

DDAS Accident Report

Accident details

Report date: 19/05/2006	Accident number: 301
Accident time: 10:50	Accident Date: 11/08/2000
Where it occurred: Cordon Sanitaire Minefield, Mukumbura Communal lands	Country: Zimbabwe
Primary cause: Inadequate equipment (?)	Secondary cause: Inadequate equipment (?)
Class: Missed-mine accident	Date of main report: 14/08/2000
ID original source: JM	Name of source: Various/AVS 2001:Z08
Organisation: Name removed	
Mine/device: R2M2 AP blast	Ground condition: woodland (bush)
Date record created: 19/02/2004	Date last modified: 19/02/2004
No of victims: 1	No of documents: 1

Map details

Longitude:	Latitude:
Alt. coord. system:	Coordinates fixed by:
Map east:	Map north:
Map scale: not recorded	Map series:
Map edition:	Map sheet:
Map name:	

Accident Notes

no independent investigation available (?)

inadequate investigation (?)

inadequate metal-detector (?)

incomplete detonation (?)

mechanical follow-up (?)

Accident report

The following official "accident summary" was made available in January 2001. No other report was made. The summary was compiled by the demining group's site manager. For obscure reasons, the country manager of the programme edited the content of the following before making it available.

The following text has been further edited when necessary to conceal the identity of individuals and organisations involved.

At 10:50 on 11 Aug 2000, [the victim – name withheld by group manager] detonated a mine whilst conducting clearance in the Cordon Sanitaire Minefield at UTM 0380797 8194039 in Mukumbura Communal lands.

At the time of the accident the Operations Manager and Project Doctor were located at the Crew 1 site.

I was made aware of the accident when Crew Supervisor reported via HF radio. I suspended operations at the other sites. Further information revealed that the deminer had stood on a mine but, curiously, was not seriously injured. The casualty was treated on site and stabilised by the crew paramedics. He had sustained a sprained left ankle and a small laceration on his right shin, 2cm above the ankle.

On Site Examination

An on site examination was conducted at 12:55hrs.

The area in which the accident occurred was Box 540 which had been prepared by [the ground processing machine] Mine Collector to a depth of 35 cms. [The victim] had cleared the A Row of mines, which were R2M2, and had commenced clearance from the A Row to the B Row. Marking was clearly visible within his box.

Full equipment was being used by the deminer. The detector was placed to the rear of his base stick and, on inspection, was found to have been set correctly.

The visor was located in the cleared area approximately 2m forward of the crater. The Team Leader reported deminer was wearing it at the time of detonation. Full PPE was worn by the deminer.

The trowel was located beside the detector.

The blast crater was located within the cleared area, within the A Row of mines. The crater was conical in shape. It was approximately 35cm deep and 65-67cm wide. This would indicate the mine was very deep.

Observations

The deminer was clearing from the A Row towards the B Row. All mines within the A Row had been disposed of. He had just brought his clearance equipment from the B Row to commence another 1m wide lane when, as he was placing his equipment at the commencement point of the new lane, a mine detonated.

The crater was within the cleared area, just within his last 1m wide lane from A to B Rows.

The and Crew Paramedic who was with an ambulance at the CP, was immediately available to attend to the casualty.

All marking within the deminer's box was clearly visible and well laid out.

Conclusions

From the nature of the accident the following conclusions were made:

- a) The size of the crater shows the mine to be very deep. Detectors are only capable of detecting R2M2 mines effectively to a depth of 13cm. That the deminer was not seriously injured supports the conclusion that the mine was deeply buried.
- b) The deminer had conducted his clearance drills over the area effectively, but due to the depth of this particular mine, was not in a position to identify a signal. The accident was therefore unavoidable.
- c) Immediate treatment and CASEVAC from the minefield of the casualty was adequate.
- d) Communications proved adequate during the CASEVAC.

e) Suspension of operations within the other crews was well co-ordinated and controlled.

Signed: Operations Manager

[The mine is not definitely identified in the above text. Identification is by inference from the other mines and the difficulty of detecting the R2M2.]

Victim Report

Victim number: 381	Name: Name removed
Age:	Gender: Male
Status: deminer	Fit for work: yes
Compensation: not made available	Time to hospital: not applicable
Protection issued: Frontal apron Long visor	Protection used: Frontal apron, Long visor

Summary of injuries:

INJURIES

minor Foot

minor Leg

COMMENT

See medical report.

Medical report

A brief (undated) field medical report was obtained from another source. The following reproduces its content verbatim [asterisks denote unrecognised letters]:

Blood group: 0+

Details of injuries: Foot sprain, Cell****itis and small laceration right shin

Field management: pressure bandaging, no haematoma

Bufen 400g ***

Benzyl penicillin *****

Post operative management: Referral to orthopaedic specialist.

Addendum: Patient fully recovered

Analysis

The primary cause of this accident is listed as *"Inadequate equipment"* because the internal investigators recognised that the detector in use could not find the mine at the depth they believed it to be. It was a management failing that they continued to sanction the use of detection equipment that could not find the mines they were looking for.

The investigators determined that the mine was "very deep" from examining the crater. They did not have soil-hardness testers so could not accurately calculate the depth of the mine from its crater. Further, if the mine had been close to the 35cm depth of the crater, it is unlikely that it would be detonated by surface pressure unless the ground were very soft. No

mention is made of the ground conditions in the report but the date of the accident falls within the dry season in the area when ground hardness is more of a problem than ground softness.

As a result of the above, it is possible that the mine was missed at a detectable depth, and so that the field supervision and performance of the deminers clearing the area was inadequate.

The accident investigation is considered inadequate because it was edited prior to being made available.