

Ingalls Shipbuilding

A Division of Huntington Ingalls Industries



Newport News Shipbuilding

A Division of Huntington Ingalls Industries



NTS

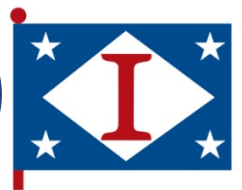


Flexible Infrastructure Qualification

NSRP SDMT Panel Meeting

June, 2015

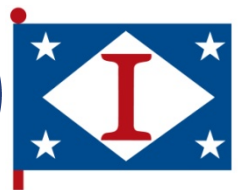
Agenda



- Technical Approach
- Proposed Testing/Data Analysis Plan Matrix
- Summary

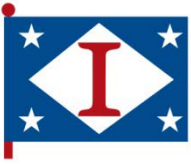


Team Members

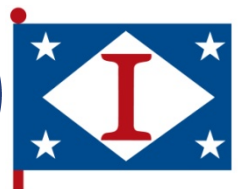


- Ingalls Shipbuilding – Project Lead
 - Sean Murphy, Sara Trawick, Davida Cunningham, Adam McDowell, Ron McClellan, John Walks
- Newport News Shipbuilding
 - Glenn Dorsey, Don Slack, Matt Tilley
- NTS
 - Mike Poslusny
- Hilti
 - Jessica Galassie
- SCRA
 - Mary Saady, Project Manager
- NASSCO
 - Dan Sfiligoi, Project Technical Representative





Ingalls Shipbuilding



- Building four classes of ships simultaneously—
nine ships now in production
- Won a contract in June 2013 to build 5 additional
Arleigh Burke-class destroyers
- Builder of record for LPD and LHA classes of
amphibious assault ships
- Builder of largest multi-mission National Security
Cutter for the U.S. Coast Guard



USCG National Security Cutter



LPD 17 Class Amphibious Transport



LHA 6 Amphibious Assault Ship



DDG 51 Surface Combatants



Newport News Shipbuilding
A Division of Huntington Ingalls Industries

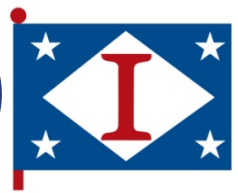


Project Work Breakdown Structure (WBS)



- The project will consist of nine major tasks over twenty months:
 - Task 1: Project Initiation
 - Task 2: Develop Test Plan
 - Task 3: Test Preparation
 - Task 4: Test Execution - Shock
 - Task 5: Test Execution - Vibration
 - Task 6: Interpretation of Test Results
 - Task 7: Final Report and Final Project Workshop
 - Task 8: Technology Transfer
 - Task 9: Program Management

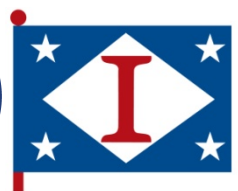




- The project goals are to:
 - Qualify all structural elements of FI to demonstrate compliance with shock and vibration requirements of Navy surface combatants and amphibious assault ships
 - Qualify as many non-structural elements of FI to the same shock and vibration requirements as budget allows
- Project is success driven
 - Assumes timely approval of test procedures by NAVSEA
 - Assumes passing of all tested flexible infrastructure elements
 - Assumes timely approval and qualification of test results by NAVSEA



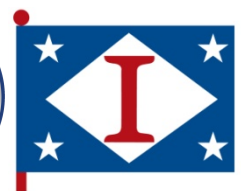
Milestone Schedule – Phase I



Milestone	Title	Due Date
1	Project Management Plan	6/16/2014
2	Quarterly Report	6/20/2014
3	Kickoff Meeting Minutes	7/21/2014
4	Current State of Flexible Infrastructure Qualification Report	8/15/2014
5	Draft Test Plan for Flexible Infrastructure Qualification	9/19/2014
6	Quarterly Report	9/20/2014
7	Quarterly Meeting Minutes	10/31/2014
8	Final Test Plan for Flexible Infrastructure Qualification	11/26/2014
9	Test Article Design Documentation	12/15/2014
10	Quarterly Report	12/20/2015
11	Quarterly Meeting Minutes	1/13/2015
12	Certification of Test Article Fabrication	3/19/2015
13	Quarterly Report	3/20/2015
14	Quarterly Meeting Minutes	4/30/2015
15	End of Phase 1 Report	5/28/2015



Milestone Schedule – Phase II



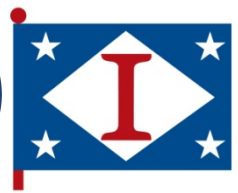
Milestone	Title	Due Date
16	Shock Test Report	6/20/2015
17	Quarterly Report	6/29/2015
18	Quarterly Meeting Minutes	7/29/2015
19	Quarterly Report	9/20/2015
20	Shock and Vibration Test Report	10/14/2015
21	Quarterly Meeting Minutes	11/20/2015
22	Quarterly Report	12/20/2015
23	Final Project Workshop Minutes	1/22/2016
24	Final Report	1/29/2016



Newport News Shipbuilding
A Division of Huntington Ingalls Industries



Accomplishments



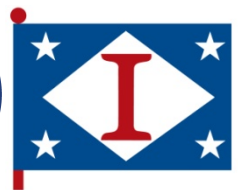
- A Current State of Flexible Infrastructure Report was created
 - Reviewed all previous and ongoing 25 Hz FI shock qualification
 - Deliverable 4 under NSRP project
 - Outlines structural items of FI that still need to be tested/qualified
- The items summarized through this report help to identify the best test specimens
 - Project team and NAVSEA will identify and finalize the best specimens to test



Newport News Shipbuilding
A Division of Huntington Ingalls Industries



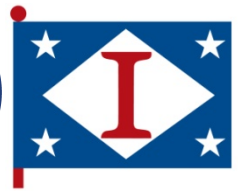
Accomplishments



- Quarterly meetings were held in November and February with NAVSEA, Ingalls, Newport News, Hilti USA and NTS representatives
- Presentations were given on the following topics:
 - Shock Test Plan
 - Implementation
 - Schedule
- Meetings were successful with meaningful discussions and clarification being given
- The outlook for the project is very positive and well received



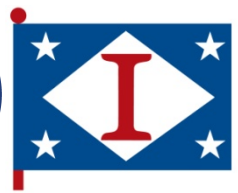
Accomplishments



- Draft Test Plan was discussed and reviewed during quarterly meeting held in November
- Concerns/Issues pertaining to testing were discussed
- Comments from this discussion were incorporated into the draft test plan
- The final test plan was submitted to NAVSEA for approval on December 19, 2014
 - Discussed at quarterly meeting held in February
 - Currently in the review process
- Comments from NAVSEA are expected, and iterations of the test plan will be completed for final approval



Current Actions



- Waiting on Final Shock Test Plan approval
- Material is ordered
- Fabrication of test specimens/Installation Package had begun
- Shock Testing – slated to start June 22, 2015



Summary



- The concept and plan is simple and straightforward
 - Plan to qualify as many FI components as needed so that FI can be used across platforms
- The team has the right experience and skills
- Execution of plan in an efficient, simplified manner

