a Micro Electo Mechanical System (MEMS) Inertial Measurement Unit (IMU) for increased navigation and flight controls.

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

FY 2016 Program: Continues at full-rate production.

Prime Contractor: Lockheed Martin, Orlando, Florida.

Hellfire Missiles

	FY 2014*		FY 2015**		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	-	-	-	-	-	-	-	-	-	-
Procurement										
Army	73.9	321	36.6	231	28.0	113	37.3	270	65.2	383
Air Force	64.9	624	169.3	1,498	423.0	3,756	280.9	1,811	703.9	5,567
Total	**138.8**	**945**	**205.9**	**1,729**	**451.0**	**3,869**	**318.2**	**2,081**	**769.1**	**5,950**

Note: FY 2014 & FY 2015 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $93.6 million in support of OCO.

** FY 2015 includes $157.6 million in support of OCO.

Javelin Advanced Anti-Tank Weapon

USA

USMC Photo

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 can be employed for a variety of combat missions, but is used primarily against armored vehicles and in a direct-attack mode for use against buildings and bunkers. It uses an imaging infrared two-dimensional staring Focal plane array (FPA) 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.

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 2016 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

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	4.5	-	4.2	-	4.0	-	-	-	4.0	-
Procurement	110.5	564	72.9	311	77.2	331	-	-	77.2	331
Total	115.0	564	77.1	311	81.2	331	-	-	81.2	331

Numbers may not add due to rounding

Guided Multiple Launch Rocket System

US Army Photo

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, including unitary and scatterable sub-munitions. A third GMLRS increment, GMLRS Alternative Warhead (AW), is being developed as a replacement for 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 2016 Program: Continues at full rate production of GMLRS (Unitary) as well as product improvements such as insensitive munition and alternative warhead development. Supports GMLRS AW for a combined Milestone C and Full Rate Production decision.

Prime Contractor: Lockheed Martin Corporation, Dallas, TX

Guided Multiple Launch Rocket System

	FY 2014*		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	92.8	-	45.4	-	17.5	-	-	-	17.5	-
Procurement	273.0	2,166	127.1	774	251.1	1,668	-	-	251.1	1,668
Total	365.8	2,166	172.5	774	268.6	1,668	-	-	268.6	1,668

Note: FY 2014 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2014 includes $39.0 million in support of OCO.

Evolved Seasparrow Missile

NSPO Photo

The Evolved Seasparrow Missile (ESSM) is an improved version of the NATO Seasparrow missile, designed for ship self-defense.

The ESSM has an 8-inch diameter forebody that tapers to a 10-inch diameter rocket motor. The guidance package uses a semi-active homing seeker, in combination with a midcourse data uplinks. The missile uses a solid-propellant rocket motor that provides high thrust for maneuverability with tail control via a Thrust Vector Controller (TVC). This gives the missile, a capability to engage and defeat agile, high-speed, low-altitude anti-ship cruise missiles (ASCMs), low velocity air threats (LVATs), such as helicopters, and high-speed, maneuverable surface threats.

Mission: Provides Navy combatants, aircraft carriers and amphibious ships with the capability to defeat current and projected threats that possess low altitude, high velocity, and highly maneuverable characteristics beyond the engagement capabilities of other ship self-defense systems.

FY 2016 Program: Continues full rate production for the Block I ESSM. Continues the Engineering and Manufacturing Development for Block II.

Prime Contractor: Raytheon Missile Systems, Tucson, AZ

Evolved Seasparrow Missile

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	42.5	-	96.9	-	99.6	-	-	-	99.6	-
Procurement	76.7	53	116.9	104	44.4	30	-	-	44.4	30
Spares	0.3	-	5.0	-	10.1	-	-	-	10.1	-
Total	119.2	53	213.8	104	144.0	30	-	-	144.0	30

Numbers may not add due to rounding

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 1 (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 2016 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 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	1.3	-	12.7	-	14.3	-	-	-	14.3	-
Procurement	65.9	66	76.8	90	80.8	90	-	-	80.8	90
Total	67.2	66	89.5	90	95.1	90	-	-	95.1	90

Numbers may not add due to rounding

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 2016 Program: Continues production of the SM-6 variant.

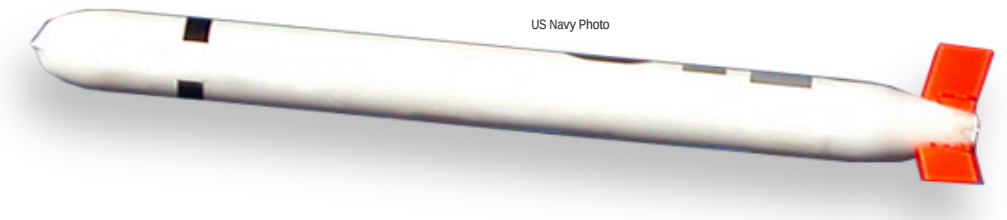
Prime Contractor: Raytheon Missile Systems, Tucson, AZ

Standard Family of Missiles

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	60.9	-	36.7	-	129.6	-	-	-	129.6	-
Procurement	300.1	93	436.5	110	435.4	113	-	-	435.4	113
Spares	18.7	-	16.2		17.1	-	-	-	17.1	-
Total	379.7	93	489.4	110	582.1	113	-	-	582.1	113

Numbers may not add due to rounding

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 2016 Program: Continues production Tomahawk Block IV missiles.

Prime Contractor: Raytheon Missile Systems, Tucson, AZ

Tactical Tomahawk Cruise Missile

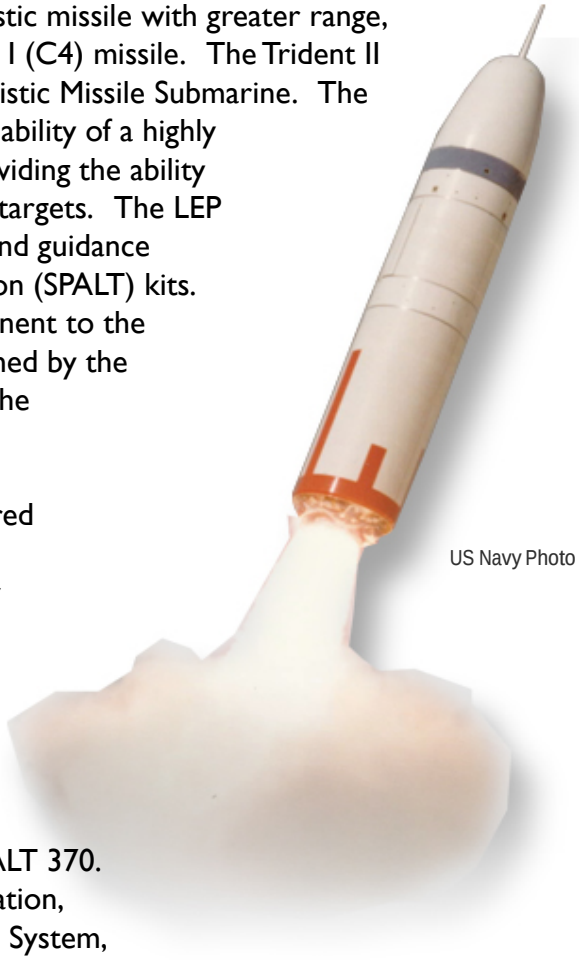
	FY 2014		FY 2015*		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	12.0	-	26.1	-	25.2	-	-	-	25.2	-
Procurement	307.5	206	317.5	243	184.8	100	-	-	184.8	100
Total	319.5	206	343.6	243	210.0	100	-	-	210.0	100

Note: FY 2015 includes Base and OCO funding *Numbers may not add due to rounding*

* FY 2015 includes $45.5 million in support of OCO.

Trident II Ballistic Missile Modifications

The Trident II (D5) is a submarine launched ballistic missile with greater range, payload capability, and accuracy than the Trident I (C4) missile. 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: Deters nuclear war by means of assured retaliation in response to a major attack on the United States or its Allies, and enhances nuclear stability by deterring an enemy first strike.

FY 2016 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, 12 Solid Rocket Motors, the Post Boost Control System, 35 Life Extension Program (LEP) kits, support equipment, and spares.

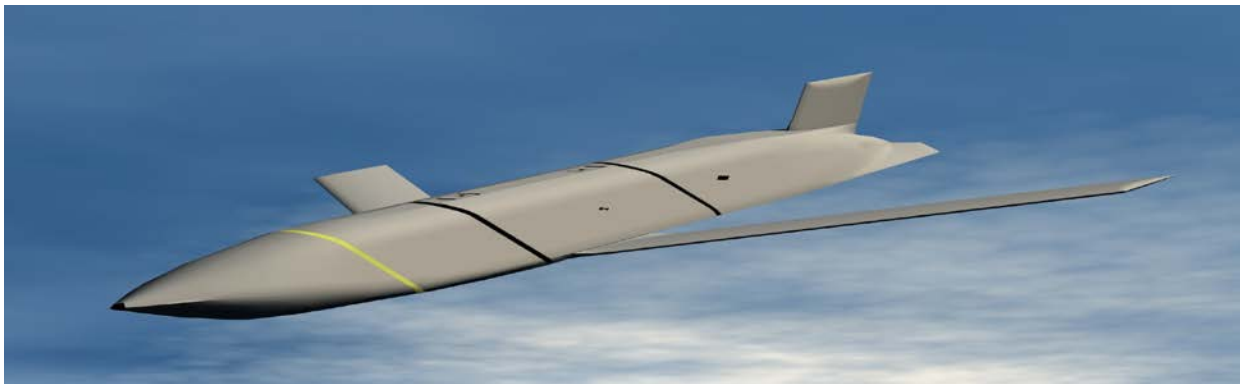
Prime Contractor: Lockheed Martin Corporation, Sunnyvale, CA

Trident II Ballistic Missile Mods

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	86.2		95.0	-	107.0	-	-	-	107.0	-
Procurement	1,130.1	-	1,175.5	-	1,099.1	-	-	-	1,099.1	-
Total	1,216.3	-	1,270.5	-	1,206.1	-	-	-	1,206.1	-

Numbers may not add due to rounding

Offensive Anti-Surface Weapon (OASUW)



The Offensive Anti-Surface Warfare/Increment 1 develops 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 1,000 lb penetrator/blast fragmentation warhead. OASuW/Increment 1 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 2016 Program: Continue development and testing.

Prime Contractors: Lockheed Martin Missiles and Fire Control (LMMFC) Strike Weapons, Orlando, Fla

Offensive Anti-Surface Weapon (OASUW)										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	86.7	-	181.9	-	285.8	-	-	-	285.8	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	86.7	-	181.9	-	285.8	-	-	-	285.8	-

Numbers may not add due to rounding

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 the strategic weapons for the airborne leg of the nuclear triad and are carried on the B-52, the B-2, and NATO dual-use aircraft today. The new variant, the B61-12, consolidates four versions into a single variant and will be carried by the B-2, F-15E, F-16, NATO aircraft as well as the F-35 and the Next Generation Bomber. To extend the life of this weapon, the DOE/NNSA and the Air Force are implementing a Life Extension Program (LEP) to refurbish the B-61 and replace the parachute delivery system, with the First Production Unit planned in 2020. The Air Force portion of the LEP includes development efforts, technical integration, system qualification, and fielding of the B61-12 variant.

FY 2016 Program: Continues the development, design, test, integration, qualification and nuclear certification activities in support of the B61-12 LEP; completes Phase 1 Engineering and Manufacturing Development efforts in support of a Critical Design Review scheduled in FY 2016. Continues software development and integration for the F-15E and F-16 aircraft and continues B-2 and PA-200 (Tornado) integration.

Prime Contractors: Boeing Company

B61 Tail Assembly (TKA)

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	33.0	-	168.4	-	212.1	-	-	-	212.1	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	33.0	-	168.4	-	212.1	-	-	-	212.1	-

Numbers may not add due to rounding

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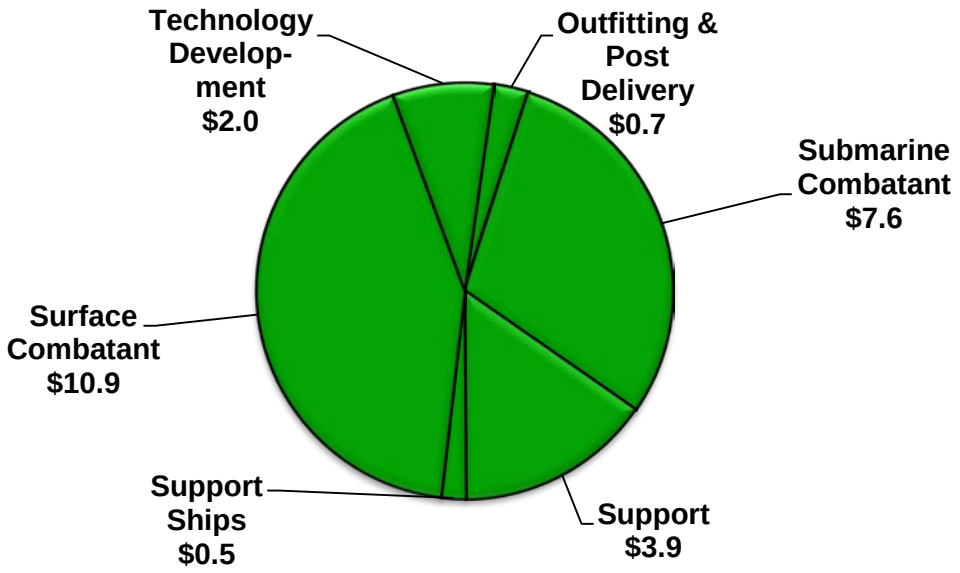
Shipbuilding and Maritime Systems

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 2016 includes the funding for the construction of nine ships (two SSN 74 Virginia Class nuclear attack submarines; two DDG 51 Arleigh Burke Class destroyers; three Littoral Combat Ships (LCS); one Fleet Replenishment Oiler (TAO(X)); and one LPD 17 Amphibious Transport Dock Ship. 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 2016 Shipbuilding and Maritime Systems – Base: $25.6 Billion

($ in Billions)



Numbers may not add due to rounding

CVN 78 GERALD R. FORD Class Nuclear Aircraft Carrier


US Navy Image

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. 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 A1B 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.

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 2016 Program: Funds fourth year of construction costs for USS John F. Kennedy (CVN 79), completion costs for USS Gerald R. Ford (CVN 78), long lead items for USS Enterprise (CVN 80), and continued development of ship systems.

Prime Contractor: Huntington Ingalls Industries, Newport News, VA

CVN 78 GERALD R. FORD Class Nuclear Aircraft Carrier										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	145.4	-	122.9	-	75.7	-	-	-	75.7	-
Procurement	1,546.7		1,928.3	-	2,732.6	-	-	-	2,732.6	-
Total	1,692.1	-	2,051.2	-	2,808.3	-	-	-	2,808.3	-

Numbers may not add due to rounding

DDG 51 ARLEIGH BURKE Class Destroyer

US Navy Photo

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. The DDG 51 class is the first class of destroyers 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; and, in FY 2016, DDG-124 will become the first Flight III ship. 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 2016 Program: Funds two DDG 51 AEGIS class destroyers as part of a multiyear procurement for ten ships from FY 2013 - FY 2017.

Prime Contractors: General Dynamics Corp., Bath, ME
Huntington Ingalls Industries, Pascagoula, MS

DDG 51 ARLEIGH BURKE Class Destroyer

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	183.3	-	87.1	-	183.3	-	-	-	183.3	-
Procurement	2,086.4	1	2,931.6	2	3,286.8	2	-	-	3,286.8	2
Total	2,269.7	1	3,018.7	2	3,470.1	2	-	-	3,470.1	2

Numbers may not add due to rounding

Littoral Combat Ship (LCS)

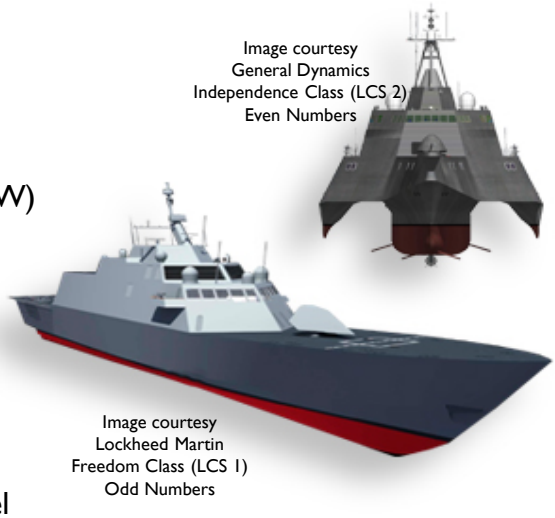


Image courtesy
General Dynamics
Independence Class (LCS 2)
Even Numbers

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

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.

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 2016 Program: Funds construction of three LCS seaframes.

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

Littoral Combat Ship

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	165.4	-	86.7	-	118.4	-	-	-	118.4	-
Procurement	1,931.0	4	1,731.8	3	1,741.1	3	-	-	1,741.1	3
Total	2,096.4	4	1,818.5	3	1,859.5	3	-	-	1,859.5	3

Numbers may not add due to rounding

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 2016 Program: Funds two ships as part of a multiyear procurement contract and advance procurement and Economic Order Quantities (EOQ) for two ships beginning construction in FY 2017 and two ships beginning construction in FY 2018. Continues funding development of the Virginia Payload Module and 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 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	115.3	-	205.7	-	282.7	-	-	-	282.7	-
Procurement	6,558.5	2	5,975.8	2	5,458.3	2	-	-	5,458.3	2
Total	6,673.8	2	6,181.5	2	5,741.0	2	-	-	5,741.0	2

Numbers may not add due to rounding

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.

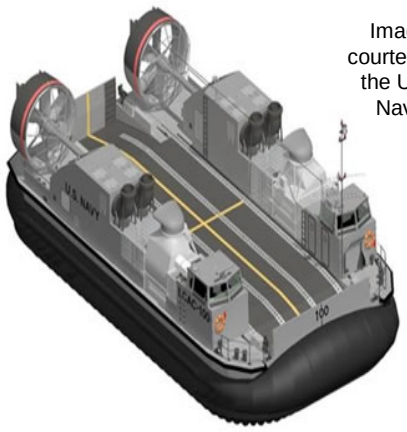


Image courtesy of the U.S. Navy

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 2016 Program: Procures five vessels and continues research and development of ship design, engineering and specifications.

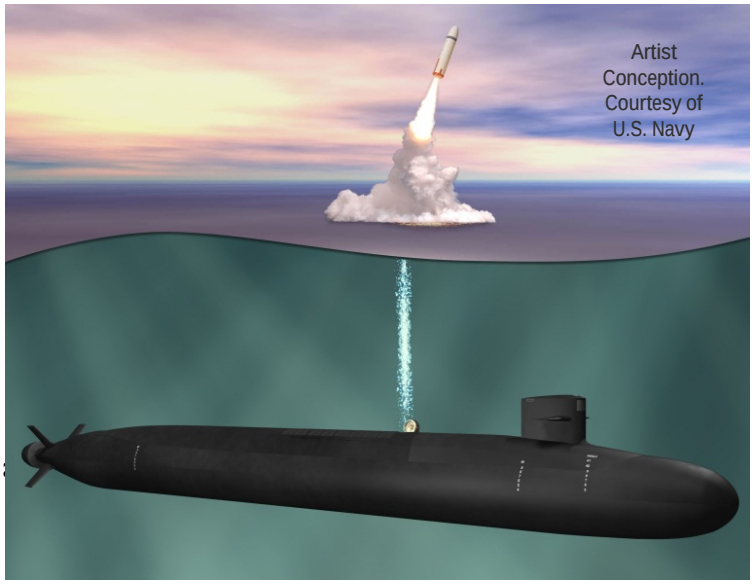
Prime Contractors: Textron Inc., New Orleans, LA

Ship to Shore Connector										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	68.4	-	42.7	-	7.7	-	-	-	7.7	-
Procurement	-	-	159.6	3	256	5	-	-	255.6	5
Total	68.4	-	202.3	3	263.3	5	-	-	263.3	5

Numbers may not add due to rounding

OHIO Replacement (OR) Program

The goal of the OHIO Replacement Program is replace the current OHIO class of ballistic missile submarines. The first of the OHIO class submarines were commissioned In the 1980s and are nearing the end of their useful life. Construction on The new class of ship will begin in FY 2021 for FY 2028 delivery when the first OHIO class ships are due to begin decommissioning. Currently in the research and development stage, ship requirements are being refined.


Artist Conception. Courtesy of U.S. Navy

Mission: Provides a sea-based strategic nuclear force.

FY 2016 Program: Funds the research and development of nuclear technologies and ship systems such as the propulsion system, combat systems technology, the common missile compartment.

Prime Contractor: TBD

OHIO Replacement (OR) Program										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	1,056.1	-	1,223.2	-	1,390.6	-	-	-	1,390.6	-
Procurement	-	-	-	-	-	-	-	-	-	-
Total	1,056.1	-	1,223.2	-	1,390.6	-	-	-	1,390.6	-

Numbers may not add due to rounding

Fleet Replenishment Oiler

The Fleet Replenishment Oiler (TAO(X)) program will build a new class of fleet oilers for the Navy. While the design has not been determined, the Navy does anticipate that the new class will have capabilities similar to the legacy Kaiser class ships, but will have increased space for dry cargo and a helicopter refueling capability. The TAO(X) will be double-hulled to guard against oil spills.

US Navy Photo
Kaiser Class UNREP

Mission: Transfers fuel to Navy surface ships operating at sea to extend at-sea time for the ships and embarked aircraft.

FY 2016 Program: Funds one TAO(X).

Prime Contractor: TBD

Fleet Replenishment Oiler										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	11.1	-	-	-	-	-	-	-	-	-
Procurement	-	-	-	-	674.1	1	-	-	674.1	1
Total	11.1	-	-	-	674.1	1	-	-	674.1	1

Numbers may not add due to rounding

LPD 17 SAN ANTONIO Class Amphibious Transport Dock Ship

The San Antonio Class Amphibious Transport Dock Ships (LPD 17) are warships that embark, transport, and land elements of a landing force for a variety of expeditionary warfare missions. The LPD 17 class provides the Navy and Marine Corps with modern sea-based platforms that are networked, survivable, and operate with modern weapons systems. Survivability features include the Rolling Airframe Missile (RAM) for protection from air threats and the class was designed to minimize radar signature to make the ship more difficult to locate and target. The ships are equipped with a fiber-optic shipboard wide era network which connects the ship systems sensor and combats systems to the ship's command center. The extensive communications, command, control, and intelligence systems will support current and projected expeditionary warfare missions. The ship design provides space for LCACs (Landing Craft, Air Cushioned), over 500 troops, and Amphibious Assault Vehicles. The stern landing deck can accommodate tiltrotor aircraft and helicopters.

Mission: Support amphibious assaults, special operations or expeditionary warfare missions and serve as a secondary aviation platforms for amphibious ready groups.

FY 2016 Program: Provides the remaining funding for LPD 28, the twelfth ship in the class as Congress provided $1.0 billion for construction costs in FY 2015.

Prime Contractor: Huntington Ingalls Industries

LPD 17 SAN ANTONIO Class Amphibious Transport Dock Ship										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	1.1	-	0.4	-	0.7	-	-	-	0.7	-
Procurement	58.5	-	1,074.2	-	668.0	1	-	-	668.0	1
Total	59.6	-	1,074.5	-	668.7	1	-	-	668.7	1

Numbers may not add due to rounding

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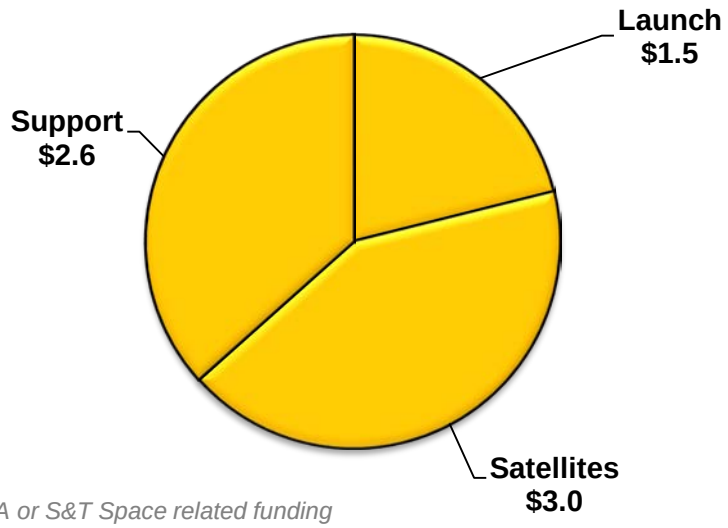
Space Based Systems

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 & Evaluation (RDT&E) funding and the remainder of the satellites are purchased with Procurement funding.

The FY 2016 budget highlights include a new account for Air Force major space procurement programs, with a 5-year availability, 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 Global Positioning System (GPS) III satellite 10, as well as 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 2016 Space Based Systems – Base: $7.1 Billion

($ in Billions)



Does not include MDA or S&T Space related funding

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, worldwide secure communications for strategic and tactical users aimed at withstanding shocks from a nuclear attack. It also provides transmission of tactical communications, such as real-time video, battlefield maps, and targeting data. The AEHF is a collaborative program that also includes resources for Canada, the United Kingdom, and the Netherlands.

FY 2016 Program: Continues funding for procurement of the space vehicles AEHF-5 and AEHF-6, 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

Advanced Extremely High Frequency										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	262.0	-	308.0	-	228.0	-	-	-	228.0	-
Procurement	328.0	-	298.0	-	333.0	-	-	-	333.0	
Total	590.0	-	606.0	-	561.0	-	-	-	561.0	-

Numbers may not add due to rounding

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.

- 100% mission success with over 79 consecutive operational launches.
- The program continues efforts to introduce competition. EELV intends to include new entrants when certified.

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

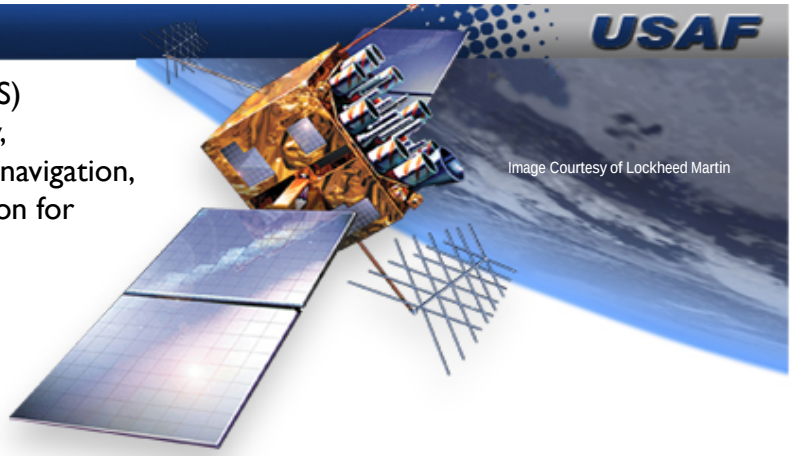
FY 2016 Program: Continues the block buy of EELV Launch Services (ELS); procures five launch vehicles, at least two of which are set aside for competition and which are usually ordered no-later-than 24 months prior to the planned mission; and funds EELV Launch Capability (ELC) activities such as launch preparation, site and operations activities, post mission analysis, and other related task to support up to eight launches in a year. Begins EELV development to provide two commercially-viable, domestically-sourced space launch services with the objective of eliminating reliance on a foreign-made liquid rocket engine.

Prime Contractor: United Launch Alliance (ULA), Centennial, CO

Evolved Expendable Launch Vehicle										
	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	19.0	-	226.0	-	84.0	-	-	-	84.0	-
Procurement	1,367.0	5	1,420.0	4	1,371.0	5	-	-	1,371.0	5
Total	1,386.0	5	1,646.0	4	1,455.0	5	-	-	1,455.0	5

Numbers may not add due to rounding

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 fully operational GPS III constellation is expected to consist of 27 satellites.

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), L5 (safety-of-life), and a more powerful M-code (military) signal, and a path for graceful growth 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 2016 Program: Funds the procurement of GPS III satellite 10. Continues the development of GPS OCX Blocks 1 and 2. Funds the technology development 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. Funds fly-out of the remaining GPS IIF satellites.

Prime Contractors: GPS III: Lockheed Martin Corporation, Newtown, PA
GPS OCX: Raytheon Company, Aurora, CO
GPS MGUE Inc 1: L3 Interstate Electronics Corp, Anaheim, CA
Rockwell Collins International, Cedar Rapids, IA
Raytheon Company, El Segundo, CA
GPS IIF: Boeing, Seal Beach, CA

Global Positioning System

	FY 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	680.0	-	667.0	-	673.0	-	-	-	673.0	-
Procurement	506.0	2	365.0	1	265.0	1	-	-	265.0	1
Total	1,186.0	2	1,032.0	1	938.0	1	-	-	938.0	1

Numbers may not add due to rounding

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).

The GEO payload consists of a scanning infrared (IR) sensor, which provides two times the revisit rate and three times 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-1 and HEO-2 payloads were certified for operations in 2008 and 2009, respectively. The HEO-3 payload was delivered to the host satellite program in June 2013; HEO-4 payload delivery is planned in May 2015.
- The GEO-1 and GEO-2 satellites launched in 2011 and 2013, respectively, and both have been accepted for strategic missile warning operations. 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 in July 2017 and the GEO-4 satellite will be delivered directly from production in February 2016.

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 2016 Program: Continues funding for procurement of the space vehicles GEO-5 and GEO-6, 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 2014		FY 2015		FY 2016					
					Base Budget		OCO Budget		Total Request	
	$M	Qty	$M	Qty	$M	Qty	$M	Qty	$M	Qty
RDT&E	322.0	-	309.0	-	292.0	-	-	-	292.0	-
Procurement	525.0	-	445.0	-	453.0	-	-	-	453.0	-
Total	847.0	-	754.0	-	745.0	-	-	-	745.0	-

Numbers may not add due to rounding

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DEPARTMENT OF DEFENSE
UNITED STATES OF AMERICA