

DEPARTMENT OF THE NAVY

OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, DC 20350-2000

OPNAVINST 3120.33C N9 22 Jan 2013

OPNAV INSTRUCTION 3120.33C

From: Chief of Naval Operations

Subj: SUBMARINE ENGINEERED OPERATING CYCLE PROGRAM

Encl: (1) Submarine Class Operating Intervals, Operating Cycles, Service Life and Maintenance Strategies

- (2) Maintenance Program Elements
- (3) Glossary of Abbreviations, Acronyms and Terms
- (4) Type Commander Feasibility Study Request for a Potential Operating Interval and or Operating Cycle Extension (Sample Letter)
- (5) Commander, Naval Sea Systems Command Response to Type Commander Feasibility Study Request for Potential Operating Interval and or Operating Cycle Extension (Sample Letter)
- (6) Non-Nuclear Audit Plan for Extending a Submarine Operating Interval, Operating Cycle, and Service Life
- (7) Nuclear Audit Plan for Extending a Submarine
 Operating Interval, Operating Cycle, and Service Life
- (8) Type Commander Request for an Assessment of the Material and Operational Condition of USS Neversail (SSN/SSBN/SSGN XXX) and Concurrence with Operating Interval and or Operating Cycle Extension (Sample Letter)
- (9) Commanding Officer Assessment of the Material and Operational Condition of USS Neversail (SSN/SSBN/SSGN XXX) and Concurrence with Operating Interval and or Operating Cycle Extension Request (Sample Letter)
- (10) Commander, Naval Sea Systems Command Approval of Operating Interval and or Operating Cycle (Sample Letter)
- (11) Type Commander Request for Service Life Extension (Sample Letter)

1. Purpose

a. To describe program elements, requirements, and responsibilities for support of engineered operating cycle (OPCYCLE) programs for submarines.

- b. Define operating interval (OPINTERVAL), OPCYCLE and service life, which are supported by the class maintenance plan (CMP) for each class of submarine.
- c. Outline provisions and actions required before exceeding established submarine OPINTERVAL, OPCYCLE, and service life. This will ensure all submarines are maintained to maximize their safe and effective operation throughout their respective lifecycles.
- d. Delegate and authorize Commander, Naval Sea Systems Command (NAVSEASYSCOM) Undersea Warfare Directorate (SEA 07) with implementation, tracking and management of this instruction.
- e. Delegate signature authority for OPINTERVAL and OPCYCLE extension approval to SEA 07 based on the requirements outlined in this instruction.
- f. The Office of the Chief of Naval Operations (OPNAV) retains signature authority for service life extension (SLE) approval.
- 2. Cancellation. OPNAVINST 3120.33B.
- 3. <u>Scope</u>. The Submarine Engineered Operating Cycle (SEOC) Program is invoked on all submarines upon obtaining post-shakedown availability (PSA), unrestricted operations (URO) certification or after new construction URO certification if no PSA is scheduled.

4. Background

- a. Submarines are maintained following a maintenance program, which includes a CMP and a maintenance strategy. A CMP consists of organizational, intermediate and depot level (O-, I- and D-Level) maintenance requirements and is the basis for establishing prescribed OPINTERVALs and OPCYCLES. CMPs are engineered based on the designed service life of systems and components of each class of submarine.
- b. CMP requirements are executed through a specified class maintenance strategy at specifically established periodicities, which are reviewed and revised as necessary throughout the

service life. Specific maintenance strategies are identified for each class of submarine in enclosure (1), as either an engineered operating cycle (EOC) or phased maintenance (PM) strategy. OPINTERVAL, OPCYCLE and service life are defined in paragraph 5a.

- c. Enclosure (2) depicts elements and components and their relationship in the maintenance program.
- d. Enclosure (3) provides a glossary of abbreviations, acronyms and terms for the SEOC and related programs.

5. Policy

a. Definitions

- (1) OPINTERVAL. A specific operating period whose duration is defined by the requirement to accomplish recurring D-Level planned maintenance requirements (PMR). These PMRs may be a collective group of maintenance actions with periodicities or specific actions accomplished in a minor or major Chief of Naval Operations (CNO) availability to support the execution of the CMP. Completion of either a minor or major CNO availability will establish a new operating period. OPINTERVAL duration start dates are established at 12:01 AM on the first of the month following URO certification after completion of PSA or a CNO availability. Enclosure (1) provides OPINTERVAL durations for each class of submarine. OPINTERVAL durations are calculated by adding the prescribed duration from enclosure (1) to the OPINTERVAL start date. OPINTERVALs expire on the first of the month at 12:01 AM, after the prescribed number of months identified in enclosure (1).
- (2) OPCYCLE. A specific operating period whose duration is defined by the requirement to accomplish recurring D-Level PMRs during a major CNO availability. Completion of a major CNO availability will establish a new OPCYCLE. United States Ship (USS) Seawolf (attack submarine, nuclear (SSN) 21) class OPCYCLE will be per enclosure (1), note 2. OPCYCLE duration start dates are established at 12:01 AM on the first of the month following URO certification after completion of PSA or a major CNO availability. Enclosure (1) provides OPCYCLE durations for each class of submarine. OPCYCLE durations are calculated by adding the prescribed duration from enclosure (1) to the OPCYCLE start

date. OPCYCLEs expire on the first of the month at 12:01 AM, after the prescribed number of months identified in enclosure (1).

(3) <u>Service Life</u>. The established number of years a submarine is permitted to operate. Service life starts the day a submarine is delivered to the Navy at 12:01 AM. Enclosure (1) provides service life durations for each class of submarine. Service life end dates are calculated by adding the prescribed duration from enclosure (1) to the delivery date. The service life ends at 12:01 AM on the anniversary of the delivery date after the prescribed number of years.

b. OPINTERVAL and OPCYCLE Extensions

- (1) Submarine D-Level availabilities should be scheduled as close to the end of the established OPINTERVAL and or OPCYCLE, but not beyond, as ship submerged operations are not allowed with an expired OPINTERVAL or OPCYCLE.
- (2) SEA 07 authorization is required to exceed a prescribed OPINTERVAL and or OPCYCLE.
- (3) The type commander (TYCOM) will submit a request to NAVSEASYSCOM via the appropriate fleet commander to extend the OPINTERVAL and or OPCYCLE and conduct a feasibility study of the requested extension, as outlined in enclosure (4). The request may be submitted at any time before the expiration of the OPINTERVAL and or OPCYCLE. The request will specify the number of months that will be required to extend the OPINTERVAL and or OPCYCLE, as well as the background information for the extension.
- (4) NAVSEASYSCOM will submit a response to the TYCOM's request, as outlined in enclosure (5). NAVSEASYSCOM will determine if the response can be supported through either: 1) execution of an engineered availability work package (AWP), or 2) a material condition assessment (MCA) conducted by the TYCOM.
- (5) If required, an MCA must be completed before the expiration of the OPINTERVAL and or OPCYCLE.

- (a) Enclosures (6) and (7) provide the non-nuclear and nuclear audit plans, respectively, to assess the material condition of an individual submarine for continued operation beyond its prescribed OPINTERVAL and or OPCYCLE.
- (b) The TYCOM will submit a request for an assessment of the material and operational condition of the submarine and for concurrence with OPINTERVAL and or OPCYCLE extension, to the commanding officer (CO) via the submarine squadron commander, as outlined in enclosure (8). The assessment shall be completed following the nuclear and non-nuclear audit plans in enclosures (6) and (7). The assessment process shall be started at least 6 months prior to the expiration of the OPINTERVAL and or OPCYCLE to allow adequate time for completion.
- (c) Upon completion of the assessment of the material and operational condition, the submarine's CO should submit concurrence with OPINTERVAL and or OPCYCLE extension and the completed assessment to NAVSEASYSCOM via the appropriate fleet commander, the TYCOM, and submarine squadron commander, and as outlined in enclosure (9).
- (d) Upon receipt of the submarine CO's assessment of the material and operational condition of the submarine and concurrence with OPINTERVAL and or OPCYCLE extension, NAVSEASYSCOM should complete an MCA to technically evaluate the requested extension. If technically acceptable, NAVSEASYSCOM should send approval to the TYCOM granting OPINTERVAL and or OPCYCLE extension, as outlined in enclosure (10).
- (6) In the event that an interim dry-docking (IDD) or pre-inactivation restricted availability (PIRA) is used to extend an OPINERVAL and OPCYCLE, an MCA is not required.
- (a) During fast cruise in an IDD or PIRA, NAVSEASYSCOM should evaluate all AWPs deferred and or deleted maintenance actions and, if warranted, modify the OPINTERVAL and OPCYCLE.
- (b) The modified OPINTERVAL and OPCYCLE will continue, following the IDD or PIRA, and end at 12:01 AM on the date to which the AWP was engineered.

c. SLEs

- (1) Ship submerged operations are not allowed with an expired service life. OPNAV authorization is required to extend a prescribed service life. The TYCOM's request shall specify the number of months necessary for extension when a service life is planned to be exceeded. The TYCOM should request the extension be granted to the last day of the prescribed month and year required.
- (2) In the instance where an SLE is requested and no OPINTERVAL or OPCYCLE extension is required, NAVSEASYSCOM will assess the feasibility of extending an individual submarine's service life.
- (3) SLE requests will be submitted by the TYCOM to Director, Undersea Warfare Division (OPNAV N97), via NAVSEASYSCOM and the appropriate fleet commander, as outlined in enclosure (11). The request will include the existing end of life date and the proposed SLE date.
- (4) NAVSEASYSCOM will technically evaluate the requested extension per enclosures (6) and (7).
 - (5) OPNAV N97 will issue approval for a SLE.

6. Action

- a. Fleet commanders are directed to implement this policy.
- b. The TYCOMs should coordinate with the NAVSEASYSCOM program and technical community on all matters associated with extending OPINTERVALs, OPCYCLEs and or service life.
- 7. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per Secretary of the Navy Manual 5210.1 of January 2012.

W. R. BURKE

Vice Admiral, U.S. Navy Deputy Chief of Naval Operations Warfare Systems (N9)

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SUBMARINE CLASS OPERATING INTERVALS, OPERATING CYCLES, SERVICE LIFE AND MAINTENANCE STRATEGIES

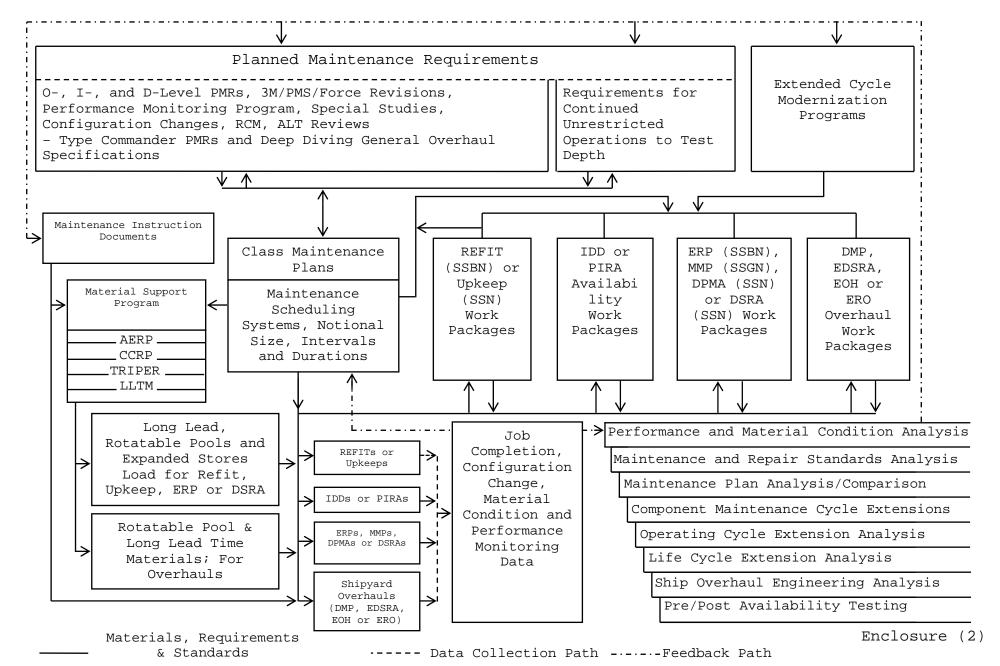
	OPINTERVAL	OPCYCLE	SERVICE LIFE	MAINTENANCE
CLASS	(MONTHS)	(MONTHS)	(YEARS)	STRATEGY
CLASS	NOTE 1	NOTE 1	NOTE 5	EMPLOYED
SSN 21	N/A	120, NOTE 2	30	PM
SSN 688	72	120	33	EOC
SSN 774	N/A	72	33	EOC
SSBN 726	N/A	252/240, NOTE 3	42	PM
SSGN 726	N/A	252/240, NOTE 4	42	PM

NOTES:

- 1. See paragraph 5a of the basic instruction for guidance on calculating submarine OPINTERVAL and OPCYCLE.
- 2. The USS Seawolf (SSN 21) class will shift to a PM strategy upon completion of their respective depot modernization periods (DMP). USS Jimmy Carter (SSN 23) will not execute a DMP. The Seawolf class OPCYCLE shall be 120 months with docking phased maintenance availabilities scheduled periodically within the OPCYCLE to support the PM strategy. The OPCYCLE for Seawolf class submarines will be reset following a docking selected restricted availability (DSRA).
- 3. Fleet Ballistic-Missile Submarine, Nuclear (SSBN)
- a. SSBNs operate on a PM strategy revolving around an interval of 112 days, which includes a 35-day in-port period to support refit, incremental overhaul, appropriate modernization and resupply.
- b. The first OPCYCLE is 252 months, with an extended refit period (ERP) scheduled 168 months into the OPCYCLE. The second OPCYCLE is 240 months, with an ERP scheduled at the midpoint of the OPCYCLE. The OPCYCLE will be reset following an engineered refueling overhaul.

- 4. Guided-Missile Submarine, Nuclear (SSGN)
- a. SSGNs operate on a PM strategy revolving around an interval of 15 months, which includes a 115-day in-port period to support major maintenance period (MMP) incremental overhaul, appropriate modernization and resupply.
- b. SSGNs were converted from SSBNs at the end of the first OPCYCLE, which was 252 months. The second OPCYCLE is 240 months, with an ERP scheduled at the midpoint of the OPCYCLE.
- 5. See paragraph 5a of the basic instruction for guidance on calculating submarine service life end dates. The established service life for 688 class submarines derives from NAVSEASYSCOM letter 4700 Ser 392A34/0146 of 13 October 2000. The established service life for SSN 21 class submarines derives from OPNAVINST C9010.332A (NOTAL). The established service life for 774 class submarines derives from Virginia class Submarine Operational Requirements Document Revision A, Change 2 of 27 October 2009. The established service life for 726 class submarines derives from NAVSEASYSCOM letter 4700 Ser PMS392A2B/1001 of 20 January 1998.

Maintenance Program Elements



Acronyms in Maintenance Program Element Figure

3M	Maintenance And Material Management
AERP	Advanced Equipment Repair Program
ALT	Alteration
CCRP	Corporate Component Repair Program
D-Level	Depot Level Maintenance
DMP	Depot Modernization Period
DPMA	Depot Planned Maintenance Availability
DSRA	Dry-Docking Selected Restricted Availability
EDSRA	Extended Dry-Docking Selected Restricted Availability
EOH	Engineering Overhaul
ERO	Engineering Refueling Overhaul
ERP	Extended Refit Period
IDD	Interim Dry Dock
I-Level	Intermediate Level Maintenance
LLTM	Long Lead Time Material
MMP	Major Maintenance Period
0-Level	Organizational Level Maintenance
PIRA	Pre-Inactivation Restricted Availability
PMR	Planned Maintenance Requirement
PMS	Planned Maintenance System
RCM	Reliability Centered Maintenance
SSBN	Ballistic Missile Submarine, Nuclear
SSN	Attack Submarine, Nuclear
TRIPER	Trident Planned Equipment Replacement Program

GLOSSARY OF ABBREVIATIONS, ACRONYMS AND TERMS

1. CNO Availability Types

- a. <u>Major Availability</u>. An availability with a planned duration that sets a new OPINTERVAL and OPCYCLE in a maintenance strategy, greater than 6 months in length. Availabilities include:
- (1) <u>Depot Modernization Period (DMP)</u>. An availability scheduled primarily for the installation of major high priority warfare improvement alterations.
- (2) Extended Docking Selected Restricted Availability. A DSRA expanded to include maintenance and modernization that cannot be accomplished in a DSRA.
- (3) <u>Overhaul</u>. An availability scheduled for the accomplishment of maintenance and modernization. Overhauls include:
- (4) Engineered Overhaul. An availability scheduled for modernization and work based on engineered periodicities.
- (5) <u>Engineered Refueling Overhaul</u>. An availability scheduled for refueling, modernization and work based on engineered periodicities.
- b. Minor Availability. An availability with a planned duration that sets a new OPINTERVAL in a maintenance strategy, less than 6 months in length. Availabilities include:
- (1) <u>Selected Restricted Availability (SRA)</u>. An availability scheduled for the accomplishment of maintenance and selected modernization.
- (2) <u>Docking Selected Restricted Availability (DSRA)</u>. An SRA expanded to include maintenance and selected modernization that requires dry-docking.
- (3) Extended Refit Period (ERP). An availability scheduled for SSBNs and SSGNs to accomplish maintenance and modernization which cannot be completed during a normal refit period.

- (4) Phased Maintenance Availability (PMA). An availability for ships in a PM strategy scheduled for the accomplishment of maintenance and limited modernization. Ships assigned to PM programs are maintained through PMAs in lieu of overhauls.
- (5) <u>Docking Phased Maintenance Availability</u>. A PMA for ships in a PM strategy expanded to include maintenance and limited modernization that requires dry-docking.

2. Unique CNO Availabilities

- a. <u>Interim Dry-Docking (IDD)</u>. A CNO availability executed during the second OPCYCLE on ships in an EOC maintenance strategy. An IDD is scheduled to extend and modify the existing OPCYCLE in support of continued operations until the next major availability.
- b. <u>Pre-Inactivation Restricted Availability (PIRA)</u>. A CNO availability executed in the third OPCYCLE for ships in an EOC maintenance strategy. A PIRA is scheduled to extend and modify the existing OPINTERVAL and OPCYCLE to the defined inactivation date.
- c. <u>Inactivation Availability (INAC)</u>. An availability scheduled to prepare a ship for inactivation or disposal. The scope of work depends on the planned disposition of the ship.
- 3. <u>Non-CNO Availability Types</u>: <u>Major Maintenance Period (MMP)</u>. An I-Level availability for SSGNs in a PM strategy for the accomplishment of maintenance and modernization. MMPs are treated as CNO availabilities for the purposes of planning and programming only.

4. Maintenance Levels

- a. <u>Depot Level (D-Level) Maintenance</u>. Requires skills, facilities or capacities normally beyond those of the O-Level and I-Level.
- b. <u>Intermediate Level (I-Level) Maintenance</u>. Requires skills, facilities or capacities normally beyond those of the O-Level, but does not necessarily require D-Level skills, facilities or capacities.

c. <u>Organizational Level (O-Level) Maintenance</u>. The lowest maintenance level and consists of all maintenance actions within the capability of ship's force.

5. Maintenance Programs

- a. <u>Class Maintenance Plan (CMP)</u>. Defines the maintenance program elements to be accomplished at prescribed periodicities to ensure safe and reliable operations throughout the service life of a submarine. Elements included in the CMP are outlined in enclosure (2).
- b. Engineered Operating Cycle (EOC). A maintenance strategy that keeps ships in an acceptable material condition while sustaining the operational availability (Ao) of the ship. An EOC is earmarked by a structured engineered approach to accomplish maintenance while minimizing the time spent in D-Level availabilities. Major elements of this maintenance strategy include:
- (1) Periodic inspections of selected systems and components to identify and document material condition trends.
- (2) Periodic maintenance tasks accomplished at specified times during the ship's lifecycle.
- (3) A lifecycle that contains a combination of major and minor type availabilities scheduled for the purpose of completing maintenance and modernization in order to maintain and upgrade the class war fighting capability.
- c. <u>Phased Maintenance (PM)</u>. The maintenance strategy that uses D-Level and or I-Level maintenance through a series of short, frequent PMAs in lieu of overhauls. The goals of PM are to maximize Ao, improve operational readiness and upgrade material condition.
- d. Unrestricted Operations (URO) and Maintenance
 Requirement Card (MRC) Program. The URO and MRC Program
 monitors the condition of specific areas, components and systems
 of each submarine to determine the ship's ability to continue
 URO to design test depth. It is one of the central ways the
 Navy ensures the safety of its submarine Sailors. The URO and
 MRC program consists of strictly scheduled tests and inspections

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that provide early identification of any degradation to the submarine safety (SUBSAFE) systems that prevent flooding and provide recovery capabilities in the event of a casualty.

TYPE COMMANDER FEASIBILITY STUDY REQUEST FOR A POTENTIAL OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION (SAMPLE LETTER)

From: Commander, Submarine Force, U.S. Atlantic/Pacific

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To: Commander, Naval Sea Systems Command Via: (1) Commander, Submarine Squadron XXXX

(2) Commander, U.S. Fleet Forces Command (Atlantic Only) or Commander, Pacific Fleet

(Pacific Only)

Subj: FEASIBILITY STUDY REQUEST FOR A POTENTIAL OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION ON USS NEVERSAIL (SSN/SSBN/SSGN XXX)

1. The current OPINTERVAL and or OPCYCLE for USS Neversail (SSN/SSBN/SSGN XXX) expires on XX XXX XXXX. Based on the current ships schedule, Commander, Submarine Force, U.S. Atlantic/Pacific Fleet (COMSUBLANT/PAC) is requesting that Commander, Naval Sea Systems Command (NAVSEASYSCOM) conduct a feasibility study for a potential OPINTERVAL and or OPCYCLE extension of XX months.

2. Action

- a. Request NAVSEASYSCOM conduct a feasibility study to extend the USS Neversail's OPINTERVAL and or OPCYCLE by XX months.
- b. Request NAVSEASYSCOM respond to this action by XX XXX XXXX.
- 3. The COMSUBLANT/PAC point of contact is Mr. J. Doe, john.doe@navy.mil, XXX-XXXX-XXXX.

J. DOE
By direction

SUBJ: FEASIBILITY STUDY REQUEST FOR A POTENTIAL OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION ON USS NEVERSAIL (SSN/SSBN/SSGN XXX)

Copy to:
OPNAV (N43, N97)
NAVSEASYSCOM (SEA 07, SEA 080, PMS 392)
SUBMEPP (1800, 1810, 1820)
COMSUBRON XXX
USS Neversail (SSN/SSBN/SSGN XXX)

COMMANDER, NAVAL SEA SYSTEMS COMMAND RESPONSE TO TYPE COMMANDER FEASIBILITY STUDY REQUEST FOR A POTENTIAL OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION (SAMPLE LETTER)

From: Commander, Naval Sea Systems Command

To: Commander, Submarine Force, U.S. Atlantic/Pacific Fleet

Subj: FEASIBILITY STUDY FOR A POTENTIAL OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION ON USS NEVERSAIL (SSN/SSBN/SSGN XXX)

Ref: (a) COMSUBLANT/PAC ltr 3120 Ser XXXX/XXXX of XX XXX XX

(b) OPNAVINST 3120.33C

- 1. A feasibility study was conducted for the potential operating interval (OPINTERVAL) and or operating cycle (OPCYCLE) extension requested in reference (a). Commander, Naval Sea Systems Command (NAVSEASYSCOM) has determined that the requested extension is or is not technically feasible.
- 2. A more in-depth technical evaluation is required to grant any extension past the current OPINTERVAL and or OPCYCLE expiration date of XX XXX XXXX. Commander, Submarine Force, U.S. Atlantic/Pacific Fleet (COMSUBALNT/COMSUBPAC) should direct the Commander, Submarine Squadron (COMSUBRON) XXX to conduct an assessment of the material and operational condition of the submarine per reference (b).
- 3. The NAVSEASYSCOM point of contact is Mr. J. Doe, john.doe@navy.mil, XXX-XXX-XXXX.

J. DOE
By direction

Copy to:
OPNAV (N43, N97)
COMSUBLANT/PAC (N4, N43)
SUBMEPP (1800, 1810, 1820)
COMSUBRON XXX

<u>Note</u>: The intent of a ship's force/immediate superior in command (ISIC) review is to assess the data as cited in this audit guide and to develop the subsequent OPINTERVAL/OPCYCLE extension concurrence letter. NAVSEASYSCOM will compile all objective quality evidence (OQE) pertaining to the material condition assessment.

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTIVITY ACTION
1. URO and MRC	1. Submarine	1. Provide a report	Ship's
Accomplishment	Maintenance	showing all O-, I- & D-	Force and
	Engineering, Planning	Level URO and MRCs	ISIC
a. OPINTERVAL and	and Procurement	projected as due prior to	-I & -O)
OPCYCLE Extension	Activity (SUBMEPP)	the end of the requested	Level)
	Maintenance and Ship	extension.	Review
	Work Planning		
		2. Identify actions taken	Strategic
	a. URO and MRCs	to complete or defer any	and Fast
	Report	outstanding URO and MRCs.	Attack
			Submarine
	2. URO and MRC		Program
	Program Technical		Office
	Manual Index (URO		(PMS
	Compact Disc)		392),
			SUBMEPP
	3.		(O-, I-,
	COMUSFLTFORCOMINST		and D-
	4790.3 REV B CH-5;		Level)
	Joint Fleet		Compile
	Maintenance Manual		
	(JFMM)		

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTIVITY ACTION
2. PMR Accomplishment	1. SUBMEPP	1. Provide a report of O-,	Ship's
	Maintenance and Ship	I- & D-Level PMRs which	Force and
a. OPINTERVAL and	Work Planning	will come due prior to the	ISIC
OPCYCLE Extension	Inventory Report of	end of the requested	(O- & I-
	PMRs, O-, I-, & D-	extension.	Level)(for
	Level.		OPINTERVAL
		2. Provide a report of O-,	and
	2.	I- & D-Level PMRs which are	OPCYCLE)
	COMUSFLTFORCOMINST	planned to be accomplished	Review
	4790.3 REV B CH-5;	prior to next availability.	
	JFMM		PMS 392
		3. Conduct an assessment	SUBMEPP
		of deferred PMRs and	(O-, I-,
		identify any that may	and D-
		affect safety of ship or	Level)
		mission.	Compile

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTIVITY ACTION
3. Current Ship's	1.	1. Provide a current	Ship's
Maintenance Projects	COMUSFLTFORCOMINST	report of CSMP	Force and
(CSMP) Deficiencies (for	4790.3 REV B CH-5;	deficiencies.	ISIC
OPINTERVAL and OPCYCLE)	JFMM		Review
		2. Conduct an assessment	
a. OPINTERVAL and	2. NAVSEAINST	on what effects the	
OPCYCLE Extension	4790.8B, Ship's	proposed deferred CSMP	PMS 392
	Maintenance and	deficiencies may have on	Compile
b. SLE	Material Management	the safety of ship or	
	(3M) Systems Manual	mission.	

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTIVITY ACTION
4. Active Electronic	1.	1. Copies of all active	Ships'
Departures from	COMUSFLTFORCOMINST	EDFSs and EWDs.	Force and
Specifications (EDFS) and	4790.3 REV B CH-5		ISIC
Electronic Waivers and	JFMM, Vol. 5, Quality	2. Identify a plan to	Review
Deviations (EWD)	Assurance	clear any active EDFSs and	
		EWDs or extend to the	
a. OPINTERVAL and	2. SUBSAFE	requested extension date.	PMS 392
OPCYCLE Extension	Requirements Manual,		Compile
	NAVSEA 0924-062-0010	3. Review archived EDFSs	
b. SLE	REV C	and EWDs (for service life	
		only).	
	3. Active EDFSs and		
	EWDs, SUBSAFE and		
	Non-SUBSAFE		

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTIVITY ACTION
5. Performance Monitoring	1. Performance	1. Provide a report of	Ship's
Program, NAVSEA managed	Monitoring Program	outstanding KMRCs and	Force and
Maintenance Requirement	Operations Manual	active On-Site Analysis	ISIC
Card (KMRC), On-Site	ST822-AP-PMN-010	Reports.	Review
Analysis Reports	Volume 1 & 2	0	DMG 202
		2. Identify required	PMS 392
a. OPINTERVAL and		corrective actions.	Compile
OPCYCLE Extension			
b. SLE			
6. Non-Nuclear PMS	1. NAVSEAINST	1. Provide a report of any	Ship's
Accomplishment (for	4790.8B, Ship's	overdue PMS items that may	Force and
OPINTERVAL AND OPCYCLE)	Maintenance and	affect safety of ship or	ISIC
	Material Management	mission along with a plan	Review
a. OPINTERVAL AND	(3-M) Manual	of action for adjudication	
OPCYCLE Extension		of those PMS items.	PMS 392
			Compile
b. SLE			

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTIVITY ACTION
7. Propulsion System	1. Latest Shaft	1. Assess any known	Ship's
Assessment SSN and SSBN	Replacement Schedule	deficiencies concerning the	Force and
		propeller, shaft and stern	ISIC
a. OPINTERVAL AND	2. Last Battery	tube.	Review
OPCYCLE Extension	Report - Capacity		
	discharge data,	2. Identify any conflicts	PMS 392
b. SLE	number of jumpered	in shaft schedule with	Compile
	cells and	regard to requested	
	identification of	extension date.	
	cells with low		
	specific gravity	3. Determine if a change	
	(Steam and Electric	to the battery replacement	
	Plant Manual)	schedule is required to	
		accommodate the requested	
	3. Latest Battery	extension.	
	Replacement Schedule	Dathama antonai	
	per NAVSEASYSCOM	a. Battery extension	
	semi-annual report	waiver, if required.	
	4. EDFS and EWD (for		
	OPINTERVAL AND		
	OPCYCLE)		
	OFCICHE!		

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTIVITY ACTION
7. (Continued)	5. CSMP (for OPINTERVAL AND OPCYCLE)		
8. Outstanding Casualty	1. NWP 1-03.1	1. Provide a list of	Ship's
Reports (CASREP) (for		outstanding CASREPs.	Force and
OPINTERVAL and OPCYCLE)			ISIC
		2. Provide a plan of	Review
a. OPINTERVAL and		action to correct any	
OPCYCLE Extension		outstanding CASREPs prior	
		to the end of the proposed	PMS 392
b. SLE		extension.	Compile

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTION ACTIVITY
1. Reactor Plant PMS a. OPINTERVAL and OPCYCLE Extension b. SLE	1. Reactor Plant PMS	 Status of Reactor Plant PM. a. Report of overdue maintenance items. b. Planned corrective actions. 	Ship's Force and ISIC Review Nuclear Power Directorate (SEA 08) Review
2. Pre-Overhaul Tests (If completed) a. OPINTERVAL AND OPCYCLE Extension b. SLE	1. Pre-Overhaul Tests, per the applicable Reactor Plant Manual	1. Results to date should be tabulated, with a summary of any failures. Also, list any that would be repeated if extension is granted.	Ship's Force and ISIC Review SEA 08 Review

AUDIT ITEM	APPLICABLE DOCUMENTS AND REFERENCES	REQUIRED DOCUMENTATION (TO BE INCLUDED IN ASSESSMENT)	ACTION ACTIVITY
3. Outstanding Reactor	1. COMFLTFORCOMINST	1. Provide a current	Ship's
Plant Material	4790.3 REV B CH-5 ;	report of CSMP	Force and
Deficiencies	JFMM	deficiencies.	ISIC
			Review
a. OPINTERVAL AND	2. NAVSEAINST	2. Conduct an assessment	
OPCYCLE Extension	4790.8B, Ship's	on what effects the	SEA 08
	Maintenance and	proposed deferred CSMP	Review
b. SLE	Material Management	deficiencies may have on	
	(3-M) Manual	the safety of ship or	
		mission.	
4. For ships approaching	1. Applicable core	1. Ensure there is	Ship's
a refueling overhaul or	lifetime letter, and	sufficient core life to	Force and
inactivation, determine	latest reactor	support the requested	ISIC
remaining core life	quarterly data report	extension.	Review
	and Reactor Plant		
a. OPINTERVAL AND	Manual.		SEA 08
OPCYCLE extension			Review
b. SLE			

TYPE COMMANDER REQUEST FOR AN ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION (SAMPLE LETTER)

From: Commander, Submarine Force, U.S. Atlantic/Pacific Fleet
To: Commanding Officer, USS Neversail (SSN/SSBN/SSGN XXX)

Via: Commander, Submarine Squadron XXXX

Subj: REQUEST FOR AN ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND/OR OPERATING CYCLE EXTENSION REQUEST

Ref: (a) OPNAVINST 3120.33C

- 1. Commander, Submarine Force, U.S. Atlantic/Pacific Fleet (COMSUBLANT/PAC) has recommended extending the operating interval (OPINTERVAL) and or operating cycle (OPCYCLE) on the USS Neversail (SSN/SSBN/SSGN XXX) by XX months, from XX XXX XXXX to XX XXXX. In order to support an extension, COMSUBLANT/PAC requests that an assessment of the material and operational condition be conducted per reference (a), enclosures (6) and (7).
- 2. Provide a status of the material and operational condition of the ship associated with those maintenance items that will come due prior to the requested OPINTERVAL and or OPCYCLE extension date and provide an execution plan or a recommended extension or deferral. Provide an endorsement or disapproval of the requested XX-month extension to the OPINTERVAL and or OPCYLE by no later than XX XXXX XXXX.
- 3. The COMSUBLANT/PAC point of contact is Mr. J. Doe, john.doe@navy.mil, XXX-XXXX-XXXX.

J. DOE
By direction

OPNAVINST 3120.33C 22 Jan 2013

SUBJ: REQUEST FOR AN ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND/OR OPERATING CYCLE EXTENSION REQUEST

Copy to: OPNAV (N43, N97) NAVSEASYSCOM (SEA 07, SEA 080, PMS 392) SUBMEPP (1800, 1810, 1820) COMSUBRON XXXX USS NEVERSAIL (SSN/SSBN/SSGN XXX)

COMMANDING OFFICER ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION REQUEST (SAMPLE LETTER)

From: Commanding Officer, USS Neversail (SSN/SSBN/SSGN XXX)

To: Commander, Naval Sea Systems Command

Via: (1) Commander, U.S. Fleet Forces Command (Atlantic Only) or Commander, Pacific Fleet (Pacific Only)

- (2) Commander, Submarine Force, U.S. Atlantic/Pacific Fleet (N43)
- (3) Commander, Submarine Squadron XXXX
- Subj: ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND/OR OPERATING CYCLE EXTENSION REQUEST
- Ref: (a) COMSUBLANT/PAC ltr XXXX Ser XXXX/XXXX of XX XXX
 - (b) OPNAVINST 3120.33C
- Encl (1) Audit Item Documentation (If not listed in text)
- 1. Reference (a) recommended extending the operating interval (OPINTERVAL) and or operating cycle (OPCYCLE) on the USS Neversail (SSN/SSBN/SSGN XXX) by XX months, from XX XXXX to XX XXXX.
- 2. The USS Neversail has conducted an assessment of the material and operational condition per reference (b), enclosures (6) and (7). The following information is provided to support Commander, Naval Sea Systems Command's (NAVSEASYSCOM) assessment. Understanding the risks associated with the requested extension, the material and operational condition is satisfactory for continued operation to the requested OPINTERVAL and or OPCYCLE extension date of reference (a) based on the following:
- a. A review of Operational and Intermediate Level (O- and I-Level) Unrestricted Operations Maintenance Requirement Cards (URO/MRC) has been conducted. USS Neversail has provided an annotated plan for the accomplishment of those O-Level URO/MRCs

SUBJ: ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND/OR OPERATING CYCLE EXTENSION REQUEST

which will come due prior to the requested extension date (list provided in enclosure (1)). Those I-Level URO/MRCs which will come due prior to the requested extension date are and will be scheduled per the ship's follow-on in-port maintenance availabilities and any items that cannot be completed will be submitted for deferral.

- b. A review of scheduled I-Level periodic maintenance requirements (PMR) has been conducted. USS Neversail has provided an annotated plan for the accomplishment of those I-Level PMRs which will come due prior to the requested extension date following the ship's follow-on in-port maintenance availabilities (list provided in enclosure (a)).
- c. A review of the ship's Current Ship's Maintenance Plan (CSMP) report has been conducted. The CSMP has been cleared of all completed, passed to history or not applicable job sequence numbers (JSN). All remaining JSNs have been validated for the correct priority and assignment codes (repair activity) and the CSMP is ready for review and audit. The following CSMP items [(list enclosed) or (defined individually)] are planned for accomplishment per the ship's follow-on in-port maintenance availabilities.
- d. A review of outstanding electronic departures from specifications and electronic waivers and deviations has been conducted. The following non-conformances [(list enclosed) or (defined individually)] will be cleared prior to the requested extension date and the remaining items will need to be submitted for extension to support the requested extension date.
- e. A review of all planned, due and overdue NAVSEA managed Maintenance Requirement Card (KMRCs) and active on-site analysis reports has been conducted by ship's force. USS Neversail has provided an annotated plan for the accomplishment of the following KMRCs [(list enclosed) or (defined individually)] which will come due prior to the requested extension date with

SUBJ: ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND/OR OPERATING CYCLE EXTENSION REQUEST

the remaining KMRCs being deferred to support the requested extension date. Active on-site analysis reports have been entered into the ship's CSMP.

- f. A review of all outstanding non-nuclear and nuclear Planned Maintenance System (PMS) MRCs has been conducted. The following PMS MRCs [(list enclosed) or (defined individually)] have been scheduled for accomplishment following the ship's underway schedule and follow-on in-port maintenance availabilities.
- g. A review of the current propulsion equipment status has been conducted. The installed main propulsion shaft and propeller is or is not in periodicity during the requested extension. The ship's storage battery is or is not under an extension of XX months and is or is not scheduled for replacement prior to the requested extension date. The last battery discharge was XX XXX XX, the last capacity test was conducted on XX XXX XX and the current battery capacity is XX%.
- h. A review of outstanding casualty reports (CASREP) has been conducted. The following CASREPs [(list enclosed) or (defined individually)] are planned to be corrected to support the requested extension date.
- i. A review of all outstanding Reactor Plant Planned Maintenance System (RPPMS) MRCs has been conducted. The USS Neversail has provided an annotated plan for the accomplishment of all RPPMS MRCs to support the requested extension date (list provided in enclosure (a)).
- j. A review of the latest pre-overhaul tests (POT) was conducted. The following failed tests [(list enclosed) or (defined individually)] is or are required or not required to be repeated if extension is granted.

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SUBJ: ASSESSMENT OF THE MATERIAL AND OPERATIONAL CONDITION OF USS NEVERSAIL (SSN/SSBN/SSGN XXX) AND CONCURRENCE WITH OPERATING INTERVAL AND/OR OPERATING CYCLE EXTENSION REQUEST

- k. A review of the following outstanding reactor plant material deficiencies was conducted [(list enclosed) or (defined individually)]. An assessment of these deficiencies determined no adverse affect on safety of the ship or mission.
- 3. This is the most current status for items 2a through 2k. All system data is ready to be reviewed and assessed by NAVSEASYSCOM.
- 4. This review has identified no adverse affects on the ship's safety, personnel safety, material condition, the ship's military or technical capability or the ship's ability to meet operational commitments due to extending its OPINTERVAL and or OPCYCLE by XX months as identified in reference (a).

J. DOE Commanding Officer, USS Neversail

Copy to:
OPNAV (N43, N97)
NAVSEASYSCOM (SEA 07, SEA 080, PMS 392)
SUBMEPP (1800, 1810, 1820)
COMSUBLANT (N4, N43)
CPMSUBPAC (N4, N43)
COMSUBRON XXXX
USS Neversail (SSN/SSBN/SSGN XXX)

COMMANDER, NAVAL SEA SYSTEMS COMMAND APPROVAL OF OPERATING INTERVAL AND OR OPERATING CYCLE (SAMPLE LETTER)

From: Commander, Naval Sea Systems Command

To: Commander, Submarine Force, U.S. Atlantic/Pacific Fleet

Subj: USS NEVERSAIL (SSN/SSBN/SSGN XXX) OPERATING INTERVAL AND OR OPERATING CYCLE EXTENSION REQUEST APPROVAL

Ref: (a) COMSUBLANT/PAC ltr 3120 Ser N43XX/XXXX of XX XXX (Extension Request Letter)

- (b) COMSUBLANT/PAC ltr 3120 Ser N43XX/XXXX of XX XXX XX (SECOND Endorsement of CO's Assessment of the material and operational condition)
- (c) OPNAVINST 3120.33C
- 1. Reference (a) requested that USS Neversail's (SSN/SSBN/SSGN XXX) operating interval (OPINTERVAL) and or operating cycle (OPCYCLE) be extended to XX XXX XXXX in order to support the [availability type] scheduled to start XX XXX XXXX. Reference (b) documented the material and operational condition of the USS Neversail and provides endorsement by the appropriate commander, submarine squadron (COMSUBRON) XXXX and Commander, Submarine Force, U.S. Atlantic/Pacific Fleet (COMSUBLANT/PAC).
- 2. Naval Sea Systems Command (NAVSEASYSCOM) conducted a material condition assessment, per reference (c), and concludes that the requested extension would have no adverse affect on the ship's equipment or personnel safety, or have any adverse affect on the ship's mission.
- 3. Commander, NAVSEASYSCOM Undersea Warfare Directorate (SEA 07) approves the USS Neversail's OPINTERVAL and or OPCYCLE extension until XX XXX XXXX without restrictions.
- 4. The NAVSEASYSCOM point of contact on this matter is Mr. John Doe, NAVSEASYSCOM XXXX, john.doe@navy.mil, XXX-XXXX-XXXX.

J. DOE RDML, USN $\verb"SUBJ: USS NEVERSAIL (SSN/SSBN/SSGN XXX) OPERATING"$

INTERVAL AND OR OPERATING CYCLE EXTENSION REQUEST

APPROVAL

Copy to:

OPNAV (N43, N97)

USFFC (N4)

COMPACFLT (N4)

COMSUBLANT/PAC (N4, N43)

SUBMEPP (1800, 1810, 1820)

COMSUBRON XXXX (N4, N43)

USS Neversail (SSN/SSBN/SSGN XXX)

TYPE COMMANDER REQUEST FOR SERVICE LIFE EXTENSION (SAMPLE LETTER)

From: Commander, Submarine Force, U.S. Atlantic/Pacific Fleet

To: Chief of Naval Operations (N97)

Via: (1) Commander, U.S. Fleet Forces Command (N43) (Atlantic Only) or Commander, Pacific Fleet (Pacific Only)

(2) Commander, Naval Sea Systems Command (PMS 392)

Subj: REQUEST FOR USS NEVERSAIL (SSN/SSBN/SSGN XXX) SERVICE LIFE EXTENSION

- Ref: (a1) NAVSEA ltr 4700 Ser 392A34/0146 (688 Class)
 - (a2) OPNAVINST C9010.332A (21 Class)
 - (a3) Virginia Class Submarine Operational Requirements
 Document Revision A, Change 2 of 27 Oct 2009
 - (a4) NAVSEA ltr 4700 Ser PMS392A2B/1001 (726 Class)
- Encl: (1) USS Neversail (SSN/SSBN/SSGN XXX) Maintenance Lifecycle Chart
- 1. Reference (a1), (a2), (a3) or (a4) established the service life of XXX class submarines at XX years.
- 2. Per reference (a), the USS Neversail's (SSN/SSBN/SSGN XXX) current service life expires XX XXX XXXX. Per enclosure (1), the USS Neversail inactivation availability (INAC) is currently scheduled to start XX XXX XXXX. A XX-month service life extension (SLE) would permit continued operations up to the INAC start date including the transit from [location] to [location] for INAC at [executing activity] Naval Shipyard.
- 3. The following actions are requested:
- a. Request Naval Sea Systems Command evaluate the technical feasibility of a XX-month SLE for USS Neversail and provide endorsement to OPNAV N97.
- b. Request OPNAV N97 approve USS Neversail XX-month SLE to XX XXXX.

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SUBJ: REQUEST FOR USS NEVERSAIL (SSN/SSBN/SSGN XXX) SERVICE LIFE EXTENSION

4. The Commander, Submarine Force, U.S. Atlantic/Pacific Fleet (COMSUBLANT/PAC) point of contact for this issue is Mr. John Doe, CSL/CSP N43, XXX.XXXX@navy.mil, XXX-XXX-XXXX.

J. DOE
By direction

Copy to:
OPNAV (N43, N97)
NAVSEASYSCOM (SEA 07, SEA 08, PMS 392)
SUBMEPP (1800, 1812)
COMSUBFOR (N4, N43)
COMSUBPAC (N4, N43)
COMSUBRON XXXX
USS Neversail (SSN/SSBN/SSGN XXX)