

ACRONYMS AND ABBREVIATIONS

(r ₀)	charge radius	CG	Cruiser
μg	micrograms(s)	CH ₄	methane
μg/g	microgram(s)/gram	CIWS	Close-in Weapons System
μg/L	microgram(s) per liter	cm	centimeter(s)
μm	micrometers	CMP	Coastal Management Program
μPa	micropascal(s)	CO	carbon monoxide
μPa-m	micropascal-meter	CO ₂	carbon dioxide
μPa ² -s	micropascal squared seconds	CO ₂ Eq	carbon dioxide equivalent
°	degree(s)	CSG	Carrier Strike Group
AAW	Anti-Air Warfare	CT	Computerized Tomography
ac.	acre(s)	CV	Coefficient of Variation
ACM	Air Combat Maneuver	CVN	Aircraft Carrier (Nuclear)
ACMP	Alaska Coastal Management Program	CWA	Clean Water Act
ADFG	Alaska Department of Fish and Game	CZMA	Coastal Zone Management Act
AGM	Air-to-Ground Missile	dB	decibel(s)
AIM	Air Intercept Missile	dB re 1 μPa	decibels referenced to 1 micropascal
Air Force	United States Department of the Air Force	dB re 1μPa ² -s	decibels referenced to 1 micropascal-second
ALCOM	Alaska Command	dB re 1 μPa @ 1 m	decibels referenced to 1 micropascal at 1 meter
ALTRV	Altitude Reservation	dBa	A-weighted decibels
AOE	Fast Combat Support Ship	DDG	Destroyer
Army	United States Department of the Army	DDT	dichlorodiphenyltrichlorethane
ARTCC	Air Route Traffic Control Center	DEIS	Draft Environmental Impact Statement
ASUW	Anti-Surface Warfare	DICASS	Directional Command Activated Sonobuoy
ASW	Anti-Submarine Warfare	DIFAR	Directional Frequency and Ranging
ATAs	Alaska Training Areas	DOC	Department of Commerce
ATCAA	Air Traffic Control Assigned Airspace	DoD	Department of Defense
AtoN	Aids to Navigation	DOI	Department of Interior
AUTEC	Atlantic Undersea Test and Evaluation Center	DPS	Distinct Population Segments
AUV	Autonomous Underwater Vehicle	D _{Rm}	depth of receiver (animal) in meters
BA	Biological Assessment	DS	Doppler Sonar
BDU	Bomb Dummy Unit	EA	Electronic Attack
BIA	Biologically Important Area	EC	Electronic Combat
BO	Biological Opinion	EER	Extended Echo Ranging
BOEM	Bureau of Ocean Energy Management	EEZ	Exclusive Economic Zone
BOMBEX	Bombing Exercise	EFH	Essential Fish Habitat
BQM	Aerial Target Drone Designation	EIS	Environmental Impact Statement
BRF	Behavioral Risk Function	EL	Exposure Level
BWPT	Bilge Water Processing Tank	EMATT	Expendable Mobile Anti-Submarine Warfare Training Target
C	Celsius	EO	Executive Order
CAA	Clean Air Act	EOD	Explosive Ordnance Disposal
cal	Caliber	EPA	Environmental Protection Agency
CATM	Captive Air Training Missile	ERL	effects range – low
C _{eHF}	High-Frequency Cetacean Weighting Function	ERM	effects range – median
C _{eLF}	Low Frequency Cetacean Weighting Function	ESA	Endangered Species Act
C _{eMF}	Mid-Frequency Cetacean Weighting Function	ESU	Evolutionarily Significant Units
CEQ	Council on Environmental Quality	EW	Electronic Warfare
CetMap	Cetacean Density and Distribution Mapping Working Group	F	Fahrenheit
C.F.R.	Code of Federal Regulations		

FAA	Federal Aviation Administration	MAC	Multistatic Active Coherent
FACSFAC	Fleet Area Control Surveillance Facility	MARPOL	International Convention for the
FEIS	Final Environmental Impact Statement		Prevention of Pollution from Ships
FERC	Federal Energy Regulatory Commission	MBTA	Migratory Bird Treaty Act
FFG	Frigate	MF	mid-frequency
FL	flight level	MFA	Mid-Frequency Active
FMP	Fishery Management Plan	MFAS	Mid-Frequency Active Sonar
FR	Federal Register	mg	milligram(s)
FRR&DP	Fleet Readiness Research and Development Program	mg/L	milligram(s) per liter
ft.	foot/feet	mi.	mile(s)
ft. ²	square foot/square feet	mi. ²	square mile(s)
FY	Fiscal Year	min.	minute(s)
g	gram(s)	ml	milliliter(s)
g(0)	Detection Probability	mm	millimeter(s)
G	gauss	MMA	Multi-mission Aircraft
gal.	gallon(s)	MMPA	Marine Mammal Protection Act
GI	gastrointestinal	MOA	Military Operations Area
GOA	Gulf of Alaska	MPA (1)	Marine Protected Area
GOALS	Gulf of Alaska Line-Transsect Survey	MPA (2)	Maritime Patrol Aircraft
GUNEX	Gunnery Exercise	msec	millisecond(s)
h	depth	MSL	mean sea level
ha	hectare(s)	MW	mine warfare
HARM	High Speed Anti-Radiation Missile	MIW	Mine Warfare
HARP	High-Frequency Acoustic Recording Package	N	North
HDC	High Duty Cycle	N ₂ O	nitrous oxide
HF	high-frequency	N/A	not applicable
HRC	Hawaii Range Complex	NAEMO	Navy Acoustics Effects Model
HSMST	High-Speed Maneuverable Surface Target	NAS	Naval Air Station
Hz	Hertz	NAVSEA	Naval Sea Systems Command
IEER	Improved Extended Echo Ranging	Navy	United States Department of the Navy
i-ENCON	Incentivized Energy Conservation	NEPA	National Environmental Policy Act
IFR	Instrument Flight Rules	NEPM	Non-explosive Practice Munition
in.	inch(es)	NEW	Net Explosive Weight
ISR	Intelligence, Surveillance, Reconnaissance	NHPA	National Historic Preservation Act
JPARC	Joint Pacific Alaska Range Complex	nm	nautical mile(s)
kg	kilogram(s)	nm ²	square nautical mile(s)
kHz	kilohertz	NMFS	National Marine Fisheries Service
km	kilometer(s)	NMML	National Marine Mammal Laboratory
km ²	square kilometer(s)	NMS	National Marine Sanctuary
kW	kilowatt(s)	NMSA	National Marine Sanctuaries Act
L	liter(s)	NO	nitric oxide
lb.	pound(s)	NO ₂	nitrogen dioxide
LCAC	Landing Craft, Air Cushion	NO _x	nitrogen oxides
LF	low-frequency	NOAA	National Oceanographic and Atmospheric Administration
LFA	low-frequency active	NOI	Notice of Intent
Lmax	maximum peak sound level	NOTAM	Notice to Airmen
LOA	Letter of Authorization	NRHP	National Register of Historic Places
m	meter(s)	NSW	Naval Special Warfare
m ²	square meter(s)	NTM	Notice to Mariners
m ³	cubic meter(s)	O ₃	ozone
M	acoustic modems		

OBIS-SEAMAP	Ocean Biogeographic Information System-Spatial Ecological Analysis of Megavertebrate	SDV	SEAL Delivery Vehicle
		SEAL	Sea, Air, Land
		sec	second(s)
OCE	Officer Conducting the Exercise	SECNAVINST	Secretary of the Navy Instruction
OCM	Oil Content Monitor	SEL	Sound Exposure Level
OEIS	Overseas Environmental Impact Statement	SEL _{cum}	Cumulative Sound Exposure Level
OPAREA	Operating Area	SINKEX	Sinking Exercise
OPNAVINST	Chief of Naval Operations Instruction	SIP	State Implementation Plan
OPNAV M	Chief of Naval Operations Manual	SL	source level
OWS	Oil/Water Separator	SO ₂	sulfur dioxide
oz.	ounce(s)	SOCAL	Southern California
P	Pinger	Sonar	SOund Navigation and Ranging
Pa	Pascal(s)	SOP	Standard Operating Procedure
Pa-s	Pascal-second(s)	SPL	Sound Pressure Level
Pb	lead	SPL _{peak}	Peak Sound Pressure Level
PCAD	Population Consequences of Acoustic Disturbance	SPL _{rms}	Sound Pressure Level, Root Mean Square
		SPLASH	Structure of Populations, Levels of Abundance, and Status of Humpbacks
PCoD	Population Consequences of Disturbance	SQT	SEAL Qualification Training
PCBs	polychlorinated biphenyls	SSN	Navy submarine
PCE	Primary Constituent Element	Study Area	GOA (TMAA) Study Area
PM	particulate matter	STW	Strike Warfare
PM ₁₀	PM ≤10 microns in diameter	SUA	Special Use Airspace
PM _{2.5}	PM ≤2.5 microns in diameter	SURTASS	Surveillance Towed Array Sensor System
PMAP	Protective Measures Assessment Protocol	SUS	Signal Underwater Sound
PMRF	Pacific Missile Range Facility	SWAG	Shock Wave Action Generator
P _o	Otariid Pinniped Weighting Function	SWFSC	Southwest Fisheries Science Center
POPS	Project Operations	TALD	Tactical Air Launched Decoy
P _p	Phocid Pinniped Weighting Function	TDU	Target Drone Unit
ppb	parts per billion	Tg	teragram(s)
ppm	parts per million	TL	transmission loss
PRST	Post Refit Sea Trial	TMAA	Temporary Maritime Activities Area
PSA	Post Shakedown Availability	TNT	trinitrotoluene
psi	pounds per square inch	TOC	total organic carbon
PTS	permanent threshold shift	TORP	torpedoes
R	Restricted Area	TRACKEX	tracking exercise
RAM	Rolling Airframe Missile	TTS	temporary threshold shift
RDT&E	Research, Development, Testing and Evaluation	T-weighting	turtle-weighting
RDX	royal demolition explosive	UAS	Unmanned Aerial System
re	referenced to	UEWS	Underwater Emergency Warning System
RHIB	Rigid Hull Inflatable Boat	U.S.	United States
RL	Received Level	U.S.C.	United States Code
rms	root mean square	USCG	United States Coast Guard
RMMV	Remote Multi-Mission Vehicle	USEPA	U.S. Environmental Protection Agency
ROD	Record of Decision	USFWS	U.S. Fish and Wildlife Service
ROI	Region of Influence	USSOCOM	U.S. Special Operations Command
ROP	Range Operating Policies and Procedures Manual	USSR	Union of Soviet Socialist Republics
ROV	Remotely Operated Vehicle	USV	Unmanned Surface Vehicle
S	south	UUV	Unmanned Underwater Vehicle
SAR	Stock Assessment Report	VDS	Variable Depth Sonar
SAS	Synthetic Aperture Sonar	VFR	Visual Flight Rules
SD	Swimmer Detection Sonar	VHF	Very High Frequency
		VOC	volatile organic compounds

W (1)	Warning Area
W (2)	west
yd.	yard(s)