DDAS Accident Report

Accident details

Report date:	15/07/2011	**Accident number:**	755
Accident time:	10:20	**Accident Date:**	07/05/2005
Where it occurred:	Hnaapua, Chibavava district, Sofala Province	**Country:**	Mozambique
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Field control inadequacy (?)
Class:	Missed-mine accident	**Date of main report:**	10/05/2005
ID original source:	info/acc/moz	**Name of source:**	Demining group
Organisation:	[Name removed]		
Mine/device:	GYATA-64 AP blast	**Ground condition:**	grass/grazing area
Date record created:		**Date last modified:**	15/07/2011
No of victims:	1	**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

no independent investigation available (?)

inadequate area marking (?)

inadequate training (?)

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

protective equipment not worn (?)

visor not worn or worn raised (?)

Accident report

An internal demining group report of this accident was made available in 2008. Its conversion into a DDAS file has led to some of the original formatting being lost. Text in square brackets [ ] is editorial.

The internal report is reproduced below, edited for anonymity. It is not known whether the NMAA carried out an independent investigation.

Internal Accident report

Our ref.: info/acc/moz

Date: 10 May 2005

Re: Mine accident, manual clearance, [Demining group] Mozambique, Nhaapua, Chibabava district, Sofala, 7 May 2005.

Saturday, 7 May 2005, at 10:20 a.m. local time, [Demining group] suffered a mine accident in the manual clearance teams deployed at the Nhaapua site, Chibabava district, Sofala Province, Mozambique. A deminer, working in his lane detonated a AP Gyata mine while conducting manual clearance.

At 10:25 the PM was informed over phone whilst Medevac procedures were initiated in accordance with Medevac SOP.

The patient was brought out, stabilised and the evacuation transport departed at 10:53 local time. Communication with Chimoio hospital was made informing ETA and blood type of patient. Initial information gave that the deminer suffered loss of right foot and injuries to right hand, ear and right side of chest and face in addition loss of blood. Evacuation distance from the site to Chimoio hospital is 152 kilometres. Evacuation transport arrive Chimoio hospital at 12:14 and the patient enters the emergency room at 12:17.

At 15:00 information arrives that the patient is out of immediate danger, operate and under intensive care. He suffered amputation of right leg approx. 20 cm below knee, deep cut to right hand, surface cuts to right ear and surface injury to right side of chest and face.

Sunday the patient is stable, briefed by [Demining group] staff as to [what] occurred and is responsive and communicative. Next of kin has been relocated to Chimoio accommodated by [Demining group] Sunday morning as the deminer's home and family is approx. 500 km from Chimoio.

Findings from the internal preliminary investigations conducted by two [Demining group] QA/QC officers points to the human factor and breach of standard operating procedures (SOP) as the probable cause of the accident;

The deminer had started to work in his lane to divide the mine field into blocks. Being the first lane to build the blocks, he had to arrange a vegetation collection point adjacent to his lane, of which he says he did by using the detector. Findings indicate that he did not mark the area immediately. He started accumulating the vegetation waste on the spot before marking it. Only an hour later after a resting period, did he commence to stake out the vegetation collection point.

When finally doing so he stepped on a mine within the border lines of the anticipated collection point where vegetation had already started to accumulate.

While clarification of this specific vegetation collection area was being done, the deminer (victim) did not observe the 30 cm overlap when searching with a metal detector - thus the area in question was rough-searched using metal detector.

Furthermore, the deminer did not immediately mark the vegetation collection point; this was only done at a later stage during his next working hour. While marking the area using marking sticks, he placed the marking sticks in un-cleared / un-searched area.

A colleague indicated that the accident happened in cleared area, but the preliminary investigation out-rules this as the said area contained undisturbed and un-cut grass and other vegetation under as well as around the area on which loose vegetation was accumulating.

This would also indicate that if and when the said rough search with the metal detector was conducted, it was undertaken inappropriately as the distance to the surface of the ground became too far due to the presence of un-cut vegetation between the detector and the ground, prior to putting cut vegetation there. Any signal of a mine may have been missed as the detector did not penetrate deep enough into the ground as it was held too high.

The assumption that the detonated AP – mine was a Hungarian produced Gyata, is based on the fact that the team had previously discovered this type of AP mine in the task area and also with reference to the nature of injuries that were those of a blast mine. By luck the extent of the injuries, although grave, were somewhat less than those typically known from a Gyata.

The team had encountered Gyata mines at the site prior to the accident. A recent QA/QC of the team and Nhaapua site did not find any breaches of SOP, neither in relation to the one identified above or in terms of other aspects of work.

Although information at hand indicates the occurred as an isolated case, [Demining group] has suspended work at the site temporarily to allow for an external investigation of the occurred by the national demining institute – IND. IND was informed of the accident at an early stage.

[Demining group] will furthermore, based on the occurred and the preliminary findings thus far undertake refresher training to ensure proper operating procedures in accordance with SOP and correct use of detectors and marking. Section commanders and team leaders will receive additional refresher training in follow-up of deminer's work at site.

All colleagues received debriefing Monday 9 May and the morale and motivation is reported satisfying. The deminer is under the circumstances doing well and has according to the hospital staff mentally handled the situation as well as can be expected. He is also reported physically strong, responding positively to treatment and eating well.

The site will be reopened immediately following the next scheduled downtime previously planned for 23-27 May.

Signed: Program Manager - Mine Action [Demining group]

Victim Report

Victim number:	945	**Name:**	[Name removed]
Age:		**Gender:**	Male
Status:	deminer	**Fit for work:**	not known
Compensation:	Not made available	**Time to hospital:**	114 minutes
Protection issued:	Frontal apron Long visor	**Protection used:**	Not recorded

Summary of injuries:

INJURIES: minor Chest; minor Face; minor Head; severe Hand

AMPUTATION/LOSS: Leg Below knee

COMMENT: No Medical report was made available. The Accident report includes brief details of his recovery.

Analysis

The primary and secondary causes of this accident are listed as “Field Control Inadequacy” because the Victim was working in breach of the demining group’s SOPs and his errors were not corrected. His injuries imply that he was leaning forward with a hand stretched downward when he stepped on the mine that he had failed to locate. Chest, side of head and face injuries also imply that he was not wearing PPE, or not wearing it correctly.

The Victim’s failure to appropriately search the area where cut vegetation was placed implies that he may not have understood the limitations of the metal detector and so his training may not have been appropriate.