



DDS Extension Modification



Industry Day

Captain Gard Clark
Program Manager, PMS 399
04 August 2011



Industry Day Schedule



0900-0915	Introductions
0915-0945	DDS Operations Overview Presentation (NSWG-3 Det LC)
0945-1015	DDSX Program Overview (PMS399)
1015-1045	Pre-Inspection Question & Answer Session
1045-1430	Hands On Inspection of DDS and DDSX Proof of Fabrication Cylinder
1430-1530	Post-Inspection Question & Answer Session



Outline



- Industry Day Schedule
 - Ground Rules & Admin
 - Introductions
- Program Overview
- Current DDS Capabilities
- Future DDS Capability Requirements
- Business & Contract Strategy
 - Current Contract Schedule
- DDSX Program Requirements
- Risks Associated and Mitigations
- Closing Remarks



Administration



- All Attendees Must Sign In
- All Briefings Will be Unclassified
- No Recording Devices or Cameras are Authorized
- No Cell Phones Allowed



Introductions



- Government
 - NAVSEA
 - USSOCOM
 - NAVSPECWARCOM
 - NSWG-3
 - NSWG-3 Det Little Creek
- Industry Attendees



Industry Day Ground Rules



1. Held at NSWG-3 Detachment, Little Creek, on Thursday, 04 August
 - a. 1875 Intercove Road, Norfolk, VA 23521
 - b. Submit security clearances in accordance with NECO announcement
2. Briefings will begin promptly at 0900.
3. Pre- & Post-Inspection Question & Answer sessions are scheduled.
 - a. Open Forum
 - b. Questions of Proprietary Nature May be Submitted in Writing to NAVSEA at the Conclusion of the Industry Day
 - c. All Specific Clarifications to the DDSX Specification and RFP Shall be Submitted in Writing
 - d. All Submitted Questions Should Reference Appropriate Industry Day Slide and/or Paragraph of the Draft RFP, If Applicable

The Material Contained Herein is Provided for Information Purposes Only and is Non-Binding. The Final RFP and Resultant Contract may Reflect Differences From This Presentation.



Industry Day Ground Rules



4. Copies of Draft DDSX RFP (including the Technical Specification) Will be Available.
 - a. Submit Comments Against Draft RFP and Technical Specification To NAVSEA In Writing Prior to 02 September.
 - b. Comments After This Date May Not be Included in Formal RFP.
5. All Briefings UNCLASSIFIED
 - a. Several Sections of DDSX Specification Contain CLASSIFIED Information.
 - b. These Sections Are Marked and Shall be Controlled Accordingly.
6. Discussions Limited to the DDSX Requirements Only.

The Material Contained Herein is Provided for Information Purposes Only and is Non-Binding. The Final RFP and Resultant Contract may Reflect Differences From This Presentation.



DDSX Program Overview



System: Dry Deck Shelter Extension (DDSX)

Description: Dry Deck Shelter Extension (DDSX) is a 50 inch Modification to the Current DDS System and Additional Design Modifications to Accommodate Larger Payloads.

Investment: Four Modified DDSs will be Required to Support Theater Operations, Training, Certification and Maintenance.

Acquisition Summary: Program Entrance at Milestone B; PEO SUB is the Program Milestone Decision Authority; ECD RFP Release 18 Nov 2011; ECD Contract Award 24 Sept 2012.

Service Acquisition Executive

MDA

Program Manager

Principal Assistant Program Manager

Procuring Contract Officer

Acquisition Sponsor

Warfighter Requirements Sponsor

James W. Cluck, USSOCOM

RDML David Johnson, PEO-SUB

CAPT Gard Clark, PMS399

Brian Pelletier, PMS399A4

Jodie LaFreniere-Dajc, SEA02622

USSOCOM

NAVSPECWARCOM



Current DDS Capabilities



VIRGINIA



SSGN

<u>ASSET</u>	<u>BUILDER</u>	<u>DELIVERY</u>	<u>DECOM</u>
01S	EB	1982	2022
02P	NNS	1987	2027
03P	NNS	1988	2028
04S	NNS	1990	2030
05S	NNS	1991	2031
06P	NNS	1991	2031

Based on 40 Year Hull Life

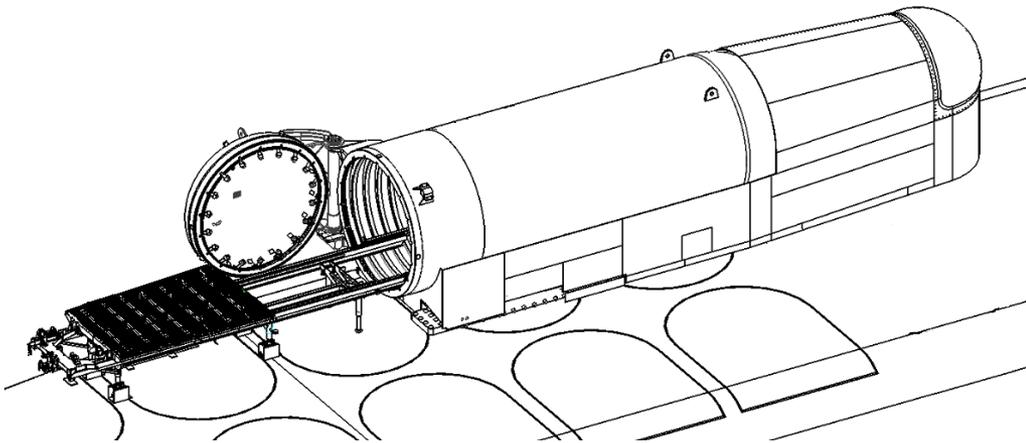
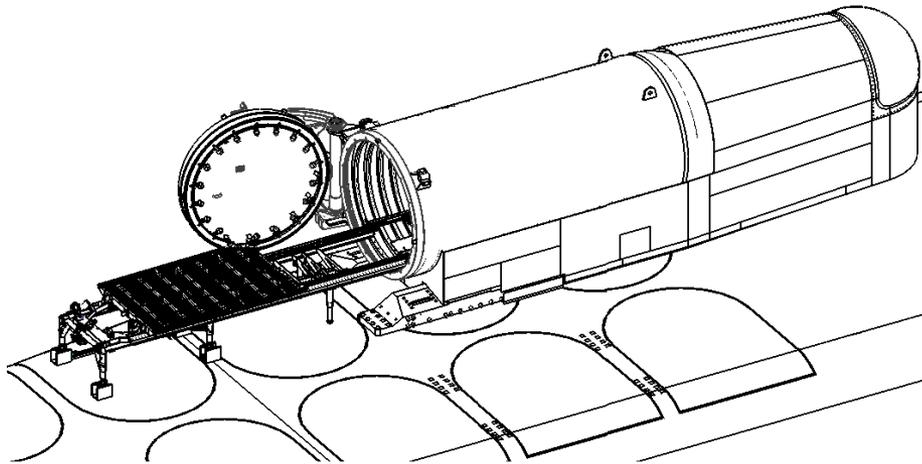
- **Certified Diving System Which Attaches To Modified Host Submarines. Provides For SEAL Delivery Vehicle (SDV) Or Mass Swimmer Lockout/Combat Rubber Raiding Craft Operations**
- **System Certification Is Required For Operation And To Ensure Diver And Host Submarine Safety**
- **Length 40 Ft., Beam 9 Ft., Weighs ~ 36 LT; Displaces ~56 LT**
- **Six Units Are Fielded**
- **Current DDS Does Not Support Warfighter's Needs for Larger Payloads**
- **Current DDS Will Not be Able to Operate With Larger Submersibles Being Procured by SOCOM**



Future DDS Capability Requirements



- The Larger Submersibles will Require Design Changes to the Portable Track to Support Larger Loads
- Current DDS Design Requires Support Divers to Manually Unlatch the Hanger Outer Door from the Interior. In Order to Maximize Payload Volume the Hanger Outer Door will be Modified to Allow Remote Operation.
- Current DDS Operating Procedures Require Support Divers to Manually Deploy the Track & Cradle to Allow Launch of the Seal Delivery Vehicle. Current Payloads/Submersibles are at the Outer Limit of the Divers being able to Complete this Manual Operation. In Addition, During Several Recent Operations Divers Suffered Significant Hand Injuries. Modified Design to Allow Assisted Deployment of the Track and Cradle.





Business and Contract Strategy



- Single Contract Approach for the Design and Construction of DDS 50" Extension and Host Submarine Modifications.
- Full and Open Competition
- Cost Plus Incentive Fee Line Items will be Used to Develop the DDS Design Modifications & Host Ship Alterations, Prove the Modification on the First Two DDS's and First Two SSGN Host Submarine Modification & Fit-ups.
- Cost Plus Line Items will be Used for the Support Required For Host Ship Test/Certification
- Fixed Price Incentive Line Items will be Utilized for the Remaining Two DDS and Host Submarine Modifications and Fit-ups



Current Contract Schedule



MILESTONES	PLANNED DATE
Draft Specifications Completed	21 Jul 2011
Draft RFP Released for Review/Comment	01 Aug 2011
Draft RFP Comments Submitted	02 Sept 2011
RFP Issued	18 Nov 2011
Proposal Submitted	06 Jan 2012
Contract Award	4 th Qtr FY12



Current Contract CLIN Structure



CLIN	Description	Type	CLIN	Description	Type
0001	Design through CDR	CPIF	0009	Data for CLINS 0001, 0002, 0003, 0004, 0019 - Technical Manuals	NSP
0002 OPTION	Construction/Design Efforts (1st DDS)	CPIF	0010	Data for CLINS 0005, 0006 - Technical Manuals	NSP
0003 OPTION	Construction/Design Efforts (2nd DDS)	CPIF	0011	Data for CLINS 0016, 0017, 0018 - Technical Manuals (CPFF)	NSP
0004 OPTION	SSGN Fit-Ups	CPIF	0012	Data for CLINS 0001, 0002, 0003, 0004, 0019 - TDP	NSP
0004AA	1st SSGN Fit-Up		0013	Data for CLINS 0005, 0006 - TDP	NSP
0004AB	2nd SSGN Fit-Up		0014	Data for CLINS 0016, 0017, 0018 - TDP	NSP
0005 OPTION	HOSUB Test / Certification	CPFF	0015	Data for All Items	NSP
0005AA	1st SSGN Fit-Up		0016 OPTION	Construction/Design Efforts (3rd DDS)	FPI
0005AB	2nd SSGN		0017 OPTION	Construction/Design Efforts (4th DDS)	FPI
0005AC	3rd SSGN		0018 OPTION	SSGN Fit-Ups	FPI
0005AD	4th SSGN		0018AA	3rd SSGN Fit-Up	
0006 OPTION	Engineering Services after CDR	CPFF	0018AB	4th SSGN Fit-Up	
0007 OPTION	ODC for CLINS 0005 and 0006	Cost Only	0019 OPTION	VIRGINIA Class Ship Alteration Design	CPIF
0008	Provisioned Item Orders	To be specified in each order			



Source Selection & Evaluation Criteria



Contract will be a best value award

Evaluation Factors

- Technical; Design – Applicant’s Capability to Meet Requirements as Stated in RFP as well as Associated Risks
- Technical; Construction - All Aspects of the Construction & Tiger Team Installation Plan
- Technical; Management - All Aspects of the IMS, Facilities, Make-Buy, & Subcontractor Management Plan
- Technical; Past Performance (Non-Price)- Relevancy & Performance
- Price; Total Evaluated Price



DDSX Key Performance Parameters & IOC/FOC Definition



- DDS-X Key Performance Parameters (KPPs)
 - Host Interoperability KPP1: Operate from SSGN Class Submarine (Threshold) or SSGN and VIRGINIA Class Submarines (Objective)
 - Extension Dimensions KPP2: DDS Mod Does Not Limit Current Transportability; Does Not Limit The Number Of Operable SSGN Missile Tubes; Will Not Reduce the Usable DDS Cross Section As Measured At DDS Hangar Midpoint (Threshold = Objective)
 - Sustainment KPP3: Modified DDS will not Reduce Historical DDS Availability and Reliability (Threshold = Objective)
 - Force Protection and Survivability KPP4: Modified DDS Will Not Impact DDS Force Protection and Survivability (Threshold = Objective)
- IOC: DDS and Host Submarine are Certified Ready to Deploy in 4th Quarter FY 2015. IOC for the DDSX will be Achieved by Demonstrating Operability with a Designated Wet Submersible. Delivery Date for First DDSX will 1st Quarter of FY14.
- FOC: Four Modified DDSXs Will be Delivered in 4th Quarter FY 2020.



Program Assumptions



- First DDS to be Modified: DDS-06P
 - In-Conjunction-with Or Subsequent-to FY-13 Overhaul
- First SSGN to be Modified: USS OHIO (SSGN726)
 - Part of FY-13 MMP
- Plan Of Record: Modify 4 (Four) DDSs
- After Modification: Return to In-service Program For Life Cycle Management



Notional Host Submarine Mods Required



- SSGN Class
 - Hull attachment changes
 - Bridge Beam & Spool Pieces
 - Mid Track Support Blocks, Door Stop, and Deck Camera
 - Additional Permanent Ballast
 - Evaluate Diver Quality Air (DQA) Bank Capacity

- VIRGINIA Class
 - Hull attachment changes
 - Mid Track Support Blocks, Door Stop, and Deck Camera
 - Impact on Fixed Cleats And Salvage Air & Shore Power Connections
 - Additional Permanent Ballast
 - Impact on Ship's Hovering Control System
 - Increased DQA Bank capacity



DDSX Specification Requirements Overview



Hull Extension

- Follows Legacy DDS Hull Thickness and Frame Spacing
 - Hull Manufactured from HY-80
 - Maintain Current 8' Hanger Diameter, 5/8" Pressure Hull Thickness and 10" Frame Spacing
 - 1000 psf Wave Slap Loading for Fairings and Support Structure
 - Certified IAW with the Requirements of P-9290
- NAVSEA Will Provide An Approved Drawing And Circularity/Fairness Procedure For Possible Use

Hanger Outer Door (HOD)

- Remotely Locking & Unlocking Operated From the Bubble Station
- Utilize the Existing HOD (~ 18,000lbs), if Possible, Due to Shock and Weight Concerns

Track and Cradle

- Increased Capacity to Hold up to 30,000lbs
- Power Assist to Help Divers Deploy and Retract Track & Cradle Assembly/Payload
- Maximize Clear Bore Space to the Fullest Extent Possible. The Spec will Include the Clear Bore Volume Required.

The Specification to a large extent mirrors the legacy design to maintain continuity of the DDS



Request for Information (RFI) Responses



- **RFI Issued on 06 December 2010 Requesting ROM Cost and Schedule to :**

- Design, Install, and Certify for Manned Operations a 50" Extension to an Existing DDS
- Develop Improvements to Allow Remote HOD Operations (Lock/Unlock, Open/Close)
- Develop Improvements to Assist Personnel in the Deployment of the Track & Cradle

- **Multiple Responses Received:**

- Technical Solutions Varied Between Each Response but All were Evaluated and Determined to be Technically Feasible by the Program Office. These Varied Technical Solutions Validate PMS 399's Assessment that this Effort Should Be Awarded Utilizing Full and Open Competition
- ROM Schedule Timelines Ranged from 18-26 Months



Closing Remarks



Back Up



Technology Readiness Assessment



• **DDS 50" Extension**

- Feasibility of fabrication technology has been demonstrated:
 - Fabricated 50" rib stiffened cylinder hull section and a compartment boundary support ring
 - Verified circularity and frame tolerances of the full extension
 - Welded the 50" section to the support ring

Program Office Evaluation is that this effort is TRL of 8

• **Hanger Outer Door Remote Operation**

- Responses to RFI were evaluated and while they all differed in their design approach, all proposed technical solutions utilizing mature proved technology.

The Program Office Evaluation is that this effort is TRL of 8.

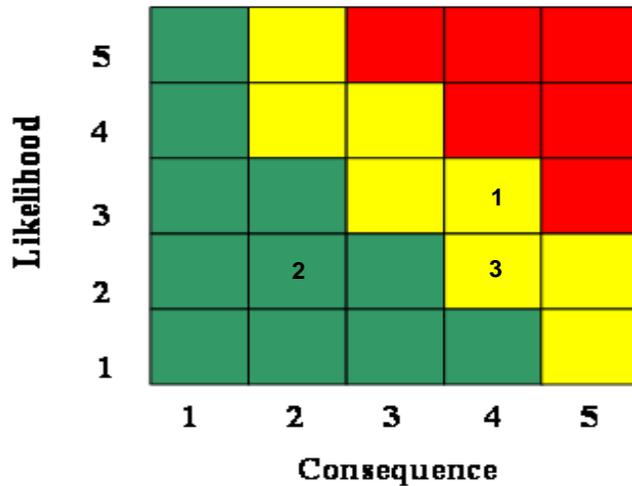
• **Track & Cradle Modifications**

- Current DDS FC-156 (Increased Strength Track & Cradle) has been completed on several shelters to increase the load capacity of the current Track & Cradle Assemblies

In addition to the work completed on FC-156, the program office evaluated the RFI responses and while they all differed slightly on the technical approach to this issue they are technically feasible, utilize mature proven technology, and a TRL of 7 should be assigned for this effort



Risks Associated and Mitigations



1: DDSX Fabrication Requirements: Documentation states the DDSX program purview extends to the 50" extension itself and to the specific components used to assist with the operation of both the hanger outer door and the track and cradle system.

2: DDS Delivery Conditions: RFP will contain specific deliverable that the Contractor state the most desired DDS arrangement to be delivered to the Contractor facility upon commencement of construction.

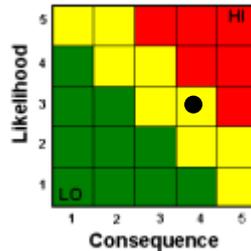
3: DDS Legacy and HOSUB Availability: Coordinate Fleet availability and expedite completion of work on DDS and HOSUB.



DDSX Fabrication Requirements

Issue/Problem:

- How best to certify the DDS 50" extension and any upgrades to the current DDS arrangement.



Background:

- In order to meet DDSX proposed timelines and avoid superfluous testing, the program office must prevent any attempts to re-certify the entire DDS platform while certifying the 50" extension and the improved sub-systems.

Schedule & Action Plan:

- Documentation will explicitly state the DDSX program extends to the 50" extension itself and to the specific components used to assist with the operation of both the hangar outer door and the track and cradle system.

Status:

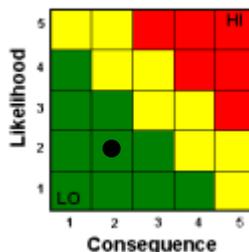
- Currently the SAMP is the only major document to mention test and evaluation. The SAMP is scrutinized frequently in order to ensure certification actions by the DDSX program are directed at the 50" extension and improved sub-systems only.



DDSX Delivery Conditions

Issue/Problem:

- To install the 50" extension and improvements to hangar outer door and track and cradle, Contractor must have access to legacy DDS.



Background:

- Access to the legacy DDS units is limited as they are operational Fleet assets. Therefore, the program office needs to know how the Contractor wants the DDS units delivered for the construction phase of the contract so the program office can schedule and complete the required work prior to the Contractor's required delivery date.

Schedule & Action Plan:

- RFP will contain specific deliverable that the Contractor state the most desired DDS arrangement to be delivered to the Contractor facility upon commencement of construction.

Status:

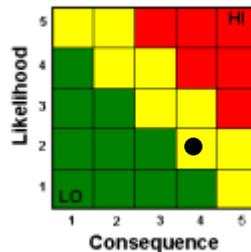
- The necessary CDRL(s) will be added to the RFP when applicable.



DDS Legacy and HOSUB Availability

Issue/Problem:

- Allowing access to legacy DDS units and SSGN/VA Class submarines for design and construction phases.



Background:

- Access to the legacy DDS units and host submarines is limited as they are operational Fleet assets. Therefore, the DDSX program office must work to ensure the Contractor has the necessary interface with legacy DDS and HOSUB units in order to properly design and build the DDSX program requirements.

Schedule & Action Plan:

- DDSX program office will communicate with Fleet leadership in order to expedite availability and/or completion of work on DDS and HOSUB as needed.

Status:

- DDSX program office has begun communication with the appropriate Fleet leadership figures to establish timelines of access to legacy DDS units and HOSUBs.