

## CHAPTER 10 GLOSSARY AND INDEX

### 10.1 GLOSSARY

Table 10-1 presents definitions of operational terms used to describe current and proposed activities on the Point Mugu Sea Range. Table 10-2 presents a list of factors for converting English and metric units.

**Table 10-1. Glossary of Terms**

Term	Definition
AEGIS	Total weapons system aboard destroyers and cruisers that includes fire control system, radar, and ordnance (e.g., missiles).
Aircraft operation	A single takeoff, landing, or overhead pattern (a “sortie” would count as two or more aircraft operations).
Ballistic	The unpowered phase of a missile flight, goes into an arc (parabola).
Boost Phase	Powered ascent period of missile flight.
Booster	Short duration rocket booster used to launch a missile or target and get it up to speed before the regular jet engine can sustain flight.
Canceled Operation	An operation in which the scheduled activity is terminated at least 2 hours prior to the launching of the test article.
Captive-carry	Carrying inert missiles equipped with telemetry devices on an airplane during sortie to simulate carrying and firing live ordnance.
Chaff	Thin strips of metallic foil-like material which are dropped from aircraft and ship to confuse or passively jam enemy radar, enabling friendly aircraft to avoid detection.
Completed Operation	An operation that is scheduled and executed on the Sea Range.
Cruise Missile Defense	Defense of a point target (e.g., ship) against cruise missiles.
DC-130	C-130 aircraft specially configured to launch aerial targets.
Drone	Unmanned aerial vehicle.
Event	A surface vessel leaving port, accomplishing its assigned mission (e.g., testing activities or training exercises, and returning to port).
Flares	Flares used on the Sea Range are of two types. Defensive flares are ejected from aircraft in order to confuse heat-seeking missiles. Illumination flares are dropped from aircraft and descend to the surface by parachute, providing surface illumination during the night.
Fleet Exercise (or FLEETEX)	A coordinated, multi-ship exercise designed around particular training events and scenarios. The objective of a FLEETEX is to conduct realistic Fleet operations with minimal operational constraints consistent with the safety of participants and non-participants.
Hazard area	See “safety hazard pattern.”
Hulk	A stripped-down, environmentally cleaned, ex-Navy destroyer or other vessel used as a surface target.
Impact area	The predetermined area where a missile will strike the surface (ground or water). This area will always be inside the safety hazard pattern.
Knot	Unit of measurement indicating speed of an aircraft, missile, or ocean vessel in nautical miles per hour.
Launch Operation	An operation involving a vehicle or device (target or missile) which departs from a launch site (e.g., BQM-34 launched from land on San Nicolas Island) or another vehicle (QF-4, F/A-18, F-14, or DC-130).
Littoral Warfare	Naval operations in coastal waters or the littoral area, commonly defined as that from 600 feet deep toward the shore.



<b>Term</b>	<b>Definition</b>
Live fire	Type of test or training using real ordnance or munitions.
Lower Tier	Lower altitude (inside of atmosphere) descent period of missile flight.
Mach	Ratio between speed (aircraft, missile, or target) and sound at a given altitude.
Missile	A projectile weapon that is fired or otherwise propelled toward a target. Missiles can be “live” (carrying ordnance) or “inert” (without ordnance).
Operation	A test or training activity (e.g., test and evaluation of a Phoenix missile versus an AQM-37 target) that is scheduled on the Sea Range. An operation can involve as few as one aircraft or ship. An operation can also involve numerous aircraft or ships in a coordinated testing and training event and still be considered a single operation.
Ordnance	Explosive weapons or munitions.
Platform	Location from which a missile, target, or other test item is launched. A platform can be airborne (aircraft), surface (ship), or subsurface (submarine).
Restricted Area	Special Use Airspace within which aircraft operations are subject to restrictions regarding lateral boundaries, flight altitudes, and hours of operation.
Safety hazard pattern	Surface area that could be endangered by a missile if it does not follow its prescribed flight path.
Scrubbed Operation	An operation removed from the daily schedule within 2 hours of the scheduled launch of a target, missile, or other test article. Supporting aircraft or ships may have launched in advance of the launch of the test article. In this event, those assets would be recalled since the test or event could not be completed successfully.
Sea State	Sea State is a measurement of wind and wave conditions. It is expressed in an International Scale of 0 to 12, with 0 being the calmest conditions and 12 representing the most severe.
SEPTAR	Remotely controlled powered boats for use as surface targets.
Sortie	The complete flight of a single aircraft (i.e., one take-off, one or more “aircraft operations,” and a final landing).
Special Use Airspace	Airspace within which specific activities must be confined, or wherein limitations are imposed on aircraft not participating in those activities.
Support Operation	Any effort not specified as a Launch Operation is categorized as a Support Operation.
Target	Item used for test and evaluation of munitions (e.g., missiles, bombs, or rockets). Targets can be surface (e.g., hulks) or airborne (e.g., missiles and QF-4 aircraft).
Telemetry	Electronic data transfer. Telemetry can include video (photo-optical), audio, or other data transmission.
Torpedo	Munitions launched against surface or subsurface targets. Torpedoes can be launched from the air, surface, or subsurface.
Theater Missile Defense (TMD)	An integrated program intended to protect U.S. forces and allies against the threat of short- and medium-range missiles. TMD testing may involve Boost Phase Intercept Testing, Upper Tier Testing, Lower Tier Testing, and Cruise Missile Defense.
Upper Tier	High-altitude (outside of atmosphere) period of missile flight.
Warning Area	Designated airspace for military activities that are in international airspace. When Warning Areas are in use, controlling agencies must issue a notice-to-airmen (NOTAM) to stay clear of the area; however, flights by non-participating aircraft are not prohibited.

**Table 10-2. Unit Conversion Matrix for English and Metric Units of Measure**

Type of Measure	English Unit	Metric Unit	English → Metric, Multiply by:	Metric → English, Multiply by:
<b>Distance</b>	inches	centimeters	2.54	0.39
	feet	meters	0.30	3.28
	yards	meters	0.91	1.09
	miles	miles/kilometers	1.61	0.62
	nautical miles	kilometers	1.85	0.54
<b>Area</b>	square inches	square centimeters	6.45	0.16
	square feet	square meters	0.09	10.76
	square yards	square meters	0.84	1.20
	square miles	square kilometers	2.59	0.39
	square nautical miles	square kilometers	3.43	0.29
	acres	hectares	0.40	2.47
<b>Volume</b>	cubic inches	cubic centimeters	16.39	0.06
	cubic feet	cubic meters	0.03	35.31
	cubic yards	cubic meters	0.76	1.31
	fluid ounces	milliliters	29.60	0.03
	quarts	liters	1.06	0.94
	gallons	liters	3.80	0.26
	acre-feet	hectare-meter	0.12	8.11
	acre-feet	cubic meters	1233.48	0.00
<b>Mass</b>	ounces	grams	28.35	0.04
	pounds	kilograms	0.45	2.20
	tons	metric tons	0.91	1.10
	tons	kilograms	907.20	0.00
<b>Density (mass/area)</b>	ounces per square foot	grams per square meter	305.49	0.0033
	pounds per square mile	kilograms per square kilometer	0.17	5.76
	pounds per square nautical mile	kilograms per square kilometer	0.13	7.62
	<b>(mass/volume)</b> pounds per cubic foot	kilograms per cubic meter	16.03	0.06
	<b>(mass/mass)</b> ounces per pound	milligrams per kilogram	62,500	0.000016
<b>Temperature</b>	° Fahrenheit	° Celsius	°C = (5/9) x (°F-32)	°F = 1.8 x °C+32
<b>Force</b>	pounds	newtons	4.45	0.22
<b>Pressure</b>	pounds per square foot	newtons per square meter	47.88	0.02
	pounds per square inch	newtons per square meter	6894.76	0.00015



## 10.2 INDEX

- access, 3.0-34, 3.0-35, 3.4-18, 3.8-7, 3.8-11, 3.10-2, 3.10-5, 3.10-17, 3.11-8, 3.11-11, 3.11-13, 3.12-2, 3.14-1, 3.14-5, 3.14-10, 4.8-10, 4.8-21, 4.8-22, 4.9-1, 4.9-5, 4.10-1, 4.10-4, 4.10-9, 4.14-5, 5-8
- ambient noise, 3.10-7, 4.7-9, 4.8-2, 4.8-3, 4.8-9, 4.8-15, 4.8-17, 7-27, 7-28
- baleen whales (mysticetes), 3.5-4, 3.7-1, 3.7-6, 3.7-26, 3.7-31, 3.7-45, 3.7-50, 4.7-3, 4.7-5, 4.7-8, 4.7-10, 4.7-14, 4.7-18, 4.7-19, 4.7-26, 4.7-35, 4.7-38, 4.7-39, 5-10, 7-9
- behavior, 3.0-38, 3.7-14, 3.7-15, 3.7-38, 4.6-1, 4.6-2, 4.6-4, 4.6-5, 4.6-9, 4.6-13, 4.6-14, 4.6-17, 4.7-2, 4.7-3, 4.7-11, 4.7-14, 4.7-25, 4.7-26, 4.7-36, 4.7-39, 4.7-40, 4.7-41, 4.8-1, 4.8-20, 4.8-22, 5-10, 7-2, 7-8, 7-10, 7-13, 7-22, 7-24
- benthic, 3.5-4, 3.5-5, 3.5-7, 3.5-8, 3.5-9, 3.5-10, 3.6-2, 3.6-3, 3.6-16, 3.6-21, 3.7-26, 3.7-40, 3.8-5, 3.8-9, 4.5-1, 4.5-4, 4.5-5, 4.5-8, 4.5-14, 7-10
- cetaceans, 3.7-1, 3.7-6, 3.7-8, 3.7-9, 3.7-11, 3.7-19, 3.7-31, 3.7-40, 3.7-44, 3.7-50, 4.7-2, 4.7-18, 4.7-19, 4.7-30, 4.7-34, 7-1, 7-2, 7-7, 7-11
- commercial fishing, 3.10-1, 3.10-3, 3.10-6, 3.10-17, 3.11-1, 3.11-2, 3.11-3, 3.12-2, 3.12-3, 4.5-11, 4.10-2, 4.10-3, 4.10-4, 4.10-5, 4.10-6, 4.10-7, 4.10-8, 4.11-3, 4.11-4, 4.11-5, 4.11-6, 4.12-1, 4.12-3, 4.12-4, 4.12-5, 4.12-7, 4.14-3, 4.14-4, 4.14-5, 4.14-6, 4.14-7
- commercial shipping, 3.10-3, 3.11-3, 3.12-2, 3.14-2, 4.10-1, 4.10-2, 4.10-7, 4.11-3, 4.11-6, 4.11-7, 4.11-8, 4.11-9, 4.12-1, 4.12-2, 4.12-3, 4.12-4, 4.12-5, 4.14-3, 4.14-8, 4.14-9
- conformity, 3.2-3, 4.2-1, 4.2-2, 4.2-13, 6-1
- contaminated (contamination), 3.4-7, 3.4-9, 3.4-12, 3.4-18, 3.8-11, 3.13-7, 3.13-11, 4.1-1, 4.6-10, 4.6-15, 4.7-18, 4.7-19, 4.13-19
- currents, 3.1-2, 3.1-6, 3.4-1, 3.4-10, 3.4-12, 3.4-16, 3.5-1, 3.5-4, 3.5-12, 3.8-3, 3.9-3, 3.9-11, 3.14-3, 4.1-7, 4.1-8, 4.1-12, 4.1-13, 4.4-4, 4.4-9, 4.5-9, 4.5-11, 4.5-14, 4.9-4
- disposal, 3.4-9, 3.4-14, 3.4-19, 3.12-12, 3.13-6, 3.13-7, 3.13-8, 3.13-13, 4.0-2, 4.4-19, 4.9-6, 4.12-4, 4.12-6, 4.13-1, 4.13-2, 4.13-6, 4.13-9, 7-5
- economy, 3.12-8, 3.12-10, 4.12-1, 4.12-3
- eligibility, 3.9-2, 3.9-7, 3.9-8, 3.9-11, 3.9-12, 4.9-8
- employment, 3.0-34, 3.12-1, 3.12-2, 3.12-8, 3.12-10, 4.12-1, 4.12-5, 4.12-6, 4.12-7
- EMR, 3.14-1, 3.14-3, 3.14-5, 3.14-8, 4.14-1, 4.14-2, 4.14-5
- endangered, 3.0-18, 3.0-26, 3.4-15, 3.5-1, 3.5-8, 3.5-10, 3.5-11, 3.5-14, 3.6-1, 3.6-2, 3.6-15, 3.6-21, 3.6-25, 3.6-27, 3.7-1, 3.7-6, 3.7-8, 3.7-22, 3.7-25, 3.7-26, 3.7-27, 3.7-31, 3.8-1, 3.8-2, 3.8-3, 3.8-5, 3.8-7, 3.8-9, 3.8-11, 3.14-3, 4.0-1, 4.5-1, 4.5-2, 4.5-5, 4.6-11, 4.7-1, 4.7-5, 4.7-8, 4.7-21, 4.7-27, 4.7-28, 4.7-31, 4.7-34, 4.7-49, 4.7-50, 4.7-51, 4.8-1, 4.8-18, 4.8-19, 5-4, 7-23, 10-2
- Environmental Justice, 2.2-1, 3.12-1, 3.12-4, 3.12-13, 4.12-1, 4.12-4, 4.12-6, 6-2
- environmental management, 3.0-16
- ESQD, 3.14-3, 3.14-5, 3.14-6, 3.14-8, 3.14-9

Executive Order, 1-1, 3.12-1, 3.14-1, 4.1-2, 4.2-1, 4.2-2, 4.2-3, 4.2-6, 4.2-10, 4.3-4, 4.4-2, 4.5-2, 4.6-8, 4.7-21, 4.7-22, 4.8-2, 4.8-3, 4.8-4, 4.8-14, 4.8-18, 4.9-3, 4.10-2, 4.11-2, 4.12-2, 4.13-4, 4.14-2, 6-1, 6-2, 6-3

hearing, 3.0-29, 3.3-1, 4.6-1, 4.6-3, 4.7-2, 4.7-3, 4.7-4, 4.7-5, 4.7-6, 4.7-7, 4.7-8, 4.7-9, 4.7-10, 4.7-12, 4.7-13, 4.7-28, 4.7-51, 7-1, 7-10, 7-11, 7-21, 7-25

HERO, 3.14-3, 3.14-4, 3.14-8, 3.14-9, 4.14-5

HERP, 3.14-3, 3.14-4, 3.14-8, 3.14-9, 4.7-38, 4.14-5

historic, 3.9-1, 3.9-2, 3.9-3, 3.9-4, 3.9-7, 3.9-9, 3.9-11, 3.9-12, 4.0-1, 4.9-1, 4.13-2, 7-23

housing, 3.2-12, 3.10-12, 3.10-14, 3.11-13, 3.12-1, 3.12-5, 3.12-7, 3.12-8, 3.12-10, 3.12-13, 4.12-1, 4.12-6, 5-7

income, 3.12-1, 3.12-10, 4.12-2, 4.12-4, 4.12-6

IRP, 3.4-14, 3.13-7, 3.13-8, 3.13-9, 3.13-10, 3.13-11, 3.13-12, 4.13-19, 4.13-21, 7-17

kelp, 3.5-2, 3.5-4, 3.5-12, 3.6-1, 3.6-2, 3.6-18, 3.6-23, 3.6-24, 3.6-25, 3.6-27, 3.7-40, 3.7-45, 3.7-50, 3.10-3, 3.10-5, 3.10-6, 3.12-3, 4.5-1, 4.5-2, 4.5-7, 4.5-10, 4.5-11, 4.5-16, 7-2, 7-5, 7-7, 7-11

masking, 4.7-2, 4.7-3

munitions, 2-19, 2-20, 3.0-4, 3.13-1, 3.14-8, 4.13-1, 4.13-2, 4.14-3, 4.14-7, 5-4, 10-2

NAWQC, 4.4-1, 4.4-2, 4.4-3, 4.4-4, 4.4-5, 4.4-6, 4.4-7, 4.4-9, 4.4-10, 4.4-11, 4.4-12, 4.4-13, 4.4-15, 4.4-16, 4.4-17, 4.4-18, 4.4-19, 7-26

Ocean Plan, 3.4-4, 4.4-1, 4.4-3, 4.4-4, 7-25

otariids, 4.7-9

permit(s), 3.0-5, 3.2-3, 3.2-13, 3.2-14, 3.4-18, 3.5-1, 3.7-44, 3.8-1, 3.8-7, 3.10-15, 4.9-6, 4.9-9, 6-1, 6-2

phocids, 4.7-9, 4.7-19

pinnipeds, 3.7-6, 3.7-8, 3.7-9, 3.7-33, 3.7-34, 3.7-35, 3.7-40, 3.7-41, 3.7-45, 3.7-50, 3.7-53, 4.7-1, 4.7-2, 4.7-3, 4.7-5, 4.7-6, 4.7-7, 4.7-8, 4.7-9, 4.7-10, 4.7-11, 4.7-12, 4.7-13, 4.7-18, 4.7-19, 4.7-20, 4.7-22, 4.7-23, 4.7-24, 4.7-25, 4.7-27, 4.7-30, 4.7-34, 4.7-35, 4.7-36, 4.7-38, 4.7-39, 4.7-40, 4.7-41, 4.7-42, 4.7-43, 4.7-44, 4.7-45, 4.7-46, 4.7-47, 4.7-52, 4.7-53, 5-10, 7-2, 7-5, 7-11, 7-24, 7-25

prehistoric, 3.9-1, 3.9-3, 3.9-7, 3.9-8, 3.9-9, 3.9-11, 3.9-12, 4.9-1

recovery, 2-9, 3.0-11, 3.0-20, 3.0-22, 3.0-25, 3.0-26, 3.0-27, 3.0-29, 3.0-31, 3.0-33, 3.0-34, 3.7-26, 3.9-8, 3.9-9, 3.13-2, 4.5-4, 4.5-5, 4.5-6, 4.5-8, 4.6-11, 4.7-18, 4.7-36, 4.7-39, 4.8-3, 4.8-5, 4.8-8, 4.8-11, 4.8-20, 4.8-22, 4.9-3, 4.9-4, 4.13-1, 5-4, 5-5, 7-27

salinity, 3.4-3, 3.4-12, 3.4-13, 3.5-4, 3.5-10, 3.6-22, 3.8-7, 3.8-9, 4.4-7

scoping, 1-4, 5-4

sediments, 3.1-1, 3.1-2, 3.1-4, 3.1-6, 3.4-4, 3.4-7, 3.4-12, 3.4-13, 3.4-14, 3.4-15, 3.4-16, 3.4-18, 3.5-4, 3.5-5, 3.5-7, 3.5-8, 3.5-9, 3.5-10, 4.1-1, 4.1-2, 4.1-3, 4.1-8, 4.1-9, 4.1-10, 4.1-11, 4.1-12, 4.1-13, 4.1-14, 4.4-6, 4.5-1, 4.5-2, 4.5-3, 4.5-4, 4.5-5, 4.5-7, 4.5-8, 4.5-10, 4.5-11, 4.5-13, 4.5-14, 4.5-15, 4.5-17, 4.6-15, 4.6-16, 4.6-18, 4.9-4, 4.9-6, 4.9-7, 4.9-8, 7-19

shipwrecks, 3.9-1, 3.9-3, 3.9-4, 3.9-12, 3.12-4, 4.9-2, 4.9-4, 4.9-6

SIP, 3.2-1, 3.2-3, 4.2-13, 4.2-14, 5-8, 6-1

sport fishing, 3.4-13, 3.4-15, 3.5-11, 3.10-1, 3.10-5, 3.11-1, 3.11-2, 3.12-2, 3.12-3, 3.12-4, 4.12-1, 4.12-2, 4.12-5

storage, 3.0-4, 3.0-5, 3.2-11, 3.2-13, 3.2-14, 3.4-18, 3.4-19, 3.10-14, 3.10-16, 3.13-6, 3.13-7, 3.13-8, 3.13-10, 3.13-11, 3.14-3, 3.14-5, 3.14-8, 4.8-22, 4.12-4, 4.13-1, 4.13-2, 4.13-18, 4.13-19, 4.13-21



temperature, 3.2-6, 3.2-8, 3.3-6, 3.4-3, 3.4-10,  
3.4-12, 3.5-4, 3.5-10, 3.5-12, 3.6-3, 3.6-14,  
3.6-15, 3.6-17, 3.6-18, 3.6-22, 3.7-11, 3.7-14,  
3.11-1, 4.5-11, 7-23

temporary threshold shift (TTS), 4.7-3, 4.7-5,  
4.7-6, 4.7-7, 4.7-8, 4.7-21, 4.7-22, 4.7-25, 4.7-  
26, 4.7-28, 4.7-30, 4.7-31, 4.7-34, 4.7-35, 4.7-  
36, 4.7-39, 4.7-40, 4.7-41, 4.7-42, 4.7-43, 4.7-  
44, 4.7-47, 4.7-48, 4.7-49, 4.7-51

threatened, 3.4-9, 3.4-15, 3.5-1, 3.5-8, 3.5-10,  
3.5-11, 3.5-14, 3.6-1, 3.6-2, 3.6-21, 3.6-25,  
3.6-27, 3.7-1, 3.7-6, 3.7-8, 3.7-38, 3.8-1, 3.8-  
5, 3.8-12, 3.8-14, 4.5-1, 4.5-2, 4.5-5, 4.7-1,  
4.7-5, 4.7-21, 4.7-31, 4.7-34, 4.7-50, 4.7-51,  
4.8-1, 4.8-18, 4.8-19, 7-4, 7-19

toothed whales (odontocetes), 3.7-1, 3.7-6, 3.7-  
22, 3.7-44, 3.7-50, 4.7-5, 4.7-6, 4.7-7, 4.7-8,  
4.7-9, 4.7-10, 4.7-13, 4.7-14, 4.7-39