LONG BEACH FIRE DEPARTMENT
Marine Safety Division

TRAINING ACTION PLAN

"C" Shift Night Dive

Operational Period

Date From: 11/18/2024 Date To: 11/18/2024

Time From: 1730 Hours Time To: 1930 Hours

Approved By Incident Commander:

_____

Rank, First Initial, Last Name

INCIDENT OBJECTIVES (ICS 202)

1. Incident Name: C-Shift Night Dive	**2. Operational Period:** Date From: 11-18-2024 Date To: 11-18-2024 Time From: 1730 Time To: 1930

3. Objective(s):

-This drill is to simulate a missing lobster diver on the break wall. Divers will utilize a parallel search pattern with advancing depth to search a prescribed area.

-Set 2 Marker buoys near the sand/rock interface of the breakwall, approximately 25 yds. apart. Nearest to one marker buoy, descend to 10 feet deep on the wall, with partner at arms length, deeper, and facing the furthest marker buoy. Conduct a search pattern parallel to the breakwall, in between marker buoys, with topmost diver maintaining the 10 foot depth. Advance the pattern by moving the topmost diver below the bottom diver. Reverse direction and continue the parallel pattern between the buoys, with topmost diver maintaining the depth. Reverse direction and advance the pattern deeper in a similar fashion.

- Follow Directions of Rescue Boat Operator and Deckhand on and around the rescue boat
- Controlled descent to planned depth
- Conduct Search pattern per agency protocols
- Controlled Ascent with awareness of surroundings
- Surface with 500 PSI minimum

4. Operational Period Command Emphasis:

- Participants must attend the the Safety briefing
- If an accident should occur the IC shall be notified immediately. Use "EMERGENCY RADIO TRAFFIC" as necessary
- Breathing Compressed air is dehydrating, hydrate pre and post dive.
- Utilize safe practices in carrying out the mission
- Employ clear communication

General Situational Awareness

- Expected depth of 50 feet.
- Expected surge

5. Site Safety Plan Required? Yes ☐ No ☒

Approved Site Safety Plan(s) Located at:

6. Incident Action Plan (the items checked below are included in this Incident Action Plan)**:**

☐ ICS 203	☐ ICS 207	Other Attachments:	
☐ ICS 204	☒ ICS 208	☒	Long Beach Dive Team Dive Plan
☒ ICS 205	☐ Map/Chart	☒	LBFD Training Roster
☐ ICS 205A	☐ Weather Forecast/Tides/Currents	☒	Repetitive Dive Log / NOAA Dive Table
☒ ICS 206		☒	Cover Sheet

7. Prepared by: Name: J. Williams Position/Title: RBC / Dive Sup. Signature: _____

8. Approved by Incident Commander: Name: _____ Signature: _____

ICS 202	**IAP Page** 1	Date/Time: _____

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

1. Incident Name:	2. Date/Time Prepared:	3. Operational Period:
C-Shift Night Dive	Date: October 25, 2024 Time:	Date From: 11-18-2024 Date To: 11-18-2024 Time From: 1730 Time To: 1930

4. Basic Radio Channel Use:

Zone Grp.	Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks
	4	Command	Fire 4	Dive Group						
	1	Emergency	Fire 1	Medical Group						
	A	Tactical		Divers						Through water coms.
	16/22	USCG		Resource Group						

5. Special Instructions:

- Surface OPS. on FIRE 4
- Through water coms. for diver to diver and diver to surface ban A.
- Emergency resources FIRE 1
- VHF 16/22 for USCG

6. Prepared by (Communications Unit Leader) Name: J. Williams Signature: _____

ICS 205 | **IAP Page** _____ | Date/Time: _____

MEDICAL PLAN (ICS 206)

1. Incident Name:	2. Operational Period:
C-Shift Night Dive	Date From: 11-18-2024 Date To: 11-18-2024 Time From: 1730 Time To: 1930

3. Medical Aid Stations:

Name	Location	Contact Number(s)/Frequency	Paramedics on Site?
Rescue Boat 1	On Scene	LOB V-4 / VHF -16	☒ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No

4. Transportation (indicate air or ground)**:**

Ambulance Service	Location	Contact Number(s)/Frequency	Level of Service
LBFD	Ballast Point Dock	LBFD V-1	☒ ALS ☐ BLS
LACoFD, Air Ops		(818) 890-5752	☒ ALS ☐ BLS
USCG, Air Ops		(650) 784-8904	☐ ALS ☒ BLS
			☐ ALS ☐ BLS

5. Hospitals:

Hospital Name	Address, Latitude & Longitude if Helipad	Contact Number(s)/ Frequency	Travel Time		Trauma Center	Burn Center	Helipad
			Air	Ground			
Long Beach Memorial	2801 Atlantic Ave, Long Beach, CA 90807	(562) 933-2000		10	☒ Yes Level:_____	☐ Yes ☐ No	☒ Yes ☐ No
Catalina Chamber	1 Big Fisherman Cove Avalon	(310) 510-1053	10		☐ Yes Level:_____	☐ Yes ☒ No	☒ Yes ☐ No
					☐ Yes Level:_____	☐ Yes ☐ No	☐ Yes ☐ No
					☐ Yes Level:_____	☐ Yes ☐ No	☐ Yes ☐ No
					☐ Yes Level:_____	☐ Yes ☐ No	☐ Yes ☐ No

6. Special Medical Emergency Procedures:

- All patients will be assesed for barotrauma, and transported to the chamber at Isthmus if required per medical direction.
- In the event of a medical emergency, the Dive SUP, Dive Officer, Dive Partner & RBC shall be immediately notified. Dive operations shall stop and assigned medical staff will facilitate appropriate care and trtansportation arrangements for injuried person(s).

☐ Check box if aviation assets are utilized for rescue. If assets are used, coordinate with Air Operations.

7. Prepared by (Medical Unit Leader)**:** Name: J. Williams Signature: _____

8. Approved by (Safety Officer)**:** Name: _____ Signature: _____

ICS 206	IAP Page _____	Date/Time: _____

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name:	2. Operational Period:
"C" Shift Night Dive	Date From: 11-18-2024 Date To: 11-18-2024 Time From: 1730 Time To: 1930

3. Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan:

- Participants must attend the Safety briefing
- Any Participant my suspend the drill due to safety concerns; at the discretion of the Dive Officer the exercise may be t terminated
- If an accident should occur notify the IC or Instructor immediately. Use "EMERGENCY RADIO TRAFFIC" as necessary
- Dive equipment / gear must be in excellent working condition in order to participate in exercise
- Divers shall inspect their buddy's equipment prior to entering the water
- Participants will act in a responsible manner at all times during this exercise
- Divers will maintain buddy discipline with NO EXCEPTIONS
- Never hold your breath while diving on compressed air
- Always make eye contact with the deckhand when approaching the Rescue Boat
- Follow instructions from the deckhand when embarking / disembarking the swim step
- Clear you ears early and often
- Participants on SCUBA will return to the surface with not less than 500 psi at the completion of the dive exercise
- Table profiles will be monitored pre and post dive
- Always maintain situational awareness, IF YOU SEE SOMETHING SAY SOMETHING! Our safety is everyones concern.
- If you get separated from your buddy search for no more than a minute, then safely surface.

4. Site Safety Plan Required? Yes ☐ No ☒

Approved Site Safety Plan(s) Located At:

5. Prepared by: Name: J. Williams Position/Title: RBC / Dive Supervisc Signature: _____

ICS 208	IAP Page _____	Date/Time: _____

Long Beach Fire Department Dive Team

Dive Plan

Date: 11-18-2024 **Location:** LB Break Wall **Dive Supervisor:** Williams

Depth: 50'		**Visibility:** 5-10ft		**Temp:** 55 deg
Equipment:	☐ Wet	☒ Dry	☐ RDU	☒ SCUBA ☒ Surface Comms
Dive Type:	Break Wall Search			
Hazards:	☐ Entanglement	☐ Overhead Environment	☐ Pollution	☐ Strong Current
	☐ Other:			

Dive 1	**Time:** 1745		**Dive 2**	**Time:** 1815		**Dive 3**	**Time:**	
Divers:	Wetteland, Mathison, Wawrzynski		Divers:	Williams, Balsillie, McColl		Divers:		
RIC:	Balsillie, McColl		RIC:	Wetteland, Mathison		RIC:		
Start P.G.:	A		Start P.G.:	E		Start P.G.:		
Depth:	50 Ft.		Depth:	50Ft.		Depth:		
Bottom Time:	30 Min.		Bottom Time:	30 Min.		Bottom Time:		
Safety Stop:	N/A		Safety Stop:	N/A		Safety Stop:		
End P.G.:	E		End P.G:	J		End P.G.:		
Surface Interval:			Surface Interval:			Surface Interval:		
Coverage:	RB-1	ABM	Coverage:	RB-1	ABM	Coverage:		
	RB-2	DTM		RB-2	DTM			

Notifications: ☐ USCG (310) 521-3815 ☐ Catalina Hyperbaric Chamber (310) 510-4020

Dive Description/Sketch:

Set 2 Marker buoys near the sand/rock interface of the breakwall, approximately 25 yds apart. Nearest to one marker buoy, descend to 10 feet deep on the wall, with partner at arms length, deeper, and facing the furthest marker buoy. Conduct a search pattern parallel to the breakwall, in between marker buoys, with topmost diver maintaining the 10 foot depth. Advance the pattern by moving the topmost diver below the bottom diver. Reverse direction and continue the parallel pattern between the buoys, with topmost diver maintaining the depth. Reverse direction and advance the pattern deeper in a similar fashion.

Coverage Assignments:

1700 LG-7 Cover the beach (Normal EOW)
1700 LG-6 (McColl) Off the beach at Sta. 21
1730 RB-1, RB-2, RB-3 meet at the East End

PUBLIC SAFETY DIVE TEAM
REPETITIVE DIVE LOG

DATE: November 18, 2024 **LOCATION:** LB Breakwall **DIVE SUPERVISOR:** Williams

DIVE TABLES USED: NOAA **DIVE TYPE:** "C" Shift Night Dive **DIVE DESCRIPTION:** Breakwall Search

DIVER/SAFETY	SI	BEG. PG	STARTING PSI	TIME DOWN	MAX. DEPTH	TIME UP	SAFETY STOP	ENDING PSI	RES. NIT. TIME	TOTAL TIME	END PG
Wetteland											
Wawrzynski											
Mathison											
Williams											
Balsillie											
McColl											

NOAA NO-DECOMPRESSION TABLE
MULTIPLE AIR DIVES

WARNING: EVEN STRICT COMPLIANCE WITH THESE CHARTS WILL NOT GUARANTEE AVOIDANCE OF DECOMPRESSION SICKNESS. CONSERVATIVE USAGE IS STRONGLY RECOMMENDED.

RNT RESIDUAL NITROGEN TIME
+ ABT ACTUAL BOTTOM TIME
ESDT EQUIVALENT SINGLE DIVE TIME

(USE ESDT TO DETERMINE END-OF-DIVE LETTER GROUP)

THESE CHARTS ARE BASED ON THE U.S. NAVY AIR DECOMPRESSION TABLES 7, 8, & 9 REV. 6

CHART 1 — DIVE TIMES WITH END-OF-DIVE GROUP LETTER

00 MAXIMUM NO-STOP TIME

DIVE TIME REQUIRING DECOMPRESSION STOP MINUTES REQUIRED AT 20 fsw (6.1 msw) — 00 / 00

DEPTH msw	DEPTH fsw																
12.2	40	12	20	27	36	44	53	63	73	84	95	108	121	135	151	163	180 / 14
13.7	45	11	17	24	31	39	46	55	63	72	82	92	102	114	125	130 / 2	150 / 25
15.2	50	9	15	21	28	34	41	48	56	63	71	80	89	92	100 / 4	110 / 8	130 / 34
16.8	55	8	14	19	25	31	37	43	50	56	63	71	74	80 / 4	90 / 10	100 / 17	
18.3	60	7	12	17	22	28	33	39	45	51	57	60	65 / 2		80 / 14	90 / 23	
21.3	70	6	10	14	19	23	28	32	37	42	47	48	55 / 9	60 / 14	70 / 24		
24.4	80	5	9	12	16	20	24	28	32	36	39	45 / 10		50 / 17	60 / 30		
27.4	90	4	7	11	14	17	21	24	28	30	35 / 4		40 / 14	45 / 23			
30.5	100	4	6	9	12	15	18	21	25		30 / 3		35 / 15	40 / 26			
33.5	110	3	6	8	11	14	16	19	20	25 / 3		30 / 14		35 / 27			
36.6	120	3	5	7	10	12	15		20 / 2		25 / 8		30 / 24				
39.6	130	2	4	6	9	10		15 / 1		20 / 4		25 / 17					

CHART 3 — REPETITIVE DIVE TIME

REPETITIVE DIVES SHALLOWER THAN 40 FSW (12.2 MSW) ARE TO USE THE 40 FSW (12.2 MSW) REPETITIVE SCHEDULE

fsw / msw	40 / 12.2	45 / 13.7	50 / 15.2	55 / 16.8	60 / 18.3	70 / 21.3	80 / 24.4	90 / 27.4	100 / 30.5	110 / 33.5	120 / 36.6	130 / 39.6	GROUP LETTER
	13 / 150	12 / 113	11 / 81	10 / 64	9 / 51	8 / 40	7 / 32	6 / 24	5 / 20	5 / 15	5 / 10	4 / 6	A
	21 / 142	18 / 107	17 / 75	15 / 59	14 / 46	12 / 36	10 / 29	9 / 21	8 / 17	8 / 12	7 / 8	6 / 4	B
	29 / 134	25 / 100	23 / 69	20 / 54	19 / 41	16 / 32	14 / 25	12 / 18	11 / 14	10 / 10	9 / 6	9 / 1	C
	37 / 126	32 / 93	29 / 63	26 / 48	24 / 36	20 / 28	18 / 21	16 / 14	14 / 11	13 / 7	12 / 3		D
	45 / 118	40 / 85	35 / 57	32 / 42	29 / 31	25 / 23	22 / 17	19 / 11	17 / 8	16 / 4	14 / 1		E
	55 / 108	48 / 77	42 / 50	38 / 36	35 / 25	29 / 19	25 / 14	22 / 8	20 / 5	18 / 2			F
	64 / 99	56 / 69	49 / 43	44 / 30	40 / 20	34 / 14	29 / 10	26 / 4	23 / 2				G
	74 / 89	64 / 61	57 / 35	51 / 23	46 / 14	39 / 9	33 / 6	29 / 1					H
	85 / 78	73 / 52	65 / 27	58 / 16	52 / 8	44 / 4	38 / 1						I
	97 / 66	83 / 42	73 / 19	65 / 9	58 / 2								J
	109 / 54	93 / 32	81 / 11	72 / 2									K
	122 / 41	104 / 21	90 / 2										L
	136 / 27	115 / 10											M
	152 / 11												N
													O
													Z

RED NUMBERS (TOP) ARE RESIDUAL NITROGEN TIMES (RNT)
BLACK NUMBERS (BOTTOM) ARE ADJUSTED NO-STOP REPETITIVE DIVE TIMES
ACTUAL DIVE TIME SHOULD NOT EXCEED THIS NUMBER

CHART 2 — SURFACE INTERVAL TIME

Time Ranges in hours: minutes
Enter Chart 2 from the top, move down to find surface interval time, move left to find the next repetitive group letter.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Z
2:20 / :10	3:36 / 1:17	4:31 / 2:12	5:23 / 3:04	6:15 / 3:56	7:08 / 4:49	8:00 / 5:41	8:52 / 6:33	9:44 / 7:25	10:36 / 8:17	11:29 / 9:10	12:21 / 10:02	13:13 / 10:54	14:05 / 11:46	14:58 / 12:38	15:50 / 13:31
	1:16 / :10	2:11 / :56	3:03 / 1:48	3:55 / 2:40	4:48 / 3:32	5:40 / 4:24	6:32 / 5:17	7:24 / 6:09	8:16 / 7:01	9:09 / 7:53	10:01 / 8:45	10:53 / 9:38	11:45 / 10:30	12:37 / 11:22	13:30 / 12:14
		:55 / :10	1:47 / :53	2:39 / 1:45	3:31 / 2:38	4:23 / 3:30	5:16 / 4:22	6:08 / 5:14	7:00 / 6:07	7:52 / 6:59	8:44 / 7:51	9:37 / 8:43	10:29 / 9:35	11:21 / 10:28	12:13 / 11:20
			:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22	6:06 / 5:14	6:58 / 6:07	7:50 / 6:59	8:42 / 7:51	9:34 / 8:43	10:27 / 9:35	11:19 / 10:28
				:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22	6:06 / 5:14	6:58 / 6:07	7:50 / 6:59	8:42 / 7:51	9:34 / 8:43	10:27 / 9:35
					:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22	6:06 / 5:14	6:58 / 6:07	7:50 / 6:59	8:42 / 7:51	9:34 / 8:43
						:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22	6:06 / 5:14	6:58 / 6:07	7:50 / 6:59	8:42 / 7:51
							:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22	6:06 / 5:14	6:58 / 6:07	7:50 / 6:59
								:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22	6:06 / 5:14	6:58 / 6:07
									:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22	6:06 / 5:14
										:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30	5:13 / 4:22
											:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38	4:21 / 3:30
												:52 / :10	1:44 / :53	2:37 / 1:45	3:29 / 2:38
													:52 / :10	1:44 / :53	2:37 / 1:45
														:52 / :10	1:44 / :53
															:52 / :10

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LONG BEACH FIRE DEPARTMENT
TRAINING DIVISION

ROSTER / SIGN-IN SHEET

Type of Training / Drill	Location: Long Beach Breakwall	Date:
"C" Shift Night Dive	Time: 1730 to 1930	11/18/2024
Coordinator: J. Williams		

#	Print Last Name, First Name	DID #	Station / Shift	Signature/Phone #