

# DDAS Accident Report

## Accident details

<b>Report date:</b> 13/08/2016	<b>Accident number:</b> 809
<b>Accident time:</b> 11:00	<b>Accident Date:</b> 13/11/2013
<b>Where it occurred:</b> Zulu Range, Camp Pembleton, San Diego County, California	<b>Country:</b> USA
<b>Primary cause:</b> Victim inattention (?)	<b>Secondary cause:</b> Management/control inadequacy (?)
<b>Class:</b> Handling accident	<b>Date of main report:</b> 14/11/2013
<b>ID original source:</b>	<b>Name of source:</b> Press
<b>Organisation:</b> [Name removed]	<b>Ground condition:</b> demolition site (explosives)
<b>Mine/device:</b> grenade	<b>Date last modified:</b> 13/08/2016
<b>Date record created:</b>	<b>No of documents:</b> 1
<b>No of victims:</b> 7	

## Map details

**Alt. coord. system:** Not recorded      **Coordinates fixed by:**

## Accident Notes

no independent investigation available (?)  
safety distances ignored (?)  
no independent investigation available (?)  
PPE not used

## Accident report

Details of this accident are derived from press reports and are included by request. In the absence of a formal report, details should be considered uncertain. The substance of the press reports is reproduced below, edited for anonymity.

**Stars and Stripes**, Published: March 6, 2014

Two Marines relieved over Pendleton explosion that killed four

A memorial service was held at Camp Pendleton on Nov. 22, 2013, in honor of Gunnery Sgt. Gregory J. Mullins, Staff Sgt. Mathew R. Marsh, Sgt. Miguel Ortiz and Staff Sgt. Eric W. Summers. The four Explosive Ordnance Disposal Marines were killed in an explosion at approximately on Nov. 13, 2013, during range maintenance to dispose of unexploded ordnance in the Zulu impact area at the base.

[Name removed]/U.S. Marine Corps



[Picture of actual ordnance involved in the accident.]

#### Related

CAMP PENDLETON, Calif. — Two Marines have been relieved after a report found that the explosion that killed four explosive ordnance disposal Marines here in November was likely caused when a 40-millimeter round was “dropped, kicked or bumped” in the demolition pit.

Staff Sgt. Mathew R. Marsh, Gunnery Sgt. Gregory J. Mullins, Sgt. Miguel Ortiz and Staff Sgt. Eric W. Summers died Nov. 13 after the explosion at Zulu impact area. The investigation could not establish exactly what caused the round to go off, said Capt. [Name removed], a spokesman for the base.

“We’ll never know the exact cause,” [Name removed] said.

The officer in charge and the staff non-commissioned officer in charge, a Marine captain and master sergeant, have been relieved for a “loss of trust and confidence in their ability to ensure proper preparation for and conduct of EOD proficiency training and lack of adherence to the established norms,” according to the Marine press release.

The four Explosive Ordnance Disposal Marines were clearing the range of unexploded ordnance and consolidating it as part of an annual training exercise, according to a Marine report about the results of the investigation. The Marines moved 40-millimeter rounds into one area surrounding an M60 105-millimeter white phosphorous round that could not be safely moved, the investigation found. They were moving rounds from the consolidation point to the demolition pit when one of the rounds exploded in the demolition pit, causing the other 40-millimeter rounds at the consolidation point and the demolition pit to explode, the investigation found.

The M430/A1 40-millimeter high explosive dual purpose round is fired from a Mark 19 grenade launcher.

Brig. Gen. [Name removed], commanding general of Marine Corps Installations West-Marine Corps Base Camp Pendleton, initiated the command investigation. He also has called for an immediate review and revision of policies and procedures for EOD training at all ranges under the Marine Corps Installations West umbrella.

“Many of the training evolutions we conduct are inherently dangerous, especially when dealing with explosives and munitions,” said [Name removed]. “We are deeply saddened by the tragic loss of four Marines during a training evolution; their loss is felt throughout the Marine Corps. We offer our heartfelt prayers and thoughts to the family members, and will continue to support them through this difficult time.”

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Nov 13 2013 America: 2 relieved of command for blast that killed 4 Camp Pendleton Marines  
Marine ordnance, Marine Corps

A grenade round that was 'dropped, kicked, or bumped' caused an explosion among these 350 grenade rounds and two larger shells, killing four Marines during a Nov. 13 training exercise at Camp Pendleton. The fatal explosion occurred just minutes after this picture was taken. The grenades and shells were being collected from an impact area for disposal.

A grenade round that was 'dropped, kicked, or bumped' caused an explosion among these 350 grenade rounds and two larger shells, killing four Marines during a Nov. 13 training exercise at Camp Pendleton. The fatal explosion occurred just minutes after this picture was taken. The grenades and shells were being collected from an impact area for disposal.  
(Marine Corps)

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CAMP PENDLETON -- The explosion that killed four enlisted Marines during a Nov. 13 training exercise was probably caused when a grenade round was "dropped, kicked or bumped," according to a investigation report released Thursday.

The grenade set off an explosion among several hundred grenades and other shells that had been gathered for demolition.

As a result of the investigation, a captain and master sergeant were relieved of command -- an action that may end their careers.

Brig. Gen. [Name removed], commanding general of Marine Corps Installations West, said that the exact cause of the accident may never be known.

The four Marines were explosive ordnance disposal specialists who had been assigned to clear away thousands of rounds from one of the impact areas on the base.

The captain and master sergeant had failed to adequately assess the potential danger, the general concluded.

Ordnance specialists have a saying: "If you pick it up, you own it until you put it down," [Name removed] said.

While it is unknown whether the grenade was dropped, [Name removed] said, the investigation showed that Marines were handing grenades to each other during the collection process, a technique that is not prohibited but heavily discouraged.

The 4-inch grenade round is designed to be launched from a ground- or vehicle-mounted position.

The investigation, and a parallel one by safety specialists, will probably result in new rules for handling unexploded ordnance on training fields, [Name removed] said.

The incident is also expected to act as a "wake-up call" to Marines assigned to ordnance disposal, he added.

Explosives disposal has been one of the most crucial and dangerous missions in Iraq and Afghanistan, where buried bombs have been used as a "weapon of choice" against U.S. and coalition troops. Disposal technicians are widely lauded by frontline troops.

"Their actions on the battlefield are absolutely heroic ... saving other Marines' lives by rendering safe improvised explosive devices," [Name removed] said.

All four Marines had deployed to combat zones and been awarded a Combat Action Ribbon, awarded only to Marines who were under fire and returned fire.

Those killed were:

Staff Sgt. [Name removed], 28, of Long Beach. He deployed twice to Iraq and twice to Afghanistan.

Gunnery Sgt. [Name removed], 31, of Bayou L'Ourse, La. He deployed twice to Afghanistan.

Sgt. [Name removed], 27, of Vista, Calif. He deployed to Iraq and Afghanistan.

Staff Sgt. [Name removed], 32, of Poplar Bluff, Mo. He deployed to Iraq and three times to Afghanistan.

The four had a total of seven children, all under age 10. The Marine Corps Scholarship Foundation has awarded each child \$30,000 in college scholarship support.

Two other Marines and a Navy corpsman were injured in the accident and were treated and released after receiving medical assistance at the scene.

The Marines had been assigned to clear away unexploded ordnance on the Zulu range on the sprawling base. Clearing away ordnance is a basic maintenance chore in preparation for using the range for training.

Part of any investigation into a training death is an examination of whether safety precautions were followed.

In March 2013, seven enlisted Marines from [Camp Lejeune](#), N.C., were killed during mortar training at the Hawthorne Army Depot in Nevada.

The premature explosion of the 60-millimeter mortar round that killed the seven was later determined to have been caused by human error in using a mortar, the Marine Corps said.

A lieutenant colonel, a captain, and a chief warrant officer were relieved of command as a result of the investigation.

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Four U.S. Marines were killed at Camp Pendleton in San Diego County Wednesday morning during a range maintenance operation, base officials confirmed.

According to Camp Pendleton officials, the deadly incident happened around 11 a.m. At this point, few details have been released about what actually occurred.

### Victim Report

<b>Victim number:</b> 1006	<b>Name:</b> [Name removed]
<b>Age:</b> 28	<b>Gender:</b> Male
<b>Status:</b> supervisory	<b>Fit for work:</b> DECEASED
<b>Compensation:</b> Not made available	<b>Time to hospital:</b> Not appropriate
<b>Protection issued:</b> Not recorded	<b>Protection used:</b> Not recorded

**Summary of injuries:** FATAL

COMMENT: No medical report was made available.

### Victim Report

<b>Victim number:</b> 1007	<b>Name:</b> [Name removed]
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COMMENT: Treated on site, so injuries presumed light. No medical report was made available.

### Victim Report

<b>Victim number:</b> 1011	<b>Name:</b> [Not recorded 2]
<b>Age:</b>	<b>Gender:</b> Male
<b>Status:</b> Soldier	<b>Fit for work:</b> presumed
<b>Compensation:</b> Not made available	<b>Time to hospital:</b> Not made available
<b>Protection issued:</b> Not recorded	<b>Protection used:</b> Not recorded

COMMENT: Treated on site, so injuries presumed light. No medical report was made available.

### Victim Report

<b>Victim number:</b> 1012	<b>Name:</b> [Not recorded 3]
<b>Age:</b>	<b>Gender:</b> Male
<b>Status:</b> Soldier	<b>Fit for work:</b> presumed
<b>Compensation:</b> Not made available	<b>Time to hospital:</b> Not made available
<b>Protection issued:</b> Not recorded	<b>Protection used:</b> Not recorded

COMMENT: Treated and released at the scene, so injuries presumed light. No medical report was made available.

## Analysis

Although this accident occurred during a military operation, I have been asked to add the known details to the database by request because it occurred during an activity common in Humanitarian Mine Action and the lessons to be learned make it appropriate for inclusion.

The primary cause of this accident is listed as "Victim inattention" because the investigation concluded that it was likely that one of the victims dropped or kicked a grenade and started the explosive event. It is possible that a grenade was dropped while being passed from hand to hand. The secondary cause is listed as a "Management control inadequacy" because the investigation led to two senior officers being suspended for failure to ensure that safe practices were conducted during the activities.

Internal service working distances/safety distances that should have been used during the activities are not known. The IMAS safety requirements including working distances were not being used.

This was an internal military accident so, while the transparency of the reports to the public is to be applauded, it is anticipated that some aspects have not been made public.