

# DDAS Accident Report

## Accident details

<b>Report date:</b> 19/05/2006	<b>Accident number:</b> 382
<b>Accident time:</b> Not recorded	<b>Accident Date:</b> 27/07/2002
<b>Where it occurred:</b> MF 503	<b>Country:</b> Lebanon
<b>Primary cause:</b> Unavoidable (?)	<b>Secondary cause:</b> Unavoidable (?)
<b>Class:</b> Excavation accident	<b>Date of main report:</b> 26/08/2002
<b>ID original source:</b> BOI:No008/2002	<b>Name of source:</b> MACC SL
<b>Organisation:</b> Name removed	
<b>Mine/device:</b> No.4 Israel AP blast / frag	<b>Ground condition:</b> dry/dusty rocks/stones
<b>Date record created:</b> 22/02/2004	<b>Date last modified:</b> 23/03/2004
<b>No of victims:</b> 1	<b>No of documents:</b> 1

## Map details

<b>Longitude:</b>	<b>Latitude:</b>
<b>Alt. coord. system:</b>	<b>Coordinates fixed by:</b>
<b>Map east:</b>	<b>Map north:</b>
<b>Map scale:</b> MF 503	<b>Map series:</b>
<b>Map edition:</b>	<b>Map sheet:</b>
<b>Map name:</b>	

## Accident Notes

inadequate investigation (?)  
mechanical follow-up (?)  
inadequate equipment (?)

## Accident report

A summarised MACC BOI report was made available in 2003. It is reproduced below, edited for anonymity. The acronym MDD stands for Mine Detecting Dogs.

## Introduction

1. [1st commercial demining group] has been using mechanical preparation, manual clearance and MDD verification at minefield 503 since they were issued Task Dossier OES 3# 010 on the 22 June 2002. While working on minefield 503 several more minefields

have also been discovered during the verification of the outer minefield parameters. The MTI 325 flailed one lane in a previously uncleared area when a detonation occurred. The MTI 325 reversed out of the area and manual demining assets were tasked to clear this new discovered minefield. This new discovered minefield was designated M/F 503/A.

2. On the day of the accident a [1st commercial demining group] Deminer was conducting manual clearance in a clearance lane next to a row of No.4 mines. While using the demining trowel to scratch small pieces of gravel away from one No.4 mine, it detonated. The Deminer then rolled over to the right from the blast, while rolling he actually rolled over an uncleared area down into a cleared area.

3. [1st commercial demining group] M7 Team Leader was standing 25m away when he heard the blast and went to the place of the accident to check on the cause. The Team Leader then called for medical assistance and at the same time [1st commercial demining group] M5 Team Leader brought in a stretcher. The casualty was then placed on a stretcher and carried to safe area where the victim was stabilized by the Medic. A Deminer was ordered to close off the accident working lane ensuring that all equipment was untouched.

4. Once the Deminer was stabilized, he was placed into the ambulance and taken to Bint Jubayl Hospital. Due to the extent of his injuries, the Deminer was transferred to Hammoud Hospital Sidon in order to receive the correct specialist treatment.

### **Medical details**

5. The casualty suffered compound fracture to his right index finger, deep lacerations to his upper lip and superficial multiple abrasions to his upper right arm.

### **Conclusions**

6. Based on the investigation, the statements and visits to the site, the Board of Inquiry concludes the following:

- The Deminer was following National TSGs and [1st commercial demining group]'s SOPs concerning manual demining drills.
- The Deminer was wearing his PPE in accordance to National TSGs and [1st commercial demining group]'s SOPs, which reduced his injuries.
- The Deminer was thrown out of his safe lane by the blast wave. Before he stopped rolling, he rolled through an uncleared area before he stopped inside a safe area.
- The visor shattered after being impacted with rock fragments at extremely high velocities following the detonation of the high explosive.
- The visor did not maintain its integrity following the uncontrolled detonation of an Israeli No.4 AP mine.
- The protective jacket was pierced by debris but still maintained its integrity. [The "jacket" was in fact a frontal apron.]
- The previous one time flailing of the area may have had a direct effect on the sensitivity state of the mine fuze. (Para 26 to this report refers).
- The site stabilization of causality was performed in a safe area.
- No IMAS currently covers Mechanical Mine Clearance techniques.
- Internal and external communications with [1st commercial demining group] and MACC SL functioned very well.
- Medical attention and evacuation was conducted in a safe and effective manner.
- The BOI don't agree with the [1st commercial demining group] report concerning the tools used when the accident occurred. The reason is that the BOI had the opportunity to question the Deminer after the accident, which [1st commercial

demining group] did not have due to time stress while delivering their report within 36 hours after the accident.

### Recommendations

7. Based on the investigation, the statements and visits to the site, the Board of Inquiry recommends the following:

- An amendment is necessary to the [1st commercial demining group]'s SOPs detailing procedures for manual clearance and demolitions in areas that are on a slope. Referring to the Deminer rolling into an uncleared area. Procedures should be adapted to make sure that the area below the deminer is cleared
- Revise the procedures of “actions on” when MTI 325 flail system is used in the area reduction role and detonates the first “assumed” mine.
- The future issue IMAS 9.50 “Guide to use of Mechanical Mine Clearance Equipment” will hopefully give direction regarding the use of mechanical assets.
- The conclusions detailed in this report be disseminated amongst all [1st commercial demining group] Operational Field Staff.
- A period of refresher / confidence training is conducted with [1st commercial demining group] Operational Field Staff, to include the following: Manual excavation Techniques.

Signed: QA MDD Officer, Mine Action Co-ordination Centre Southern Lebanon

### Victim Report

<b>Victim number:</b> 499	<b>Name:</b> Name removed
<b>Age:</b>	<b>Gender:</b> Male
<b>Status:</b> deminer	<b>Fit for work:</b> presumed
<b>Compensation:</b> Not made available (insured HMT)	<b>Time to hospital:</b> Not recorded
<b>Protection issued:</b> Frontal apron Long visor	<b>Protection used:</b> Frontal apron, Long visor

### Summary of injuries:

INJURIES

minor Arm

minor Face

severe Finger

COMMENT

No medical report was made available.

## **Analysis**

The primary and secondary causes of this accident are listed as “*Unavoidable*” because the Victim appears to have been working as directed and in accordance with approved working methods when the detonation occurred.

The investigation of this accident is listed as “inadequate” because it does not include detailed statements or the full evidence on which the conclusions are based. This may be because it is a “summary”. No time of accident or Medevac timings were recorded.

The visor shattering is the second time this happened with this group in Lebanon and raises questions about the age and condition of the visor. Polycarbonate is hardened by prolonged exposure to UV and becomes much more likely to shatter.