

DDAS Accident Report

Accident details

Report date: 15/07/2011	Accident number: 766
Accident time: 08:30	Accident Date: 03/04/2007
Where it occurred: CBU site 203, Batoulay, Ej-Jenoub, Area 7	Country: Lebanon
Primary cause: Inadequate survey (?)	Secondary cause: Management/control inadequacy (?)
Class: Missed-mine accident	Date of main report: 03/04/2007
ID original source: 003/07	Name of source: UN MACC SL
Organisation: [Name removed]	
Mine/device: M77 submunition	Ground condition: agricultural (recent) leaf litter soft
Date record created:	Date last modified: 15/07/2011
No of victims: 0	No of documents: 1

Map details

Longitude:	Latitude:
Alt. coord. system: UTM: 707270 - 3679376	Coordinates fixed by:
Map east:	Map north:
Map scale:	Map series:
Map edition:	Map sheet:
Map name:	

Accident Notes

inadequate area marking (?)
inadequate survey (?)
mine/device found in "cleared" area (?)
non injurious accident (?)

Accident report

A report of this “missed-mine” incident was made available in 2008. At that time it was not included in the DDAS because there were no injuries involved. It has been included now because it seems that there are lessons to be learned from it.

The conversion of the original report into a DDAS file has led to some of the formatting being lost. Text in square brackets [] is editorial. The report is reproduced below, edited for anonymity.

MINE ACTION COORDINATION CENTRE, SOUTHERN LEBANON

MINE INCIDENT REPORT 003/2007

Report on the BAC INCIDENT that occurred on the 03rd April 2007 in which an M77 Sub-Munitions was located adjacent to CBU site 203.

INDEPENDENT INVESTIGATION REPORT FOR MINE INCIDENT IN BATOULAY - 03 April 2007, No 003/07

1. GENERAL

Date: 03 April 2007

Time of Incident: 0830 hrs approx.

Location: Batoulay, Ej-Jenoub, Area 7, Lebanon

Nearest Task: CBU-203, Task Dossier 7-002

UTM of Task: 707270 – 3679376

Task Start / Finish Date: 17 Oct 06 / 21 Dec 06

Reported by: [Name removed] (03-746042) Farmer (land owner).

Reported to: [Name removed], MACC SL Community Liaison Assistant.

Time of Incident report to MACC QA: 1000hrs approx.

MA Organisation POC: [Name removed], [Demining group] Demining Supervisor.

Investigation Date/Time: 03 April 07, 1040hrs

Investigation Location: Task CBU-203

Investigation Team: Capt [Name removed], LAF Operations Officer and [Name removed], MACC SL QA Officer.

Explosive Ordnance Type: US M-77 Submunition

2. DETAILS OF INCIDENT

On 03 April 2007, one M-77 Submunition was located by a local farmer while harvesting his orange orchard and banana plantation, in the vicinity of Task CBU-203, which had been completed by [Demining group] using sub-surface Battle Area Clearance (BAC) procedures. The farmer reported the find to [Name removed], MACC SL Community Liaison Assistant.

After receiving information from the local farmer, [Name removed] and [Name removed], MACC SL Operations Officer visited the incident site to conduct a preliminary investigation. In addition, [Name removed], [Demining group] TFM, arrived at the site to liaise with MACC SL personnel. It was not possible at this stage to confirm whether the item was in a [Demining

group] cleared area within CBU-203 or not. After meeting with the farmer and confirming the information, the item was marked, photographed and the farmer was requested to remain outside the orchard pending further investigation. The incident was reported to [Name removed], MACC SL Operations Officer who, together with Capt [Name removed], LAF Operations Officer, was conducting Accreditation of [Demining group] BAC personnel in the area at the time.

At 1030hrs on 03 April 2007, a subsequent investigation was conducted by Capt [Name removed] and [Name removed]. The investigation team was accompanied by [Name removed], [Demining group] Demining Supervisor, [Name removed], [Name removed], [Demining group] TFM and [Demining group] BAC Team 8 Supervisor, who had worked at task CBU-203. After confirming the location and type of Explosive Ordnance, the MACC SL personnel requested for the Task completion report (map and coordinates), a compass and tape measure in order to try and identify the perimeter turning points and confirm whether the item was within the cleared area or not.

Evidence

The ground was flat, comprising soft soil and covered with banana and orange trees. There was evidence of harvesting and areas had been excavated / cultivated.

The M-77 was on the surface positioned on its side. The submunition was complete with the ribbon attached and some remains of paper tape were attached around the fuze collar. Three wooden pickets and hazardous marking tape were positioned around the item to mark its location.

In order to determine the exact location of the M-77 it was necessary to utilize the completion report map / coordinates, compass and measuring tape to identify the task perimeter. Using the completion report cleared area perimeter coordinates it was possible to navigate from the Start Point with some accuracy using the compass and measuring tape. The location of the Start Point and Turning Point (TP) 1 were each marked with a metal picket sunk in the ground. It was not possible to locate the metal pickets which had been used to mark Turning Points 2 and 3 however; the approximate location was identified using the compass and measuring tape. The distance and bearing from TPs 2 and 3 to the M-77 were as follows:

TP 2 – M-77 = 346° / 24.4 m: TP 3 – M-77 = 186° / 24 m

Interview with [Name removed], [Demining group] TFM

[Name removed] informed that the farmer had discovered the submunition in the morning of 03 April 2007, while harvesting his banana trees and had subsequently reported this to the MACC SL.

Interview with [Name removed], [Demining group] Demining Supervisor

[Name removed] confirmed the clearance procedures conducted at task 203 and said that he believed the M-77 to be outside the [Demining group] cleared area (CBU-203 perimeter).

Background

CBU-203 is located within a banana plantation near Batoulay. According to information received from [Demining group] during a previous investigation on 14 March 2007, rocket attacks resulting in a high level of M-77 submunition contamination.

[Demining group] commenced BAC operations at CBU-203 on 17 October 2006. Initially it was planned for surface clearance to be conducted, however, after an assessment was made by [Demining group] and MACC SL operations, it was decided that there was a requirement

for sub-surface clearance. The decision was based on evidence that there was a high probability of sub-surface submunitions. The evidence was as follows:

The local farmer (land owner) reported that 4-500 submunitions had been removed by the local population from the plantation.

The submunitions had been dispensed at a low height from the cluster bomb unit (CBU) and therefore, landed at a higher velocity than usual.

The soil in the plantation was extremely soft at the time.

The plantation was a sparsely vegetated at the time of the attack.

CBU-203 was completed by [Demining group] on 21 December 2006 and a QA Completion Survey conducted by the MACC SL at the task on 14 February 2007.

CBU-77 and CBU-359 to the west of CBU-203 are also included in Task dossier 7-002. CBU-359 has been completed by [Demining group] and CBU-77 is a current [Demining group] task. There are uncleared areas between CBU-203 and the fore mentioned tasks.

3. CONCLUSIONS

On 03 April 2007, a local farmer discovered an M-77 submunition while harvesting his orange orchard and banana tree plantation.

The M-77 was on the surface with remnants of paper tape around the fuze collar.

International Mine Action Organisations operating in Lebanon generally use plastic tape when rendering safe (gagging) submunitions therefore, it unlikely that the tape had been placed by them.



M-77
Remnants
of paper
tape around
fuze collar

According to the navigation conducted during the investigation, the M-77 is located to the west and outside task CBU-203 cleared area.

It is of the MACC SL investigation team's opinion that the M-77 was not discovered within Task CBU-203 cleared area and therefore, not missed during [Demining group] clearance operations of CBU-203.

4. RECOMMENDATIONS AND FURTHER ACTIONS

The M-77 is disposed of as a matter of urgency. [Name removed] has confirmed that [Demining group] will destroy the item in situation the same day.

Area reduction should be conducted in the immediate area of the M-77 to confirm whether there are additional submunitions. Surface BAC should be conducted out to a minimum distance of 25 metres from the item creating a 50 x 50 metre (50m²) box and or up to the perimeter of CBU-203 perimeter, whichever, is the greatest. It is recommended that due to the proximity of their current operations, [Demining group] be requested to conduct this.

There may be a requirement for additional clearance of areas between CBU-203, 359 and 77.

5. CHRONOLOGY OF EVENTS

03 April 2007

0830 Approx: [Name removed], a local farmer discovered an M-77 close to CBU-203 and reported it to the MACC SL MAG.

0930 Approx: [Name removed], MACC SL Community Liaison Assistant and [Name removed], MACC SL Operations Officer confirmed the information and marked the item at CBU-203.

1040: Capt [Name removed], LAF Operations Officer and [Name removed], MACC SL QA Officer commended investigation of incident site.

1230: Investigation completed.

6. ADDITIONAL INFORMATION

See the following:



Photograph of Incident Site

Report Written By: Capt. [Name removed], LAF Operations Officer, [Name removed] MACC SL QA Officer, 03 April 2007

1. Comments by the MACC SL Chief of QA

I have reviewed the approve investigation report and concur with the conclusions and recommendations.

[Name removed], UN Chief of QA, MACC SL

2. Comments by the MACC SL Chief of Operations

Seen/Agreed

[Name removed], UN Chief of Operations, MACC SL

3. Comments by the MACC SL Programme Manager

Seen/Agreed

[Name removed], UN Programme Manager, MACC SL

4. Comments by the NDO Representative to MACC SL

Seen/Agreed

[Name removed], NDO Representative, MACC SL

Analysis

The primary cause of this incident is listed as “Inadequate survey” because the item was found on the boundary of a cleared area, so the hazardous area should have extended further. The secondary cause is listed as a “Management control inadequacy” because the demining group’s perimeter marking had been so poor that it could not be found five months after leaving the site (it is intended to be “permanent”). This made it impossible for the investigators to be certain whether the submunition had been found inside the searched area or not. The use of appropriate marking systems is a management responsibility.

The presence of “gagging” tape around the neck of an obvious submunition found on the surface implies that it had been found and moved by someone – perhaps to discredit the demining group – and this may explain why the investigators did not criticise the demining group about its inadequate perimeter marking.