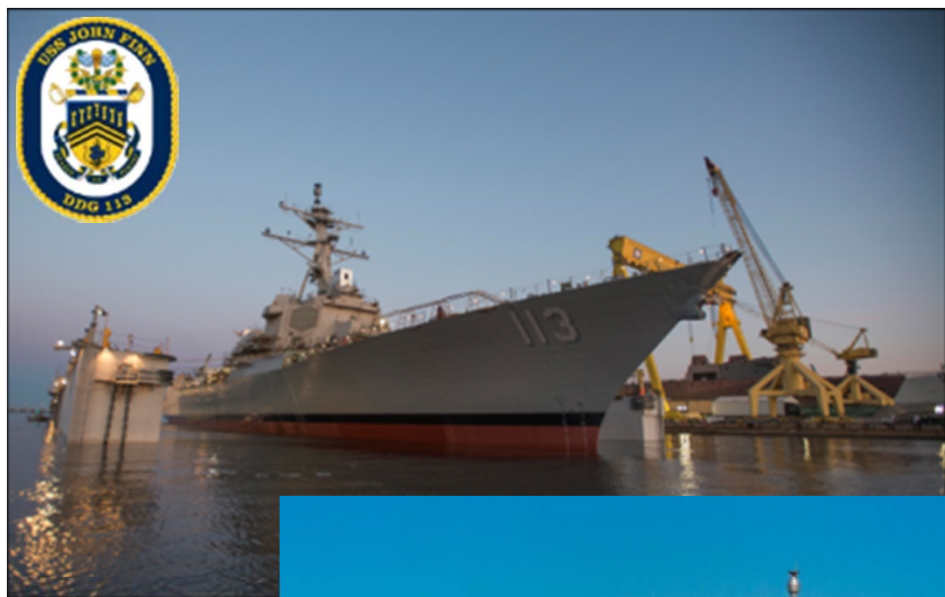




DDG 51 Program



**Presented to:
Surface Navy Association
Washington, DC
10 January 2018**



**Presented by:
CAPT Casey Moton
DDG 51 Program Manager**



DDG 51 Program Highlights

- **First restart ships delivered at each shipyard**
 - Huntington Ingalls Industries - Ingalls Shipbuilding (HII)
 - USS JOHN FINN (DDG 113) delivered Dec 2016
 - RALPH JOHNSON (DDG 114) delivered Nov 2017
 - General Dynamics - Bath Iron Works (BIW)
 - RAFAEL PERALTA (DDG 115) delivered Feb 2017
 - 12 additional ships on contract (FY12-17 ships)
 - 8 ships currently under construction at HII and BIW
 - 4 more ships under contract
 - Includes Congressionally-added third FY16 ship (16-3), awarded to BIW Sep 2017
- **Flight III Baseline on Track (FY17 And Follow ships)**
 - Flight III contract modifications awarded on FY17 ships, one at each shipbuilder
 - DDG 125 (HII) awarded 27 Jun 2017
 - DDG 126 (BIW) awarded 28 Sep 2017
 - Detail Design on track to support start of construction in early 2018
- **Navy seeking Multi-Year Procurement Authority for FY18-22 for 10 ships**

Both shipyards in serial DDG 51 production and under contract for first Flight III ships



Production Status (HII)



- **DDG 113 (Delivered)**
 - Delivered 07 Dec 2016
 - Commissioned in Pearl Harbor, HI, 15 Jul 2017



- **DDG 114 (Delivered)**
 - Delivered 15 Nov 2017
 - Commissioning in Charleston, SC, 24 Mar 2018



- **DDG 117 (85% complete)**
 - Christened 08 Apr 2017



- **DDG 119 (65% complete)**
 - Launched 08 Sep 2017
 - Christened 04 Nov 2017



- **DDG 121 (42% complete)**
 - Lay Keel completed 13 Feb 2017



- **DDG 123 (24% complete)**
 - Lay Keel completed 06 Nov 2017

As of 20 Dec 2017



Production Status (BIW)



DDG 115

- **DDG 115 (Delivered)**
 - Commissioned in San Diego, CA
29 Jul 2017



DDG 116

- **DDG 116 (94% complete)**
 - Launched 23 Apr 2017



DDG 118

- **DDG 118 (42% complete)**
 - Lay Keel planned Spring 2018



DDG 120

- **DDG 120 (12% complete)**
 - Start Fab achieved 11 Sep 2016



DDG 122

- **DDG 122 (1% complete)**
 - Start Fab achieved 29 Sep 17

As of 20 Dec 2017



Flight III Capability



- **Delivers new advances in Integrated Air and Missile Defense, including ballistic missile defense, with incorporation of the SPY-6/Air and Missile Defense Radar, and the latest advancements in the AEGIS combat system**
- **Improved radar sensitivity enabling longer range detection of increasingly complex threats**
- **Flight III upgrades electrical power and cooling capacity plus additional associated changes**

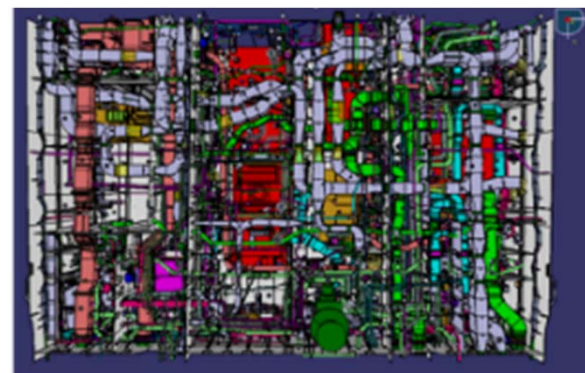
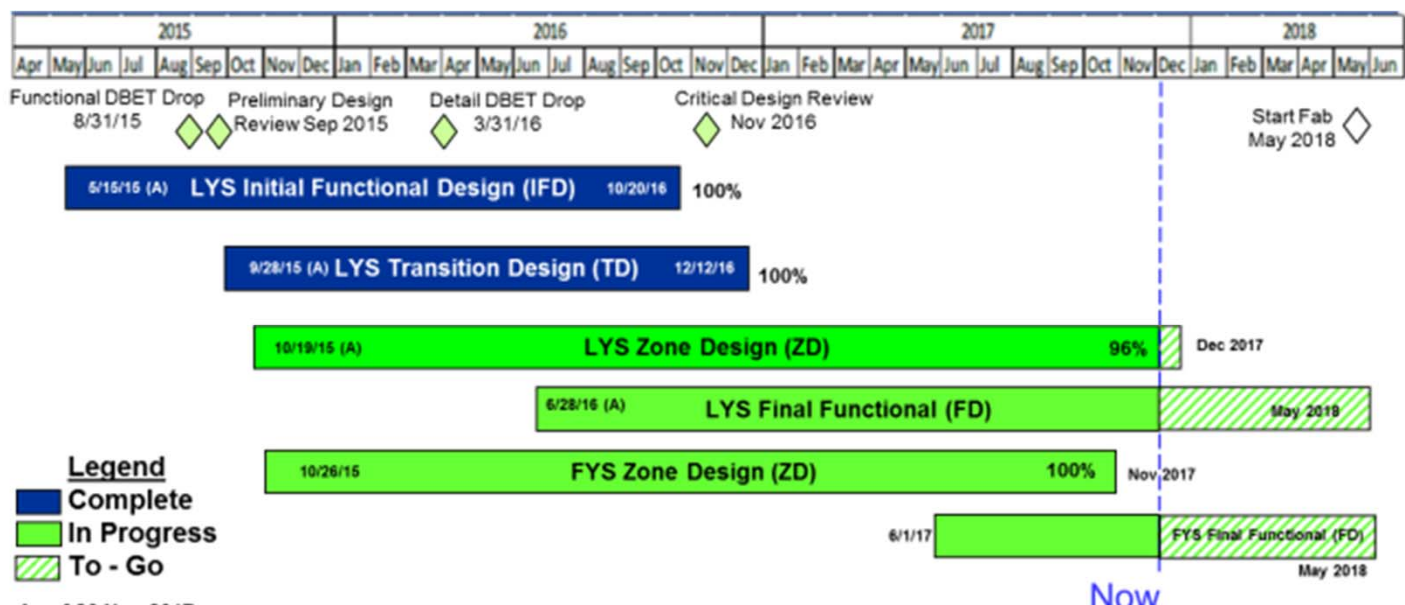




Flight III Design Maturity

• Flight III Baseline

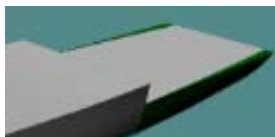
- Detail Zone Design completed 100% on 15 December 2017
- Final Detail Design activities will complete prior to Flight III Start of Construction
- First Flight III ships under contract with both DDG 51 Shipbuilders
 - DDG 125 (FY17 ship) awarded to HII 27 June 2017
 - DDG 126 (FY17 ship) awarded to BIW 28 September 2017



Total Flight III Design on schedule to support Start of Construction with a Mature / Stable Design



Flight III Changes



Full Load Operational Displacement Enhancement System (FLODES)

Enclosures

- Added starboard enclosure and stacked RHIBs

AN/SPY-6(V)1; AMDR-S SPY+15dB

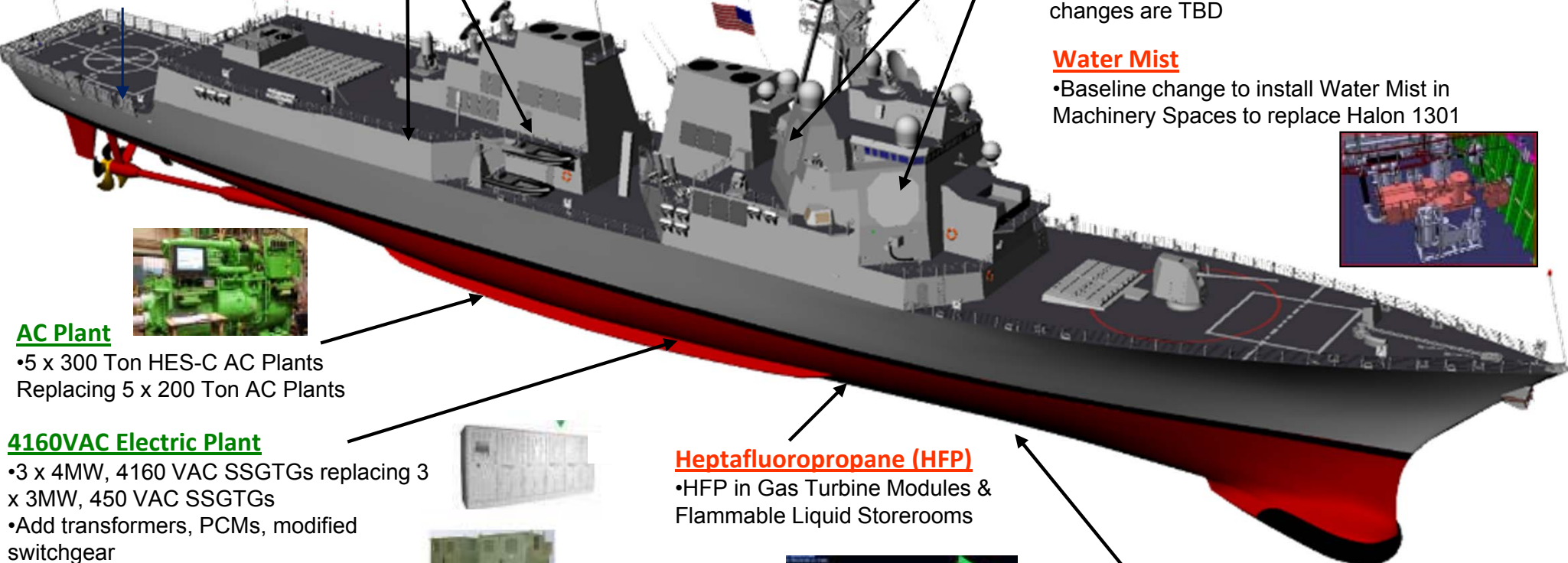
- 14.1 ft x 13.6 ft x 5 ft Array Structure
- Replaces AN/SPY-1D(V)

BL 10 / TI 16 for Flight III Upgrade to AWS

- Remaining obsolescence and roll-down impact changes are TBD

Water Mist

- Baseline change to install Water Mist in Machinery Spaces to replace Halon 1301



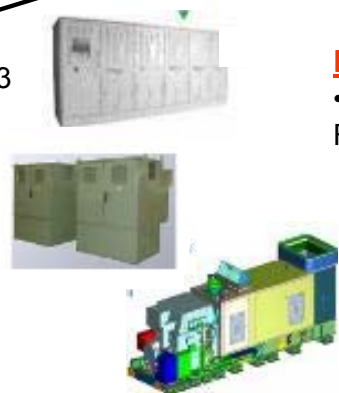
AC Plant

- 5 x 300 Ton HES-C AC Plants Replacing 5 x 200 Ton AC Plants



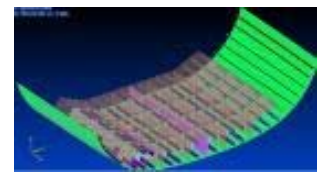
4160VAC Electric Plant

- 3 x 4MW, 4160 VAC SSGTGs replacing 3 x 3MW, 450 VAC SSGTGs
- Add transformers, PCMs, modified switchgear
- Modified controls for MCS and MFMs



Heptafluoropropane (HFP)

- HFP in Gas Turbine Modules & Flammable Liquid Storerooms



Increased Innerbottom Scantlings

- Adds 90 LT to improve KG

Habitability Changes and roll-down impacts to incorporate AN/SPY-6(V)1 and equipment

- *Capability Increase*
- *Enabling Changes*
- *Other Changes*



FY18-22 Multi-Year Procurement



- **Navy requested MYP authority for up to 10 Flight III ships in PB18**
 - Maximizes affordability
 - Lower costs resulting from economic order quantities of shipbuilder materials and major equipment
 - Improved production efficiencies
- **Support from Congress**
 - FY18 NDAA approves MYP authority
 - Appropriations Committees supportive; final Appropriations Bill pending
- **Preparing for RFP Release**

Both shipyards well-positioned to execute next MYP



Summary

- **DDG 51 program remains one the most successful shipbuilding programs with 65 ships delivered to the Fleet**
- **Initial Restart Ships at each shipyard have completed successful trials and delivery**
- **Shipyards have established serial DDG 51 production with 12 more ships on contract through FY17**
- **Flight III Detail Design efforts on track for start of construction**
- **First Flight III Ship at each shipyard awarded in 2017**



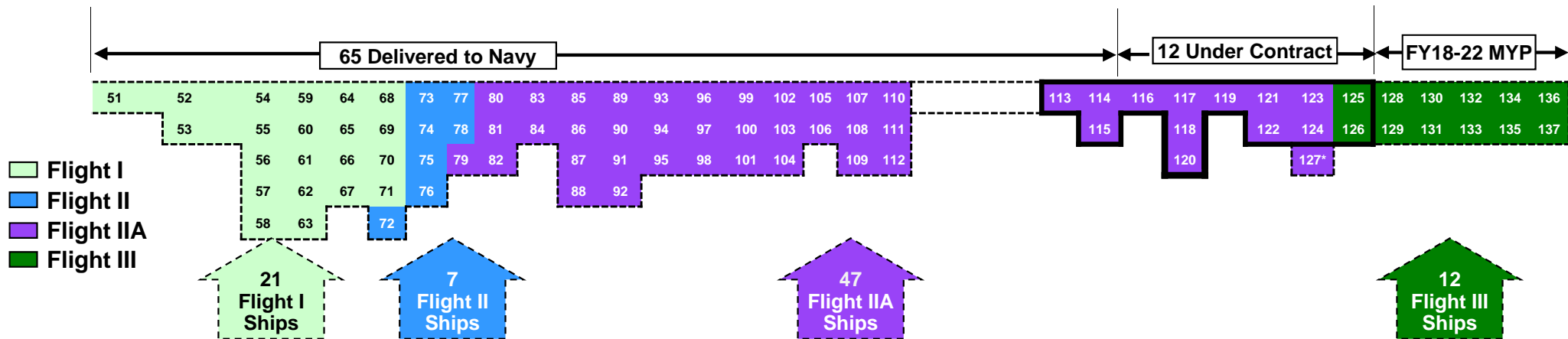
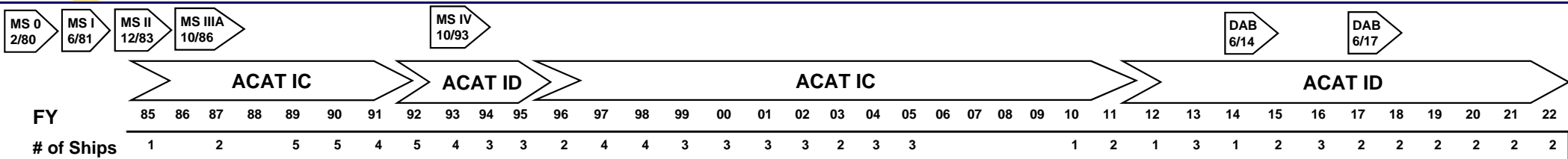
Delivering capability to the fleet for current and future missions



Back Up



DDG 51 Class Shipbuilding Profile



	FY98-01 MYP										FY02-05 MYP					FY13-17 MYP					FY18-22 MYP																	
BIW	1	1	3	2	2	3	3	2	1	1	2	1	1	2	2	1	2	2	1	1	2	1	1	1	1	1	1	1	1	1								
Ingalls		1	2	3	2	2	1	1	2	1	2	2	2	1	1	1	1	1			1	1	1	1	1	1	1	1	1	1								
FY	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22

ACQUISITION STRATEGIES	
Competition For Work	27
Negotiated Allocation	8
Competition for Profit (PRO)	8
Multi-Year (PRO)	34
Future Award	10
Total	87

	DELIVERED	UNDER CONTRACT	TOTAL
BIW	35	7	42
Ingalls	30	5	35

* Congress authorized and appropriated incremental funding for an additional DDG 51 class ship in FY16, with the balance appropriated in the FY17 Omnibus Appropriations Act. The additional ship was awarded to BIW in accordance with Congressional direction and the terms and conditions of the DDG 51-LPD 17 workload "Swap" agreement.

Rev 15 Nov 17



DDG 51 Program Overview

- The DDG 51 Class are multi-mission warships designed, built and netted to execute Sea Control and Power Projection missions
- Warfighting Requirements Foundations
 - Flight I: TLR-1983
 - Flight IIA: ORD-1994
 - Flight III: CDD-2014
- Warfighting Capabilities:
 - Integrated Air and Missile Defense (IAMD)
 - Strike Warfare (STW)
 - Anti-Submarine Warfare (ASW)
 - Anti-Surface Warfare (ASuW)
 - Intelligence, Surveillance, and Reconnaissance (ISR)
 - Naval Surface Fire Support (NSFS)

