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OPNAV NOTICE 3090

From: Chief of Naval Operations

Subj: COMMAND, CONTROL, COMMUNICATION, COMPUTERS, AND
INTELLIGENCE SYSTEMS PROGRAM ROADMAP

Ref: (a) OPNAVINST 3090.1
(b) OPNAVINST 2300.44G
(c) PEO C4I ltr 11010 PEO C4I/136 of 10 Sep 09

Encl: (1) Program Executive Officer (PEO) Command, Control,
Communications, Computers and Intelligence (C4I)
Systems Program Roadmap
(2) Other Systems Program Roadmaps

1. Purpose. To publish the Navy Command, Control, Communications, Computers and Intelligence (C4I) systems program roadmap for fiscal years (FYs) 2010 through 2017 as directed by reference (a) to align Navy C4I systems procured by shipbuilding and conversion programs with those supported by the Navy Modernization Plan (NMP). The C4I systems program roadmap:

- a. Provides the delivery, sustainment, and migration plan;
- b. Is the foundation for the NMP;
- c. Identifies systems which satisfy the ship capability requirements for in-service ships established by reference (b);
- d. Identifies systems which satisfy the shipbuilding and conversion requirements that are the same or nearly the same as that being implemented by the NMP at ship custody transfer; and
- e. Prevents the introduction of unique systems, which do not follow an established C4I systems roadmap.

2. Background. By reference (a), Deputy Chief of Naval Operations for Information Dominance (CNO (N2/N6)) is responsible for the development of C4I systems in response to Department of the Navy and Joint requirements, and publication of C4I systems program roadmaps.

3. Policy

a. Shipbuilding programs shall align with the NMP.

b. The C4I suites for new construction ships and major conversion of in-service ships shall be composed of Navy, Marine Corps, or Joint program systems that are:

(1) Supported by existing infrastructure; or

(2) Funded, in development, and aligned with the shipbuilding or conversion schedule.

c. The C4I systems baseline, program roadmap, and capabilities plan will support the Program Objective Memorandum development.

4. Action

a. The ship C4I suite of systems will be developed per reference (a), using the products of the C4I systems program roadmaps, enclosures (1) and (2), to employ common C4I systems, address the ship requirements, and support the ship acquisition strategy. Reference (c), appendix E is the basis for enclosure (1) and may be accessed at the Program Executive Officers (PEO) C4I [PresBud10 Integrated Roadmap](https://nserc.navy.mil/peo_c4i/se2/dpeo/dpeoplatform/Roadmap/Forms/AllItems.aspx?RootFolder=%2fpeo%5fc4i%2fse2%2fdpeo%2fdpeoplatform%2fRoadmap%2fPB10%20Integrated%20Roadmap%2fPB10%20Deskbook&FolderCTID=&View=%7bBEFCD568%2d499E%2d4E9D%2dB00D%2d963F1C70E40A%25) Web site at https://nserc.navy.mil/peo_c4i/se2/dpeo/dpeoplatform/Roadmap/Forms/AllItems.aspx?RootFolder=%2fpeo%5fc4i%2fse2%2fdpeo%2fdpeoplatform%2fRoadmap%2fPB10%20Integrated%20Roadmap%2fPB10%20Deskbook&FolderCTID=&View=%7bBEFCD568%2d499E%2d4E9D%2dB00D%2d963F1C70E40A%25.

b. Deputy Chief of Naval Operations, Integration of Capabilities and Resources (CNO (N8)) and CNO (N2/N6), supported by Commander, Space and Naval Warfare Systems Command; Commander, Naval Network Warfare Command; and in coordination

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with the cognizant PEOs (e.g., PEO C4I, PEO Ships, PEO Integrated Warfare Systems), will develop, publish and biennially update the C4I systems program roadmap.

5. Cancellation Contingency. This notice will remain in effect for one year unless otherwise superseded, whichever occurs first.



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**Program Executive Officer (PEO) Command, Control,
Communications, Computers and Intelligence (C4I) Systems Program
Roadmap**

1. PEO C4I Roadmap. The PEO C4I roadmap:
 - a. Lists the PEO C4I product inventory, including variants;
 - b. Shows the systems (products) migration over time;
 - c. Shows the health of the migrations;
 - d. Has system groupings by portfolios (families of systems);
 - e. Shows which systems are installed on which platforms;
and
 - f. Shows the health of fielding the systems.

2. Portfolios. The PEO C4I Roadmap is divided into six major portfolios:
 - a. Communications
 - b. Networks
 - c. Common Computing Environment
 - d. Common Services
 - e. Application Services
 - f. Cross-Cutting Services

3. Tier 1 and Tier 2 Groupings. The portfolios are sub-divided into 13 tier 1 groupings, which are further sub-divided into 37 tier 2 groupings.

4. Platform Groupings. Platforms are grouped as follows:

a. "FORCE" includes multi-purpose aircraft carrier (nuclear) (CVN), amphibious command ship (LCC), amphibious assault ship (general purpose) (LHA), amphibious assault ship (multipurpose) (LHD).

b. "GROUP" includes guided missile cruiser (CG), guided missile destroyer (DDG)-51, DDG-1000, amphibious transport dock (LPD)-17.

c. UNIT includes guided missile frigate (FFG), littoral combat ship (LCS), LPD-4, dock landing ship (LSD), mine countermeasures ship (MCM), patrol coastal (PC)

d. SUBS includes submarine (nuclear) (SSN), ballistic missile submarine (nuclear) (SSBN), guided missile submarine (nuclear) (SSGN).

e. "SHORE" includes aviation activity (naval), base communications infrastructure (naval), communications site (Navy), logistics activity (Navy), Marine Corps activity, meteorological and oceanographic activity (Navy), mobile platform (Navy), TACAMO site (Navy), training site (Navy), and non-naval activity other.

f. "AIR" includes cargo, electronic, electronic patrol, electronic attack, fighter, fighter/attack, patrol, unmanned aerial vehicle/unmanned aircraft system, trainer, and helicopter.

g. "AUX" (for "auxiliary") includes rescue and salvage (T-ARS), submarine tender (AS), hospital (T-AH), combat stores (T-AFS), fleet replenishment oilers (T-AO), dry cargo/ammunition (T-AKE), and fast combat support (T-AOE).

5. Platform Health (dots). A dot represents a fielding requirement for each system. The color of each dot indicates the funding across the Future Years Defense Plan, as shown in figure 1 below.





Platform Health "Dot" Legend		%
Inventory: Funded / Required		
	Greater than 90% Funded	
	Between 50% and 90% Funded	
	Less than 50% Funded	
	Funding Unspecified	

Figure 1: Platform Health Key

6. Product Phase and Health (bars)

a. Color is also applied to lines that indicate the health of the system. A normal health line would show blue during the developmental phase, green during the production/fielding phase, and a grey during the sustainment phase. The blue developmental phase ends at initial operational capability (IOC) of the system. Production/fielding phase ends at full operational capability (FOC). Sustainment ends at end of life (EOL).

b. While blue, green, and grey indicate phases, red and yellow are used to indicate sustainment issues, which are defined in reference (c), such as declining performance due to a lack of availability of spare parts. Yellow during fielding could indicate performance issues, whereas yellow during post FOC sustainment could indicate a lack of in-service engineering support.

c. Some systems are represented in the roadmap, but are not PEO C4I systems, such as the Joint Tactical Radio System (JTRS). These systems are on the migration path of PEO C4I systems, or are important to the migration of PEO C4I systems, but not managed by PEO C4I. The lines associated with these systems are uncolored.

Product Health "Bar" Legend		Notes
	Development Phase	Development Phase typically ends at IOC.
	Fielding Phase	Fielding Phase typically begins at IOC and ends at FOC
	Sustainment Phase	Sustainment Phase typically begins at FOC and ends at EOL
	Moderate Issues	Can be applied to any or all phases, as well as, migration arrows where there are moderate issues
	Major Issues	Can be applied to any or all phases, as well as, migration arrows where there are major issues

Figure 2: Product Health Key

7. PEO C4I Point of Contact. PEO C4I point of contact for the program roadmaps is Ms Ruth Youngs-Lew at ruth.youngslew@navy.mil.

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Narrowband	170	MINI DAMA	AN/USC-42	UHF SATCOM Mini-DAMA Transceiver																	
	170	MD-1324	MD-1324	UHF SATCOM DAMA Modem																	
	170	MD-1324	MD-1324A EC2	UHF SATCOM DAMA (IW Capable) Modem																	
	170	VICS	AN/USC-54	UHF SATCOM/LOS Transceiver (VME Integrated Comms System (VICS))																	
	170	DAMA	TD-1271	UHF SATCOM DAMA Multiplexer																	
	170	ARC-210/SRC-27	AN/ARC-210/SRC-27	UHF SATCOM (Digital Communications System) Transceiver																	
	170	OE-82	OE-82	UHF SATCOM Antennas																	
	170	OE-570	OE-570	UHF SATCOM Antennas																	
	170	WSC-3	AN/WSC-3	UHF SATCOM Transceiver																	
	170	DMR	AN/USC-61(C)	UHF SATCOM Transceiver																	
	170 770	DAMA I.W.	AN/PSC-5D	UHF SATCOM Transceiver																	
	170 770	Integrated Waveform	AN/PSC-5D	UHF SATCOM Transceiver: I.W. on AN/PSC-5D																	
170 770	Integrated Waveform	MD-1324A(X)	UHF SATCOM Transceiver: I.W. on MD-1324A(X)																		
170	Navy M/FS JTRS	Navy M/FS JTRS	Software reprogrammable multi-band/multi-mode radio																		
770	TRIP	TRIP	Trident IP																		
770	SCSS	SCSS	Submarine Communications Support System. Legacy radio room for 688's.																		
770	CSRR	CSRR	Common Submarine Radio Room																		
770	OE-538/BRC OE-592/BRC	OE-538/BRC (SSN) OE-592/BRC (BN/GN)	UHF SATCOM multi-functional combined communications, navigation, and IFF mast mounted																		
770	OE-538 Increment 1	OE-538	UHF SATCOM multi-functional combined communications, navigation, and IFF mast mounted																		
770	OE-538 Increment 2	OE-538(V)X	UHF SATCOM multi-functional combined communications, navigation, and IFF mast mounted																		
770	OE-592 Increment 1	OE-592	OE-538 version that is installed on on SSBNs.																		
770	OE-592 Increment 2	OE-592(V)X	OE-538 version that is installed on on SSBNs.																		

Portfolio	Name	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+			
						Force	Group	Unit	Sub	Shore	Air												AUX		
770	Comms at Speed and Depth (CSD)	Inc 0	AN/BRR-(V)	Buoy Systems																					
			AN/BRR-(V)A	Retractable Tethered Optical Fibre (RTOF) Buoy (UHF)																					
			AN/BRR-(V)B	UHF Tethered Expendable Buoy																					
			AN/BRR-(V)C	IRIDIUM Tethered Expendable Buoy																					
			AN/BRR-(V)D	Acoustic-To-RF Expendable Bouy (A2RF)																					
			AN/BRR-(V)E	IRIDIUM Tactical Paging Buoy ("Deep Siren")																					
			AN/BSQ-9(V) 1 - 8	Time Frequency Distribution System																					
			MUOS																						
			AN/FSQ-207(V)X JMINI	JMINI																					
			AN/FSQ-207(V)X JMINI IOC	IOC variant																					
			AN/FSQ-207(V)X JMINI FOC	FOC variant																					
			AN/FSQ-207(V)X JMINI IW	IW variant																					
			790	JMINI IW																					
Command and Control	TacMobile Inc 3.0																								

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Wideband	170	NMT		Military SHF and EHF SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	NMT NMT Ed																				
	170	WSC-8	AN/WSC-8	Commercial Wideband C-band SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	WSC-8																				
	170	WSC-8	AN/WSC-8(V1)	Commercial Wideband C-band SATCOM (single antenna)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	WSC-8	AN/WSC-8(V2)	Commercial Wideband C-band SATCOM (dual antenna)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	INMARSAT	INMARSAT	Commercial L-band SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	INMARSAT																				
	170	CBSP	AN/USC-69(V)	Commercial Ku, C, X band SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	CBSP																				
	170	CBSP	AN/USC-69(V1)	Commercial Ku-Band SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	CBSP	AN/USC-69(V2)	Commercial Ku, X-Band SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	CBSP	AN/USC-69(V3)	Commercial Ku, C-Band SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	WSC-6	AN/WSC-6	Military SHF SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	WSC-6																				
	170	WSC-6	AN/WSC-6(V5)	Military SHF SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	WSC-6	AN/WSC-6(V7)	Military SHF SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	WSC-6	AN/WSC-6(V9)	Military SHF SATCOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170 770	FOT/SHF (Submarine Only)	AN/USC-38(V)13	EHF/SHF Terminal	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	FOT SHF																				
770	SubHDR Antenna	OE-562	SubHDR Mast Group for EHF low data rate (LDR) capacity, EHF MDR, GBS Receive capability and SHF capability	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Sub HDR																					
770	SubHDR Antenna	OE-562	SubHDR Mast Group for EHF low data rate (LDR) capacity, EHF MDR, GBS Receive capability and SHF capability	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Sub HDR																					
770	SubHDR Antenna GBS/SHF Kit Upgrades	OE-562A	SubHDR Mast Group for EHF low data rate (LDR) capacity, EHF MDR, GBS Receive capability and SHF capability	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Sub HDR w/ SHF Upgrade																					
770	Advanced HDR Antenna	OE-562(V)X	Next-generation multi-band antenna for wideband and protected comms for subs	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Advanced HDR																					
770	SCSS	SCSS	Submarine Communications Support System. Legacy radio room for 688's.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
SCSS - Legacy SSN 688 Radio Room																					
770	CSRR	CSRR	Common Submarine Radio Room	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
CSRR Inc 1 ver 1 Inc 1 ver 2 Inc 1 ver 3 Inc 1 ver 4																					

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Protected	170	NMT		Military SHF and EHF SATCOM	●	●	●	●	●	●	NMT										
	170	NMT	AN/WSC-9(V)1	Surface Variant / Q/Ka/GBS: CG 2 Q/Ka ANT	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/WSC-9(V)2	Surface Variant / Q/Ka/GBS: CG 2 Q/Ka ANT + 2X/Ka Small ANT	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/WSC-9(V)3	Surface Variant / Q/Ka/GBS: CG 2 Q/Ka ANT + 1X/Ka Large ANT	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/WSC-9A(V)3	Surface Variant / Q/Ka/GBS: CG 2 Q/Ka ANT + 2X/Ka Large ANT	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/WSC-9(V)4	Surface Variant / Q: FMS	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/BSC-3(V)1	Submarine Variant / Q/Ka/GBS: CG HPA, Scope	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/BSC-3(V)2	Submarine Variant / Q/Ka/GBS: CG MG	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/BSC-3(V)3	Submarine Variant / Q/Ka/GBS: CG 2 MGs	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/BSC-3(V)4	Submarine Variant / Q: FMS	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/FSC-138(V)1	Shore Variant / Q: CG, Q ANT	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/FSC-138(V)2	Shore Variant / Q: CG, Q ANT	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/FSC-138(V)3	Shore Variant / Q: CG with EPS GCE, Q ANT	●	●	●	●	●	●	NMT ED										
	170	NMT	AN/FSC-138(V)4	Shore Variant / Q: CG, Q ANT FMS	●	●	●	●	●	●	NMT ED										
	170	FOT/SHF (Submarine Only)	AN/USC-38(V)13	EHF/SHF Terminal	●	●	●	●	●	●	FOT SHF										
	770	EHF	AN/USC-38	Military EHF SATCOM	●	●	●	●	●	●	EHF										
	170	EHF-LDR	AN/USC-38(V)1	Submarine EHF LDR	●	●	●	●	●	●	EHF										
	170	EHF-LDR	AN/USC-38(V)2	Surface EHF LDR	●	●	●	●	●	●	EHF										
	170	EHF-LDR	AN/USC-38(V)3	Shore EHF LDR	●	●	●	●	●	●	EHF										
	170	EHF-MDR	AN/USC-38(V)4	Surface EHF MDR	●	●	●	●	●	●	EHF										
170	EHF-MDR	AN/USC-38(V)5	Ship EHF MDR	●	●	●	●	●	●	EHF											
170	EHF-MDR	AN/USC-38(V)6	Shore EHF MDR	●	●	●	●	●	●	EHF											
170	EHF-MDR	AN/USC-38(V)7	Shore EHF MDR	●	●	●	●	●	●	EHF											

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
770	170	EHF-HDR	AN/USC-38(V)8	Submarine EHF HDR																	
	170	EHF-FOT	AN/USC-38(V)9	Surface FOT																	
	170	EHF-FOT	AN/USC-38(V)10	SHore FOT																	
	170	EHF	AN/USC-38(V)11	Submarine FOT																	
	170	EHF-FOT	AN/USC-38(V)12	Submarine FOT																	
	170	EHF-FOT	AN/USC-38(V)13	Submarine FOT SSBN																	
	770	Type 8 Mod 3 EHF Periscope Antenna	OE-499	EHF Periscope Antenna																	
	770	SubHDR Antenna	OE-562	EHF/SHF Antenna for FOT																	
	770	SubHDR Antenna	OE-562	SubHDR Mast Group for EHF low data rate (LDR) capacity, EHF MDR, GBS Receive capability and SHF capability																	
	770	SubHDR Antenna GBS/SHF Kit Upgrades	OE-562A	SubHDR Mast Group for EHF low data rate (LDR) capacity, EHF MDR, GBS Receive capability and SHF capability																	
	770	Advanced HDR Antenna	OE-562(V)X	Next-generation multi-band antenna for wideband and protected comms for subs																	
	770	SCSS	SCSS	Submarine Communications Support System. Legacy radio room for 688s.																	
	770	TRIP	TRIP	Trident IP																	
	770	IRR	IRR	Integrated Radio Room. Legacy Trident radio room.																	
	770	CSRR	CSRR	Common Submarine Radio Room																	
	770	CSRR Inc 1 ver 0	CSRR Inc 1 ver 0	Common Submarine Radio Room																	
	770	CSRR Inc 1 ver 1	CSRR Inc 1 ver 1	Common Submarine Radio Room																	
	770	CSRR Inc 1 ver 2 (SHF)	CSRR Inc 1 ver 2	Common Submarine Radio Room																	
	770	CSRR Inc 1 ver 3 (NMT, ADNS3)	CSRR Inc 1 ver 3	Common Submarine Radio Room (a.k.a. Wideband C4I Ph 2)																	
	770	CSRR Inc 1 ver 4 (JTRS, MUOS)	CSRR Inc 1 ver 4	Common Submarine Radio Room (a.k.a. Narrowband C4I Ph 2)																	
Broadcast	170	GBS	AN/USR-10	Military Ka-band Receive-only Broadcast																	

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+			
					Force	Group	Unit	Sub	Shore	Air												Aux		
Tactical Data Links	150	JTIDS	AN/URC-107(V)7	Joint Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	JTIDS JTIDS 4.09 JTIDS 4.11 JTIDS (TBD)		
	150	JTIDS /4.09 Maintenance	AN/URC-107(V)7	Joint Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	JTIDS 4.09 DNM RC/Combined NPGs		
	150	JTIDS/4.11 Maintenance	AN/URC-107(V)7	Joint Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	JTIDS 4.11		
	150	JTIDS/TBD Maintenance	AN/URC-107(V)X	Joint Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	JTIDS (TBD)	
	150	MIDS On Ship	AN/URC-141(C)	Multifunctional Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	MIDS on Ship BC4 BC5	
	150	MIDS on Ship (MOS) BC3 Maintenance	AN/URC-141(C)	Multifunctional Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	MOS BC3	
	150	MIDS on Ship (MOS) BC4 Maintenance	AN/URC-141(C)	Multifunctional Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	MOS BC4	
	150	MIDS on Ship (MOS) DNM BC5	AN/URC-141(C)	Multifunctional Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	MOS BC5	
	150	MIDS on Ship (MOS) DNM BC6	AN/URC-141(C)	Multifunctional Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	MOS BC6	
	150	MIDS on Ship (MOS) DNM BC7	AN/URC-141(C)	Multifunctional Data Communication Network	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	MOS BC7	
	150	C2P	C2P	Command and Control Processor System	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	C2P NGC2P Inc 2 NGC2P Inc 3	
	150	C2P (C2PR)	AN/UYQ-62(V)1	Command and Control Processing System / Inc.1 (includes (V)1-4 and Training Variant	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	C2PR	
	150	NGC2P Inc.2	AN/UYQ-86(V)6	Command and Control Processing System [includes (V)1-6]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NGC2P Inc 2	
	150	NGC2P Inc.3	AN/UYQ-86(V)X	Command and Control Processing System	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NGC2P Inc 3	
	150	C2P	C2P	Command and Control Processor System	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	CDLMS CDLMS 3.7 CDLMS 3.X
	150	CDLMS 3.4	CDLMS 3.4	Common Data Link Mgmt System	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	CDLMS 3.4	
	150	CDLMS 3.6	CDLMS 3.6	Common Data Link Mgmt System	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	CDLMS 3.6
	150	CDLMS 3.7	CDLMS 3.7	Common Data Link Mgmt System / ECPs: BMD / Imagery / ADNS Inc III	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	CDLMS 3.7
	150	CDLMS 3.X	CDLMS 3.X	Common Data Link Mgmt System / Link-22 Integration	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	CDLMS 3.X
	150	ADSI	AN/TSQ-214(V)2	Air Defense Integration System	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	ADSI
	150	JSS	JSS	Link Management Support System	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	JSS
	150 770	Link-16	Link-16	Provide native Link-16 to submarines	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Submarine Link 16
	770	OE-538 Increment 2	OE-538(V)X	UHF SATCOM multi-functional combined communications, navigation, and IFF mast mounted	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	OE-538 Increment 2

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
	770	OE-592 Increment 2	OE-592(V)X	OE-538 version that is installed on on SSGNs.																	
	770	CSRR	CSRR	Common Submarine Radio Room																	

The diagram illustrates the lifecycle of two programs from FY07 to FY17+. The OE-592 Increment 2 program (blue arrow) begins in FY08 and continues through FY17+. The CSRR program (blue arrow) starts in FY07 and also runs through FY17+. Green arrows represent version milestones: OE-592 Increment 2 has versions 1, 2, and 3; CSRR has versions 1, 2, 3, and 4. Yellow arrows indicate specific milestones or events occurring in FY13 and FY14 for both programs.

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Tactical Comms	170	Antenna Tilting Group (ATG)	OA-9242 OA-9243	Antenna Tilting Group (ATG)	●	●	●														ATG
	170	VHF LOS Transceiver	AN/GRC-211 AN/GRC-171 AN/URC-93	Bridge-to-Bridge VHF LOS transceiver	●	●	●														GRC-211/GRC-171/URC-93
	170	ARC-210	AN/ARC-210	UHF LOS transceiver	●																ARC-210
	170	WSC-3	AN/WSC-3	UHF LOS transceiver	●	●	●	●	●												WSC-3
	170	DMR	AN/USC-61(C)	VHF/UHF LOS transceiver	●	●			●	●											DMR
	170	Navy M/FS JTRS	Navy M/FS JTRS	Software reprogrammable multi-band/multi-mode radio	●	●	●														JTRS INC
	170	DWTS	AN/SRC-57	UHF LOS transceiver for BISOG efforts	●	●	●														DWTS
	170	SINGGARS	AN/SRC-54	VHF LOS transceiver	●	●	●														SINGGARS
	170	EPLRS-DR	AN/SRC-60	HF LOS/BLOS transceiver for BISOG efforts	●	●	●														EPLRS-DR
	170	HFRG	AN/URC-131 / AN/URC-109	HF transceiver	●	●	●														HFRG
	170	HFSAR (HF ALE)	AN/URC-146(V)	HF LOS/BLOS transceiver for BISOG efforts	●	●	●														HFSAR (HF ALE)
	170	HF Legacy	AN/URT-23 /AN/URT-24	HF transmitter	●	●	●	●													HF Legacy
	170	CSEL	AN/PRQ-7	V/UHF SATCOM portable, handheld transceiver	●	●	●														CSEL
	170	PRP	PRP	Family of V/UHF LOS and UHF SATCOM portable, handheld transceivers	●	●	●	●													PRP
	170	TSS	AN/SSQ-122	UHF/SHF LOS COMMS switching architecture	●	●	●														TSS
	170	TVS	AN/USQ-155	Automated digital switching between transmitters and receivers	●	●	●														TVS (SCN Fielding Only)
	170	Red/Black Switch	SA-2112	Family of analog/digital switches	●	●	●														SA-2112
	170	BFEM 66	AN/UYQ-92	HF data transfer modem	●	●	●	●													BFEM 66
	170	HFIP	AN/USQ-195	HF LOS IP networking	●	●	●	●													HFIP
	170	SNR	AN/USQ-195	V/UHF LOS IP networking	●	●	●	●													SNR
170	Mobile Network High Bandwidth (MNH)	Mobile Network High Bandwidth (MNH) Increment I	High Bandwidth Netted Communication providing maximum data rates upto 54 Mbps	●	●	●	●													MNH Inc I	
170	Mobile Network High Bandwidth (MNH)	Mobile Network High Bandwidth (MNH) Increment II	High Bandwidth Netted Communication providing maximum data rates upto 1 Gbps	●	●	●	●													MNH Inc II	
170	CHBDL	AN/USQ-123	X/Ku band LOS data link	●																CHBDL	

Portfolio Name	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
	170	CDLS	AN/USQ-167	X/Ku band LOS data link	●																
	770	OE-538/BRC OE-592/BRC	OE-538/BRC (SSN) OE-592/BRC (BN/GN)	UHF SATCOM multi-functional combined communications, navigation, and IFF mast mounted																	
	770	OE-538 Increment 1	OE-538	Mast antenna system for VLF/LF, MF/HF, VHF, and UHF LOS/SATCOM																	
	770	OE-538 Increment 2	OE-538	Mast antenna system for VLF/LF, MF/HF, VHF, and UHF LOS/SATCOM																	
	770	OE-592 Increment 1	OE-592	Mast antenna system for VLF/LF, MF/HF, VHF, and UHF LOS/SATCOM																	
	770	OE-592 Increment 2	OE-592	Mast antenna system for VLF/LF, MF/HF, VHF, and UHF LOS/SATCOM																	
	770	CSRR	CSRR	Common Submarine Radio Room																	
	770	Floating Wire Antenna (FWA)	OE-315	Submarine Antenna Modernization System																	
	770	Floating Wire Antenna (FWA)	AS-3434 (V) (TBD)	Subsurface Autonomous Mapping System																	
	770	Floating Wire Antenna (FWA)	AS-3434 (V) (TBD)	Subsurface Autonomous Mapping System																	
	770	SEEAS	AN/BST-1	Submarine Enhanced Emergency Alert System																	
	770	SLVR	AN/WRR-12	Submarine VLF/LF VME Receiver																	
	770	LBUCS	AN/URT-(V)(X)	Low Band Universal Communications System , Transmit only																	
	770	LBUCS	AN/WRR-(V)(X)	Low Band Universal Communications System , Receive																	
	790	HF Modernization to USAF	HF Modernization to USAF	HF Modernization																	

The chart displays the following milestones and funding periods:

- CDLS:** Funding from FY07 to FY17+.
- OE-538, -592:** Funding from FY07 to FY17+.
- OE-538 Increment 1:** Funding from FY07 to FY17+.
- OE-538 Increment 2:** Funding from FY07 to FY17+.
- OE-592 Increment 1:** Funding from FY07 to FY17+.
- OE-592 Increment 2:** Funding from FY07 to FY17+.
- CSRR:** Inc 1 ver 1 (FY07-08), Inc 1 ver 2 (FY09-10), Inc 1 ver 3 (FY11-12), Inc 1 ver 4 (FY13-14).
- OE-315:** OE-315 with T/R switch for HF Transmit (FY07-14).
- OE-315 FWA:** OE-315 FWA (FY07-14).
- OE-315 w T/R Sw for HF Tx:** OE-315 w T/R Sw for HF Tx (FY08-14).
- SSEAS BST-1:** SSEAS BST-1 (FY07-14).
- SLVR:** SLVR (FY07-14).
- LBUCS Transmit (Shore):** LBUCS Transmit (Shore) (FY10-14).
- LBUCS Receive:** LBUCS Receive (FY13-14).
- HF Modernization to USAF:** HF Modernization to USAF (FY08-10).

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+	
					Force	Group	Unit	Sub	Shore	Air												Aux
Terrestrial Transport / Backhaul	770	SWAN	SWAN (shore only)	Submarine Operating Authority Wide Area Network																		
	770	SWAN (COOP)	SWAN (shore only)	Submarine Operating Authorities Wide Area Network																		
	770	FSBS	FSBS	Fixed Submarine Broadcast System (FSBS)																		
	770	NC3 HS	NC3 HS (shore only)	Nuclear Command and Control Hybrid Solution																		
	770	NC3 LTS	NC3 LTS (shore only)	Nuclear Command and Control Long Term Solution																		
	770	Shore receivers for ANBST-1 buoy (SSBNs)	MERLIN (shore only)	HF circuit used for emergency reportback.																		
	790	HSGR	HSGR	HSGR																		
	790	NTWAN	NTWAN	NTWAN																		
	790	ADMS	ADMS ATM	ATM																		
	790	ADMS	ADMS ST1000	ST1000																		
	790	Teleport	Teleport	Teleport (Overall)																		
	790	Teleport	Teleport GEN I	GEN I																		
	790	Teleport	Teleport GEN II	GEN II																		
	790	Teleport	Teleport GEN III	GEN III																		

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
	160	CANES	CANES	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●													
	160	CANES Inc 1	CANES (V)X	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●													
	160	CANES Inc 2	CANES (V)Y	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●													
	160	VIXS A(V)R?			●	●															
	160	ISNS - Inc 0 ATM	AN/USQ-153(V)1,2,3,9	TACTICAL LAN INFRASTRUCTURE	●	●															
	160	ISNS - Inc 0 100MB	AN/USQ-153(V)3	TACTICAL LAN INFRASTRUCTURE		●															
	160	ISNS - Inc 0 GIGE BF	AN/USQ-153(V)1/2 with EC017R3	TACTICAL LAN INFRASTRUCTURE	●	●															
	160	ISNS - Inc 0 SCN GIG-E DDGs 89-102	AN/USQ-153B(V)9	TACTICAL LAN INFRASTRUCTURE		●															
	160	ISNS - Inc 0 CFCP	AN/USQ-153(V)4/5	TACTICAL LAN INFRASTRUCTURE			●														
	160	ISNS - Inc 0/1	AN/USQ-153A(V)X/(V)8/B(V)2/9	TACTICAL LAN INFRASTRUCTURE	●	●															
	160	ISNS - Inc I	AN/USQ-153A(V)1	TACTICAL LAN INFRASTRUCTURE	●	●															
	160	ISNS - Inc I	AN/USQ-153A(V)2	TACTICAL LAN INFRASTRUCTURE	●																
	160	ISNS - Inc I	AN/USQ-153A(V)5	TACTICAL LAN INFRASTRUCTURE (PC VARIANTS)		●															
	160	ISNS - Inc I	AN/USQ-153A(V)9	TACTICAL LAN INFRASTRUCTURE	●	●															
	160	ISNS - Inc I	AN/USQ-153(V)8	TACTICAL LAN INFRASTRUCTURE (MCM)			●														
	160	ISNS - Inc I	AN/USQ-153B(V)2	TACTICAL LAN INFRASTRUCTURE	●																
	160	ISNS - Inc I	AN/USQ-153X(V)10	TACTICAL LAN INFRASTRUCTURE	●	●															
	160	ISNS - Inc I	AN/USQ-153B(V)10	TACTICAL LAN INFRASTRUCTURE	●																
	160	ISNS - Inc I	AN/USQ-153(V)10	TACTICAL LAN INFRASTRUCTURE		●															
	160	ISNS - Inc I	AN/USQ-153C(V)10	TACTICAL LAN INFRASTRUCTURE	●																
	160	ISNS - Inc I	AN/USQ-153C(V)X	TACTICAL LAN INFRASTRUCTURE. Initial Server Consolidation	●	●															
	160	ISNS - Inc I	AN/USQ-153C(V)1	TACTICAL LAN INFRASTRUCTURE	●	●															
160	ISNS - Inc I	AN/USQ-153C(V)9	TACTICAL LAN INFRASTRUCTURE	●	●																

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Networks Afloat	160	ISNS - Inc I MOD I	AN/USQ-153C(V)	TACTICAL LAN INFRASTRUCTURE	●	●															ISNS - Inc I MOD I
	160	ISNS - Inc I	AN/USQ-153B/C/D(V)X	TACTICAL LAN INFRASTRUCTURE. Expansion of Server Consolidation	●	●	●														AN/USQ-153 B/C/D(V)X
	160	ISNS - Inc I	AN/USQ-153D(V)1	TACTICAL LAN INFRASTRUCTURE	●																Div1
	160	ISNS - Inc I	AN/USQ-153D(V)2	TACTICAL LAN INFRASTRUCTURE	●																Div2
	160	ISNS - Inc I	AN/USQ-153D(V)9	TACTICAL LAN INFRASTRUCTURE	●																Div9
	160	WRBS	AN/SSQ-131	WIRELESS REACH BACK SYSTEM		●	●														WRBS
	160	WRBS (V)1	AN/SSQ-131(V)1	WIRELESS REACH BACK SYSTEM		●	●														WRBS (V)1
	160	WRBS A(V)1	AN/SSQ-131A(V)1	WIRELESS REACH BACK SYSTEM		●	●														WRBS A(V)1
	160	WRBS B(V)1	AN/SSQ-131B(V)1	WIRELESS REACH BACK SYSTEM		●	●														WRBS B(V)1
	160	SCI NETWORKS - AFLOAT	AN/USQ-148	NA	●	●	●	●													SCI NETWORKS - AFLOAT
	160	SCI NETWORKS - AFLOAT	AN/USQ-148A(V)2	LEGACY GROUP LEVEL		●															AN/USQ-148A(V)2
	160	SCI NETWORKS - AFLOAT	AN/USQ-148B(V)2	LEGACY FORCE LEVEL																	AN/USQ-148B(V)2
	160	SCI NETWORKS - AFLOAT	AN/USQ-148C(V)2	LEGACY CARRY-ON		●	●														AN/USQ-148C(V)2
	160	SCI NETWORKS - AFLOAT	AN/USQ-148D(V)2	NT EOL SURFACE SHIPS	●	●															AN/USQ-148D(V)2
	160	SCI NETWORKS - AFLOAT	AN/USQ-148E(V)2	NT EOL DDG 72-95		●															AN/USQ-148E(V)2
	160	SCI NETWORKS - AFLOAT	AN/USQ-148F(V)2	CARRY-ON		●	●														AN/USQ-148F(V)2
	160	SCI NETWORKS - EA	AN/USQ-148G(V)2	NA	●	●															SCI NETWORKS EA
	160	SCI NETWORKS - EA	AN/USQ-148G(V)2	FORCE LEVEL EA	●																AN/USQ-148G(V)2
	160	SCI NETWORKS - EA	AN/USQ-148H(V)2	GROUP LEVEL EA		●															AN/USQ-148H(V)2
	160	SCI NETWORKS - SUB	AN/USQ-148	NA					●	●											SCI NETWORKS - SUBMARINE
160	SCI NETWORKS - SUB	AN/USQ-148(V)3	LEGACY SSN688CL																	AN/USQ-148(V)3	
160	SCI NETWORKS - SUB	AN/USQ-148A(V)3	LEGACY SSBN																	AN/USQ-148A(V)3	
160	SCI NETWORKS - SUB	AN/USQ-148B(V)3	NT EOL REPLACEMENT SSN688CL																	AN/USQ-148B(V)3	

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
	160	SCI NETWORKS - SUB	AN/USQ-148(V)5	LEGACY SCI/TS BCA																	
	160	SCI NETWORKS - SUB	AN/USQ-148A(V)5	NT EOL REPLACEMENT SCI BCA																	
	160	SCI NETWORKS - SHORE	AN/USQ-148	NA																	
	160	SCI NETWORKS - SHORE	AN/USQ-148(V)1	LEGACY NOC																	
	160	SCI NETWORKS - SHORE	AN/USQ-148A(V)1	NOC UPGRADE																	
	160	SUBLAN	AN/USQ-177(V)1	UNCLAS and SECRET Submarine LAN on SSN 688s																	
	160	SUBLAN	AN/USQ-177(V)5	TIDS-2 to SUBLAN 1 Upgrade on SSN 688s																	
	160	SUBLAN	AN/USQ-177(V)1	UNCLAS and SECRET Submarine LAN on SSN 688s																	
	160	SUBLAN	AN/USQ-177A(V)1	TOP SECRET Enclave NT EOL Upgrade on SSN 688s																	
	160	SUBLAN	AN/USQ-177B(V)1	Grade A Mission-Critical Upgrade on SSN 688s																	
	160	SUBLAN	AN/USQ-177C(V)1	SubLAN MLS, includes CENTRIXS, SCI and TS network enclaves on SSN 688																	
	160	SUBLAN	AN/USQ-177D(V)1	SubLAN EA with Propulsion Plan Monitoring System (PPMS) on SSN 688s																	
	770																				
	160	SUBLAN	AN/USQ-177(V)2	UNCLAS and SECRET Submarine LAN on SSN 21s																	
	160	SUBLAN	AN/USQ-177(V)2	UNCLAS and SECRET Submarine LAN on SSN 21s																	
	160	SUBLAN	AN/USQ-177A(V)2	TOP SECRET Enclave Upgrade on SSN 21s																	
	160	SUBLAN	AN/USQ-177B(V)2	Grade A Mission-Critical Upgrade on SSN 21s																	
	160	SUBLAN	AN/USQ-177C(V)2	SubLAN MLS, includes CENTRIXS, SCI and TS network enclaves on SSN 21																	
	160	SUBLAN	AN/USQ-177D(V)2	Propulsion Plan Monitoring System (PPMS) on SSN 21s																	
	770																				
160	SUBLAN	AN/USQ-177(V)3	UNCLAS and SECRET Submarine LAN on SSBNs																		
160	SUBLAN	AN/USQ-177(V)3	UNCLAS and SECRET Submarine LAN on SSBNs																		
160	SUBLAN	AN/USQ-177A(V)3	TOP SECRET Enclave Upgrade on SSBNs																		
160	SUBLAN	AN/USQ-177B(V)3	Grade A Mission-Critical Upgrade on SSBNs																		
160	SUBLAN	AN/USQ-177C(V)3	SubLAN MLS, includes CENTRIXS, SCI and TS network enclaves on SSBNs																		

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+	
					Force	Group	Unit	Sub	Shore	Air												AUX
160	770	SUBLAN	AN/USQ-177D(V)3	Propulsion Plan Monitoring System (PPMS) on SSBNs																	ANUSQ-177D(V)3	
	160	SUBLAN	AN/USQ-177(V)4	UNCLAS and SECRET Submarine LAN on SSGNs																		SUBLAN on SSGN
	160	SUBLAN	AN/USQ-177A(V)4	TOP SECRET Enclave Upgrade on SSGNs																		ANUSQ-177A(V)4
	160	SUBLAN	AN/USQ-177B(V)4	SubLAN EA & SubLAN MLS (merged); includes transition to Grade A; includes PPMS. (SSGN only)																		EA & PPMS on SSGN ANUSQ-177B(V)4
	160	SUBLAN	AN/USQ-177B(V)7	Submarine LAN on SSN 774s; equivalent to SubLAN Grade A																		AN/USQ-177C(V)5 (SSN 774)
	160	CENTRIXS	AN/USQ-185	COALITION INFORMATION SHARING LAN																		CENTRIXS
	160	CENTRIXS-M INC 0	AN/USQ-185(V)1	COALITION INFORMATION SHARING LAN																		Blk 0 - Unit Legacy
	160	CENTRIXS-M INC 0	AN/USQ-185(V)1	COALITION INFORMATION SHARING LAN																		Blk 0 - Unit Legacy
	160	CENTRIXS-M INC 0	AN/USQ-185A(V)1	COALITION INFORMATION SHARING LAN																		Blk 1 - Force (Legacy)
	160	CENTRIXS-M INC 0	AN/USQ-185(V)2	COALITION INFORMATION SHARING LAN																		Blk II Force Legacy
	160	CENTRIXS-M Inc I--Force	AN/USQ-185A(V)2	COALITION INFORMATION SHARING LAN																		Inc I--Force
	160	CENTRIXS-M PC	AN/USQ-185B(V)1	COALITION INFORMATION SHARING LAN																		ANUSQ-185B(V)1
	160	CENTRIXS-M Inc I--Unit	AN/USQ-185B(V)2	COALITION INFORMATION SHARING LAN																		Inc I - Unit
	160	CENTRIXS-M Blk 0 - Submarine	AN/USQ 185(V)3	COALITION INFORMATION SHARING LAN																		Block 0 - Submarine
	160	TacMobile - CENTRIXS-M (FAK)	AN/USQ-185(V)A	Secure Mobile Coalition Communications System																		FAK
	160	NCE	NCE	Non-Classified collaboration supporting L/E, Intel, and DoD																		NCE Fly Away Kits
Command & Control	750	TacMobile Inc 2.0																			TacMobile Inc 2.0	
Defend the GIG	160	CND		COMPUTER NETWORK DEFENSE																	CND Inc 1 Inc 2	

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
C2 Networks Ashore	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219(V)1 FLTNOC (PR U)	PRNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219A(V)1 FLTNOC (PR U)	PRNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219B(V)1 FLTNOC (PR U)	PRNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219C(V)1 FLTNOC (PR U)	PRNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219D(V)1 FLTNOC (PR U)	PRNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219(V)2 FLTNOC (PR S)	PRNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219A(V)2 FLTNOC (PR S)	PRNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219B(V)2 FLTNOC (PR S)	PRNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219C(V)2 FLTNOC (PR S)	PRNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219D(V)2 FLTNOC (PR S)	PRNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219(V)8 FLTNOC (UAR U)	UARNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219A(V)8 FLTNOC (UAR U)	UARNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219B(V)8 FLTNOC (UAR U)	UARNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219C(V)8 FLTNOC (UAR U)	UARNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219D(V)8 FLTNOC (UAR U)	UARNOC NIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219(V)3 FLTNOC (UAR S)	UARNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219A(V)3 FLTNOC (UAR S)	UARNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219B(V)3 FLTNOC (UAR S)	UARNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219C(V)3 FLTNOC (UAR S)	UARNOC SIPRNET																	
	790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219D(V)3 FLTNOC (UAR S)	UARNOC SIPRNET																	
790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219(V)4 FLTNOC (IOR U)	IORNOC NIPRNET																		
790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219B(V)4 FLTNOC (IOR U)	IORNOC NIPRNET																		
790	IT-21 Fleet Network Operations Center (FLTNOC)	AN/FSQ-219C(V)4 FLTNOC (IOR U)	IORNOC NIPRNET																		

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+				
					Force	Group	Unit	Sub	Shore	Air												Aux			
790	IT-21 Fleet Network Operations Center (FLTNOC)	Operations Center	AN/FSQ-219D(V)4 FLTNOC (IOR U)	IORNOC NIPRNET														AN/FSQ-219D(V)4							
			AN/FSQ-219(V)5 FLTNOC (IOR S)	IORNOC SIPRNET																AN/FSQ-219(V)5					
			AN/FSQ-219B(V)5 FLTNOC (IOR S)	IORNOC SIPRNET																	AN/FSQ-219B(V)5				
			AN/FSQ-219C(V)5 FLTNOC (IOR S)	IORNOC SIPRNET																	AN/FSQ-219C(V)5				
			AN/FSQ-219D(V)5 FLTNOC (IOR S)	IORNOC SIPRNET																	AN/FSQ-219D(V)5				
			AN/FSQ-219(V)6 FLTNOC (ECR U)	ECRNOC NIPRNET																	AN/FSQ-219(V)6				
			AN/FSQ-219B(V)6 FLTNOC (ECR U)	ECRNOC NIPRNET																	AN/FSQ-219B(V)6				
			AN/FSQ-219C(V)6 FLTNOC (ECR U)	ECRNOC NIPRNET																		AN/FSQ-219C(V)6			
			AN/FSQ-219D(V)6 FLTNOC (ECR U)	ECRNOC NIPRNET																		AN/FSQ-219D(V)6			
			AN/FSQ-219(V)7 FLTNOC (ECR S)	ECRNOC SIPRNET																		AN/FSQ-219(V)7			
			AN/FSQ-219B(V)7 FLTNOC (ECR S)	ECRNOC SIPRNET																		AN/FSQ-219B(V)7			
			AN/FSQ-219C(V)7 FLTNOC (ECR S)	ECRNOC SIPRNET																		AN/FSQ-219C(V)7			
			AN/FSQ-219D(V)7 FLTNOC (ECR S)	ECRNOC SIPRNET																		AN/FSQ-219D(V)7			
			NTWAN	PE Router																		NTWAN			

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Shore Network Management	790	NMS/ENMS	AN/FSQ-221(V)X NMS/ENMS	NMS/ENMS																	
	790	NMS	AN/FSQ-221(V)1-3 NMS Inc I	Inc I																	
	790	ENMS	AN/FSQ-221(V)1-3 ENMS Inc IIA	Inc IIA																	
	790	ENMS	AN/FSQ-221(V)1-3 ENMS Inc IIB	Inc IIB																	
	790	ENMS	AN/FSQ-221(V)X ENMS Inc III	Inc III																	

The chart displays the following milestones and durations:

- Inc IIA**: Starts in FY07, ends in FY17+.
- Inc IIB**: Starts in FY07, ends in FY08.
- Inc III**: Starts in FY07, ends in FY17+.
- NMS Inc I**: Starts in FY07, ends in FY08.
- ENMS Inc II**: Starts in FY08, ends in FY10.
- ENMS Inc IIB**: Starts in FY09, ends in FY11.
- ENMS Inc III**: Starts in FY11, ends in FY17+.

Yellow arrows indicate dependencies: ENMS Inc II depends on NMS Inc I, and ENMS Inc III depends on ENMS Inc IIB.

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force Group	Unit	Sub	Shore	Air	Aux											
Networks Afloat Management	160	CANES Inc 1	CANES (V)X	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●														
	160	CANES Systems Management	CANES	Systems Management	●	●	●														
	160	INM Pro	INM Pro	Network Management	●	●	●														
	160	NMS	NMS 1.X, 2.X	Network Management (WUG is the core component of NMS)	●	●	●														
	160	Vanilla WUG	Vanilla WUG	Network Management (COMPOSE 2.0.3 and above) (non-tailored)	●	●	●														
	160	ISNS NMS	ISNS NMS 1.X	Network Management (ISNS Inc 1) (Tailored WUG V11)	●	●	●														
	160	ISNS NMS	ISNS NMS 2.X	Network Management (ISNS Inc 1) (Tailored WUG V14)	●	●	●														
	160	SCI NMS	SCI NMS 2.X	Network Management (SCI G(V)2 & H(V)2) (Tailored WUG V14)	●	●	●														
	160	SUBLAN NMS	SUBLAN NMS 1.X	Network Management (Configured for COMPOSE 3.0.1) (Tailored WUG V11)			●														
	160	SUBLAN NMS	SUBLAN NMS 2.X	Network Management (Tailored WUG V14)			●														

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Comms Circuit Management	790	HF Modernization to USAF		HF Modernization								HF Modernization to USAF									
	790	ANCC/ATC	ANCC/ATC	ANCC/ATC								ANCC/ATC									
	790	EMS	EMS	EMS								EMS									

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Hosting Environment	160	CANES Inc 1	CANES (V)X	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●	●												
	160	CANES Operating System Environment	CANES OSE	OPERATING ENVIRONMENT	●	●	●	●	●												
	160	COMPOSE	COMPOSE	COMMON PC OPERATING SYSTEM ENVIRONMENT	●	●	●	●	●												
	160	COMPOSE 2.0.3	COMPOSE 2.0.3	COMMON PC OPERATING SYSTEM ENVIRONMENT	●	●	●	●	●												
	160	COMPOSE 3.0.0	COMPOSE 3.0.0	COMMON PC OPERATING SYSTEM ENVIRONMENT	●	●	●	●	●												
	160	COMPOSE 3.0.1	COMPOSE 3.0.1	COMMON PC OPERATING SYSTEM ENVIRONMENT	●	●	●	●	●												
	160	COMPOSE 3.5	COMPOSE 3.5	COMMON PC OPERATING SYSTEM ENVIRONMENT	●	●	●	●	●												
	160	COMPOSE 4.0	COMPOSE 4.0	COMMON PC OPERATING SYSTEM ENVIRONMENT	●	●	●	●	●												

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Core Services (Tactical Edge)	160	CANES Inc 1	CANES(V)	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●													
	160	CANES AFLOAT CORE SERVICES	ACS(V)1.1	SAME AS CANES (FOR FIELDING)	●	●	●	●													
	160	ISNS CORE SERVICES	CS(V)		●	●															
	160	ISNS CORE SERVICES 1.0	CS(V)1.0	SAME AS ISNS INC 1 (FOR FIELDING)	●	●															
	160	ISNS AFLOAT CORE SERVICES 1.1	ACS(V)1.1	SAME AS ISNS INC 1 (FOR FIELDING)	●	●															

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+	
					Force	Group	Unit	Sub	Shore	Air												AUX
Logistics	160	CANES	CANES	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●														
	150	NTCSS	NTCSS	Admin/Logistics Command Support System	●	●	●	●	●													
	150	Ported SNAP II	AN/UYK-158B(V)2	Admin/Logistics Command Support System			●	●		●												
	150	NTCSS "CY04"	AN/UYK-163(V)1	Admin/Logistics Command Support System	●	●	●	●														
	150	NTCSS "Charger"	AN/UYK-164(V)2	Admin/Logistics Command Support System		●	●	●														
	150	NTCSS "Viking"	AN/UYK-164(V)3	Admin/Logistics Command Support System	●	●	●	●														
	150	NTCSS "Patriot"	AN/UYK-164(V)4	Admin/Logistics Command Support System	●	●	●	●														
	150	NTCSS TBD (Maint Release)	AN/UYK-164(V)5	Admin/Logistics Command Support System	●	●	●	●														
	150	OOMA 5.X	OMA	Organizational Maintenance System	●				●													
	150	OOMA 5.10	AN/UYK-158(V)2	Organizational Maintenance System	●																	
	150	OOMA 5.11		Organizational Maintenance System	●																	
	150	OOMA 5.20		Organizational Maintenance System	●																	
	150	OOMA 5.30		Organizational Maintenance System	●			●	●													

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Organizational Messaging	790	Legacy Messaging Phase-Out	Legacy Messaging Phase-Out	Legacy Messaging																	TSW-Legacy Msg_Phase-Out
	790	DMS Classic	N/A	Defense Message System																	DMS Client/Server
	790	TMG	N/A	Tactical Messaging Gateway																	TMG
	790	NREMS	N/A	Shore Web-Based Org Messaging																	NREMS
	790	C2 Official Info Exchange	N/A	C2 OIE Ashore and Afloat Nodes	•	•	•														C2 OIE Ashore + Afloat
	790	Nova Workstation	Nova Workstation	Sustainable replacement for PCMT																	Nova W/S
	790	MMS	N/A	Legacy Shore Communication																	MMS
	790	PCMT	N/A	Legacy Shore Communication																	PCMT
	790	CUDIXS	N/A	Afloat / Ashore Communication																	CUDIXS
	790	FSM	N/A	Afloat IP Communication	•	•	•														FSM
	790	Nova Genser	N/A	Legacy Shore Communication																	Nova Genser
	790	Nova EAM	N/A	Legacy Shore Communication																	Nova EAM
	790	MCS	N/A	Legacy Shore Communication																	MCS
	790	FMX	N/A	Legacy Shore Communication																	FMX
	790	NAVMACS	NAVMACS	Afloat Genser Communication	•	•	•	•													NAVMACS
	790	NAVMACS	NAVMACS 7(V)2	Afloat Genser Communication			•														NAVMACS 7(V)2
	790	NAVMACS	NAVMACS II 7(A)(B)	Afloat Genser Communication	•	•	•														NAVMACS II 7A/7B
	790	NAVMACS	NAVMACS PC	Afloat Genser Communication	•	•	•														NAVMACS II 7B(PC)
	790	NAVMACS	NAVMACS II/SMS 26(V) 1-6	Afloat Genser Communication	•	•	•														NAVMACS 26(V) 1-6
	790	Sub SMS	NAVMACS II/SMS 28(V) 1-2	Submarine Single Messaging Solution					•												Sub SMS 28(V)1-2
	770	ISDS	ISDS	Information Screening and Delivery Subsystem																	ISDS 4.0
	770	ISDS	ISDS 4.0 / 4.1 Client	Information Screening and Delivery Subsystem																	ISDS 4.0 / 4.1 CLIENT
	770	ISDS	ISDS 4.2 Client	Information Screening and Delivery Subsystem																	ISDS 4.2 Client

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
	770	ISDS	ISDS 5.0 Client & Server	Information Screening and Delivery Subsystem																	
	770	ISDS	ISDS 4.1.X Server	Information Screening and Delivery Subsystem																	
Strategic Messaging	770	CSRR	CSRR	Common Submarine Radio Room																	

The timeline chart displays project phases for three systems: ISDS 5.0 Client & Server, ISDS 4.1.X Server, and CSRR. The x-axis represents fiscal years from FY07 to FY17+.

- ISDS 5.0 Client & Server:** A blue bar labeled 'ISDS 5.0 CLIENT' spans from FY09 to FY14. A grey arrow labeled 'SERVER' spans from FY09 to FY17+.
- ISDS 4.1.X Server:** A red-to-yellow gradient bar labeled 'ISDS 4.1.X SERVER' spans from FY08 to FY13. A grey arrow labeled 'SERVER' spans from FY08 to FY14.
- CSRR:** A blue-to-green gradient bar labeled 'CSRR' spans from FY07 to FY17+. It includes four incremental versions: 'Inc 1 ver 1' (FY07-08), 'Inc 1 ver 2' (FY09-10), 'Inc 1 ver 3' (FY11-12), and 'Inc 1 ver 4' (FY13-17+).

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Org. Messaging	770	ISDS	ISDS	Information Screening and Delivery Subsystem																	
Strategic Messaging	770	NC3 HS	NC3 HS (shore only)	Nuclear Command and Control Hybrid Solution																	
	770	NC3 LTS	NC3 LTS (shore only)	Nuclear Command and Control Long Term Solution																	
	770	Shore receivers for AN/BST-1 buoy (SSBNs)	CMRS (shore only)	Clarinet Merlin Receive System. HF circuit used for emergency reportback.																	
	160	KG 333	KG 333	USAF Led																	
	160	KG 3X	KG 334																		
	160	KG 3X	KOV 17 (sub)	Also installed on Sub Tenders																	
	160	KG 3X	KG 34 (shore)																		
	770	LBUCS	AN/URT-(V)(X)	Low Band Universal Communications System , Transmit only																	
	770	FSBS	FSBS	Fixed Submarine Broadcast System (FSBS)																	
	770	SWAN (COOP)	SWAN (shore only)	Submarine Operating Authorities Wide Area Network																	
	770	Towed Buoy Antenna	AN/BRR-6B	Towed buoy; PMW 770 program to fix obsolescence to 392 program																	
	770	Floating Wire Antenna (FWA)	OE-315	Submarine Antenna Modernization System																	
	770	OE-592 Increment 1	OE-592	OE-538 version that is installed on on SSBNs.																	
	770	CSRR	CSRR	Common Submarine Radio Room																	
	770	SLVR	AN/WRR-12	Submarine VLF/LF VME Receiver																	
	770	LBUCS	AN/WRR-(V)(X)	Low Band Universal Communications System , Receive capability																	

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force Group	Unit	Sub	Shore	Air	Aux											
Networks Afloat	160	CANES Inc 1	CANES (V)X	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●	●												
Intelligence, Surveillance, and Reconnaissance	120	JSIPS-N	AN/SYQ-23 A/B	Shipboard Imagery Exploitation & Processing	●																
	120	JSLEP	AN/SYQ-23 C/D	JSIPS Service Life Extension Program	●																
	120	DCGS-N	AN/SSQ-128	IMINT, GEOINT, SIGINT, & Targeting Support (with I3)	●																
	120	DCGS-N Increment 1 Block 1	AN/SSQ-128(V)A	IMINT, GEOINT, SIGINT, & Targeting Support (with I3)	●																
	120	DCGS-N Increment 1 Block 2	AN/SSQ-128(V)B	IMINT, GEOINT, SIGINT, & Targeting Support (with I3)	●																
	120	DCGS-N Increment 2	AN/SSQ-128(V)C	IMINT, GEOINT, SIGINT, & Targeting Support (with I3)	●																
	120	AIS Increment 1 Phase 1A	AN/URN-31 (V)1	Ships Position, Movement, & Identification	●	●	●														
	120	AIS Increment 1 Phase 2B	AN/URN-31 (V)A	Ships Position, Movement, & Identification	●																
	120	AIS Increment 2	AN/URN-31 (V)2	Ships Position, Movement, & Identification	●	●	●	●	●												
	120	CTT	AN/USQ-143	Tactical Situation Awareness & Targeting	●	●															
	120	JTT	AN/USQ-151	Tactical Situation Awareness & Targeting	●	●															
	120	NEIBS		Tactical Situation Awareness & Targeting	●	●															
	Command & Control	750	TacMobile Inc 3.0																		

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Information Operations	120	SSEE Inc E	AN/SSQ-137(V)	Shipboard Tactical SIGINT & IO	●	●			●												
	120	SSEE Inc F	AN/SSQ-130	Shipboard Tactical SIGINT & IO	●	●			●												
	120	SSEE Inc G	AN/SSQ-X	Shipboard Tactical SIGINT & IO	●	●			●												
	120	CCOP	CCOP	SIGINT Precision Geo-location	●	●			●												
	120	DRT	DRT	SIGINT Multi-protocol Receiver	●	●	●	●	●												
	120	HITS	HITS	Precision Geolocation Targeting System	●	●	●	●	●												
	120	CCOP Legacy Systems	CCOP Legacy Systems	SIGINT Precision Geo-location	●	●			●												
	120	COBLU	AN/SSQ-124(V)1-8	Tactical SIGINT Threat Recognition	●	●			●												
	120	CDF	AN/SRS-1(V)1-8	SIGINT & Direction Finding	●	●			●												

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Networks Afloat	160	CANES Inc 1	CANES (V)X	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	170	ESRP/SMQ-11	AN/SMQ-11	Ship Environmental Satellite Receiver Processor	●																
Environmental	170	ESRP/FMQ-17	AN/FMQ-17	Shore Environmental Satellite Receiver Processor																	
	120	LBS-UUV (LBS-G)	LBS-G	Ocean sensing using gliders																	
	120	LBS-UUV (LBS-AUV)	LBS-AUV	Ocean sensing using AUVs																	
	120	METMF(R)	AN/TMQ-44A(V)1	Mobile Weather Support Facility for USMC Expeditionary Forces																	
	120	METMF(R) NEXGEN	METMF(R) NEXGEN	Next Generation Mobile Weather Support Facility for USMC Expeditionary Forces																	
	120	NITES IV	AN/UMK-4A(V)1	PC-based METOC applications and decision aids	●																
	120	NITES-Next	NITES-Next	Tactical Net-centric METOC Capabilities	●	●															
	120	METOC FUTURE	AN/UMK-4	FMC (Future METOC Capability) Project develops, tests and installs METOC modeling and data																	
	120	PTA	PTA	PTA (Precise Time and Astrometry) Project modernizes US Master Clock and Earth Orientation Parameters																	
	120	TOC/USW	TOC/USW	TOC/USW (Tactical Oceanography Capabilities/Undersea Warfare) Project develops oceanographic	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	120	OBCI	OBCI	OBCI (Ocean Bottom Characterization Initiative) Project develops USW sensing and ocean bottom	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	120	CORIOLIS (Windsat)	CORIOLIS (Windsat)	Satellite-based sensing capability that measures ocean surface wind speed and direction																	
	120	GFO-2	GFO	GFO-2 (Geodetic Follow-on Satellite) measures dynamic surface ocean topography																	
	120	Navy DMSP/SSMIS	DMSP	Navy Defense Meteorological Satellite Program/System Sensor Microwave Imager-Sounder (Navy DMSP/SSMIS)																	
	120	Navy POPS and OIS	NOAA	Navy POESS Readiness Project acquires, integrates and tests hardware and sensor data processing																	
	120	ASOS	ASOS	Shore-based surface automated weather observation system																	
	120	MRS	AN/UMQ-12A	Ship/shore-based upper air observation system	●																
	120	NEXRAD OPUP	NEXRAD	Aviation Safety System: Next Generation Radar (Principal User Processor)																	
	120	SWR	AN/FPS-131	Shore-based surface weather radar system																	

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)					FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+	
					Force	Group	Unit	Sub	Shore												Air
Maritime Domain Awareness	120	MDA SP1P	MDA SP1P	Maritime Domain Awareness Spiral 1 Prototype																	MDA SP1P
	120	MFAS	MDA FAS	MDA Fusion and Analysis Services																	

Portfolio	Name	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
						Force	Group	Unit	Sub	Shore	Air											
Narrowband	170	Navy M/FS JTRS	Navy M/FS JTRS	Software reprogrammable multi-band/multi-mode radio	●	●	●	●	●												JTRS Inc 1	
Broadcast	170	GBS	AN/USR-10	Military Ka-band Receive-only Broadcast	●	●	●	●	●												GBS RBM	
	170	TV-DTS	OE-556	Commercial C-band Receive-only TV	●	●	●	●	●												TV-DTS	
Network WAN Gateway	160	ADNS Inc III	AN/USQ-144K(V)	ADNS OR TACTICAL WAN (INC III Overview)	●	●	●	●	●	●											ADNS Inc III	
Networks Afloat	160	CENTRIXS	AN/USQ-185	COALITION INFORMATION SHARING LAN	●	●	●	●	●												CENTRIXS	
	160 750	TacMobile - CENTRIXS-M (FAK)	AN/USQ-185(V)A	Secure Mobile Coalition Communications System						●											FAK	
Networks Afloat	150	GCCS-M 3.X	AN/USQ-119(V)1	Maritime Command and Control System	●	●	●	●	●												GCCS-M 3.X	
	150	GCCS-M 4.0.X	Various (roll-up)	Roll up of the 4.0.x baselines for Maritime Command and Control System - Maritime	●	●	●	●	●												GCCS-M 4.0.X	
	150	GCCS-M 4.0.X	AN/USQ-172(V)2	Global Command and Control System - Maritime Afloat variant	●	●	●	●	●												AN/USQ-172(V)2	
	150	GCCS-M 4.0.X	AN/USQ-184(V)	Global Command and Control System - Maritime Ashore variant	●	●	●	●	●												AN/USQ-184(V)	
	150	GCCS-M 4.0.X	AN/USQ-187(V)	Global Command and Control System - Maritime Training variant	●	●	●	●	●												AN/USQ-187(V)	
	150	GCCS-M 4.1 Force Level	TBD	Global Command and Control System - Maritime Force Level Afloat variant	●	●	●	●	●													GCCS-M 4.1 FL
	150	GCCS-M 4.1 Group/Unit Level	TBD	Global Command and Control System - Maritime materiel solution for Group and Unit level	●	●	●	●	●													GCCS-M 4.1 GL / UL
	150	New POR	TBD	Proposed Maritime materiel solution for Group and Unit level and Force level interfaces	●	●	●	●	●													Projected Navy C2 New Start
	150 (JPEO C2C)	NECC	TBD	Net Enabled Command Capability Inc 1	●	●	●	●	●													NECC
	160	CANES Inc 1	CANES (V)X	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●	●	●												CANES Inc 1
	150 (JPEO C2C)	GCCS-J	AN/USQ-187(V)	Global Command and Control System	●	●	●	●	●													GCCS-J
	750	TBMCS	TBMCS	Maritime Command and Control System	●	●	●	●	●													TBMCS
	160	CANES	CANES	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●	●	●												CANES Inc 1 CANES Inc 2
	150	GCCS-M 4.0.X	AN/USQ-172(V)1 AN/USQ-184(V) Shore AN/USQ-187(V)	Maritime Command and Control System	●	●	●	●	●													GCCS-M 4.0.X
	150	GCCS-M 4.1 Group/Unit Level		Maritime Command and Control System	●	●	●	●	●													GCCS-M 4.1 GL / UL
	150 (JPEO C2C)	NECC		Net Enabled Command Capability	●	●	●	●	●													NECC
750	TacMobile Inc 1.0								●												TacMobile Inc 1.0	

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Command and Control	750	TacMobile Inc 1.0	TacMobile Inc 1.0 (V) MTOC	MTOC																	
	750	TacMobile Inc 1.0	TacMobile Inc 1.0 (V) TOC	TOC																	
	750	TacMobile Inc 1.0	TacMobile Inc 1.0 (V) JMAST	JMAST																	
	750	TacMobile Inc 2.0																			
	750	TacMobile Inc 2.0	TacMobile Inc 2.0 (V) MTOC	MTOC																	
	750	TacMobile Inc 2.0	TacMobile Inc 2.0 (V) TOC	TOC																	
	750	TacMobile HF-IP	TacMobile HF-IP	P2P HF-IP System																	
	750	TacMobile-SHF Terminal Integration	TacMobile-SHF Terminal	SATCOM Terminal																	
	750	TacMobile TCDL	TacMobile TCDL	Mobile ISR Ground System																	
	750	TacMobile ROVER III	TacMobile ROVER III	Mobile Mini-ISR Ground System																	
	PMA 264	ASPECT	ASPECT	Environmental Mission Planning Tool																	
	PMA 281	JMPS	JMPS	Mission Planning Tool																	
	750	TacMobile Tech Refresh																			
	750	TacMobile Tech Refresh	TacMobile Tech Refresh (V) MTOC	MTOC																	
	750	TacMobile Tech Refresh	TacMobile Tech Refresh (V) TOC	TOC																	
	750	TacMobile Inc 2.1																			
	750	TacMobile Inc 2.1	TacMobile Inc 2.1 (V) MTOC	MTOC																	
	750	TacMobile Inc 2.1	TacMobile Inc 2.1 (V) TOC	TOC																	
	750	TacMobile Inc 2.1	TacMobile Inc 2.1 (V) JMAST	JMAST																	
	750	TacMobile Inc 3.0																			
	750	TacMobile Inc 3.0	TacMobile Inc 3.0 (V) MTOC	MTOC																	
	750	TacMobile Inc 3.0	TacMobile Inc 3.0 (V) TOC	TOC																	
750	TacMobile Inc 3.0	TacMobile Inc 3.0 (V) JMAST	JMAST																		

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
	750	TacMobile-Link-16 Infrc Dev	TacMobile-Link-16	LOS Data Link																	
	750	TacMASS	TacMASS	Acoustic Mission Replay System																	
	750	FTAS	AN/FXQ-3	Acoustic Mission Replay System																	
	750	TacMobile-SHF (Baseband) Infrc Dev	TacMobile-SHF Baseband	SATCOM Baseband																	
	750	TacMobile P-8A Interface/Support	TacMobile P-8A Infrc/Supp	Pre-Flight Insertion Device (PID) Loading System																	
	750	TacMobile SOA Adaptors	TacMobile SOA Adaptors	Service Oriented Architecture (SOA) Enablers																	
	750	TacMobile BAMS UAS Interface/Support	TacMobile BAMS UAS Infrc/Supp	Unmanned Persistent Maritime ISR																	
	PMS (IWS5)	USW-DSS	USW-DSS	USW C2 Tool																	
	790	MOC	MOC	MOC																	
	790	MOC	MOC Spiral 08	Spiral 08																	
	790	MOC	MOC Spiral 10	Spiral 10																	

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+	
					Force	Group	Unit	Sub	Shore	Air												Aux
Assured Information Sharing	160	CANES Inc 1	CANES (V)X	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●	●	●												
	160	CANES Cross Domain Solutions		SAME AS CANES (FOR FIELDING) CDS TBD for CANES	●	●	●	●	●	●												
	160	Radiant Mercury		Radiant Mercury	●	●	●	●	●	●												
	160	Radiant Mercury	RM (V) 5.0	Radiant Mercury	●	●	●	●	●	●												
	160	Radiant Mercury	RM (V) 5.X	Radiant Mercury	●	●	●	●	●	●												
	160	Radiant Mercury	RM (V) 6.0	Radiant Mercury	●	●	●	●	●	●												
	160	Radiant Mercury	RM (V) 6.X	Radiant Mercury	●	●	●	●	●	●												

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Integrity Non-Repudiation	160	PKI ISEA SUPPORT	Validation	PKI CERTIFICATE VALIDATION & CAC SUPPORT	●	●	●	●													
	160	CAC SUPPORT	ActivClient (V)6.1	PKI CERTIFICATE VALIDATION & CAC SUPPORT	●	●	●	●													
	160	CAC SUPPORT	ActivClient (V)6.2		●	●	●	●													
	160	OCSP	OCSP	PKI CERTIFICATE VALIDATION	●	●		●													
	160	ONE NET NCVI	ONE NET NCVI (V)1.0	PKI CERTIFICATE VALIDATION					●												
	160	ONE NET NCVI	ONE NET NCVI (V)2.0	PKI CERTIFICATE VALIDATION					●												
	160	MVA	MVA V(1.0)	MASTER VALIDATION AUTHORITY					●												
	160	MVA	MVA V(2.0)	MASTER VALIDATION AUTHORITY					●												
	160	Fleet NCVI	NCVI	PKI CERTIFICATE VALIDATION	●	●	●														
	160	RAPIDS	Deployable RAPIDS	AFLOAT CAC ISSUANCE AND MAINTENANCE SYSTEM	●	●	●														
	160	CRYPTOGRAPHIC LOG ON	n/a	CRYPTOGRAPHIC LOG ON	●	●	●	●	●												
	160	Alt Token	Alt Token	PKI CERTIFICATE VALIDATION and ALTERNATE LOGON TOKEN SUPPORT					●												
	160	CAC	n/a	NIPR LOGON TOKEN	●	●	●	●	●												
	160	SIPRNet Token Pilot	n/a	Approved SIPRNet Token					●												

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Networks Afloat	160	ISNS - Inc I	AN/USQ-153C(V)X	TACTICAL LAN INFRASTRUCTURE. Initial Server Consolidation	●	●															
	160	ISNS - Inc I MOD I	AN/USQ-153C(V)	TACTICAL LAN INFRASTRUCTURE	●	●															
Defend the GIG	160	CANES	CANES	CONSOLIDATED AFLOAT NETWORKS ENTERPRISE SERVICES	●	●	●	●													
	160	CND		COMPUTER NETWORK DEFENSE	●	●	●	●													
	160	CND INC 1 AFLOAT	AN/UYQ-96	COMPUTER NETWORK DEFENSE: INC 1 AFLOAT	●	●	●														
	160	CND INC 1 AFLOAT	AN/UYQ-96(V)1	CND - INTRUSION DETECTION SYSTEM	●	●															
	160	CND INC 1 AFLOAT	AN/UYQ-96(V)6/7	CND - IA TOOLS SYSTEM	●	●	●														
	160	CND INC 1 AFLOAT	ECOS/6	CND - OPERATING SYSTEM ENVIRONMENT	●	●	●														
	160	CND INC 2 AFLOAT	AN/UYQ-96(V)X	COMPUTER NETWORK DEFENSE: INC 2 AFLOAT - ENTERPRISE SECURITY SERVICES	●	●	●														
	160	CND INC 1 SHORE	AN/FYC-23	COMPUTER NETWORK DEFENSE: INC 1 SHORE					●												
	160	CND INC 2 SHORE	AN/FYC-23(V)X	COMPUTER NETWORK DEFENSE: INC 2 SHORE -INFORMATION ASSURANCE COMMAND CONTROL					●												

The chart displays the following milestones and phases:

- ISNS - Inc I**: Active from FY07 to FY17+.
- ISNS - Inc I MOD I**: Active from FY07 to FY16.
- CANES Inc 1**: Active from FY07 to FY17+.
- CANES Inc 2**: Active from FY07 to FY17+.
- CND Inc 1**: Active from FY07 to FY17+.
- CND Inc 2**: Active from FY07 to FY17+.
- Inc 1 Afloat**: Active from FY07 to FY13.
- AN/UYQ-96(V)1**: Active from FY07 to FY11.
- AN/UYQ-96(V)6/7**: Active from FY07 to FY14.
- ECOS/6**: Active from FY07 to FY14.
- Inc 2 Afloat**: Active from FY09 to FY17+.
- Inc 1 - SHORE**: Active from FY08 to FY11.
- Inc 2 - SHORE (IA C2)**: Active from FY10 to FY17+.

Portfolio	Name	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
						Force	Group	Unit	Sub	Shore	Air											
Confidentiality	160	EKMS	EKMS	ELECTRONIC KEY MANAGEMENT SYSTEM	●	●	●	●	●	●	EKMS KMI (PROJECT)											
	160	EKMS (PROJECT) LMD/KP	PHASE 4.0.3.2	ELECTRONIC KEY MANAGEMENT SYSTEM	●	●	●	●	●	●	PHASE 4.0.3.2											
	160	EKMS LMD/KP	PHASE 5.1.0.5	ELECTRONIC KEY MANAGEMENT SYSTEM	●	●	●	●	●	●	PHASE 5.1.0.5											
	160	KMI MGC/AKP	KMI MGC/AKP	NET CENTRIC KEY MANAGEMENT ARCH NSA ACAT I	●	●	●	●	●	●	KMI (PROJECT) / NSA ACAT I / MGC/AKP											

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
	160	KG 333	KG 333	USAF Led																	
	160	KG 3X	KGV 61 A																		
	160	KG 3X	KG 33																		
	160	KG 3X	KG 334																		
	160	KG 3X	KOV 17 (sub)																		
	160	KG 3X	KG 34 (shore)																		
	160	KG 45A	KG 45A																		
	160	KG 45	KG 45																		
	160	WALBURN	KIV 7M (WAL)	Ship, Shore, Aircraft Sec Voice and Data																	
	160	WALBURN	KG-94/94A																		
160	WALBURN	KG-194/194A																			
160	WALBURN	KIV-19/19A																			
160	WALBURN	KG-95-2																			
160	WALBURN	KG 81																			
160	KL 51M	KL 51M																			
160	KL 51	KL 51																			
160	SAVILLE DATA	KIV 7M (SAV)	Ship, Shore, Aircraft Sec Data																		
160	SAVILLE DATA Strategic	KG 84A/C																			
160	SAVILLE DATA Strategic	KIV 7HS/HSB																			
160	SAVILLE DATA Tactical	KG 84A/C																			
160	SAVILLE DATA Tactical	KIV 7HS/HSB																			
160	VACM		Ship, Shore, Aircraft Sec Voice - USAF led																		
160	VACM Strategic	KY 100	VACM KY-100 FF																		

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
Encryption	160	VACM Strategic	KY 57	VACM KY-57 FF	●	●	●	●	●												
	160	VACM Strategic	KY 58	VACM KY-58 FF	●	●	●	●	●	●											
	160	VACM Strategic	KY 99A	VACM KY-99 FF	●				●	●											
	160	VACM Strategic	KYV 5	VACM KYV 5 FF	●	●	●	●	●	●											
	160	VACM Strategic / FI	SY 57	VACM KY-57 FF	●	●	●		●												
	160	VACM Strategic / FI	SY 58		●	●	●		●												
	160	VACM Strategic / FI	SYV 5	VACM KYV 5 FF	●	●	●	●	●	●											
	160	VACM Tactical	KY 100	VACM KY-100 FF					●	●											
	160	VACM Tactical	KY 57	VACM KY-57 FF	●	●	●		●												
	160	VACM Tactical	KY 58	VACM KY-58 FF	●	●	●		●	●											
	160	VACM Tactical	KY 99A	VACM KY-99 FF	●				●	●											
	160	VACM Tactical	KYV 5	VACM KYV 5 FF	●	●	●	●	●	●											
	160	VACM Tactical	SY 57	VACM KY-57 FF	●	●	●		●												
	160	VACM Tactical	SYV 5	VACM KYV 5 FF	●	●	●	●	●	●											
	160	STE w/ECC (KSV-21 card)	STE w/ECC (KSV-21 card)		●	●	●	●	●												
	160	STU	STU		●	●	●	●	●												
	160	KOV 14	KOV 14		●	●	●	●	●												
	160	CSRR	CSRR Version #3 (Walburn, Saville Data/Voice, KW46)	CSRR Inc 2 (Walburn, Saville Data/Voice, KW46)																	
	160	WALBURN	KIV 7M (WAL)																		
	160	WALBURN	KG-194/194A						●	●											
160	WALBURN	KIV-19/19A						●	●												
160	SAVILLE DATA	KIV 7M (SAV)						●	●												
160	SAVILLE DATA Strategic / Tac	KG 84A/C						●	●												

Portfolio	PMW	System Name	Variant Name	Descriptor	Platform (Site)						FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17+
					Force	Group	Unit	Sub	Shore	Air											
160		SAVILLE DATA Strategic / Tac	KIV 7HS/HSB																		
		KW 46M	KIV 7M (w/ KW 46M)																		
		KW 46	KW-46 FSBS																		
		SAVILLE VOICE	VACM KY-99 FF																		
		SAVILLE VOICE	KY 100																		
		SAVILLE VOICE	KY 57																		
		SAVILLE VOICE	KY 58																		
		SAVILLE VOICE	KY 99A																		
		SAVILLE VOICE	KYV 5																		
		KG 175D (TACLANE MICRO)	KG 175D																		
		NETWORK ENCRYPTION SYSTEM	MOT NE1																		
		KG 175	KG 175																		
		KG 235	KG 235																		
		KG 75	KG 75																		

Other Systems Program Roadmaps

Undersea Warfare Decision Support System (USW-DSS) (AN/UYQ-100), is programmed for installation on DDG-51, CG, CVN, LCC, SSN, and ocean surveillance(T-AGOS) class ships and maritime patrol aircraft (P-3C). Shipboard Build (BLD) 2.0 has two baselines, one hosted on the Integrated Shipboard Network System (ISNS), and one which is adapted to legacy networks. Shipboard BLD 3.0 is hosted on the Consolidated Afloat Network and Enterprise Services (CANES) infrastructure, and is a software application. The USW-DSS program roadmap is illustrated in figure 3 below. The shipboard installation schedule is coordinated with the Aegis Capability BLD (ACB) schedule. P-3C and shore variants are tailored to their particular network environments.

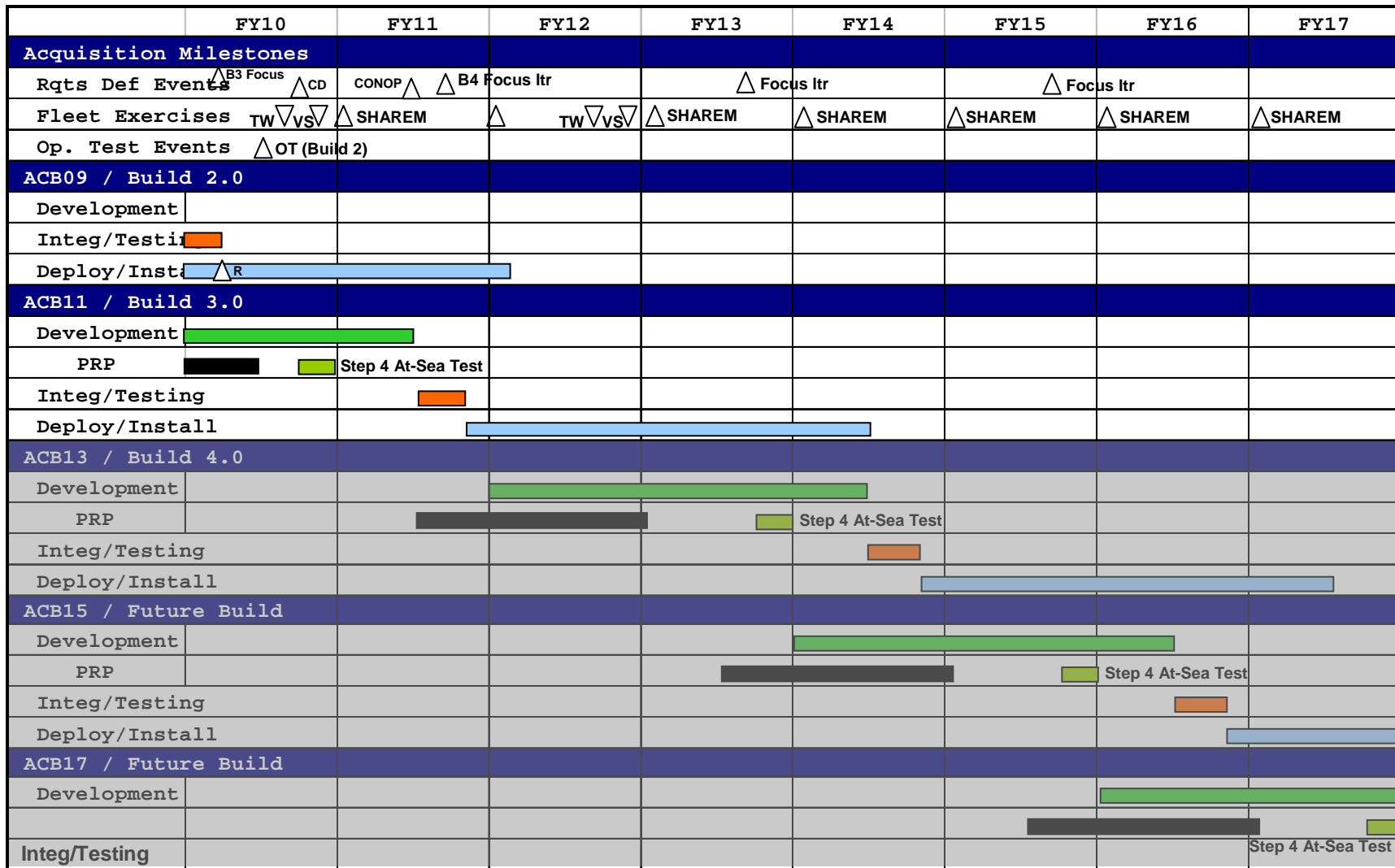


Figure 3: AN/UYQ-100 Under Sea Warfare Decision Support System Program Roadmap

PRP = production readiness plan; TTE = tactical training equipment; KPT = Key Port; SD = San Diego; HI = Hawaii; NRVA = Norfolk, Virginia; CTG = commander task group; CTF = commander task force; MOC = maritime operations center; RDT&E = research, development, test and evaluation.