

# DDAS Accident Report

## Accident details

<b>Report date:</b> 18/05/2006	<b>Accident number:</b> 261
<b>Accident time:</b> 10:45	<b>Accident Date:</b> 22/05/1999
<b>Where it occurred:</b> Plowshare minefield, Cordon Sanitaire	<b>Country:</b> Zimbabwe
<b>Primary cause:</b> Unavoidable (?)	<b>Secondary cause:</b> Inadequate equipment (?)
<b>Class:</b> Excavation accident	<b>Date of main report:</b> [No date recorded]
<b>ID original source:</b> none	<b>Name of source:</b> KMS
<b>Organisation:</b> Name removed	
<b>Mine/device:</b> R2M2 AP blast	<b>Ground condition:</b> wet woodland (bush)
<b>Date record created:</b> 18/02/2004	<b>Date last modified:</b> 18/02/2004
<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> not recorded	<b>Map series:</b>
<b>Map edition:</b>	<b>Map sheet:</b>
<b>Map name:</b>	

## Accident Notes

no independent investigation available (?)  
inadequate equipment (?)  
squatting/kneeling to excavate (?)  
inadequate investigation (?)

## Accident report

At the time of this accident the demining company operated in two-man teams using a one-man drill. One deminer looked for tripwires, cut undergrowth, used the detector and excavated finds while the other watched from a safe distance and "controlled" him. The group issued frontal protection and their drills assumed that the deminer would kneel or squat while excavating.

An internal Accident report was made available by the demining group in December 1999. The following summarises its content.

The victim was carrying out a normal excavation drill at 10:45 when a mine, "suspected R2M2...functioned" and he suffered a slight cut and some bruising to his left hand.

The victim was treated on the site by the medic [claimed to be at 10:46] and the site doctor was called to the site. The doctor moved him to the site medical unit to rest.

The clearance site was closed and the "remaining mines destroyed".

The investigators examined the site and found the victim's detector switched on and functioning. The victim's prodger was undamaged at the site but the "wooden handle of his trowel" was lying about a metre from the detonation site. The blade of the trowel was not found. The victim's visor was lying two metres away in the uncleared area with its "head-strap" broken.

### **Conclusion**

The investigators concluded that the deminer was working properly by excavating soil with a high "gravel" content. They thought that his excavation method was appropriate and that enough water has been used to soften the ground. The victim did not see the mine before it detonated and no evidence of it was found, but the investigators were confident that it was an R2M2.

They felt that the mine orientation and its condition may have been contributory factors, and also that it may have had its spring mechanism partly depressed by the movement of animals on the site in the past. They summarised this with the line "this accident seems to be caused by a mine that was influenced by more than 20 years in the ground resulting in higher sensitivity".

They stressed that the victim was saved from severe injury by wearing his protective equipment correctly and said that it was not possible to "rule out the possibility of" accidents especially in the Ploughshear minefield "where no pattern of mines can be established".

### **Victim Report**

<b>Victim number:</b> 335	<b>Name:</b> Name removed
<b>Age:</b>	<b>Gender:</b> Male
<b>Status:</b> deminer	<b>Fit for work:</b> yes
<b>Compensation:</b> not made available	<b>Time to hospital:</b> Not appropriate
<b>Protection issued:</b> Frontal apron Long visor	<b>Protection used:</b> Frontal apron, Long visor

### **Summary of injuries:**

INJURIES

minor Hand

COMMENT

See medical report.

## Medical report

The victim was not taken to hospital.

A brief "Medical Injury report" was made available by the demining group in December 1999. It stated that the victim had received "hand lacerations", had been given treatment consisting of "stabilised and debridement" and could restart work on 4<sup>th</sup> June 1999 [13 days later].

## Analysis

The primary cause of this accident is listed as "*Unavoidable*" because it seems that the victim was working properly according to SOPs when the accident occurred.

The fact that his trowel broke into its parts in the detonation was not noted as undesirable in the investigation – presumably because it did not add to the victim's injury. The group's short-handled trowel may have led him to excavate at an angle more likely to initiate the mine, and so may have been a partial cause. The secondary cause is listed as "*Inadequate equipment*".

The investigation included some duplication from other reports and a desire to claim that the mines were unusually sensitive. The duplication reduces the credibility of the report, and the belief that mines are partly compressed by the movement of livestock prior to excavation implies a lack of understanding of the R2M2 firing mechanism. While roots could expand and hold the spring slightly compressed, (or soil be compacted by frequent transient pressures) a single transient pressure incapable of firing the mine would be most unlikely to render it more sensitive.