GRAY WHALES COUNT
SANTA BARBARA CHANNEL

2011 Master Datasheet and Vessel Tracking Log with Entry Guides

QUAL	CL CVR	BEAU	HORIZ	VIS	CODE	SIGHT NUMB	TIME	CUE TIP	SAW	SIGHT POS BRNG	RTCL	DIR	BEHAVIORS	SP	TOTAL NUMB	CALF NUMB	TIME	SAW	TRACK POS BRNG	RTCL	DIR	BEHAVIORS	TIME	SAW	TRACK POS BRNG	RTCL	DIR	BEHAVIORS	TIME	SAW	TRACK POS BRNG	RTCL	DIR	BEHAVIORS	> HOLLY	BUOYS
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	MD	VS	AL	O	O		MD	VS	AL	O	O		MD	VS	AL	O	O		MD	VS	AL	O	O	MASTER SHEETS		TIME COUNTING		NUMBER OF SEA OTTERS		ER START		CALF START	
9						11						1						3						CALF SHEETS				NUMBER OF ER SIGHTINGS		ER TODAY		CALF TODAY	
10						12						2						4						VESSEL SHEETS				NUMBER OF HARBOR SEALS		ER TOTAL		CALF TOTAL	

COMMENTS

Weather + Sea Conditions

Quality

E	Excellent • Minimum Visibility 3 nm
G	Good • Minimum Visibility 2 nm
F	Fair • Minimum Visibility 1.7 nm
P	Poor

Note: Just because you can see 3 nm does not make it Excellent, etc.

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)
6	Many whitecaps all around with larger waves forming and breaking. Much foam along lines of waves. (22 - 27 knots)

Horizon - Clarity

S	Sharp, distinct, very clear (usually, Visibility 3 nm)
F	Fuzzy: haze, spray, and/or heat waves
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 likely not distinguishable)
1	Estimate (horizon likely not distinguishable)
<1	Estimate (horizon likely not distinguishable)

Animal + Vessel Sightings

Code

B	Begin Count
W	Weather + Sea condition update
S	Sighting, Er (northbound) only
SW	Sighting all other Whales, including Er (southbound)
SD	Sighting all Dolphin species
SO	Sighting Sea Otters
SP	Sighting Pinnipeds, not 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

Cue Tip

A	Passerby	1	Blow
B	Boat	2	Body
C	Call	3	Leap (dolphin)
D	Birds (often diving)	4	Splash
E	Surface disturbance		
		6	Breach (whale)
O	other	0	other

Direction of Travel

N	North ↓ (towards mainland)
S	South ↑ (towards islands)
E	East ← (towards Santa Barbara)
W	West → (towards Pt Conception)
0	Not traveling, still

Er (north) route past Holly

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

Er (north) route past Buoys

I	Inside (between shore + buoys)
O	Outside (beyond buoys)
T	Through the buoys
nd	not determined

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Behaviors

Whales		Dolphins		Sea otters		Pinnipeds	
0	Not traveling, still	0	Not traveling, still	0	Not traveling, still	0	Not traveling, still
1	Slow travel	21	Slow travel	31	swimming	51	Slow travel
2	Moderate travel	22	Moderate travel	32	Interacting (explain)	52	Moderate travel
3	Fast travel	23	Fast travel	33	Grooming	53	Fast travel
4	Spyhop	24	with Er	34	with gull(s)	54	with Er
5	Rolling	25	Foraging	35	Diving	55	Diving
6	Breach	26	Leap	36	in kelp	56	in kelp
7	Fluke	27	Chorus line	37	in open water	57	in open water
8	Bubbles seen	28	Parade line	38	in surf zone	58	in surf zone
9	Milling	29	Milling	39	on back, feeding (what?)	59	Milling
10	Pec slap			40	on back, resting	60	on sand
11	Tail lob			41	with tags (note color + foot)		

Airship Sighting Position at Bearing of 160˚

Estimate Distance from Counter Point in meters			
Estimate Altitude above ocean in meters. In Comments:	< 30	30 - 50	> 50

Species

Whales

Er	Gray whale (northbound)	*Eschrichtius robustus*, p 204
Er	Gray whale (southbound)	*Eschrichtius robustus*, p 204
Mn	Humpback whale	*Megaptera novaeangliae*, p 208
ULW	unidentified large whale	
UC	unidentified cetacean	

Dolphins

Tt	Bottlenose dolphin	*Tursiops truncatus*, p 358
D sp	Common dolphin species	*Delphinus* species not determined
Dc	Common dolphin, Long-beaked	*Delphinus capensis*, p 392
Dd	Common dolphin, Short-beaked	*Delphinus delphis*, p 388
Lo	Pacific white-sided dolphin (Lags)	*Lagenorhynchus obliquidens*, p 402
Oo	Killer whale (Orca)	*Orcinus orca*, p 436
UD	unidentified dolphin	

Sea otters

El	Sea otter	*Enhydra lutris* p 42

Pinnipeds

Pv	Harbor seal	*Phoca vitulina*, p 118
Zc	California sea lion	*Zalophus Californianus*, p 90
UP	unidentified pinniped	

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

2011 Guide to Codes for Vessel Tracking Log

Vessel Classifications

Activity Type		Activity Sub-type		Vessel Type		Agency-Institution-Org	
00	Air	10	Crew boat	40	Cruise liner	60	UCSB
1	Oil Services	11	Tug + oil barge	41	RHIB	61	Coast Guard
2	Touring	12	Tug (little)	42	Boston Whaler	62	Sheriff / County
3	Kelp Harvester	13	Observation	43	Kayak/canoe	63	Harbor Patrol
4	Fish Commercial	14	Work boat	44	Jet-ski	64	Military
5	Private	15	Oil-spill recovery	45		65	USGS
6	Research	16		46	Stand-up paddler	66	CA Fish + Game
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	
		20	Sport-diving	50	Airplane		
99	other	21	Cruising	51	Helicopter		
		22	Tug + Barge (not oil)	52	Blimp		
		23		53			
		24		54			
		25	Lobster/Crab	55			
		26	Urchin diving	56			
		27	Net	57			
		28	Squid	58			
		29	Line	59			

Vessel / Animal Interaction

Animal Sighting Number

0	None apparent (no animals near vessel)
~	Enter Sighting Number of affected animal(s)

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Vessel Action to Animal		Animal Reaction to Vessel	
1	Change course to view animal	21	Avoidance of boat
2	Change course to avoid animal	22	Approach boat
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	Pec slap
11	Hovering above	31	Tail lob
12	Flying below 100 feet	32	Disappear
13	Contact animal	33	Contact boat
		nd	not determined

Airship Sighting Position at Bearing of 160°

Estimate Distance from Counter Point in meters			
Estimate Altitude above ocean in meters. In Comments:	< 30	30 - 50	> 50

>	SIGHT NUMB	ACTIVITY TYPE	ACTIVITY SUB-TYPE	VESSEL TYPE	AGENCY INST/ORG	TIME	SIGHT POS BRNG	RTCL	DIR	ANML S#	VESSEL ACTION	ANIMAL REACT	TIME	TRACK POS BRNG	RTCL	DIR	ANML S#	VESSEL ACTION	ANIMAL REACT	TIME	TRACK POS BRNG	RTCL	DIR	ANML S#	VESSEL ACTION	ANIMAL REACT	TIME	TRACK POS BRNG	RTCL	DIR	ANML S#	VESSEL ACTION	ANIMAL REACT	>
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