

NAVAL SURFACE WARFARE CENTER PHILADELPHIA DIVISION

INDUSTRY DAY BRIEF

Ana Maria Gulian

Propulsion, Power & Auxiliary Machinery Systems, Department 40

May 2016



Department 40 Responsibilities

 Systems: Main Propulsion, Electric Power & Distribution, Auxiliary Systems, Steam, Submarine Sail Systems, Submarine Hydraulics, Deck Machinery and Habitability.

Major Roles:

- Life Cycle Manager
- In Service Engineer
- Acquisition program engineering support
- TWH for Submarine Sail Systems
- Technical Authority: Engineering support to SEA 05
- SUBSAFE Supervising Authority for OII-MSD (NAVSEA note 5000)



ORGANIZATION CHART WITH TCs

Propulsion, Power & Auxiliary Machinery Systems Department

Code 40

Ana Maria Gulian

Auxiliary Machinery Systems

Code 41

Joseph McGillian

Air Conditioning & Refrigeration Code 411

Edward McCunney

Steam Systems Code 412

William Shapiro

Auxiliary Systems
Code 413

James Hill

Combat Support Systems
Code 414

Domenic Luciani

Auxiliary Machinery Automation Code 415

Matthew Douglass

Life Support & Ventilation Systems Code 416

Raymond Bauer

Fluid Systems Automation Code 417

Vacant

Compressed Air Systems Code 418

Ian Amacher

Propulsion & Power Systems

Code 42

Mike Zekas

Diesel Engines Code 421

Vacant

Power Transmissions Code 422

Michael Bouve

2S Cog/Gas Turbines Life Cycle Support Code 423

Kevin Fauvell

Surface Combatant/Gas Turbine Engineering

Code 424

Ivan Pineiro

Auxiliary Ships/Acquisition Support Code 425

Joseph Lawton

Aircraft Carriers/Gas Turbine Electrical Power Systems

Code 426

Andrew Bigley

Steam/Diesel/ Electrical Power Systems Code 427

Andrew Stankovich

400 Hz/DC Electrical Power Systems

Code 428

William Simunek

Advanced Electrical Power Systems
Code 429

Pete Tahopoulos

Sail, Hull & Deck Machinery
Systems

Code 43

Enrico Giampaolo

Aircraft, Vehicle, Ship and Material Handling Code 431

Kenneth Poole

Cargo/Weapons Handling & Stowage Systems

> Code 432 Stephen Michetti

Launch, Recover and Hydraulics Systems
Code 433

Francis Brennan

Hull Outfitting and Shipboard Habitability
Code 434

James Burton

Sail Systems, I&EW, Radar, UMM & Modeling HM&E Code 435

Joseph McCue

Quality Assurance and SUBSAFE Certification

Code 436

Matthew Malham

Antenna Engineering and Sail
Modernization

Code 437

Thomas Roche

PLO4 SURFACE & UNDERSEA
VEHICLE MACHINERY SYSTEMS
INTEGRATION

PL09 SURFACE & UNDERSEA
VEHICLE MECHANICAL POWER &
PROPULSION SYSTEMS

PL10 SURFACE & UNDERSEA
VEHICLE ELECTRICAL POWER &
PROPULSION SYSTEMS

PL11 SURFACE & UNDERSEA
VEHICLE AUXILIARY MACHINERY
SYSTEMS

PL12 SURFACE & UNDERSEA
VEHICLE HULL, DECK &
HABITABILITY MACHINERY
SYSTEMS

PL13 SURFACE & UNDERSEA
VEHICLE MACHINERY
AUTOMATION, CONTROLS,
SENSORS & NETWORK SYSTEMS

PL19 ADVANCED LOGISTICS
CONCEPTS & HM&E LIFE CYCLE
LOGISTICS SUPPORT

PL21 SHIP RECOVERY & DAMAGE CONTROL

PL24 HM&E FOR UNDERSEA VEHICLE SAIL SYSTEMS & DEPLOYED SYSTEMS

PL27 SHIPBOARD WASTE & HAZARDOUS MATERIALS MANAGEMENT SYSTEMS

PL28 SURFACE SHIP & UNDERSEA
VEHICLE MACHINERY SYSTEMS
INTEGRITY

Distribution A: Approved for public release: distribution

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DEPARTMENT OVERVIEW

TOTAL END-STRENGTH

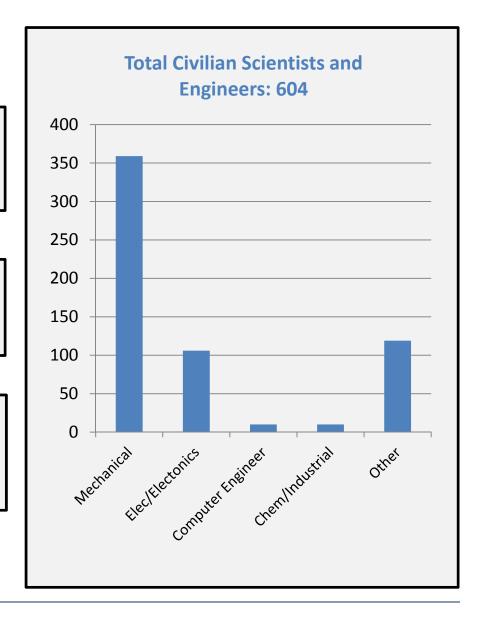
(Civilian, Military, Contractors) 692

TOTAL CIVILIAN 604 TOTAL
MILITARY
0

TOTAL
CONTRACTORS
*88

EDUCATION LEVELS (ALL CIVILIANS)

Bachelors: 362 Masters: 111 Doctorate: 1



*On-site Contractors



Division 41 Responsibilities

- In the Auxiliary Machinery Systems Division, we provide full spectrum and innovative engineering support for the following systems under our cognizance:
 - Air Conditioning and Refrigeration
 - Steam Systems
 - Auxiliary Systems
 - Combat Support Systems
 - Auxiliary Machinery Automation
 - Life Support & Ventilation Systems
 - Fluid Systems Automation
 - Compressed Air Systems



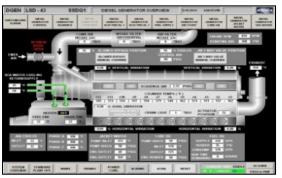
- In collaboration with our NAVSEA Technical Warrant Holders, we provide leadership for the research, development, testing, acquisition, integration, maintenance, sustainment, and modernization of these systems thru:
 - Technology Development
 - Failure Investigation / Analysis
 - Metrics Assessment
 - Distance Support
 - Land & Shipboard Test & Evaluation
 - In Service Engineering

- Acquisition Support
- System Design
- Boiler and Pressure Vessel Inspections
- Energy Conservation
- Obsolescence Management & Legacy System Upgrades
- Training and Logistics



Division 42 Responsibilities

- In the Propulsion and Power Systems Division, we provide full spectrum and innovative engineering support for the following systems under our cognizance:
- Gas Turbine Systems for Main Propulsion and Power Generation
- Diesel Engines for Main Propulsion and Power Generation
- Power Transmission Systems, Propulsors, and Waterjets
- Electrical Power Generation, and Distribution and Conversion Systems
- Advanced Integrated Electric Propulsion and Power Systems



- In collaboration with our NAVSEA Technical Warrant Holders, we provide leadership for the research, development, testing, acquisition, integration, maintenance, sustainment, and modernization of these systems thru:
- Technology Development
- Acquisition Support
- System Design
- Modeling & Simulation
- Machinery Arrangements
- Land & Shipboard Test & Evaluation
- In Service Engineering

- 2S Cog / Depot Management
- Failure Investigation / Analysis
- Metrics Assessment
- Distance Support
- Energy Conservation
- Obsolescence Management & Legacy System Upgrades
- Training



Division 43 Responsibilities

- Applicable Systems/Areas Include:
 - Anchor, Mooring, Towing and Amphibious Assault Systems
 - Aviation & Material Handling and Stowage
 - Weapons/Cargo Handling and Stowage Systems
 - Launch/Recovery & Crane Systems
 - Hydraulics and Steering Mechanical
 - Hull Outfitting
 - Shipboard Habitability
 - Maintenance Technologies
 - Submarine Sail Modernization/Maintenance
 - SUBSAFE
 - Submarine Availability Material Planning





- Engineering Agent for Life Cycle Management of Surface & Undersea Vehicle Hull, Deck, and Habitability Machinery Systems.
- Responsibilities extend across ship acquisition, modernization and in-service phases
- Major focus areas include technical requirements, design, reliability, maintainability and integrated logistics support (ILS)



NSWCPD LABS & TEST FACILITIES

AUXILIARY & LIFE SUPPORT SYSTEMS COMPLEX

- 3 Test Facilities
- 2 Buildings
- Approximately 23,500 sq. ft.

PROPULSION & ELECTRICAL MACHINERY SYSTEMS COMPLEX

- 40 test facilities
- 5 Buildings
- approx. 243,000 sq.ft.



CARGO, WEAPONS HANDLING, & HULL SYSTEMS COMPLEX

- 8 test facilities
- 2 Buildings
- approx. 7,000 sq.ft.

ENVIRONMENTAL & DAMAGE CONTROL SYSTEMS, & MATERIALS TECHNOLOGY COMPLEX

- 6 test facilities
- 2 Buildings
- approx. 28,000 sq.ft.

NSWCPD HAS 107 LABS & TEST FACILITIES WITHIN 7 BUILDINGS

A TOTAL OF APPROXIMATELY 400,000 SQ. FT.

A REPLACEMENT COST OVER \$1.4B

MACHINERY NETWORK, SENSORS, & DATA SYSTEMS COMPLEX

- 34 test facilities
- 6 Buildings
- approx. 63,000 sq.ft.

UNDERSEA VEHICLE SAIL & DEPLOYED SYSTEMS COMPLEX

- 14 test facilities
- 1 Buildings
- approx. 42,000 sq.ft.





NAVSEA Competitive Contract Requirements - Projected FY16 Announcements

Brief Description	ROM	Anticipated Announcement Date (FY/QTR)	Requiring Technical Code
Amphibious and Military Sealift Command Weapons Handling Work	\$50M	FY16/Q3	432
Engineering and Technical Services in Support of HM&E and Steam Propulsion Plant Systems and Equipment.	\$35M	FY16 / Q3	412
Engineering and Technical Services for the Modernization, Upgrade, Inspection and Maintenance of HM&E and Steam Systems	\$40M	FY16 / Q3	412



NAVSEA Competitive Contract Requirements - Projected FY16 Announcements

Brief Description	ROM	Anticipated Announcement Date (FY/QTR)	Requiring Technical Code
Engineering, Technical, Logistics, and Installation Support Services for Propulsion, Power and HM&E Ship Systems Maintenance and Performance	\$80M	FY16/Q4	427
Engineering and Drawing Development and Revision Services for Electric Power and Generation Equipment	\$15M	FY16 / Q4	427
Advanced Weapons Elevator Technical Services in Support of Test Site Infrastructure Design	\$5M	FY16/Q4	432



NAVSEA Competitive Contract Requirements - Projected FY17 Announcements

Brief Description	ROM	Anticipated Announcement Date (FY/QTR)	Requiring Technical Code
Fleet Support Services for Compressed Gas Systems (Potential Multi-Award Contract)	\$300M	FY17 / Q1	418
Engineering Services to Provide Ship Machinery System, Propulsion, Electrical, and Control Systems Support of New Acquisition, Ship Life- Extension, Sustainment and In-Service	\$40M	FY17 / Q1	429
Engineering and Technical Support for Combat Support Systems and Cargo Weapons Handling Systems	\$350M	FY17/Q2	414/432



NAVSEA Competitive Contract Requirements - Projected FY17 Announcements

Brief Description	ROM	Anticipated Announcement Date (FY/QTR)	Requiring Technical Code
Habitability Technical and Industrial Services (Potential Multi-Award Contract)	\$1B	FY17 / Q2	434
Engineering and Financial Services for Power Transmission Equipment and Systems.	\$25M	FY17 / Q2	422
Engineering, Technical, and Logistics Lifecycle Support for Gas Turbine Systems and Components onboard U.S. Navy Vessels, Other Government Marine Vessels and at Shore Facilities/Land Based Test Sites	\$40M	FY17 / Q2	424



NAVSEA Competitive Contract Requirements - Projected FY17 Announcements

Brief Description	ROM	Anticipated Announcement Date (FY/QTR)	Requiring Technical Code
Submarine Outboard HM&E Design and Drafting Services	\$5M	FY17 / Q2	437
Submarine External Hydraulic Valves, Manifold, Multi-Stage Actuator Design and Production	\$15M	FY17 / Q2	437
Assembly, Testing, Repair, Refurbishment and Restoration of Submarine Antenna, Periscope and Communication Systems, Assemblies and Components	\$5M	FY17 / Q2	435