



2016 Master Datasheet and Vessel Tracking Log, with Entry Guides



part of 2016 Gray Whales Count, Survey Report © Gray Whales Count, 2016,
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2016 Guide to Codes for Master Datasheet

Weather + Sea Conditions

Quality

E	Excellent: No problem with light or glare; excellent contrast; sea state < Beaufort 3, horizon likely sharp • Vis at least 3 nm
G	Good: May be some swell with well dispersed whitecaps, light Beaufort 3, good light & contrast; may be light haze with fuzzy, but distinct horizon. • Vis to 3 nm
F	Fair: Low contrast; flat or changing light; may be choppy, Beaufort 3 to light Beaufort 4, some haze, horizon visible. • Vis to 2 nm
P	Poor (but acceptable): Likely missing some whales. Poor contrast and/or low light, glare, distortions, haze, or light fog. Steady Beaufort 4. • Vis to 1.7 nm
NA	Not Acceptable: Beaufort 5 and above, rain or fog. Horizon may be not visible. • Vis < 1.7 nm (Calf migration Vis to 1 nm)

Beaufort Scale

0	Sea like a mirror; glossy, no sparkles in sun path; sometimes sea looks like ice (less than 1 knot)
1	Ripples with the appearance of scales are formed; like sand paper; matte, darker vs. zero-Beaufort gloss, lighter; sparkles in sun (1 - 3 knots)
2	Small wavelets are becoming more articulated. Crests have a glassy appearance; no whitecaps. (4 - 6 knots)
3	First whitecaps, large wavelets; foam crests begin to appear, but are widely scattered. Mostly dots. (7 - 10 knots)
4	Small waves with more frequent whitecaps - always apparent - but waves settle instead of breaking; foam along top edge; dots + dashes; waves random, not yet organized (11 - 16 knots)
5	Moderate waves begin to break with more whitecaps. Becoming organized, lining up (17 - 21 knots)

Horizon - Clarity

S	Sharp, distinct, very clear (usually, Visibility 3 nm)
F	Fuzzy; haze, (typical marine condition; Vis up to 3 nm)
In	Indeterminate — VERY Fuzzy — haze, heat waves, distortions
NV	Not Visible: rain, fog, or heavy haze in this condition, not able to use reticle scale

Visibility - Distance in nautical miles (nm)

3	Equal to or greater than 3 nm (<.1 reticles)
2	Just beyond Holly: Between 2 and 3 nm (.2 to .1 reticles)
1.7	At Holly or Campus Point (.25 reticles)
1.5	Just inside Holly (Horizon Clarity In or NV)
1	Estimate (Horizon Clarity In or NV)
<1	Estimate (Horizon Clarity In or NV)

Vessel Classifications on back of clipboard

Animal + Vessel Sightings

Code

B	Begin Count
W	Weather + Sea condition update
S	Sighting (Er) only
SW	Sighting all other Whales, including Er (southbound)
SD	Sighting all Dolphin species
SO	Sighting Sea Otters
SP	Sighting Pinnipeds, rarely California Sea lion (Zc)
V	Sighting vessels
>	Continues sighting (same number)
TO	Time Out: Suspend survey effort
TI	Time In: Resume survey effort
T	Terminate: End of survey for day

Direction of Travel

N	North ↓ (towards mainland)
S	South ↑ (towards islands)
E	East ← (towards Santa Barbara)
W	West → (towards Pt Conception)
O	Circling
∅	Still

Environment

OO	Open Ocean
K	Kelp Area
Z	Surf Zone
X	On Shore
A	In Air

(Er) Route past Holly

I	Inside (between shore + Holly)
O	Outside (beyond Holly)
nd	not determined

(Er) Calf Trail along Shore toward Ellwood

Y	Yes
N	No
nd	not determined

Species

Whales

(Er)	Gray whale (northbound)	<i>Eschrichtius robustus</i> , p 204
Er	Gray whale (southbound)	<i>Eschrichtius robustus</i> , p 204
Mn	Humpback whale	<i>Megaptera novaeangliae</i> , p 208
Bm	Blue whale	<i>Balaenoptera musculus</i> , p 234
ULW	unidentified large whale	

Dolphins

Tt	Bottlenose dolphin	<i>Tursiops truncatus</i> , p 358
Dsp	Common dolphin species	<i>Delphinus</i> species not determined
Lo	Pacific White-sided dolphin (Lag)	<i>Lagenorhynchus obliquidens</i> , p 402
Oo	Killer whale (Orca)	<i>Orcinus orca</i> , p 436
UD	unidentified dolphin	

Sea otters

EI	Sea otter	<i>Enhydra lutris</i> p 42
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Pinnipeds

Pv	Harbor seal	<i>Phoca vitulina</i> , p 118
Ma	Northern Elephant seal	<i>Mirounga angustirostris</i> , p 162
Zc	California Sea lion	<i>Zalophus Californianus</i> , p 90
UP	unidentified pinniped	

Page numbers refer to *Marine Mammals of the World*. Consult for rarer species.



Behaviors

	Whales	Dolphins	Sea otters	Pinnipeds
1	Traveling	21 Traveling	41 swimming	61 Swimming
2	Foraging	22 Foraging	42 Diving	62 Diving
3	Breach	23 Leap	43 Interacting (explain)	63 Resting, Vertical
4	Fluke	24 Chorus line	44 Grooming	64 Resting, Horizontal
5	Bubbles blast	25 Parade line	45 on back, feeding (what?)	65 in large group
6	Pec slap	26 Bowriding	46 on back, resting	66 Foraging
7	Tail lob	27 Tail slap	47 with tags (note color + foot)	67 Rescue Attempt
8	Spyhop	28 with (Er)	48 with gull(s)	68 with (Er)
9	Rolling			
10	Sharking			
O	Circling	O Circling	O Circling	O Circling
∅	Still	∅ Still	∅ Still	∅ Still

2016 Guide to Codes for Vessel Tracking Log

Vessel Classifications

Category	Sub Category	Type	Inst / Org
		40 Cruise liner	60 UCSB
1 Oil Services	11 Crew boat	41 RHIB	61 Coast Guard
2 Touring	12 Tug + Barge	42 Boston Whaler	62 Sheriff / County
3 Kelp Harvester	13 Tug	43 Kayak/canoe	63 Harbor Patrol
4 Fish Commercial	14	44 Jet-ski	64 Military
5 Private	15 Work boat	45	65 USGS
6 Research	16 Oil-spill recovery	46 Stand-up paddler	66 CA Fish + Wildlife
7 Vessel Assist	17 Whale watching	47 Kiteboard/Windsurfer	67 US Fish + Wildlife
8 Enforcement	18	48 Sailboat	68 CINMS
9 Warship	19 Sportfishing	49 Sailboat motoring	69 ChannelKeeper
10 Airship	20 Diving	50 Airplane	70
99 other	21 Cruising	51 Helicopter	71
	22	52 Blimp	72
	23	53	
	24	54	
	25 Lobster/Crab	55	
	26 Urchin diving	56	
	27 Net	57	
	28 Squid	58	
	29 Line	59	

Places + Action

Environment	Speed	In MPA ?	Take
OO in Open Ocean	1 Slow	Y Yes (default)	N No (default)
K in Kelp	2 Moderate	N No	FL Fishing Line
Z in Surf Zone	3 Fast		FT Fishin Trap
A Above Ocean	∅ Stopped		FN Fishing Net
			FS Fishing Spear
			CK Cutting Kelp
			CA Contact Animal
			HA Hovering over Animal

Vessel / Animal Interaction

Animal Sight Number	Vessel Action to Animal	Animal Reaction to Vessel
— <i>must be filled in</i> —	1 Change course to view animal	21 Avoidance of boat
	2 Change course to avoid animal	22 Approach boat
0 No apparent interaction (no animals near vessel)	3 Approach head on	23 Alteration of normal activities
	4 Approach from rear	24 Quick dive
	5 Approach at side	25 Long downtime
	6 Approach parallel	26 Breach
	7 Approach inside 100 m	27 Fluke
	8 Travel over submerged animal	28 Spyhop
	9 Positioned in path of animal	29 Change direction
	10 Crossing path of animal	30 Bowriding
	11 Hovering above	30 Pec slap
	12 Flying below 30 meters	31 Tail lob
	13 Contact animal	32 Disappear
		33 Contact boat
		nd not determined

Airship sighting position always at Bearing of 160°

Estimate Distance from Counter Point in meters

Estimate Altitude above ocean in meters, below In Comments: < 30 30 - 50 > 50



