

# DDAS Accident Report

## Accident details

<b>Report date:</b> 07/02/2008	<b>Accident number:</b> 558
<b>Accident time:</b> 14:40	<b>Accident Date:</b> 09/07/2007
<b>Where it occurred:</b> Task CBU 204	<b>Country:</b> Lebanon
<b>Primary cause:</b> Field control inadequacy (?)	<b>Secondary cause:</b> Inadequate training (?)
<b>Class:</b> Demolition accident	<b>Date of main report:</b> 10/07/2007
<b>ID original source:</b> None	<b>Name of source:</b> UNMAS
<b>Organisation:</b> [Name removed]	
<b>Mine/device:</b> DPICM M77 submunition	<b>Ground condition:</b> agricultural (recent) trees
<b>Date record created:</b>	<b>Date last modified:</b> 07/02/2008
<b>No of victims:</b> 1	<b>No of documents:</b> 2

## Map details

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

## Accident Notes

inadequate training (?)  
no independent investigation available (?)  
protective equipment not worn (?)

## Accident report

The report of this accident was made available in February 2008 as a collection of files and pictures. Its conversion to a DDAS file means that some of the original formatting has been lost. The substance of the report is reproduced below, edited for anonymity. The original files are held on record. Text in [ ] is editorial.

## Internal report

To: [Name removed] TOM [International demining NGO], [Name removed] Acting TOM  
[International demining NGO] Lebanon

From: [Name removed] TFM, [International demining NGO] Lebanon

Date: 10 July 2007

Attachment: Amendment SOP 401 Demolitions Sep 2006.

Re: Minor fragmentation injury on civilian [the Victim] during [International demining NGO] Demolitions on 09 July at task CBU 204.

General information:

[International demining NGO] Team 12 and 10 are both working on CBU 204. The Supervisor is [Name removed]. The UXO found are M77.

#### **Events leading up to the incident:**

A TV crew from Orange TV, [Name removed] was on site doing a story about clearance. MACC SL CLO [Name removed] and his LMAC counterpart accompanied them. TFM [Name removed] was also on site to support this visit.

The Supervisor covered normal site brief and a field visit was conducted as well.

During the field visit the TFM inspected two M77 and both were pointing south. From one of these the fragmentation came later at demolition.

The TV crew expressed wishes to film the demolition and was told that this is only possible from a safe distance. The TV crew agreed upon this and was taken to a higher area north of the M77s from where they could film and being located at safety distance. Safety distance See Annex A.

The Supervisor told the TFM that the chosen spot (a parallel road UTM 709754-679241) was 170m from closest M77.

The Supervisor said he remembered the distance since he was doing demarcation of this area not long ago. He measured this with measuring tape. The location is north of the M77 and steep uphill. The TFM doubted that the distance was 170m but was sure it was more than 100m and proceeded with the visit plans.

The Supervisor prepared the demolitions with 3 x 125 g of PE (Swedish sprangdeg) for each M77 total 375 g. Meanwhile the TFM controlled the TV crew visit. Just before the first out of two separate demolitions, the neighboring landowner [the Victim] arrived at the location of [International demining NGO] TFM and TV crew. He stopped his car and was standing next to the TFM and observed the demolitions as well. The landowners are constantly moving around our operational areas, which is normal for this area.

#### **Incident/Accident:**

Before conducting demolitions the Supervisor contacted the TFM via Field Assistant [Name removed] who replied all clear from TFM to Supervisor. The first demolition was carried out on one M77 with 125 g PE without any problems. The Supervisor announced the second demolition containing two separate M77 and 2 x 125 g about 5 meters apart and fired after countdown. Directly after the blast, the civilian [the Victim] turned to the TFM and pointed toward his forehead. The TFM noticed a small cut of 2mm in mid forehead. There was a minor bleeding and it stopped quickly. The time was 14.40 PM. [International demining NGO] Medic dealt with the injury, [The Victim] received a band aide and then he wanted to leave the

site. He did not have any issues towards [International demining NGO] and did not act in a strange way intimidating shock.

#### **Actions taken by TFM:**

Initially providing care for the civilian with the injury. First verbal report to [International demining NGO] HQ in Nabatiyeh and Technical Operations Manager.

Confirmed distance (with GPS) between the seat of explosion to where the injury occurred. It was 115m both times. (Double check)

Investigated seat of explosion realizing that the Supervisor did not use protective works.

TFM met with Head of QA, MACC SL and LMAC representatives on site who asked questions to the Supervisor and the TFM was told to do an internal report to [International demining NGO] TOM who should forward it to QA section MACC SL.

MACC SL QA suggested disciplinary action (warning) and refresher of safety distances during demolition for the Supervisor.

#### **SOP Demolitions M77.**

[International demining NGO] is applying a safety distance amendment from September 2006 since no such information was available in [International demining NGO] SOP at the start of BAC operations last year.

SOP Amendment regulating Safety distances are found in Annex A.

The Supervisor was using 125g of PE on each of the M77. This amount is surely enough to collapse the copper cone during the destruction to prevent any copper slug to be projected far distance.

#### **Probable cause for incident:**

The Supervisor has used the area where the TV crew was positioned as a sentry point on some of the previous demolitions. When using it as sentry point he instructs the sentry to be behind a concrete building in the field approx 1 meters from the road. The building is outside the demarcated area but in vegetated area and not suitable to have visitors walking into.

The Supervisor was for some reason under the impression that the TFM should hold this sentry points during the demolition. This was never agreed upon and the Supervisor was totally in charge of this demolition procedure. The TFM do not interfere in this procedure because experience has shown that confusion and mistakes are made in a higher degree if interfering. The Supervisor did not inform the TFM about any sentry point at that location. The TFM was taking care of the visit.

The TFM was under the impression that the Supervisor would apply protective works i.e. sandbags which is a standard operating procedure up to 200m distance from demolition. With protective works (100m) it is safe to observe from the mentioned location.

#### **Summary:**

The Supervisor, [Name removed] is an experienced Supervisor in [International demining NGO] has completed demolitions safely on daily basis during his employment with

[International demining NGO], not only in Lebanon but also in [International demining NGO] Iraq where he has been employed since 1996.

The Supervisor was under the impression that the observers were going to be behind a small building close to the road from where they were observing when the demolition took place. The building is in an unsearched/uncleared area but also outside the demarcated [International demining NGO] task.

For this reason the Supervisor says he did not use protective works i.e. sandbags on this demolition. The time for this demolition was 14.40 PM which is after normal working hours that ends at 14.30.

The Supervisor should have completed protective works for two reasons. First to ensure minimum fragmentation risk around the seat of explosion and secondly to protect the Lemon tree next to the M77. Protecting capital equipment or agriculture growth is a normal procedure in any [International demining NGO] demolition.

The projectile forming slug (copper cone) was directed away from the observers.

It is a rare experience to have a fragmentation from a M77 with 125 g PE on top of it at demolition to be projected uphill for 115m. This was truly an unfortunate unexpected event

[The Victim]'s injury was minor and he is not interested in raising any complaints or claims against [International demining NGO].

The Supervisor has been briefed on this report and complies with it.

### **Recommendations:**

The Supervisor in charge of this demolition should be disciplined in some degree for not making sure concerning sentry duty and the whereabouts of the visit. The Supervisor was under the impression that the TFM would carry out the sentry duty since the TV crew and the TFM was close to one of the points he normally uses when conducting demolitions on CBU 204 task. He also thought that the TFM would take cover behind the building. Unfortunately he didn't inform the TFM about this and relied on this when deciding to disregard protective works.

All [International demining NGO] Supervisory staff should receive refresher training on demolition procedures concerning protective works including safety distance guide and how to apply this.

10 July 2007: TFM [International demining NGO] Lebanon, Supervisor Team 12

## **SOP Amendment**

20 September 2006

Site Specific Amendment – AREA 7-004

According to: [International demining NGO] SOP 401 Demolition safety point 13:

Safety distances will vary according to the actual or perceived threat factors. Distances can be reduced depending on the terrain or by using protective works. A guide to the safety distances to be used when conducting demolitions is given in Table 1.

Submunition is not mentioned in current safety distance guide and the following guide will be applied by the UNOPS contracted [International demining NGO] BAC TEAMS.

Type	Open area	Protective works
M77	200m	100m
M42	200m	100m
M85	200m	100m
BLU 63	200m	100m

20 Sep 2006: Signed: PM/TOM [International demining NGO] Lebanon

## Victim Report

<b>Victim number:</b> 732	<b>Name:</b> [Name removed]
<b>Age:</b>	<b>Gender:</b> Male
<b>Status:</b> civilian	<b>Fit for work:</b> yes
<b>Compensation:</b> None	<b>Time to hospital:</b> Not taken to hospital
<b>Protection issued:</b> None	<b>Protection used:</b> None

### Summary of injuries:

minor Head

COMMENT: No Medical report was made available.

### Victim's statement

To: [International demining NGO]

From: [The Victim]

Subject: Abdicating

Date: 10 July 2007

I am [the Victim], I was injured in a simple scratch in my fore head by a very small fragment caused by a demolition conducted by Team 12 which is being supervised by [Name removed].

Willingly, I came to you to abdicate of all the legal issues related to this incident.

I willingly abdicate of this case, and I don't have any allegation on the organisation or personally on [Name removed], and the incident was a small one, and personally I don't give it any care.

I hope that my report will be accepted.

### Analysis

While the Victim's injury was minor, it should be remembered that the same fragment striking his eye could have caused permanent disability.

The primary cause of this accident is listed as a "Field control inadequacy" because the internal investigators identified confusion over who was responsible during the press visit. The presence of senior staff seems to have led the Supervisor to presume that precautions would be taken without his giving instructions. He also decided not to use protective works despite there being a valuable fruit tree nearby, which was an error.

The secondary cause is listed as "Inadequate training" because the SOP (and presumably training materials) did not cover the safety distances required when destroying the devices expected in the area. The International demining NGO were quick to correct this fault.