

Submarine Maintenance Engineering, Planning and Procurement.

SUBMEPP: Mission Capable. Service Proven.



SUBMEPP:



Supplying the Fleet with Submarine Engineering Solutions...

- > Life Cycle Management of over 15,000 RCM based Class Maintenance Plan requirements to ensure safe, reliable, and mission capable operations.
- > Operating Cycle optimization studies to:
 - Reduce number of major depot availabilities from 2 to 1
 - Extend Submarine Operating Cycles beyond 120 months
 - Significantly increase operational time to the Fleet
 - Reduce overall life cycle depot maintenance workdays by 25,000
- > Delivered over 200 work packages supporting advanced planning and execution of all upkeeps, refits, and depot availabilities.
- > Delivered over 7,500 engineered maintenance instruction documents used by all repair facilities, mechanics, and sailors.
- > Delivered over 995 corporate components, ready-to-install, to 11 availabilities to reduce DMP/ERO duration to 11/20 months.

...Where and When They Need Us!



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SUBMEPP: A 35-Year History.

Ready Now. Preparing for the Future.



The SUBMEPP Vision.

We are an engineering focused organization with fully integrated submarine maintenance planning processes enabled through web-based products and services. Our highly educated and motivated work force continues to expand our engineering and maintenance planning roles and apply our best practices to additional Navy Platforms.

- > We're on-site at COMSUBPAC, COMSUBLANT, and submarine bases nationwide
- > We manage the Joint Fleet Maintenance Manual for COMPACFLT and COMLANTFLT, and we distribute the JFMM via CD-ROM and the Internet
- > We deliver workload schedules and projections to the I level and work daily with squadrons as URO Program Managers
- > Our engineers support INSURVs, SUBSAFE and Sound Silencing audits, and often troubleshoot on board
- > We get ships deployed through urgent equipment replacements for CASREP
- > We apply products and services to other submersibles such as: Advanced Seal Delivery Systems (ASDS), Submarine Rescue

SUBMEPP: Submarine Life Cycle Support for Fleet Readiness, Ensuring Sailors' Safety.

Integrated Process Support Across Platforms.



Submarine Maintenance



Life Cycle Class Maintenance Planning.

Define submarine maintenance requirements for what work needs to be done, when and how often it should be done, and by whom (Shipyard, Submarine Tender, Refit Facility or Ship's Force).

Engineering.

Holds delegated technical authority for the content and approval of SUBMEPP products, and performs specific component Life Cycle Manager functions for NAVSEA.

Ship Availability Planning.

Identify submarine maintenance that will be accomplished in a scheduled availability, and identify to the fleet the required periodic maintenance requirements. Availability products serve as the contract for major submarine repair and modernization work performed by private and public industrial facilities.

Naval Sea System Command (NAVSEA) Headquarters:

NAVSEA 07, NAVSEA 04, NAVSEA 05, and NAVSEA 08, United Kingdom British Admiralty Office (i.e., UK TRIDENT)



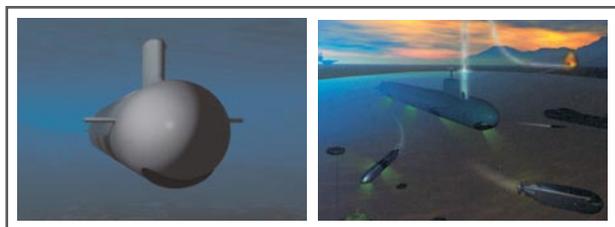
Engineering, Planning and Procurement.

Material Support.

Management of submarine material including acquisition and repair to support rapid equipment installation for all classes of submarines, reducing inport repair time for accomplishment of mission.

Maintenance Instruction Documents.

Specify the minimum requirements for acceptable refurbishment and testing of submarine components, including testing/inspection criteria and parts replacement information. **Products include Maintenance Standards, HM&E and CS Test Procedures, URO MRCs, DDS HIPS and the Joint Fleet Maintenance Manual (JFMM).**



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Fleet: COMLANTFLT and COMPACFLT, COMNAVSUBFORCE (COMSUBLANT and COMSUBPAC), Submarine Squadrons, RSGs, and SSSUs, All United States Navy submarines and submersibles.



> Life Cycle Class Maintenance Plans:

Life Cycle Class Maintenance Plans define submarine maintenance requirements for what work needs to be done, when and how often it should be done, and by whom (Shipyard, Submarine Tender, Refit Facility or Ship's Force) in accordance with OPNAVINST 4700.7. The collection and analysis of Job completion, cost and material condition feedback is used to refine maintenance plans.

Maintenance Engineering Studies and Technical Support:

Our engineers apply a Reliability Centered Maintenance approach to conducting various studies and providing direct technical support aimed at optimizing the maintenance and operation of all non-nuclear submarine systems and components. SUBMEPP engineers have delegated technical authority from NAVSEA for all SUBMEPP products.

Engineers have delegated Life Cycle Engineering Management for Electrolytic Chlorine Generators, Electrical Hull Fittings, Bow Domes, and formal Technical Responsibilities for Structural URO MRC, NUWC Towed Array Depot Certification, and High Performance Brush Technology.

Ship Availability Work Packages:

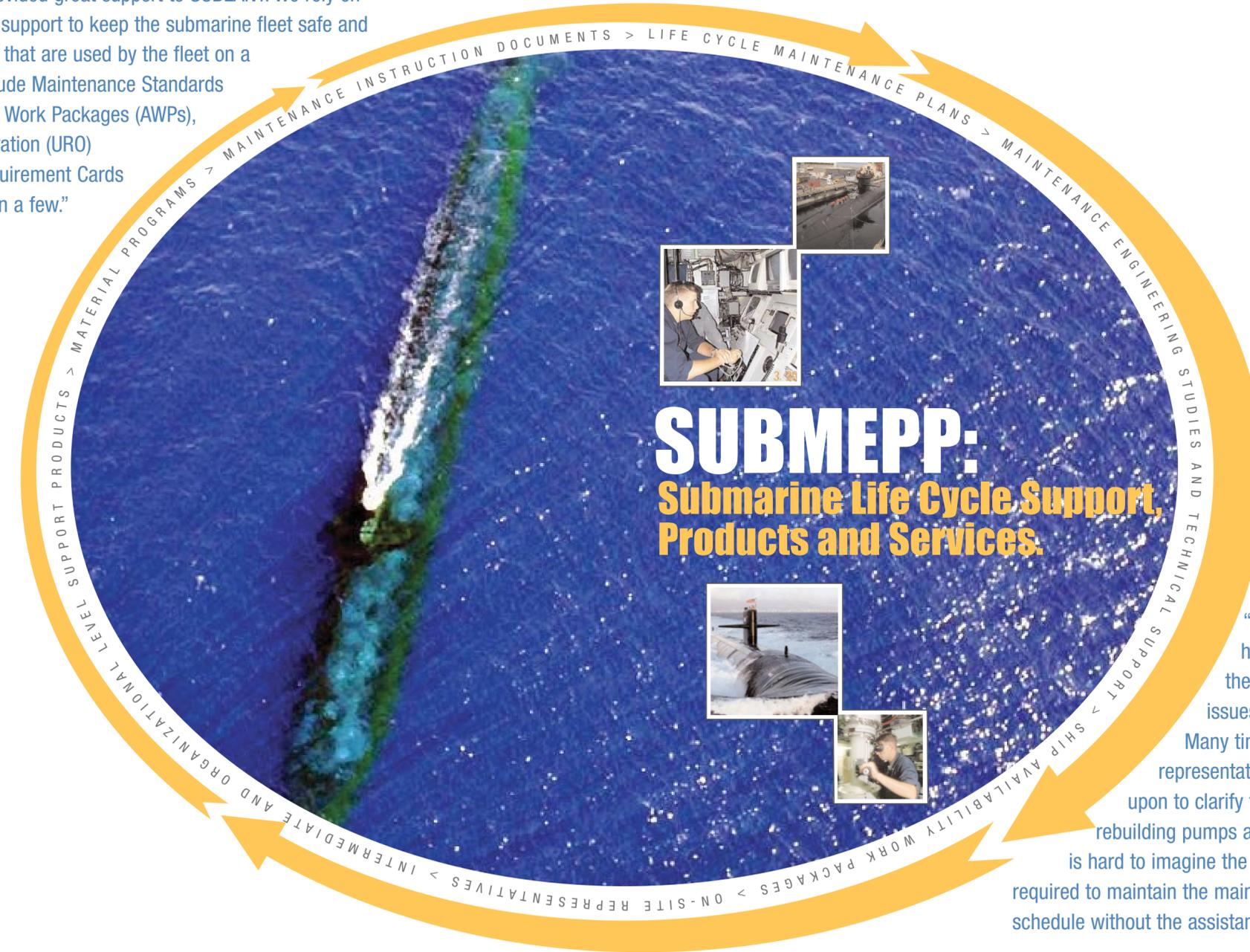
Ship specific availability work packages contain maintenance and modernization requirements that are scheduled to be accomplished in depot availabilities. They serve as the single source of all customers' authorized work for all Chief of Naval Operations (CNO) scheduled depot availabilities, and assist the Fleet to ensure that all periodic maintenance and modernization requirements are scheduled and accomplished within their designated timeframes. SUBMEPP also provides **OHIO Class Intermediate Level Refit Work Packages** to TRIDENT refit facilities in support of the incremental overhaul concept. Availability products serve as the contract for major submarine repair and modernization work performed by private and public industrial facilities.

Intermediate and Organizational Level Support Products:

We provide **Schedules and Inventories of Periodic Maintenance Requirements (PMRs)** which identify work to be accomplished at the intermediate level. Once the work is done, the repair activity provides SUBMEPP with work completion information via the 3M system allowing continuous updating of Schedules and Inventories. We also maintain the **Technical Feedback Report (TFBR) History Tracking** program which allows the Fleet to check the status of **Planned Maintenance System (PMS)**

“SUBMEPP has provided great support to SUBLANT. We rely on their engineering support to keep the submarine fleet safe and reliable. Products that are used by the fleet on a routine basis include Maintenance Standards (MSs), Availability Work Packages (AWPs), Unrestricted Operation (URO) Maintenance Requirement Cards (MRCs) to mention a few.”

Captain Joseph Campbell
SUBLANT N40



“The SUBMEPP office has been invaluable in the resolution of technical issues across the board. Many times the SUBMEPP representative has been called upon to clarify technical issues with rebuilding pumps and valve overhauls. It is hard to imagine the effort that would be required to maintain the maintenance projects on schedule without the assistance of SUBMEPP.”

CDR Daniel Howe
Production Officer at Naval Submarine Support Facility

feedbacks. As the NAVSEA designated **In-Service Engineering Agent (ISEA)** for Unique Hull PMS, we develop and maintain documents in support of organizational level maintenance accomplishment.

Material Programs:

SUBMEPP manages numerous submarine material programs designed to support rapid equipment installation for all classes of submarines. By pre-staging “ready to install” equipment, our material programs effectively reduce in-port repair time for submarine depot maintenance availabilities. These programs have recently played a part in successful completion of submarine availabilities ahead of schedule. These programs also serve as a source of “ready to install” equipment for deployed submarines.

SUBMEPP Material Programs include the **Advanced Equipment Repair Program (AERP)**, the **Corporate Component Repair Program (CCRP)**, the **Trident Planned Equipment Replacement (TRIPER) Program**, the **Long Lead Time Material (LLTM) Program** and the **Material Support Program (MSP)**.

Maintenance Instruction Documents:

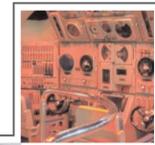
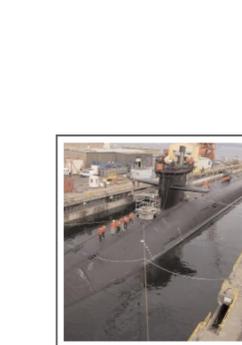
Our **Test Procedures** promote standardization of Combat Systems (CS) and Hull, Mechanical and Electrical system (HM&E) test requirements and benefits from a centralized control of all test documentation.

Our **Maintenance Standards** specify acceptance criteria for the refurbishment of thousands of submarine components including detailed inspection specifications and parts replacement information. Maintenance Standards reflect the most recent changes to the maintenance plan, ship's configuration, or component technical requirements.

SUBMEPP also manages the Unrestricted Operation (URO) Program by publishing and maintaining the **URO Maintenance Requirement Cards (MRC) library**. SUBMEPP also provides the technical support for the accomplishment of URO maintenance requirements.

SUBMEPP provides technical and administrative support to all six Type Commanders in maintaining and publishing the **Joint Fleet Maintenance Manual (JFMM)**. The JFMM is a single, unified source for maintenance requirements across all submarine and surface ship classes.

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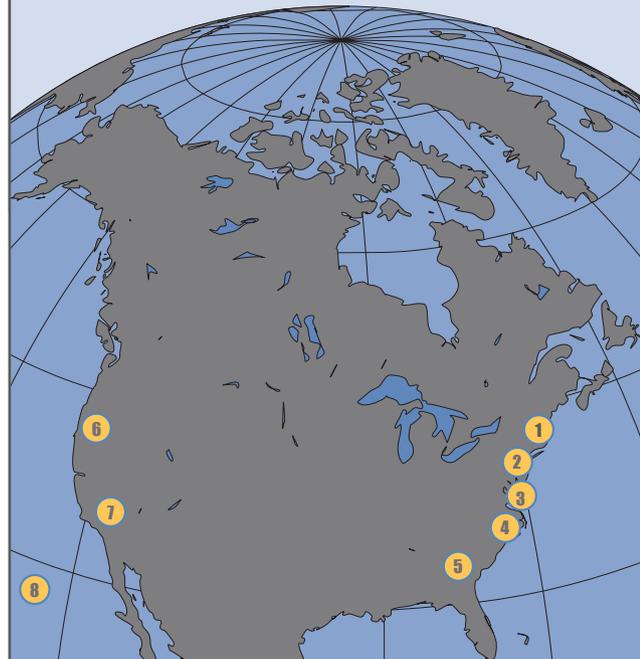


SUBMEPP: Global Support.

SUBMEPP provides on-site support using representatives at maintenance facilities around the country. We provide support wherever maintenance on a submarine is being performed. These representatives also provide support and technical answers to forward deployed sites. Some of the forward deployed sites include Guam, Italy, Singapore, and Japan. SUBMEPP Engineers and Program Managers travel extensively to these sites to support or conduct meetings, provide training to sailors, and conduct material condition assessments and technical/product evaluations.

SUBMEPP: Support Sites

- 1 >** **SUBMEPP HQ**
Kittery, Maine
- 2 >** **NSSF, SSSU and Trident**
UK & New London, Connecticut
- 3 >** **NAVSEA**
Washington, D.C.
- 4 >** **COMSUBLANT**
Norfolk, Virginia
- 5 >** **Trident Refit Facility**
Kings Bay, Georgia
- 6 >** **PACNORWEST**
Bangor, Washington
- 7 >** **SUBASE**
San Diego, California
- 8 >** **COMSUBPAC**
Pearl Harbor, Hawaii



IMAs: NSSF & SSSU New London, SUBASE San Diego, SIMA Norfolk, NAVIMFAC PACNORWEST, TRF Kings Bay

Planning Yards and Industrial Activities: SHAPEC & NUWC, Naval Shipyards & Private Shipyards.



SUBMEPP

THINK TEAM SUBMEPP FIRST >



The Submarine Maintenance Engineering, Planning and Procurement (SUBMEPP) Activity continues to serve as an essential member of the NAVSEA community.

Although our products and business practices have changed since our creation more than 35 years ago, our purpose and passion remains focused on developing and executing solutions to assure submarine safety, reliability and affordability. We accomplish this mission through a variety of engineered life cycle maintenance and modernization products and services.

SUBMEPP supports this mission through its people, their knowledge, and their many years of submarine maintenance experience. In addition to engineers, technicians, and support staff in Kittery, Maine, we provide on-site representatives working hands-on with customers at remote locations coast to coast, and beyond. I know our customers agree, the SUBMEPP workforce is dedicated, proactive, cooperative, and caring in meeting the needs of the submarine community.

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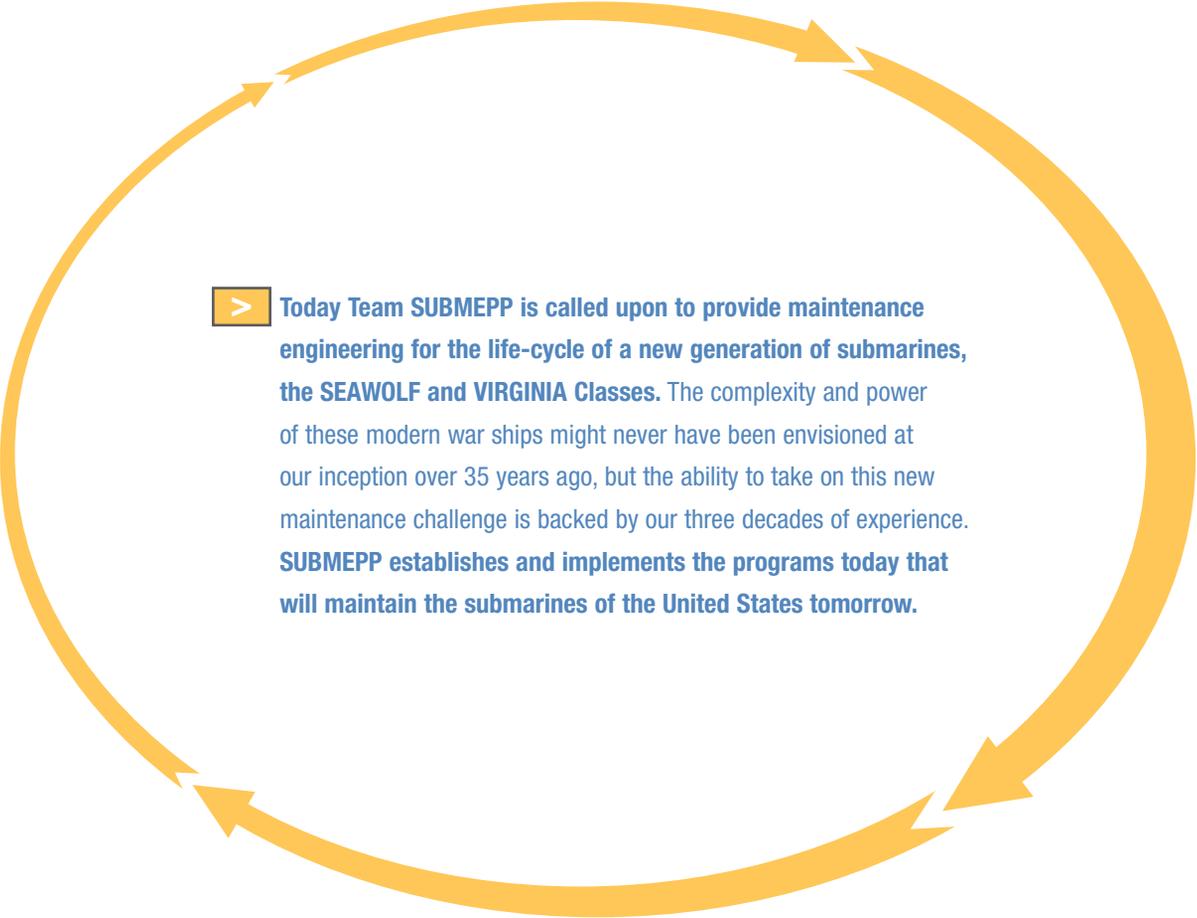
As we move forward and anticipate continued changes in Customer needs and business practices, we're looking to develop and share "best practices" for life cycle maintenance engineering. We continue to actively participate in ongoing NAVSEA and DoD initiatives, to better understand how we can best provide the Fleet with submarine engineering solutions, when and where they need us.

This brochure provides general information concerning the organization, products, services and people of SUBMEPP. Please visit our website, **www.submepp.navy.mil/**, for more detailed information. We would appreciate any comments or feedback you may want to share.



Timothy T. Bassett

TIMOTHY T. BASSETT
Chief Engineer



> Today Team SUBMEPP is called upon to provide maintenance engineering for the life-cycle of a new generation of submarines, the SEAWOLF and VIRGINIA Classes. The complexity and power of these modern war ships might never have been envisioned at our inception over 35 years ago, but the ability to take on this new maintenance challenge is backed by our three decades of experience. SUBMEPP establishes and implements the programs today that will maintain the submarines of the United States tomorrow.



Submarine Maintenance Engineering, Planning and Procurement.

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