2-19-2007

DDASaccident511

Humanitarian Demining Accident and Incident Database
AID

DDAS Accident Report

Accident details

Report date:	25/01/2008	**Accident number:**	511
Accident time:	Not recorded	**Accident Date:**	19/02/2007
Where it occurred:	036MF, Salihan Village, Panjwai District, Kandahar Province	**Country:**	Afghanistan
Primary cause:	Inadequate training (?)	**Secondary cause:**	Inadequate equipment (?)
Class:	Missed-mine accident	**Date of main report:**	26/02/2007
ID original source:	LLDoc	**Name of source:**	UNMACA
Organisation:	[Name removed]		
Mine/device:	TC/6 AT blast	**Ground condition:**	Friable earth
Date record created:		**Date last modified:**	25/01/2008
No of victims:	0	**No of documents:**	1

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	WGS 84	**Coordinates fixed by:**	GPS
Map east:	E-065 34 03.03	**Map north:**	N-31 34 41.6
Map scale:		**Map series:**	
Map edition:		**Map sheet:**	
Map name:			

Accident Notes

dog missed mine (?)

inadequate equipment (?)

mine/device found in "cleared" area (?)

non injurious accident (?)

Accident report

The report of this accident was made available in August 2007 as a PDF file. Its conversion to a text file for editing means that some of the formatting has been lost. The substance of the report is reproduced below, edited for anonymity. The original PDF file is held on record. Text in [ ] is editorial.

LESSONS LEARNED SUMMARY

DEMINING ACCIDENT (February 19, 2007)

INTRODUCTION:

A mine has been discovered by the labourer of Mohammad Bin Rashid Housing Scheme in cleared task # 24/2413/036 of Salihan village, Panjwaee district, Kandahar province, while he was digging the ground for the foundation of building.

A team of investigation was convened by AMAC Kandahar to find out the main causes of mentioned incident.

The accident caused no casualty.

SUMMARY:

The investigation report concluded that the incident occurred because of the following faults:

Lack of supervision: according to the QA visits of this team in mentioned task the following points were recorded:

Non-standard dog leashes were used while searching with dogs i.e. some of the dogs were used with 8m long leashes and some of them with shorter leashes, which results in failure to double check the lanes. The test boxes for metal detectors were not prepared as per requirement i.e. the test pieces were not put in recommended depth; it means the detectors had not been used in required sensitivity.

Ignorance of SOPs: the team were not working in compliance with their SOPs especially about the proper use of MDD and also the metal detector which is the essential element of detecting mine/UXO hazard in demining operation.

CONCLUSIONS:

The lack of some key command and basic strategies were contributing factors to the incident, if the basic rules and standard working procedures are adhered, the number of accidents/incidents will decreased.

RECOMMENDATIONS:

The following points are to be considered:

1. All MDD sets to be issued with wind and temperature meter instruments.
2. All warm up/test boxes to be set up according to MDC SOPs.
3. No lane will move forward until a minimum of 2 MDDs have gone completely over any area.
4. The logistic section of MDC is recommended to provide standard size dog leashes to the MDD sets.
5. The dog set leader or relevant section leader is responsible to properly mark the MDD indication and accurately brief the deminer for further checking.

6. All set leaders and handlers will determine their MDD's weakness regarding types of explosive vapour and during training at camp ensure additional training being conducted.
7. To ensure the safety of workers and people who use this land (disabled), the investigation team recommends re-clearance of 300 meters area in length and 136 meters in width from the start point of the minefield. This is exactly required as the team has not cleared the area in accordance with their SOPs, furthermore the contractor, labourers working in the site are insisting for re-clearance of mentioned part of the minefield.

Signed: Chief of Operations UNMACA Kabul

To: Chief of Operations, UNMACA Kabul

CC: Quality Control Manager

From: Area Manager, UNMACA South

Date: March 06, 2007

Sub: MINE INCIDENT INVESTIGATION REPORT

Enclosed please find the investigation report of mine incident occurred to the labour during working in Bin Rashid Disabled Housing Scheme in Salihan village Panjwai District of Kandahar Province.

For further information please refer to the attached documents.

Cover letter

To: Area Manager UNMACA South

From: Operations Assist UNMACA South

Date: March 6, 2006

Subject: Mine incident Investigation Report

Attached please find the investigation report of mine incident occurred in a task No 24/2413/004 036MF cleared by MDC MDG-01 started 31st October completed on 20th February 2005.

The report is forwarded for your information and further process.

Investigation report of Mine/UXO accident/incident with the ground of demining

[Data derived from IMSMA forms]

Task No. AF 2413-004-036 MF

Area was surveyed: 16/02/2003

Area was cleared: 31/10/2004to 20/02/2005 using MDD

Accident/incident-happened on Construction Company worker on 19 Feb 07

Accident/Incident Location: WGS 84; E-065 34 03.03; N-31 34 41.6; GPS. At Salihan Village, Panjwai District, Kandahar Province

Device caused the incident/accident: TC-6 AT blast

The mine was discovered when [Name removed] labourer of “Mohammad Bin Rashid housing scheme for disabled” was digging the ground for building construction.

Ongoing activity prior of Accident/incident: Construction of building.

Device was found/detonated in area classified as: Completely cleared task

Detail of the area if it has cleared or suspended before accident/incident: Team No. MDG-01: Period of operation - 31/10/04 to 20/02/05. Date of completion and handover: 21/02/05. Clearance method: MDD. Detector type/depth of detection: MIL D-1 depth of detection 13 cm. Whether the dogs accredited? Dogs were not accredited officially. Was the area suitable for dog use? The area was suitable for dog clearance. Number and result of QA during operation in mentioned task: Total of two external QA has been performed during the clearance process.

On 30/11/04 QA team has reported different size of dog's leashes shorter than 8m (Standard size 8m long lashes)

1. The area checked by dogs with shorter leashes than 8 m long would remain single check not as per the desired procedure (that each area/spot is to be checked by two different dogs).

2. The test boxes for metal detectors were not prepared as per procedure (the test pieces were not in accurate depth in accordance to the manufacturers' instruction it means the metal detectors may not be used properly in a required sensitivity.

Result and date of last QA inspection: Good on 01/12/04.

Any other factor contributed missing device:

- Operating of non-accredited or probably incapable dogs for the clearance.
- Dog indication could be ignored/missed by the handlers/deminers or dog handlers may not properly mark the area.

History of the Minefield: The area is located in Salihan village Panjwaee district of Kandahar province along the roadside, during communist regime the area was used by the government forces to support their army located in Panjwai district, the Mujaheden have mined this desert to prevent/stop their access to the District.

In 2003 Mohammad Bin Rashid disabled housing scheme project has requested for the clearance of the above mention desert, so the area was technically surveyed by [National survey agency] with total size of the task 146854sqm following the clearance by [National dog specialist agency] MDG-01 on 31/10/2003 and completed on 20/02/2005 without discovering any mines except 11025 fragments, and handed over to the district authority on 21/02/2005.

The minefield is an open flat area and suitable for dog operation.

Description of the accident:

According to the statement of [Name removed] labourer and [from] site observation by the investigation team.

[Name removed] labourer himself was tasked by the project manager to dig the land for house construction. During his work suddenly the shovel has touched with and discovered the mine. Calling his brother working in the same area, they have then informed the project manager about the incident. The project manager then contacted/reported the mine action office through mobile phone.

It is worth to mention that the mine was displaced/removed by the construction company from its actual place.

As the mine was already removed and destroyed by [National demining agency] EOD team in the area tasked by UNAMAC, the investigation team only observed the mine site, its photograph in its original cradle/frame and it shows that the mine was in normal position/depth not more than 10 cm.

[The photograph taken by the EOD team.]

Site conditions (at the time of the incident/accident): The terrain was described as flat and open. There was no vegetation.

Conclusion:

Accident/incident happened due to lack of Supervision:

The team has used non-standard different size dog leashes (8m and less than 8m long). In this case dogs with not standard leashes cannot search the ground completely/properly. It means some parts of the area was remaining single checked (by one dog) as it must be checked by at least two different dogs (according to MDD SOP).

The test boxes for metal detectors were not prepared as required (the test pieces were not in depth in accordance to the manufacturers' instruction it means the detectors have not been used in accurately (required) sensitivity.

The mentioned points observed during inspection shows lack of supervision.

Improper use of Procedure: Using different size and non-standard size of dogs' leashes. Prepared test boxes for metal detectors not in accordance to manufacturer' instruction shows that the team has not implemented the right procedure.

These can be the most probably factors for missing the mine.

Recommendations

1. Team's command group is recommended to have strong control/supervision and ensure implementation of AMAS/Agency's SOP.

2. Agency's logistic section is recommended to pay attention and provide standard size dogs' leashes and other logistical items.

3. The personnel who receive or issue the equipments should ensure its serviceability.

4. Proper marking of dog's indications and the section leader or responsible person is to brief deminer carefully while investigates dog's indication.

5. To ensure safety of workers and people who use this land (disabled) the investigation team recommends re-clearance of the 300 meters area in length and 136 meters in width of the site starting from the start point (a total area size of 40,800sqm). This is purely required because the team has not cleared the area in accordance with the standard dog clearance procedures. Furthermore, the contractor, labourers working in the site are insisting for the clearance as well.

6. As the construction is going on in the area, to avoid unexpected accident/incident urgent decision is required.

Signed: Kandahar 26/02/2007

Analysis

The TC/6 mine is difficult to detect with a metal detector. It was buried at ten centimetres to the top of the mine in friable earth. It is “difficult to detect” with a metal detector. It has a steel ball, spring and firing pin but these are “non-magnetic” which reduces their signal with most metal-detectors. To be certain of locating them reliably in any particular soil, real targets (rendered safe) should be buried and the detector used to confirm that a signal is received.

The use of well trained MDD should have ensured detection of a mine with a 6 kg High explosive content of Composition B (TNT/RDX) buried at 10cm in what appears to be friable soil for several years.

The primary cause of this accident is listed as “Inadequate training” because the investigators found that the MDD handlers and those using metal detectors did not follow SOPs designed to ensure that the mines would be found. The need to bury target mines in similar conditions and at the correct depth in order to check the performance of men, dogs and detectors is not universally recognised, but certainly raises confidence. This group only buried metal detector test-pieces, which is no guarantee of finding anything at that depth except the detector test-piece, but even that was not done in this case.

The secondary cause is listed as “Inadequate equipment” because the dog handlers were not provided with appropriate dog leashes.

The failure of senior management to understand the need for the correct equipment and processes to be put in place and appropriate procedures enforced means that they bear ultimate responsibility for this incident.