



DEPARTMENT OF THE NAVY  
COMMANDER U.S. THIRD FLEET  
5300 TOMAHAWK DR STE 338  
SAN DIEGO, CALIFORNIA 92147-5004

IN REPLY REFER TO:

5830  
Ser N00J/226  
18 Apr 11

**Exe (b)(6)**

SECOND ENDORSEMENT on LCDR [REDACTED] ltr  
of 11 Apr 11

From: Commander, U.S. THIRD Fleet  
To: File

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

1. I have reviewed the subject investigation in its entirety, and I approve the findings of fact, opinion and recommendation of the investigating officer. Additionally, the following findings are added:

(a) As a required marine mammal protective measure, personnel must search and monitor the exclusion area for the presence of marine mammals for 30 minutes prior to an UNDET. When EOD personnel determined their scheduled UNDET would be delayed due to an ongoing commercial dive operation, they continued to monitor the area for the presence of marine mammals. Their monitoring and surveillance prior to this event totaled 91 continuous minutes.

(b) EODMU ONE was approved by THIRD Fleet to conduct this training event using four separate 3.75 pound explosive charges. Due to the presence of the commercial divers, the team was limited by time to one detonation. Consequently, to meet their training objective they combined two 3.75 pound charges into one 7.5 pound charge for a single detonation. Although this was a deviation from the approved plan, the detonation of a single 7.5 pound charge requires the same mitigation measures for the protection of marine mammals as four separate charges.

(c) The total net explosive weight of this detonation was

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
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8.76 pounds. The net explosive weight includes the single 7.5 pound charge and a dual strand detonation cord (154 feet total) with 1.26 pounds additional explosive weight.

2. This investigation is closed.

3. In my review of this investigation, I note the Officer in Charge and the Demolition Operation Supervisor made an on scene, time critical risk assessment of all practical options after the animals were sighted in the area of the detonation. Weighing all options to stop the time-delayed detonation, the team made the correct decision not to place divers back in the water and put human lives at risk. While the death of these animals is regrettable, this was precisely the correct decision under these circumstances. I commend their professionalism and sound judgment.



R. W. HUNT

Copy to:  
Commander, U.S. Pacific Fleet (NO1CE)  
Commander, Navy Expeditionary Combat Command



DEPARTMENT OF THE NAVY  
COMMANDER EXPLOSIVE ORDNANCE DISPOSAL GROUP ONE  
2424 RENDOVA RD BLDG 156  
SAN DIEGO, CA 92155-5584

5800  
Ser N00/034  
11 Apr 11

**Exe (b)(6)**

FIRST ENDORSEMENT on LCDR [REDACTED] ltr  
of 11 Apr 11

From: Commander, Explosive Ordnance Disposal Group ONE  
To: Commander, U.S. THIRD Fleet

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

1. Forwarded.

[REDACTED]

**Exe (b)(6)**

[REDACTED]

Copy to:  
COMNECC (N02L)

[REDACTED]

[REDACTED]

**Exe (b)(6)**

11 April 2011

From: LCDR [REDACTED] Investigating Officer  
To: Commander, U.S. THIRD Fleet  
Via: Commander, Explosive Ordnance Disposal Group ONE

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURRING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

Ref: (a) JAG Manual  
(b) Preliminary Inquiry Appointment Letter dtd 11Mar11  
(c) OPNAVINST 3501.97H dtd 20Sep10  
(d) EODGRUONEINST 3502.1 dtd 15Jul10  
(e) COMTHIRDFLTINST 3120.2A dtd 13Jan11  
(f) Navy Ordnance Information System Non-Combat  
Expenditure Allowance dtd 28Mar11  
(g) NAVSEA OP 5, Vol 1 dtd 1Jul10  
(h) EODMU ONE Underwater Demolition SOP dtd 13Sep09  
(i) EODGRUONEINST 3502.3B dtd 11Jan10  
(j) COMPACFLT OPOD 201 TAB K TO APPENDIX 16 TO ANNEX C  
dtd 4Sep07

Encl: (1) Supervisor Statement Sheet  
(2) Workers Statement Sheet

1. This reports the completion of the preliminary inquiry conducted in accordance with references (a) and (b) into the circumstances surrounding the death of three long beaked common dolphins during an approved underwater detonation (UNDET) training event conducted by EODMU ONE Dive Platoon at the Silver Strand Training Complex on 4 March 2011. In addition to the three dolphins found on 4 March 2011, it is suspected that the remains of a fourth dolphin recovered by the National Oceanic and Atmospheric Association (NOAA) on 7 March 2011 near Ocean Beach, CA might be related to this event.

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

2. Personnel contacted:

- a. [REDACTED] LCDR, XO, EODMU ONE
- b. [REDACTED] LT, VSW Ops, EODMU ONE
- c. [REDACTED] CAPT, Pltn OIC, EODMU ONE
- d. [REDACTED] LT, Asst Plt OIC, EODMU ONE
- e. [REDACTED] EOD1, LPO/DOS, EODMU ONE
- f. [REDACTED] EOD2, Diver, EODMU ONE
- g. [REDACTED] EOD2, Diver, EODMU ONE
- h. [REDACTED] EOD1, Asst LPO, EODMU ONE
- i. [REDACTED] CPL, Coxswain, EODMU ONE
- j. [REDACTED] SSGT, Safety, EODMU ONE
- k. [REDACTED] EODCS, N7 LCPO, EODMU ONE
- l. [REDACTED] EOD1, Safety, EODMU ONE
- m. [REDACTED] CTR, FACSFAC SCORE
- n. [REDACTED] CIV, Ordnance Mgr, NECC
- o. [REDACTED] CTR, Ordnance, EODESU ONE

Exe (b)(6)

3. Materials reviewed:

- a. Preliminary Inquiry Appointment Letter dtd 11Mar11
- b. COMTHIRDFLTINST 3120.2A dtd 13Jan11

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

- c. COMPACFLT OPORD 201 TAB K TO APPENDIX 16 TO ANNEX C  
dtd 04Sep07
- d. EODMU ONE Underwater Demolition SOP dtd 13Sep09
- e. PMAP Situational Awareness Report dtd 28Jan11
- f. Timeline dtd 04Mar11
- g. Designation Letters (various)
- h. Supervisor's Statement sheet dtd 04Mar11
- i. Worker's Statement sheet dtd 04Mar11
- j. Underwater Detonation Request message, 232342ZFEB11
- k. Underwater Detonation Approval message, 251836ZFEB11
- l. EODMU ONE OPREP-3 MSG 050041ZMAR11
- m. EODMU ONE OPREP-3 MSG 080013ZMAR11 Closeout
- n. Witness Statements (various)
- o. Ordnance Information System NCEA Report dtd 17Mar11
- p. NAVSEA OP 5, Vol 1 dtd 01Jul10
- q. NAVSEA SW060-AA-MMA-010 dtd 24May10
- r. EODB-60H-2-2-38, MK 59 Mod O Firing Device, dtd 27Feb98

4. Summary of findings: Underwater detonations (UNDETs) are frequently conducted to sustain readiness for Explosive Ordnance Disposal forces assigned Mine Counter Measures and Amphibious Warfare missions. Specific Platoon Required Operational

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

Capabilities (ROCs) and mandatory training requirements are outlined in references (c) and (d). Explosive Ordnance Disposal Mobile Unit ONE (EODMU ONE) Dive Platoon is assigned these primary responsibilities.

a. UNDET Planning.

(1) EODMU ONE submitted an underwater detonation request to COMTHIRDFLT on 23Feb11 as required by ref (e).

(2) EODMU ONE received approval from COMTHIRDFLT on 25Feb11 to conduct an underwater detonation on 4Mar11.

(3) EODMU ONE submitted a demolition material request to Explosive Ordnance Disposal Expeditionary Support Unit ONE (EODESU ONE) which was approved and authorized in accordance with reference (f).

(4) EODMU ONE Dive Platoon used authorized demolition materials from within their annual Non-Combatant Expenditure Allowance (NCEA) for this UNDET to maintain operational readiness as recommended by reference (g).

(5) EODMU ONE used the appropriate Protective Measure Assessment Protocol (PMAP) software program to prepare the required situational awareness report on 28Jan11 in compliance with reference (h).

(6) EODMU ONE's supervisory personnel designated by reference (i) conducted the required operational briefs on 4Mar11 in accordance with reference (h). Specifically, the Demolition Operation Supervisor used information and enclosures from reference (h) to brief all required personnel including:

Exe (b)(6) LTJG [REDACTED] EOD1 [REDACTED] SSGT [REDACTED] EOD1 [REDACTED] EOD1 [REDACTED] CPL  
[REDACTED] EOD2 [REDACTED] and EOD2 [REDACTED]

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

b. Environmental Mitigation Measure Procedures.

(1) The 7.5 pound explosive charge used for this underwater detonation was well below the approved net explosive range limit of 29 pounds.

(2) Two safety observers were used to maintain the 640 meter exclusion zone as required by reference (e). Each safety observer had unobstructed visibility throughout the exclusion zone at all times. No additional marine mammal sightings occurred on 4Mar11 prior to the reported event.

(3) The UNDET was delayed one time for approximately one hour due to the close proximity of a commercial dive vessel.

(4) Following the UNDET, EODMU ONE personnel continued to monitor the exclusion zone as required by reference (e).

(5) Required voice and operational reports were submitted to COMTHIRDFLT as required by reference (j).

c. Personnel Qualifications.

(1) All EODMU ONE personnel, both supervisors and team members, were qualified and briefed for the Underwater Detonation conducted on 4Mar11.

(2) A Supervisor's Statement was signed on 4Mar11 by **Exe (b)(6)** EOD1 [REDACTED] and EOD1 [REDACTED] and is included as Encl (1). Their signature verifies that both members understand ref (h), and that, to the best of their knowledge can execute an UNDET process in a safe, healthful, and environmentally sound manner.

(3) A Worker's Statement was signed on 4Mar11 by all personnel involved in the UNDET and is included as Encl (2). Their signature verifies that they have received the proper briefs and are adequately trained and qualified to properly perform UNDET procedures.



Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURRING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

d. Charge Placement and Initiation Procedures.

(1) Upon initial arrival at the UNDET location, EODMU ONE personnel found a commercial diving vessel and crew operating within one thousand yards of their location. EOD1 made contact with the commercial crew and was informed that their divers would remain in the water for one hour. Approximately one hour later, the commercial divers ceased dive operations and waited until EODMU ONE finished their UNDET evolution prior to recommencing their work. Due to this delay, and in order to minimize impact to the commercial vessels schedule, the Demolition Supervisor made the decision to modify the original UNDET plan by combining three smaller charges into one 7.5 pound charge. This change was a deviation from the original UNDET request, but remained well within the Silver Strand Training Complex limit of 29 pounds Net Explosive Weight. Although the net explosive weight of the charge was adjusted, all PMAP protocol requirements remained the same.

(2) Two divers were used to place one 7.5 LB C-4 charge on the ocean floor. Three MK 59 Time Delay Firing Devices (TFD) were combined into one initiating system used to detonate the one single 7.5LB C-4 charge.

(3) At 1031 on 04Mar11, the primary diver indicated that the MK 59 TFD initiation system was armed and that the fifteen minute safe separation countdown had begun.

(4) At 1034, both divers surfaced and were recovered by the dive boat which then transited to a 250 yard safe standoff point.

(5) At 1041, safety observers spotted a pod of dolphins approaching the exclusion zone from the East.

(6) Immediately upon sighting the dolphins, and with less than five minutes remaining before the planned detonation, the Officer in Charge and Demolition Operation Supervisor

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

conducted a Time Critical Risk assessment and considered multiple options to stop the detonation. Options that were considered including putting divers back in the water to separate the detonators from the main charge as well as pulling the charge back to the surface by the marker buoy and separating the Time Firing Devices from the main charge. It was determined that both options would place Navy personnel in grave danger and had an extremely low chance of success due to the short timeframe. As a last effort, the dive boat was placed between the pod and the UNDET site in an effort to guide the dolphins to a safer location but that effort was unsuccessful.

(7) At 1046, the charge detonated as planned.

d. Post Detonation and Reporting Procedures.

(1) At 1047, the safety observers searched the detonation site and identified that 3 dolphins appeared to have been killed.

(2) At 1051, the Officer in Charge began notifying the chain of command.

(3) At 1105, the Officer in Charge notified the COMTHIRDFLT Flag Watch Officer.

(4) At 1226, two SPAWAR veterinarians arrived on scene to examine the three dolphins and verified that the mammals were deceased.

(5) At 1500, the remains of the three dolphins were placed into a 7M RHIB and transported to the EODMU ONE pier located at Point Loma.

(6) At 1627, the dolphin remains were turned over to a National Marine Fisheries Service representative.

Subj: DEATH OF MARINE MAMMALS DURING AN APPROVED UNDERWATER  
DETONATION TRAINING EVENT OCCURING AT SILVER STRAND  
TRAINING COMPLEX ON 4 MARCH 2011

(7) At 050041ZMar11, EODMU ONE released an OPREP-3 Navy  
Blue message detailing incident.

(8) At 080013ZMar11, EODMU ONE released a final follow  
up OPREP-3 Navy Blue message.

5. Opinion. After careful consideration and thorough review of  
all material, it is my opinion that EODMU ONE Dive Platoon  
conducted the 04Mar11 Underwater Detonation within the  
guidelines of references (e) and (h) and considered all options  
available to further mitigate impacts to the pod of dolphins  
once they were spotted. Additionally, all participants were  
properly qualified to perform this approved UNDET.

6. Recommendation. I recommend that no further investigation  
is warranted for this event.

Very respectfully,

[Redacted Signature]

Exe (b)(6)

[Redacted Name]  
LCDR USN

Copy to:  
NECC Legal

## Supervisor's Statement

I have read and understand this Standard Operating Procedure (SOP). To the best of my knowledge, the processing described within this SOP can be done in a safe, healthful and environmentally sound manner. I have made sure all persons assigned to this process are qualified, have read and understand the requirements of this SOP, and have signed the Worker's Statement for this process. I will ensure the SOP has current procedures. I will conduct an annual review of this SOP during recurring processing and will document the review by signature below. If deviations from this SOP are necessary, I will ensure that this processing is stopped until the SOP is revised and approved. If unexpected safety, health or environmental hazards are found, I will make sure this processing is stopped until the hazards have been eliminated.

Exe (b)(6)

Supervisor's Name (Print)	Signature	Date
[REDACTED]	[REDACTED]	4 MAR 2011
[REDACTED]	[REDACTED]	04 MAR 2011

### Annual Review

Supervisor's Name (Print)	Signature	Date

**NOTE:**

On the fourth Annual Review, this SOP will be reviewed by the writer and approved by Command signature.

Encl (1)

## Worker's Statement

I have read this SOP, and I have received the Hazard Control Briefings (HCB). I have received adequate training to perform the process according to the SOP and I understand the process. I will follow this SOP unless I identify a hazard not addressed in it or encounter an operation I do not understand. If that occurs, I will stop the process and notify my immediate supervisor of the problem.

Exe (b)(6)

Worker's Name (Print)	Signature	Date
[REDACTED]	[REDACTED]	4 MAR 11
[REDACTED]	[REDACTED]	4 MAR 11
[REDACTED]	[REDACTED]	4 MAR 11
[REDACTED]	[REDACTED]	4 MAR 11
[REDACTED]	[REDACTED]	4 MAR 11
[REDACTED]	[REDACTED]	4 MAR 11
[REDACTED]	[REDACTED]	04 MAR 11
[REDACTED]	[REDACTED]	4 MAR 11