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

Canc frp: May 04

OPNAVNOTE 4700
Ser N431H/3U573940
16 Jun 03

OPNAV NOTICE 4700

From: Chief of Naval Operations

Subj: REPRESENTATIVE INTERVALS, DURATIONS, MAINTENANCE CYCLES, AND REPAIR MANDAYS FOR DEPOT LEVEL MAINTENANCE AVAILABILITIES OF U.S.NAVY SHIPS

Ref: (a) OPNAVINST 4700.7J
(b) OPNAVINST 3120.33B
(c) OPNAVINST 4780.6D
(d) NAVSEA ltr ser 05D/032 of 7 May 03 (Surface Ship Docking Interval) (NOTAL)

Encl: (1) Representative Intervals, Durations, Maintenance Cycles and Repair Mandays for Depot Level Maintenance Availabilities
(2) List of Maintenance Terms and Definitions

1. Purpose

a. To issue depot level availability representative intervals, durations, maintenance cycles, and repair mandays for all ships of the U.S. Navy, except those ships assigned to the Military Sealift Command and the Naval Special Warfare Command.

b. To provide a detailed description of availability types and current maintenance terms.

2. Cancellation. OPNAVNOTE 4700 Ser N431H/2U588641 of 01 May 02.

3. Background. Reference (a), Maintenance Policy for Naval Ships, establishes the policies and responsibilities for planning, programming, budgeting, scheduling, performing, and evaluating maintenance of ships. References (b), Submarine Extended Operating Cycle (SEOC) Program, and (c), Procedures for Administering Service Craft and Boats in the U.S. Navy, issue the depot level maintenance requirements for nuclear ship and non-nuclear service craft, respectively. This notice does the following:

a. Establishes representative intervals, durations, and repair mandays for depot level maintenance availabilities of U.S. Navy ships. Maintenance cycles are derived from the combination of representative intervals and durations.

b. Changes in this notice include:

(1) Changes in durations, intervals, maintenance cycles, and representative availability mandays (RAM) for following ship classes:

AFDM/AFDL
AGF 3 / AGF 11
AOE 1
ARS 50 (includes FDNF)
CG 47 (includes FDNF)
CVN 68
DD 963
DDG 51 (includes FDNF)
FFG 7 (includes FDNF)
LCC 19 / LCC 20
LHA 1
LHD 1 (includes FDNF)
LPD 4 (includes FDNF)
LSD 41 (FDNF)
LSD 49 (FDNF)
MCM 1 (includes FDNF)
MHC 51 (includes FDNF)
SSN 688
SSBN 726

(2) Due to Government-Owned, Contractor-Operated (GOCO) arrangements, docking availabilities conducted in Mayport FL are split into a docking phase and topside/non-docking phase. Due to split availabilities, average number of month's extension for each ship class follows:

- CG - 2 months
- DD - 1.5 months
- DDG - 1.5 months
- FFG - 1 month

Since total availability requirement is determined at the docking rate instead of part at the docking rate and part at the non-docking port average, no additional manday requirement will be added. Maintenance Requirement System (MRS) return data for Mayport shows no significant deviation from other docking availability notionals.

4. Policy. Chief of Naval Operations (CNO) requirements for the accomplishment of ship and submarine maintenance are contained in references (a) through (c).

a. Maintenance cycle is defined as the period of time, which starts after the completion of a ship's overhaul (or docking availability, when no overhaul availabilities are included in the maintenance plan) and ends after completion of the next overhaul or docking availability. For new construction or conversion ships, the maintenance cycle starts after completion of the post shakedown availability or as defined in the ship's class maintenance plan.

b. Interval is defined as the period from the completion of the prior scheduled depot availability to the start of the next scheduled depot availability.

c. Duration is defined as the period from the start of an availability to its completion.

d. Continuous Maintenance (CM) is defined as scheduled depot level maintenance conducted annually on specified vessels outside of scheduled CNO availabilities. The Continuous Maintenance component for surface ships includes average unfunded technical requirement by ship class spread over a 4-year period.

e. Repair mandays are those type commander maintenance mandays typically accomplished by the executing activity to satisfactorily complete the type of availability indicated. Repair mandays include Title D and F alteration mandays normally accomplished during the availability. Repair mandays do not include mandays from concurrent intermediate level maintenance availabilities.

(1) Submarine repair mandays are derived from repair estimates that are reviewed and analyzed by Submarine Team One.

(2) Surface ship repair mandays are derived from Class Maintenance Plan (CMP) estimated mandays and the Maintenance Requirements System (MRS).

(3) Aircraft carrier estimated repair mandays are derived from Aircraft Carrier Continuous Maintenance Program (ACCMP) for ships under the Engineered Operating Cycle (EOC) or Incremental Maintenance Program (IMP), as applicable.

(4) Scheduled duration of specific depot availabilities may be adjusted to accommodate necessary maintenance, modernization, and depot loading. The durations specified in enclosure (1) provide the best estimates for long range planning in the absence of any specific information. Scheduled CNO availabilities for Commander, Naval Surface Forces Pacific (COMNAVSURFPAC) ships preparing for or returning from Forward Deployed Naval Forces homeport assignment shall have an adjusted/increased RAM based on historic cost returns for those vessels. Availabilities scheduled in the year prior to decommissioning will be deleted, unless operating schedule dictates otherwise.

(5) The mandays specified in enclosure (1) represent the "typical" mandays required by the executing activity and provide the best basis for planning and programming purposes in the absence of specific information related to a specific availability. Manday estimates that exceed or reduce RAM for specific ship availabilities will be incorporated into the Fleet Modernization Program Management Information System (FMPMIS) database when technical justification is provided to CNO and Commander, Naval Sea Systems Command (COMNAVSEASYSCOM). Changes to the mandays may be required based on actual ship material condition, actual shipyard estimates, or for additional services associated with extended duration availabilities.

(6) Notional surface ship dry-docking intervals are extended to 8 years with the exception of MHC/MCM ships. The surface ship docking interval may be extended to 12 years once the conditions of reference (d) are met.

(7) To ensure compatibility with ship’s employment schedule and to facilitate depot work loading, deviation from the representative depot availability interval, as specified in enclosure (1), is authorized as follows:

(a) Allowable deviations for submarine depot availabilities are specified in reference (b).

(b) Allowable deviations for surface ship and carrier depot availabilities are:

Period from start of maintenance cycle to start of Representative Availability	Allowable Deviation
0-36 months	± 3 months
37-48 months	± 4 months
49-60 months	± 5 months
61-72 months	± 6 months
Greater than 72 months	± 7 months

f. In accordance with reference (a), all depot availability schedule changes must be coordinated among cognizant Fleet Commanders (FLTCOMs), COMNAVSEASYSCOM (SEA-04X and SEA-08 for nuclear-powered ships or ships with nuclear support facilities) and CNO (N42, N43, N75, N762, N771, N785).

g. Revisions to representative intervals, durations, maintenance cycles, and mandays shall follow the following process:

(1) CNO (N43) issues guidance announcing OPNAVNOTE 4700 revision cycle schedule.

(2) Any activity submits recommended revisions to COMNAVSEASYSCOM (SEA-04M and SEA-08 for nuclear-powered ships or ships with nuclear support facilities) with an information copy to the Fleets and CNO (Resource Sponsor and N431).

(3) COMNAVSEASYSCOM (SEA-04M and SEA-08 for nuclear-powered ships or ships with nuclear support facilities) serves as the NAVSEASYSCOM point of contact for all platform Class Maintenance Plans; coordinates review of data supporting recommended revisions; and endorses recommendations with rationale for approval or disapproval.

(4) Resource sponsor reviews and requests CNO (N43) modify OPNAVNOTE 4700 as required.

(5) CNO (N43) prepares, obtains resource sponsor, FLTCOM, and CONNAVSEASYSCOM concurrence; and then issues the revised OPNAVNOTE 4700.

5. Action. FLTCOMs, COMNAVSEASYSCOM, and CNO sponsors are to implement the above guidance following the detailed policy provided in references (a) through (d).

6. Cancellation Contingency. Upon issuance of next notice.

K.F. HEIMGARTNER
Rear Admiral
Director, Fleet
Readiness Division

Distribution:
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24 (Type Commanders) (less 24J)
C31G (SRF Yokosuka Detachment Sasebo, Japan)
C84B (Naval Sea Systems Command Detachments)
(NAVSEADET NISMF Portsmouth, VA Bremerton, WA only)
FB30 (Ship Repair Facility)
FKA1G (Naval Sea Systems Command) (SEA 04, SEA 04X, SEA 08, SEA 91, SEA 92)
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FKP7 (Shipyard)
FKP8 (Shipbuilding, Conversion and Repair USN)
FKP26 (SUBMEPP Portsmouth, NH) (Code 1813)

OPNAV (N00N, N42, N43 (20), N8, N80, N81, N752, N753, N762, N771, N785)

Copy to:
SNDL A6 (Headquarters, U.S. Marine Corps)

REPRESENTATIVE INTERVALS, DURATIONS, MAINTENANCE CYCLES, AND REPAIR MANDAYS FOR DEPOT LEVEL MAINTENANCE AVAILABILITIES

CLASS	MAINT STRATEGY	TYPE AVAIL	REP. DURATION (MOS)	REP. INTERVAL (MOS)	MAINT CYCLE (MOS)	REP. MANDAYS (000)	SHIP TIME LINE NUMBERS INDICATE MONTHS
AFDL 6	ROH	SCO	3	72	75	15	SCO| -----| SCO| 0 72 75
AFDM CL	ROH	SCO	6	72	78	40	SCO| -----| SCO| 0 72 78
AFDM 7	PM	DCM	12		12	7.5	| DCM|
AGF 3 (FDNF) NOTE 1	PROG	DSRA ISRA SRA CM	6 2 3.5	56 23.5 23.5	62	44.1 13.8 25.3 3.3	DSRA| -----| ISRA| -----| SRA| -----| ISRA| 0 9 11 20 23.5 32.5 34.5 -----| SRA| -----| DSRA| 43.5 47 56 62
AGF 11 NOTE 14	PM	DPMA PMA CM	5 3	89 15	94	35.1 15.5 3.3	DPMA| -----| PMA| -----| PMA| -----| PMA| 0 15 18 33 36 51 56 -----| PMA| -----| PMA| 71 74 89 94
AGSS 555	PM	DPMA1 DPMA2	6 8	42 42	72	UNIQUE	DPMA1 -----| DPMA2| -----| DPMA1| -----| DPMA2| 0 18 26 42 48 66 72
AOE 1 CL	PM	DPMA PMA CM	4 3	66 20	70	75.9 51.3 6.7	DPMA| -----| PMA| -----| PMA| -----| DPMA| 0 20 23 43 46 66 70
AOE 6 CL	PM	DPMA PMA CM	4 3	66 20	70	28.5 17.2 2.5	DPMA| -----| PMA| -----| PMA| -----| DPMA| 0 20 23 43 46 66 70
ARDM CL	ROH	SCO	6	72	78	40	SCO| -----| SCO| 0 72 78

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ARS 50 CL NOTE 14	PM	DPMA PMA CM	2 2	94 21	96	7.8 5.5 0.4	DPMA|-----|PMA|-----|PMA|-----|PMA| 0 22 24 46 48 70 72 -----| DPMA| 94 96
ARS 50 CL (FDNF)	PM	DSRA SRA CM	2 2	83 15	85	6.8 4.0 1.4	DSRA|----|SRA|----|SRA|----|SRA| 0 15 17 32 34 49 51 ----| SRA| ----| DSRA| 66 68 83 85
AS 39	PM	DPMA PMA	4 3	96 30	100	38.4 18	DPMA|----|PMA|----|PMA|----|DPMA| 0 30 33 63 66 96 100
CG 47 CL NOTE 14	PROG	EDSRA DSRA SRA CM	8 2 2	190 96 22	198	32 26.2 10.5 2.9	EDSRA|-----|SRA|-----|SRA|-----|SRA| 0 22 24 46 48 70 72 -----| DSRA| -----| SRA| -----| SRA| -----| 94 96 118 120 142 144 166 SRA| -----| EDSRA| 168 190 198
CG-47 CL (FDNF)	PROG	DSRA SRA CM	2 2	83 15	85	16 11 5.2	DSRA|----|SRA|----|SRA|----|SRA| 0 15 17 32 34 49 51 ----| SRA| ----| DSRA| 66 68 83 85
CV 63 (FDNF) NOTE 2	PROG	IDSRA ISRA	5 4	57 8	61	129.3 71	IDSRA|-----|ISRA|-----|ISRA|-----|ISRA| 0 8 12 20 24 32 36 -----| ISRA| -----| IDSRA| 44 48 56 61

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SHIP CLASS	MAINT STRATEGY	TYPE AVAIL	REP. DURATION (MOS)	REP. INTERVAL (MOS)	MAINT CYCLE (MOS)	REP. MANDAYS (000)	TIME LINE NUMBERS INDICATE MONTHS
CV 64 & 67 CL	EOC	COH	12	60	72	401.3	COH| -----| SRA| -----| SRA| -----| COH|
		SRA	3	18		49.7	0 18 21 39 42 60 72
		DSRA	4			60.4	
CVN 65 NOTE 3	EOC	ESRA1	6	18	76.5	190.2	PSA| ----| ESRA1| ----| EDSRA1|
		ESRA2	6	18		226.3	0 18 24 42 52.5
		ESRA3	6	18		261.3	----| ESRA2| ----| ESRA2| ----| EDSRA2|
		EDSRA1	10.5	66		401.2	70.5 76.5 94.5 100.5 118.5 129
		EDSRA2	10.5	66		401.2	-----| ESRA3| ----| ESRA3| ----| EDSRA3|
		EDSRA3	10.5	67		462.8	147 153 171 177 195 205.5
CVN 68 CL NOTE 4	IMP	RCOH	33			3200	PSA-SRA| -----| PIA1| -----| PIA1| -----| DPIA1|
		DPIA1	10.5	66	76.5	255.8	0 18 24 42 48 66 76.5
		DPIA2	10.5	66		308.9	---| PIA2| ----| PIA2| ----| DPIA2| ----|
		DPIA3	10.5	66		356.6	94.5 100.5 118.5 124.5 142.5 153 171
		PIA1	6	18		146.2	PIA3| ----| PIA3| ----| DPIA3| ----| PIA3|
		PIA2	6	18		173.8	177 195 201 219 229.5 247.5 253.5
		PIA3	6	18		201.4	-----| PIA3| -----| RCOH| ------| PSA-SRA| -----|
		PSA-SRA	4			71	271.5 277.5 295.5 0 4 8 26
							PIA2| ----| PIA2| ----| DPIA2| ----| PIA3|
							32 50 56 74 84.5 102.5 108.5
							----| PIA3| ----| DPIA3| ----| PIA3| ----|
							126.5 132.5 150.5 161 179 185 203
							PIA3| ----| DPIA3| ----| PIA3| ----| PIA3|
							209 227 237.5 255.5 261.5 279.5 285.5
							----| INAC
							303.5

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DD 963 CL NOTE 14	PROG	DSRA SRA CM	2 2	94 22	96	15.1 11.2 5.4	DSRA| -----| SRA| -----| SRA| -----| SRA| 0 22 24 46 48 70 72 -----| DSRA| 94 96
DD 963 CL (FDNF)	PROG	DSRA SRA CM	2 2	83 15	85	13 9 8.4	DSRA| ----| SRA| ----| SRA| ----| SRA| 0 15 17 32 34 49 51 ----| SRA| ----| DSRA| 66 68 83 85
DDG 51 CL NOTE 14	PROG	DSRA SRA CM	2 2	94 22	96	14.1 7.6 1.9	DSRA| -----| SRA| -----| SRA| -----| SRA| 0 22 24 46 48 70 72 -----| DSRA| 94 96
DDG 51 CL (FNDF)	PROG	DSRA SRA CM	2 2	83 15	85	9.5 7 3.4	DSRA| ----| SRA| ----| SRA| ----| SRA| 0 15 17 32 34 49 51 ----| SRA| ----| DSRA| 66 68 83 85
FFG 7 CL NOTE 14	PROG	DSRA SRA CM	2 2	94 22	96	16.8 7.6 2.1	DSRA| ----| SRA| -----| SRA| -----| SRA| 0 22 24 46 48 70 72 -----| DSRA| 94 96
FFG 7 CL (FDNF)	PROG	DSRA SRA CM	2 2	83 15	85	15 7.6 3	DSRA| ----| SRA| ----| SRA| ----| SRA| 0 15 17 32 34 49 51 ----| SRA| ----| DSRA| 66 68 83 85

REPRESENTATIVE INTERVALS, DURATIONS, MAINTENANCE CYCLES, AND REPAIR MANDAYS FOR DEPOT LEVEL MAINTENANCE AVAILABILITIES

SHIP CLASS	MAINT STRATEGY	TYPE AVAIL	REP. DURATION (MOS)	REP. INTERVAL (MOS)	MAINT CYCLE (MOS)	REP. MANDAYS (000)	TIME LINE NUMBERS INDICATE MONTHS
LCC 20 NOTE 14	PM	DPMA PMA CM	4 3	89 20	93	31.3 18 3.3	DPMA| 0 -----| 89 -----| 20 DPMA| 93 PMA| 23 -----| 43 PMA| 46 -----| 66 PMA| 69
LCC 19 (FDNF)	PROG	DSRA SRA CM	3 2	82 4	85	31.3 8.3 3.3	DSRA| 0 ----| 22 SRA| 42 ----| 64 DSRA| 85 ----| 4 SRA| 24 ----| 46 SRA| 66 SRA| 6 -----| 28 SRA| 48 -----| 70 SRA| 10 -----| 30 SRA| 52 -----| 72 SRA| 12 -----| 34 SRA| 54 -----| 76 SRA| 16 -----| 36 SRA| 58 -----| 78 SRA| 18 -----| 40 SRA| 60 -----| 82
LHA 1 CL Note 5 NOTE 14	PM	DPMA PMA CM	6 2	138 22	144	140.4 49.4 9.1	DPMA| 0 ----| 94 ----| 22 PMA| 96 PMA| 24 ----| 118 PMA| 46 -----| 120 PMA| 48 ----| 138 PMA| 70 -----| DPMA 144 PMA| 72
LHD 1 CL Note 5 NOTE 14	CM	DPMA PMA CM	8 2	136 21	144	95.2 36.4 6.7	DPMA| 0 ----| 90 ----| 21 PMA| 92 PMA| 23 ----| 113 PMA| 44 -----| 115 PMA| 46 ----| 136 PMA| 67 -----| DPMA 144 PMA| 69

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LHD 1 CL (FDNF) NOTE 14	PROG	DSRA SRA CM	5 3	139 15	144	77.2 36.4 12	DSRA|----|SRA|-----|SRA|-----|SRA| 0 15 18 33 36 51 54 ----| SRA| -----| SRA| -----| SRA| -----| 69 74 89 92 107 110 125 SRA| ----| DSRA 128 139 144
LPD 17 CL	PM	DPMA PMA CM	4 2	116 22	120	29 13.6 1.1	DPMA|----|PMA|-----|PMA|-----|PMA 0 22 24 46 48 70 72 ----| PMA -----| DPMA 92 94 116 120
LPD 17 CL (FDNF)	PROG	DSRA SRA CM	4 2	107 15	110	25.1 13.1 1.1	DSRA|----|SRA|-----|SRA|-----|SRA 0 15 17 32 34 49 51 ----| SRA ----| SRA ----| SRA ----| 66 68 73 75 90 92 107 DSRA | 110
LPD 4 CL NOTE 14	PM	DPMA PMA CM	4 3	92 22	96	43.8 28.3 5.6	DPMA|-----|PMA|-----|PMA|-----|PMA| 0 21 24 45 48 70 73 -----| DPMA| 92 96
LPD 4 CL (FDNF)	PROG	DSRA SRA CM	4 2	83 15	87	30.7 23.9 11.5	DSRA|----|SRA|-----|SRA|-----|SRA 0 15 17 32 34 49 51 ----| SRA ----| DSRA 66 68 83 87

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LSD 36 CL NOTE 14	PM	DPMA PMA CM	2 2	94 22	96	27.4 22.2 3.8	DPMA| 0 -----| 94 -----| 22 DPMA| 96 PMA| 24 -----| 46 PMA| 48 -----| 70 PMA| 72
LSD 41 CL NOTE 14	PM	DPMA PMA CM	4 2	94 22	96	30.9 27.5 5.6	DPMA| 0 -----| 92 -----| 22 DPMA| 96 PMA| 24 -----| 46 PMA| 48 -----| 70 PMA| 72
LSD 41 CL (FDNF)	PROG	DSRA SRA CM	4 2	83 15	87	32.1 21.5 10	DSRA| 0 ----| 66 ----| 15 SRA 68 SRA| 17 ----| 83 -----| 32 DSRA 87 SRA| 34 -----| 49 SRA 51
LSD 49 CL NOTE 14	PM	DPMA PMA CM	4 2	94 22	96	30.9 27.5 5.6	DPMA| 0 -----| 92 ----| 22 DPMA| 96 PMA| 24 -----| 46 PMA| 48 -----| 70 PMA| 72
LSD 49 CL (FNDF)	PROG	DSRA SRA CM	4 2	83 15	87	32.1 21.5 10	DSRA| 0 ----| 66 ----| 15 SRA 68 SRA| 17 ----| 83 -----| 32 DSRA 87 SRA| 34 -----| 49 SRA 51
MCM 1 CL	PM	DPMA PMA CM	2 2	70 22	72	8.2 4.6 0.5	DPMA| 0 ----| 22 PMA| 24 -----| 46 PMA| 48 ----| 70 DPMA| 72

REPRESENTATIVE INTERVALS, DURATIONS, MAINTENANCE CYCLES, AND REPAIR MANDAYS FOR DEPOT LEVEL MAINTENANCE AVAILABILITIES

SHIP CLASS	MAINT STRATEGY	TYPE AVAIL	REP. DURATION (MOS)	REP. INTERVAL (MOS)	MAINT CYCLE (MOS)	REP. MANDAYS (000)	TIME LINE NUMBERS INDICATE MONTHS
MCM 1 CL (FDNF) NOTE 6	PROG	DSRA ISRA CM	2 2	70 13	72	8.2 4.6 0.5	DSRA| 0 ----| 58 ----| ISRA| 13 ISRA| 60 ----| ISRA| 15 ----| 70 ----| DISRA| 28 ISRA| 30 ----| 72 43 ISRA| 45
MHC 51 CL	PM	DPMA PMA CM	2 2	70 22	72	8 2.7 0.5	DPMA| 0 ----| 22 PMA| 24 -----| 46 PMA| 48 ----| 70 DPMA| 72
MHC 51 CL (FNDF)	PM	DSRA ISRA CM	2 2	70 11	72	8 2.7 0.5	DSRA| 0 ----| 58 ----| ISRA| 13 ISRA| 60 ----| ISRA| 15 ----| 70 ----| DISRA| 28 ISRA| 30 ----| 72 43 ISRA| 45
NR-1	PROG	DSRA1 DSRA2	2 3	22.5 22.5	220	12 20	ROH| 0 -----| 96 DSRA1| 172.5 -----| DSRA1| 99 -----| 195 DSRA| 24.5 -----| 121.5 DSRA1| 197 -----| DSRA2| 47 123.5 -----| 219.5 DSRA1| 49 -----| 146 DSRA1| 221.5 -----| 71.5 DSRA1| 148 -----| 240 DSRA1| 73.5 -----| 170.5 INACT|

REPRESENTATIVE INTERVALS, DURATIONS, MAINTENANCE CYCLES, AND REPAIR MANDAYS FOR DEPOT LEVEL MAINTENANCE AVAILABILITIES

SHIP CLASS	MAINT STRATEGY	TYPE AVAIL	REP. DURATION (MOS)	REP. INTERVAL (MOS)	MAINT CYCLE (MOS)	REP. MANDAYS (000)	TIME LINE NUMBERS INDICATE MONTHS
SSBN 726 CL NOTES 7,8	EOC	ERP ERO	4 24	168 252	 276	33 310	DEL| -----| ERP| -----| ERO| 0 168 172 252 276
SSN 21 CL NOTES 8,9,11	EOC	INAC/IRR DMP EOH DSRA	NOTE 9 13 16 5	120 120 120 38	 133 136	NOTE 9 123 200 45	PSA| -----| DSRA| -----| DSRA| -----| DMP| 0 48 53 101 106 120 0 -----| DSRA| -----| DSRA| -----| EOH| -----| 48 53 101 106 120 0 48 DSRA2| ----| DSRA2| ----| INACT| 53 101 106 120
SSN 688 CL (688-718) NOTES 7,8,10-12	EOC	INAC/IRR ERO DSRA 2 PIRA	NOTE 9 24 2 NOTE 12	120 120 48	 144	NOTE 9 303 20 NOTE 13	DMP| -----| DSRA2| -----| DSRA2| 0 48 50 98 100 -----| ERO| -----| DSRA2| -----| DSRA2| -----| 120 0 48 50 98 100 120 INACT|
SSN 688 CL (719-773) NOTES 8,10-12	EOC	INAC/IRR EOH DMP DSRA 1 DSRA 2 PIRA	NOTE 9 16 13 2 2 NOTE 13	120 120 120 48 48	 136 133	NOTE 8 200 138 20 20 NOTE 13	PSA| -----| DSRA1| -----| DSRA1| -----| DMP| 0 48 50 98 100 120 0 -----| DSRA2| -----| DSRA2| -----| EOH| -----| 48 50 98 100 120 0 48 DSRA2| -----| DSRA2| -----| INACT| 50 98 100 120
SSN 774 CL							

FLEET CODES

FDNF	FORWARD DEPLOYED NAVAL FORCES	AVAILABILITY TYPES, CONT'D	
AVAILABILITY TYPES		IRR	COMBINED INACTIVATION, REACTOR COMPARTMENT DISPOSAL AND HULL RECYCLING AVAILABILITY
CM	CONTINUOUS MAINTENANCE	ISRA	INCREMENTAL SELECTED RESTRICTED AVAILABILITY
COH	COMPLEX OVERHAUL	PIRA	PRE-INACTIVATION RESTRICTED AVAILABILITY
DCM	DRYDOCK CONTINUOUS MAINTENANCE	PIA	PLANNED INCREMENTAL AVAILABILITY
DMP	DEPOT MODERNIZATION PERIOD	PMA	PLANNED MAINTENANCE AVAILABILITY
DPIA	DOCKING PLANNED INCREMENTAL AVAILABILITY	PSA	POST SHAKEDOWN AVAILABILITY
DPMA	DOCKING PLANNED MAINTENANCE AVAILABILITY	RCOH	REFUELING COMPLEX OVERHAUL
DSRA	DOCKING SELECTED RESTRICTED AVAILABILITY	ROH	REGULAR OVERHAUL
EDSRA	EXTENDED DRYDOCKING SELECTED RESTRICTED AVAILABILITY	SCO	SERVICE CRAFT OVERHAUL
EOH	ENGINEERED OVERHAUL	SRA	SELECTED RESTRICTED AVAILABILITY
ERO	ENGINEERED REFUELING OVERHAUL	MAINTENANCE STRATEGIES	
ERP	EXTENDED REFIT PERIOD	EOC	ENGINEERED OPERATING CYCLE
ESRA	EXTENDED SELECTED RESTRICTED AVAILABILITY	PM	PLANNED MAINTENANCE
IDSRA	INCREMENTAL DOCKING SELECTED RESTRICTED AVAILABILITY	PROG	PROGRESSIVE MAINTENCE
INAC	INACTIVATION AVAILABILITY	IMP	INCREMENTAL MAINTENANCE PROGRAM

NOTES:
1. USS LASALLE (AGF 3) maintenance cycle is two SRAs, two ISRAs and one DSRA per cycle. CM strategy started in FY01. An ISRA consists of three 20-day PRAVs within a given year, scheduled as operational requirements allow. An SRA consists of one 90-day SRA and one 20-day PRAV within a given year. The allocation of available ISRA or SRA man-days within a given year for execution during a PRAV is at the discretion of the Fleet Commander.

2. KITTY HAWK (CV 63) is a one-of-a-kind forward-deployed carrier. For ISRA availabilities from FY 04 to INACT the maintenance requirement will decrease in a stepped function, as follows: FY 04: 90K MDs, FY 05: 80K MDs, FY 06: 70K MDs, FY 07: 60K MDs, FY 08: 25K MDs

3. CVN 65 has its own specifically designed Incremental Maintenance Program (IMP). It closely follows the IMP for the CVN 68 Class, but uses different names for the availabilities; e.g., ESRA and EDSRA. These will continue until the end of its service life.

4. NIMITZ Class CVNs have transitioned to Incremental Maintenance Program. The RCOH will normally coincide with the fourth DPIA depending on the operational tempo and the actual duration of earlier depot level availabilities, which directly affect the rate of fuel depletion. A material condition assessment is required 4 years in advance of RCOH to further define manday requirements.

5. LHA 3 will not receive 12 year docking cycle package due to decommissioning. LHD 7 will be on 10 year docking cycle due to new construction installation of 10 year shaft preservation system.

6. The allocation of available ISRA man-days within a given year for execution during a PRAV is at the discretion of the Fleet Commander.

7. Nuclear ships may require adjustment in overhaul intervals based on rate of fuel depletion. Mandays to support refueling preparations must be programmed up to 3 years in advance.

8. Refer to OPNAVINST 3120.33B for SSN and SSBN operating cycles, maintenance strategies and extension requirements.

9. Representative mandays and duration of INAC/IRR availabilities vary by hull and are entered into the Fleet Modernization Program Management Information System (FMPMIS).

10. For the last SSN 688 Class DSRA2 executed prior to inactivation, reduce the representative mandays to 17,000 to reflect reducing the scope of work of these availabilities.

11. Add 3,000 man-days for dock services when a DSRA is performed at a shipyard.

12. For the first SSN 688 class ERO performed in a shipyard, add 10,000 mandays to representative ERO manday figure. For the first SSN 688 DMP performed in a shipyard, add 5,000 mandays to representative DMP manday figure.

13. A PIRA is a hull-specific availability used to establish a final, abbreviated OPCYCLE prior to inactivation if required.

14. Notional dry docking interval may be extended to 144 months provided the repairs and modifications outlined in reference (d) have been performed. Specific areas addressed include underwater hull and freeboard; sea chests; tanks and voids; propulsion shaft outboard bearings; propulsion shaft covering; rudders, bearings, and seals; controllable pitch propeller (CPP); and cathodic protection system. Notional dry docking interval will remain at 96 months until this work is completed. Subsequent dry docking intervals will be extended to 144 months based on the assumption that any remaining work required to extend the dry docking cycle will be completed during the next scheduled docking availability.

LIST OF MAINTENANCE TERMS AND DEFINITIONS

Depot Modernization Period (DMP). An availability scheduled primarily for the installation of major high priority warfare improvement alterations.

Docking Planned Maintenance Availability (DPMA). A PMA expanded in scope to include maintenance and modernization that require dry-docking.

Docking Planned Incremental Availability (DPIA). A labor-intensive availability, of less than a year duration, for aircraft carriers in an Incremental Maintenance Program. Maintenance and modernization are accomplished. Aircraft carriers assigned to Incremental Maintenance Programs are maintained through PIAs and DPIAs in lieu of overhauls.

Docking Selected Restricted Availabilities (DSRA). An SRA expanded in scope to include maintenance and modernization that require dry-docking.

Drydock Continuous Maintenance (DCM). A nearly continuous availability period performed on drydocks which carry out industrial maintenance and selected modernization maintenance when the drydock is not in use.

Engineering Operating Cycle (EOC). This maintenance philosophy keeps ships in an acceptable material condition while sustaining or increasing the operational availability of the ship. Earmarked by a structured engineered approach for ship maintenance while minimizing the time spent in depot-level availabilities. Major elements of the maintenance strategy include:

a. Periodic inspections of selected systems and equipment to identify and document necessary repair requirements and material condition trends.

b. Periodic maintenance tasks to be accomplished at specified times during the ship's life cycle.

c. Scheduled intra-cycle Intermediate Maintenance Availabilities (IMAVs), Drydocking SRAs (DSRAs), SRAs, and ROHs to accomplish the maintenance and modernizations required to sustain or improve the material condition of the ship.

d. Extensive modernization to maintain and upgrade the ship class war fighting capability.

Engineered Periodicities. The recommended periodicity for accomplishment of a maintenance action and is based upon an engineering analysis of all relevant technical maintenance history information including material condition and performance feedback data.

Extended Docking Selected Restricted Availability (EDSRA). A DSRA expanded in scope to include maintenance and modernization that cannot be accomplished in a DSRA.

Extended Refit Period (ERP). A labor-intensive period, typically lasting 4 months during which SSBNs accomplish maintenance and modernization which cannot be completed during a normal refit period.

Inactivation Availability (INAC). An availability assigned to prepare a ship for inactivation or disposal. The scope of work depends on the planned disposition of the ship.

Incremental Maintenance Program (IMP). A maintenance philosophy which keeps aircraft carriers in an acceptable material condition through a series of incremental depot maintenance actions. Types of availabilities under this maintenance philosophy include PIAs and DPIAs.

Incremental Selected Restricted Availability (ISRA). An availability for continuous accomplishment of industrial maintenance and selected modernization. A nearly continuous availability period assigned to forward deployed aircraft carriers, mine warfare ships and AFG 3.

Maintenance Requirements System (MRS). Historic average of completed CNO availabilities, deferred maintenance & continuous maintenance. Provides basis to accurately project depot maintenance budgets for POM cycle and to assess risks of deferring maintenance.

Overhaul. A major availability normally exceeding 6-months' duration for the accomplishment of maintenance and modernization. Program Managers frequently use terms such as:

a. Regular, Complex, or Engineered Overhaul availability (ROH, COH, or EOH) to describe or identify planning and execution differences among overhaul availabilities of different ship classes.

b. Refueling complex or engineered refueling overhaul availability (RFOH, RCOH or ERO) to describe or identify fundamental planning and execution differences among overhaul availabilities of different nuclear powered ship classes during which the reactor is also refueled.

Pre-Inactivation Restricted Availability (PIRA). A hull specific availability assigned to establish a final, abbreviated OPCYCLE prior to inactivation.

Planned Maintenance (PM). This maintenance philosophy uses depot level maintenance through a series of short, frequent Planned Maintenance Availabilities (PMAs) in lieu of Regular Overhauls (ROHs). The goals of Planned Maintenance are to maximum ship availability, improve operational readiness, and upgrade material condition. Major elements of this maintenance strategy include:

a. Execution of availabilities in the ship's home port. Ships are scheduled for PMAs of 2 to 4 months at intervals of 15 to 18 months which include both repairs and modernization.

b. Adherence to Condition-Based Repair in which repair and replacement is determined by the actual material condition of systems and equipment. Only those repairs necessary to sustain proper functioning of equipment are identified and authorized for accomplishment.

c. Involvement of Port Engineers in the planning, budgeting, authorizing, and execution of all maintenance actions and remain with the same ships through their cycle.

d. Preservation of repair decision approval authority in the ship's COs, Port Engineers, and Supervisors of Shipbuilding, Conversion and Repair (SUPSHIP).

e. Use of multi-ship/multi-year contracts to ensure production contractor participation in the advance planning process as it is difficult to fully define all work in the condition based maintenance environment.

Planned Maintenance Availability (PMA). A short labor-intensive availability for ships in a Planned Maintenance Program for the accomplishment of maintenance and modernization. Ships assigned to Planned Maintenance Programs are maintained through PMAs in lieu of overhauls.

Planned Incremental Availability (PIA). A labor-intensive availability, of less than 6 months duration, for aircraft carriers in a Incremental Maintenance Program. Maintenance and modernization are accomplished. Aircraft carriers assigned to Incremental Maintenance Programs are maintained through PIAs and DPIAs in lieu of overhauls.

Post Shakedown Availability (PSA). An availability assigned to newly built activated or converted ships upon completion of post-delivery shakedown. PSAs will be scheduled so they are completed no later than the end of the Shipbuilding and Conversion Navy (SCN) obligation work limiting date which is the date on which SCN funding and work authority terminates. Work performed shall normally include correction of defects noted during shakedown correction of deficiencies remaining from the acceptance trials and performance of class modifications remaining from the new construction activation or conversion period.

Progressive Maintenance (PROG). This maintenance philosophy is designed to support ships with reduced manning, limited organizational level maintenance, and operational tempos that limit availability periods. It is also designed to sustain a high level of readiness and increase the ship's availability for required operations. Ships with reduced manning are designed for major component removal and replacement. To compensate for the reduced manning and other shipboard maintenance off-ship component refurbishment is done by intermediate and depot level activities. This concept requires maintenance and logistic support systems significantly different from those required for conventionally manned surface ships. Major elements of the maintenance strategy include:

a. Engineered maintenance planning.

b. Progressive overhaul.

c. Upgrading of maintenance tasks from ship's force to the Intermediate Maintenance Activity (IMA).

d. Modular replacement.

e. Dedicated material support and increased stock-level procurement.

Selected Restricted Availability (SRA). A short labor-intensive industrial period assigned to ships in Progressive or Engineered Operating Cycle Maintenance Programs for the accomplishment of maintenance and selected modernization. Ships assigned to Progressive Maintenance Programs are maintained through SRAs in lieu of overhauls.

Service Craft Overhaul (SCO). A major industrial availability for the accomplishment of maintenance and modernization on service craft.