

DDAS Accident Report

Accident details

Report date: 15/07/2011	Accident number: 767
Accident time: 08:20	Accident Date: 01/07/2010
Where it occurred: MF1950, Paja Bridge, Salang District, Parwan Province	Country: Afghanistan
Primary cause: Inadequate training (?)	Secondary cause: Management/control inadequacy (?)
Class: Excavation accident	Date of main report: None
ID original source: None	Name of source: UNMACCA
Organisation: [Name removed]	
Mine/device: POMZ AP frag	Ground condition: rocks/stones steep slope
Date record created:	Date last modified: 15/07/2011
No of victims: 2	No of documents: 1

Map details

Longitude:	Latitude:
Alt. coord. system: Not recorded	Coordinates fixed by:
Map east:	Map north:
Map scale:	Map series:
Map edition:	Map sheet:
Map name:	

Accident Notes

inadequate investigation (?)
safety distances ignored (?)
squatting/kneeling to excavate (?)

Accident report

Two records of this accident have been sourced, edited for anonymity and reproduced below. The first is the UNMACCA Board of Inquiry report, the second is the Lessons Learned document widely circulated to demining groups inside Afghanistan. Text in square brackets [] is editorial.

[Undated: Date of accident is taken from the Lesson's Learned document appended.]

BOARD OF INQUIRY ABOUT FATAL DEMINING ACCIDENT of [Victim No.1] the team leader of [Demining group] MU-07 and injuries to [Victim No.2], the deminer of the same team.

INTRODUCTION

[Name removed], Deputy Director for the Mine Action Coordination Centre of Afghanistan (MACCA) convened a Board of Inquiry (BOI) team to investigate the circumstances involved in the demining accident causing the death of [Victim No.1] the Team Leader of [Demining group] MU-07 and injured [Victim No.2] a deminer of the same team.

The BOI comprised the following personnel:

Dr. [Name removed], Chairman

Mr. [Name removed] DMC, Member

[Name removed]/AMAC Charikar, Member

[Demining group] Representative, Facilitator Observer

A copy of the appointment of personnel to carry out this formal investigation including the BOI Terms of Reference is at Annex A to this report.

GEOGRAPHY AND WEATHER

Salang district of Parwan province is located on the main highway from Kabul to the Northern provinces of Afghanistan. It is a mountainous area of the Hindu Kush series of mountains, which are very cold in winter and spring. Therefore demining operations can be conducted there only during the summer time. Salang valley is surrounded by steep sloping mountains especially on both sides of the main road.

Priority of Task

Minefield number [Demining group]-1950 is located in a close vicinity of Kabul Mazar highway in the Paja bridge area of Salang district, Parwan province. Russian forces planted POMZ, OZM-72 and PMN anti-personnel mines there in 1981 to block any attacks from their opposition on their convoys. After the war period and when the internal conflict finished, the local people returned to their villages these mines were left and have caused some accidents. As the main highway passes through this area and thousands of people are using it on daily basis, it is counted as a potential risk to those who stops there during their travel. Also lots of people are going to Salang district to have a traditional mulberry picnic and the presence of mines is a potential risk for them, so the area has a high priority for clearance.

SITE LAYOUT AND MARKING

MF [Demining group] 1950 located on a steep sloping area, the site layout and marking were as per AMAS and [Demining group] SOPs. The team was really conducting a difficult job, they were using ropes to tie themselves during the operations in order not to dropdown from their clearance lanes. Cleared and hazard areas were easily distinguishable due to marking.

MANAGEMENT, SUPERVISION AND DISCIPLINE ON SITE

Although it was said by [Demining group] that they were happy with the deceased team leader in terms of his ability to command, control and maintain discipline onsite. External QA personnel also confirmed that [Victim No.1] was a good team leader. But this is the 2nd fatal accident of team leaders having the same scenario of handling POMZ mines after being discovered by deminers. BOI team asked the [Demining group] operations representative

about the case of handling discovered mines, if there is any directives from operations that the team leaders should further investigate any discovered mine. The representative of [Demining group] said that after the first fatal accident occurred last year, we have informed all our team leaders not to further investigate such mines, they should only prepare the shaped charge and immediately destroy them after being found/ discovered.

It was the fault of team leader himself that he ordered deminer after he found a POMZ mine to leave the lane and start the new one. The team leader then started further investigation on it and caused it to go off and resulting in a fatal accident. [Demining group] assigned one supervisors for four sites there in the Salang district to conduct periodic supervision. This would normally be enough had the risks not been as high there, But in high risk areas such as in Salang district, if the number supervisors are increased to one supervisor for two sites this will improve the safety and operations.

QUALITY ASSURANCE AND QUALITY CONTROL

In addition to [Demining group] internal QA visits, the team was visited by MACCA external QA on 20 May 2010, the result was good. But one visit per two months is not enough in such a high risk area, therefore, the quality and frequency of the QA visits should be increased both internal and external.

COMMUNICATIONS AND REPORTING

There is no problem in communication and reporting system.

MEDICAL REPORTS

The accident happened on 08:20 and paramedic reached the accident site in 5 minutes, but due to the severity of injuries the victim passed away on the spot. The paramedic then moved to help the injured deminer and the evacuation took place at 09:00am. The ambulance was available and the CASEVAC drill was conducted one day before this accident happened.

WITNESS INTERVIEWS AND STATEMENTS

The supervisor and senior medic were interviewed by the BOI team. The statements are attached at Annex C to this report.

DETAILS OF THE MINE INVOLVED

Salang district is mainly contaminated with PMN, POMZ and OZM-72. All of them are old mines laid by Russian forces which are displaced by seasonal floods and became very sensitive.

EVIDENCE OF RE-MINING

The BOI found no evidence of re-mining of the clearance site and this therefore did not contribute to the accident.

EVIDENCE OF SITE INTERFERENCE OR TAMPERING AFTER THE ACCIDENT

No evidences of site tempering were seen.

PERSONAL PROTECTIVE EQUIPMENT

All the team members were issued with a set of personal protective equipment including visors. But most probably the team leader died because of the head trauma (secondary trauma), as he was thrown back by explosion to a rocky area and got severe trauma on the backside of his skull (Occipital bone).

USE OF MINE DETECTION DOGS (MDD)

[Demining group] does not use MDDs in their operations.

USE OF Mechanical MACHINES (MDU)

The MDU was not used in this site as it was mountainous area with a steep sloping terrain.

DATE OF LAST REVISION COURSE FOR TEAM INVOLVED IN THE ACCIDENT

According to [Demining group] training policy, all the teams should undergo a detailed training after their winter leave. So, all the [Demining group] teams including MU-07 received detailed training during the month of February 2010.

DETAILS OF MEDICAL EVACUATION AND TREATMENT

The accident occurred on 08:20, the paramedic arrived to the accident site on 08:25, but the team leader had lost his life on the spot. He started first aid application to the injured deminer, stabilized the deminer and stopping any bleeding, he applied a iv infusion and evacuated the dead body and injured deminer on 09:00, 40 minutes after the accident happened.

PARTICULARS OF DEMINERS INSURANCE

The victims were covered for death and trauma insurance under a [Demining group] standard policy.

DETAILED ACCOUNT OF THE ACTIVITIES ON THE DAY OF THE ACCIDENT

The team started operations on 05:30 at the morning, everyone received briefing from the team leader. MU-07 was implementing a regime of 30 minutes work and 10 minutes break in this area, as it is a difficult and steep sloping task. It was 08:15 that the deminer [Victim No.2] detected a signal in his clearance lane and then identified that it was a POMZ mine after discovering a part of it. He called his team leader that he has found a POMZ mine and partially discovered it.

The mine was not in its normal position; it was fallen down to the ground probably caused by seasonal floods and was surrounded by small rocks. The team leader instructed deminer to leave the clearance lane and wait in a safe/cleared area. Then the team leader started further investigation without tying himself with a rope as the deminers were doing such during the operation.

During the investigation, he initiated the mine, causing it to detonate and the accident happened. The team leader was in a semi sitting position, he was wearing his PPE correctly. However the fragments of mine caused multiple injuries to his arm and knee joint and had thrown him backward. As the area was steep sloping, he had fallen down about three meters to a rocky portion of the ground. The backside of his head hit on a rock and caused severe head trauma, this is deemed to be the cause of death.

Some fragments caused non severe injuries to the deminer [Victim No.2] who was waiting in a safe/cleared area.

TECHNICAL POINTS CONTRIBUTED TO ACCIDENT

The accident happened because of the carelessness of team leader, he could easily have prepared a shaped charge and destroyed the mine immediately. But he started further investigation on a highly sensitive POMZ mine without having any reason for it. He was well aware of the fatal accident happened last year on a team leader conducting the same investigation on a POMZ mine.

SUMMARY

It is the view of the BOI team that the team leader conducted un-necessary investigation on a found, identified and highly sensitive POMZ mine. He initiated the mine and caused it to go off which resulted in fatal accident.

CONCLUSION

It is the BOI conclusion that the team leader, [Victim No.1] made the mistake in terms of conducting un-necessary investigation on a found and identified POMZ mine, while he could simply destroy the mine with a shaped charge.

RECOMMENDATIONS TO PREVENT REOCCURRENCE

The BOI recommend the following points in relation to this accident:

[Demining group] operations department is recommended to issue written directive stating that no further investigation is to be conducted on found identified mines. Any further investigations shall be stopped in such cases and the mine shall be destroyed in situ immediately after finding.

The level of supervision should be strengthened by assigning one supervisor for each two teams in Salang area.

More internal and external QA visits should be conducted on the teams working in high risk areas such as in Salang district.

[Demining group] should take necessary actions, considering the recommendations of BOI team and inform MACCA Programme Director by no later than the 31st July 2010.

Signed: Dr. [Name removed], BOI Chairman

ANNEXES: [Not made available]

Annex A: BOI - Terms of Reference

Annex B: Victim photos

Annex C: Accident site photos

Annex D: Witness Interviews and Statements

LESSONS LEARNED SUMMARY OF [Demining group] DEMINING ACCIDENT

INTRODUCTION

[Name removed], Deputy Director for the Mine Action Coordination Centre of Afghanistan (MACCA) convened a Board of Inquiry (BOI) team to investigate the circumstances involved in the demining accident causing the death of [Victim No.1] the Team Leader of [Demining group] MU-07 and injured [Victim No.2] a deminer of the same team on 01 July 2010 in Paja village, Salang district of Parwan province.

SUMMARY

Minefield number [Demining group]-1950 is located in a close vicinity of Kabul Mazar highway in the Paja bridge area of Salang district, Parwan province. Russian forces planted POMZ, OZM-72 and PMN anti-personnel mines there in 1981 to block any attacks from their opposition on their convoys. After the war period and when the internal conflict finished, the local people returned to their villages these mines were left and have caused some accidents. As the main highway passes through this area and thousands of people are using it on daily basis, it is counted as a potential risk to those who stops there during their travel. Also lots of

people are going to Salang district to have a traditional mulberry picnic and the presence of mines is a potential risk for them, so the area has a high priority for clearance.

On 01 July 2010 the deminer [Victim No.2] found a POMZ mine in his clearance lane, he informed team leader, the team leader ordered [Victim No.2] to leave the lane and start the new one. The team leader then started further investigation on it and caused it to go off and resulted in fatal accident to him and some minor injuries to the deminer [Victim No.2].

CONCLUSION

This is the 2nd fatal accident of [Demining group] team leaders having the same scenario of handling POMZ mines after being discovered by deminers. Therefore, it is counted as carelessness of team leader.

RECOMMENDATIONS

The BOI recommend the following points in relation to this accident:

- [Demining group] operations department is recommended to issue written directive stating that no further investigation is to be conducted on found identified mines. Any further investigations shall be stopped in such cases and the mine shall be destroyed in situ immediately after finding.
- The level of supervision should be strengthened by assigning one supervisor for each two teams in Salang area.
- The command group of all demining teams should strongly consider the sensitivity and risk of such mines and do not temper them after being found and investigated, a charge should be prepared for the destruction of such mines.
- More internal and external QA visits should be conducted on the teams working in high risk areas such as in Salang district.
- [Demining group] should take necessary actions, considering the recommendations of BOI team and inform MACCA Programme Director by no later than the 31st July 2010.

Victim Report

Victim number: 952	Name: [Name removed]
Age:	Gender: Male
Status: supervisory	Fit for work: DECEASED
Compensation: Not made available	Time to hospital: Not recorded
Protection issued: Frontal apron Long visor	Protection used: Frontal apron; Long visor

Summary of injuries:

INJURIES: severe Arms; severe Head; severe Legs

FATAL

COMMENT: No Medical report was made available. Fragmentation and fall injuries.

Victim Report

Victim number: 953	Name: [Name removed]
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Age:

Gender: Male

Status: deminer

Fit for work: presumed

Compensation: Not made available

Time to hospital: Not made available

Protection issued: Frontal apron

Protection used: Frontal apron; Long visor

Long visor

Summary of injuries:

COMMENT: No Medical report was made available. "Non-severe" fragmentation injuries.

Analysis

The primary cause of this accident is listed as *Inadequate training* because Victim No.1 was a Field Supervisor who did not work to the group's SOPs. The secondary cause is listed as a *Management Control Inadequacy* because the group's management was responsible for appointing, training and monitoring its field supervisors. The failure to provide appropriate numbers of field supervisors (noted by the investigators) was a further *Management Control Inadequacy*.

The "Inadequate investigation" listed under notes refers to the absence of details such as the time taken for Victim No.2 to arrive at hospital and the injuries he suffered.

The accident is unusual because of the steep terrain being worked on. Deminers were roped to prevent falls but the supervisor did not take this precaution. He apparently died as a result of falling three metres and landing on his head in rocks.