



JUN 29 2007
COMDTINST 3100.5B

COMMANDANT INSTRUCTION 3100.5B

Subj: CUTTER EMPLOYMENT STANDARDS

Ref: (a) Abstract of Operations Reports, COMDTINST M3123.7 (series)
(b) Naval Engineering Manual, COMDTINST M9000.6 (series)

1. PURPOSE. This Instruction provides guidelines for cutter employment and is intended to complement references (a) and (b). Enclosure (1) provides definitions. Enclosure (2) provides limits in tabular form for each cutter class. Enclosure (3) gives examples of how the employment standards are applied in various situations.
2. ACTION. Area, district, and sector commanders, commanders of maintenance and logistics commands, commanding officers of integrated support commands, commanding officers of headquarters units, assistant commandants for directorates, Judge Advocate General and special staff elements at Headquarters shall ensure compliance with the provisions of this instruction. Internet release is not authorized.
3. DIRECTIVES AFFECTED. Cutter Employment Standards, COMDTINST 3100.5A is cancelled.
4. DISCUSSION. Cutter operations tempo and personnel tempo shall not exceed the limits herein. These limits are those that are supported by cutter funding (both fuel and maintenance costs) and protect the safety and well being of crewmembers. For cutter employment standards, three basic limits apply: Days away from homeport, underway hours, and total operations days. These limits, and their use in unique circumstances, are further defined below and in the enclosures.
 - a. The standards contained herein recognize several categories of cutters based on their operational tasking. The application of the various limits varies among the category of cutter:

DISTRIBUTION – SDL No. 147

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	
A	1	1	1		1	1	1	1	1	1		1	1	1	1	1	1		1		1						
B	5	5			5	5																					
C															1			1									
D	2			2																							
E																											
F																											
G																											
H																											

NON-STANDARD DISTRIBUTION:

- (1) Major Cutters (e.g. Polar Icebreakers, WHEC/WMECs). Major cutters are scheduled by days away from homeport and are normally constrained by the days away from homeport limit. Major cutters are not traditionally assigned a high readiness status during inport periods. If, however, the operational need arises, high readiness time may be assigned and will be constrained by the total operations days limit. Polar Icebreakers have unique schedule requirements and constraints; these cutters cannot exceed their total operations days limit without failing to meet the minimum maintenance days required by reference (b). The underway hours limit for all major cutters is provided for information and not for scheduling purposes.
 - (2) Cutters assigned to a geographic area based on SAR coverage requirements and often tasked with a rapid response capability (B-6 or less, e.g. WPBs). These cutters will usually be constrained by the underway hours limit. High readiness days will also be constrained under the total operations days limit. The days away from homeport limit is normally a secondary or tertiary limit for these cutters, but may apply in unique circumstances.
 - (3) Cutters tasked with a mixture of underway and inport operations and rapid response (WLB/WLMs, et. al.). Total operations days will typically be the primary limit for WLB/WLMs. The underway hours limit will typically be the limiting factor for all others. The days away from homeport limit is normally a secondary or tertiary limit for these cutters, but may apply in unique circumstances.
- b. Operational commanders must carefully consider all factors that impact individual cutters during scheduling. Maximum employment is not necessarily optimal employment, and it clearly reduces surge capacity during disasters and periods of short notice, high demand operations. Setting schedule targets beneath the enclosed limits is appropriate for some cutters when surge capacity is desired.
 - c. Where more than one limit is provided for a cutter class, all shall be considered unless otherwise specifically noted. The primary limit is highlighted in enclosure (2) for ease of use by planners. Appropriate recommendations for changes to this Instruction are encouraged and should be addressed via program managers.
5. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this instruction and have been determined to be not applicable.
 6. FORMS/REPORTS. None.

DAVID P. PEKOSKE/s/
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Operations

Encl: (1) Definitions and Employment Guidelines

COMDTINST 3100.5B

- (2) Cutter Employment Standards Table
- (3) Example Use of Cutter Employment Standards

DEFINITIONS AND EMPLOYMENT GUIDELINES

Terms and abbreviations used in Abstract of Operations (AOPS), the Readiness Management System (RMS) and the Coast Guard Business Intelligence (CGBI) Programs are bold for reference. (e.g. u/w hours are listed as cutter “resource hours” in CGBI). Cutters submit AOPS Reports in accordance with reference (a). Planners access this data via the CG intranet CGBI website located on CG Central under the Analytics tab: <http://cgcentral.uscg.mil>.

These standards are intended for planners use and provide limits that protect cutters and crews. There may not be perfect alignment between AOPS and these Cutter Employment Standards in that AOPS converts cutter hours into days which can create a false impression of actual days away from homeport and total operational hours. Converting the cutters hours to days may lead to the assumption that cutters are underway less than the required standards. Twenty four (24) operational hours is not equivalent to one (1) operational day in AOPS. Application of this instruction is not a perfect science when equating hours and days, and requires some subjectivity in unusual circumstances.

1. Inport Homeport/Away From Homeport:

Inport Homeport (IPHP). The homeport is defined as an area within a 90-minute automobile driving time from a cutter's permanent berth (approximately 75 miles).

Inport Away From Homeport (IPAFHP). Moored outside a 90-minute automobile driving time from cutter's permanent berth.

Homeport Days. All days in which a cutter is inport homeport, and grants the crew normal liberty. Normal liberty means 12 consecutive hours falling anywhere between 1600 and 0800.

Days Away From Homeport (DAFHP) (Away From Homeport Days). All days in which the cutter is not in its homeport to grant normal liberty. The homeport is defined as an area within a 90-minute automobile driving time from a cutter's permanent berth (approximately 75 miles). Normal liberty spans two calendar days, but only one DAFHP day is counted for each missed liberty period (e.g., the day of arrival back in homeport is not a DAFHP if normal liberty can be granted that day).

When scheduled activity in the cutter's homeport routinely prevents normal liberty (e.g., Tailored Ship's Training Availability (TSTA) or Tailored Annual Cutter Training (TACT) in homeport), the number of days in this activity is multiplied by 0.8 to arrive at a number to be counted against the DAFHP limit.

Days spent in a shipyard more than 75 miles but less than 200 miles from a cutter's permanent berth are not counted as full Days Away From Homeport. In these instances, the number of days in the shipyard is multiplied by 0.8 to arrive at the number to be counted against the DAFHP limit.

In unique circumstances while a cutter is away from homeport and only a portion of the crew is needed onboard the cutter and the balance of the crew can work at a detachment in homeport, the days away from homeport for the cutter may be effectively decreased by the

average days away from homeport for individual crewmembers. In these cases, operational commanders and unit commanding officers should carefully monitor this practice to ensure the entire crew has a similar number of days away from homeport.

2. Days Away From Home Port Limit.

This limit is the primary limit for WMEC, WHEC, WMSL, WMSM, and WAGB cutter fleets. The DAFHP limit reserves time for crew liberty and cutter maintenance in a cutter's homeport. All days away from homeport, whether underway or inport, are counted against the DAFHP limit. Most cutter types have a DAFHP limit of 185 days; this reserves 180 days in homeport each year, which translates to 135 overnight liberties per crewmember in a four-section watch rotation.

Area Commanders may use a two-year average in planning days away from homeport for WHEC/WMECs to be proactive with specific operational missions (e.g., lengthy polar deployment, Combatant Commander support missions, etc.) or major maintenance (e.g., dry-dock). Planners shall schedule so that the two-year days away from homeport average is within the assigned limit. Units cannot exceed 210 DAFHP each year or go below the minimum maintenance days listed in Encl (2). Scheduling inport periods of less than 30 days is not authorized for WHEC/WMEC and WAGBs.

3. Underway (**Alpha, U/W**):

Underway Hours (Resource Hours). Time spent underway. A cutter is underway anytime it is not moored or dry-docked, and for these purposes anytime it is anchored or moored to a mooring buoy (or, in the case of river tenders, with spuds down or “pushed in”) conducting underway operations. When anchored (or with spuds down or “pushed in”) specifically for crew liberty, the vessel is not considered underway. Minor movements, such as shifting berths, which are less than one hour in duration, do not need to be considered for the purposes of these standards.

Underway Hours Limit. This limit is typically established from planning documents, mission and maintenance requirements or historic use. This value is a level of maximum utilization, to be used by operational commanders for patrol boats and other cutters when other limits are less appropriate.

The underway hours limit equals the planned funding level for each cutter and is the basis to the Headquarters budget and fuel models. These models are used to distribute cutter fuel and maintenance money to appropriate Areas, MLCs and Districts. Maintenance support is established for an operations tempo at, but not above, the underway hours limit.

Cutters assigned to geographic areas based on SAR coverage requirements and tasked with rapid response (B-2 or less), such as WPB's are often tasked with a mixture of underway time and rapid response time. See definitions of high readiness days and total operations days, which may provide a more useful limit on fatigue when these hours are combined.

Underway Day. An underway day is a day a cutter logs underway hours and will be counted against the total operations days limit. Underway days are normally patrol days for

deployed cutters or day trips from port. Minor movements, such as shifting berths, which are less than one hour in duration, would not constitute an underway day.

For the purposes of these standards, an underway day is one that impacts maintenance and cannot be counted as a maintenance day. However, the first day of a maintenance period, if returning from underway that morning, would still be counted as a maintenance day (provided the maintenance period is not impacted). Underway time spent specifically for the purpose of maintenance during a maintenance day is considered maintenance time. This does not preclude the underway time from being reported in AOPS in accordance with reference (a).

4. High Readiness, Inport Operations, and Standby (**Bravo**):

High Readiness Hours. Time spent inport in a high readiness status that supports a particular mission. While in Bravo Status, the ship shall be capable of meeting the following criteria: maintain system and equipment capabilities to get underway within an established time frame; able to keep installed systems manned and operating to the extent necessary for effective operation as dictated by the existing situation; able to man watch stations as required to provide adequate security; able at all times to meet anticipated inport emergencies and to perform inport functions as prescribed by unit OPCON.

All cutters

B-0 through B-6

Environmental conditions, such as inclement weather, can cause a postponement in scheduled operations. Time spent inport awaiting improvement of these conditions so that operations can be commenced or resumed can be designated as high readiness time.

High Readiness Days. Calendar days inport (homeport or away) when the cutter logs four (4) or more high readiness hours.

Inport Operations Hours (Inport OP Hours). The time during which a cutter is inport, yet totally committed to a particular mission. A cutter involved in inport operations would normally not get underway without terminating these operations because of the level of resources committed. Included are various evolutions such as loading and unloading supplies, fueling, ammunition and equipment, performing a mission while moored using a cutter's resources (e.g., boats, vehicles, personnel), and miscellaneous time for training, inspections, ceremonies, etc. When inport operations are conducted during a maintenance period and maintenance can still be performed, the hours are counted as maintenance hours. If the inport operations interfere with maintenance, then the hours are counted as inport operations. When there is some latitude in scheduling inport operations, they should be scheduled to minimize impact on a maintenance period.

Inport Operations Days. Calendar days in or away from homeport when a cutter logs four (4) or more inport operations hours.

Standby Hours (STBY). The time when a cutter is not in a maintenance status and is available for deployment, but the time does not fit in any of the following categories: underway, inport operations, or high readiness hours. This time may be scheduled or simply

a reflection of cutter availability (i.e., cutter is not in a high readiness state, but may not be in a Charlie status).

Standby Days. Calendar days in or away from homeport, which do not meet the criteria for underway, inport operations, high readiness, or maintenance days.

Total Operations Days. The sum of underway days, inport operations days and high readiness days. In addition to underway days, total operations days are intended to account for the added impact of inport operations and high readiness on crew fatigue and maintenance requirements.

5. Maintenance (**Charlie**):

Maintenance Days. Calendar days in or away from homeport in which:

The cutter spends the day in a programmed maintenance status. Normally, all 24 hours (0000-2400) should be spent in programmed maintenance in order to count the day as a maintenance day. An exception is the first day of a scheduled maintenance period, which is counted as a maintenance day provided the maintenance period is not adversely impacted by the preceding activity.

An unexpected casualty to deck or engineering machinery or electronic equipment that requires changing a cutter's status to maintenance (Charlie) from Alpha or Bravo status.

An unexpected casualty to deck or engineering machinery or electronic equipment results in the cancellation or postponement of a scheduled mission (e.g., lost cutter patrol day). The necessary maintenance to correct the casualty may take less than a full 24 hours.

Not all inport days are necessarily maintenance days. Inport days may be required to directly support a vessel's assigned operational mission. Such time may be accounted for as inport operations, high readiness or standby days when appropriate.

Maintenance Hours. Time spent in a scheduled or unscheduled maintenance status either in or away from homeport.

Minimum Maintenance Days. The minimum number of days that reserve time for required cutter maintenance. It is derived from maintenance requirements listed in Chapter 81 of reference (b) or from the Integrated Logistics Support Plan (ILSP) for a new cutter.

Miscellaneous:

OPTEMPO: Optempo is the level of operations for a cutter. Measured in DAFHP, it is used as a parametric for cutter operational availability, not days on station.

PERSTEMPO: Perstempo is the amount of time a crew or individual spends away from their homeport, when assigned to the cutter (TAD for schools/training is not included). It is measured in DAFHP on a two year running average. Used as a parametric for quality of life with 185 days considered the upper threshold.

Lost Cutter Days/Hours. Lost cutter days are defined as any day a cutter can not meet its mission due to unforeseen circumstance; i.e., an engineering casualty, repairs, weather delays, hurricane/storm avoidance thus affecting the readiness state of the cutter.

Total Operations Days Limit. This shall be a primary limit for most buoy tenders and a limit to be considered for cutters assigned high readiness or involved in inport operations. CGC HEALY's total operations days limit is also a design target from the WAGB 420 OLSP (and a commitment to the science community). WLB/WLM limits were originally derived from design documents during class construction and testing and updated based on data from the Buoy Tender Systems Study (BTSS). WPB limits (and all other cutters as applicable) are provided to constrain the added impact of high readiness and inport operations on crew fatigue and maintenance. Cutters not normally tasked with high readiness time for SAR response (e.g., WHEC/WMECs) will still use this limit when applicable.

Deviations from Cutter Employment Standards Table. The Cutter Employment Standards Table, Encl(2), shall be the guiding document for Days Away from Homeport, Underway Hours, and Total Op Days. Any unit exceeding these standards in excess of 5% shall have their cutter scheduler request permission to operate above dictated levels through CG-37RCU via message traffic. Natural disasters and national emergencies such as those caused by terrorism or political unrest in neighboring countries are exigent circumstances and do not require notice.

CUTTER EMPLOYMENT STANDARDS TABLE¹

CUTTER TYPE - CLASS	DAFHP Limit	U/W Hours Limit	Total Op Days Limit	Min Maint Days
WAGB - 420	185	3330	200	165
399	185	3330	193	172
WMSL - 418	185	4140	230 ³	135
WHEC - 378	185	3330	200	143
WMSM - 360	185	4140	230 ³	135
WMEC - 282	185	3330	200	158
270	185	3330	200	143
230	185	3330	200	158
213	185	3330	200	158
210	185	3330	200	143
WLBB - 240	185	2100	220	126
WLB - 225	185	2100	220	126
WLM - 175	185	1500	220	126
WTGB - 140	126	1800	200	126
WPC 179	185	2500	200	133
WPB - 110	185	1800 ^{2/4}	200	133 ⁴
87	150	1800	200	133
WLI - 100	165	825	200	91
65	165	825	200	84
WYTL - 65	126	700	200	84
WLIC - 160	165	1200	200	95
100	165	1400	200	95
75	165	1300	200	95
WLR - 75	185	1400	200	79
65	185	1300	200	79

1. Values given constrain operations. Highlighted values are normally reached first and are the primary planning factor for planners, however all limits are applicable.

2. Funding for additional WPB 110 u/w hours is distributed annually for counterdrug law enforcement operations. Allocation of these hours to respective Areas will be in accordance with the COMDT (CG-3RPL) annual law enforcement plan. Only WPB 110s with augmented MAT support may be scheduled to exceed the 1800 u/w hours limit. However, no single MAT supported cutter may exceed 2200 u/w hours without COMDT (CG-37RCU) approval. Other limits and minimum maintenance standards remain the same.

Enclosure (2) to COMDTINST 3100.5B

3. The OPTEMPO of the WMSL and WMSM will be 230 days but the PERSTEMPO will only be 185 days. This policy will take effect following commissioning of the second WMSL.
4. Cutters undergoing multi-crew operations require increased maintenance support resources to attain annual underway hours up to 3,600 hrs/yr with 122 minimum maintenance days.

EXAMPLE USE OF THE CUTTER EMPLOYMENT STANDARDS

1. DAFHP and Maintenance Example.

Planners have scheduled a WHEC for 100 inport maintenance days in homeport and an additional 54 maintenance days for dry-dock in a shipyard. All available shipyards are more than 200 miles from the cutter's homeport.

This cutter can be tasked with up to a maximum of 131 additional days away from homeport (note that transit time to and from dry-dock must be considered in this schedule). This would reduce surge capacity (for hurricane disaster response, LE pulse operations, etc.) to zero. A better target number of maintenance days that would leave a 3-week surge capacity would be to schedule this cutter for 110 DAFHP instead of the 154 DAFHP.

Note that, had the shipyard been located within 90 minutes commuting distance of the vessel's homeport (or approximately 75 miles), all 185 DAFHP would have been available for patrol or other operations away from homeport, vice 131, and the three-week surge capacity would have been subtracted from 185.

Had the shipyard been located between 75 and 200 miles from the cutter's permanent berth, the 54 maintenance days in dry-dock would count as 43 DAFHP.

2. Average DAFHP for Individual Crewmembers Example.

A WHEC is scheduled for a 90-day availability in a yard away from the cutter's homeport. Due to the nature of the work, only 1/3 of the WHEC crew is needed onboard for firewatches, inspections, and security functions. Working with the Area staff, the cutter arranges crew transportation and a homeport facility that allows 2/3's of its crew to perform normal administrative duties in their homeport. Periodical crew rotation is executed such that the average crewmember is away from homeport for only 30 days. The effective DAFHP for the cutter during the availability are reduced to 30. The 60 DAFHP recouped may be scheduled for other assignments.

Note this practice must be closely monitored for equitability among the entire crew and coordinated between the cutter and the cutter scheduler only in unique circumstances when the entire crew is not needed aboard, such as some major availabilities.

3. Multiple Limits Example.

A WLM 175 is scheduled for 21 more underway days (estimate 12 u/w hours per day) after completing 130 underway days (1400 u/w hrs) servicing aids, 11 days of high readiness for SAR standby (in homeport), and 19 days of inport ops (in homeport) servicing minor aids using its RHIB.

Will this cutter exceed any schedule limits?

Total operations day limit: 21 (underway days) + 130 (underway days) + 11 (high readiness days) + 19 (inport ops days) = 181 (total operations days). This is within their total op limit of 220 days.

DAFHP limit: Even if all underway days (151) were DAFHP, they still would not exceed their 185 DAFHP limit with the remaining schedule.

Underway hours limit: In this case the cutter will exceed the underway hours limit. 12 hrs x 21 (days) = 252 hrs. 1400 hrs + 252 hrs = 1652 hrs. This would exceed the limit of 1500 underway hours.

Note: If the district planner wanted to keep a five percent surge capacity in case of a particularly hard winter with widespread navigation aid losses, the target of 1425 hours (95% of 1500 hours) for the year would force the planner to reschedule other tenders with fewer hours to cover for this one, or drop less critical missions.

4. Second Multiple Limits Example.

During the first half of the year, a WPB 110 (without MAT support and without supplemental funding) logs 1000 u/w hours, 60 u/w days, 45 high readiness days, 5 inport operations days, and 65 DAFHP.

For the second half of the year, this WPB can be scheduled up to 120 additional DAFHP, 90 total operations days, and 800 underway hours.

5. DAFHP and Normal Liberty Example.

After a day of underway operations, a WLB moors to a pier to off-load lighted buoys and on-load winter markers. The crew completes buoy handling and liberty is granted at 2000. They need to sail at 0700 the next morning for further operations. The day just completed would place the WLB one day closer to the DAFHP limit. This would be the case even if the vessel moored in its homeport, since less than 12 hours of consecutive liberty time were available between 1600 and 0800.

Note: If upon return to homeport, 12 hours of consecutive liberty is granted between 1600 that day and 0800 the following day; the day of return to homeport would not be counted as a DAFHP.