

# DDAS Accident Report

## Accident details

<b>Report date:</b> 06/04/2006	<b>Accident number:</b> 300
<b>Accident time:</b> 07:50	<b>Accident Date:</b> 10/08/2000
<b>Where it occurred:</b> Cordon Sanitaire Minefield	<b>Country:</b> Zimbabwe
<b>Primary cause:</b> Unavoidable (?)	<b>Secondary cause:</b> Unavoidable (?)
<b>Class:</b> Excavation accident	<b>Date of main report:</b> 10/08/2000
<b>ID original source:</b> JM	<b>Name of source:</b> Various/AVS 2001:Z07
<b>Organisation:</b> [Name removed]	
<b>Mine/device:</b> R2M2 AP blast	<b>Ground condition:</b> rocks/stones
<b>Date record created:</b> 19/02/2004	<b>Date last modified:</b> 19/02/2004
<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 investigation (?)

## 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 where necessary to conceal the identity of individuals and organisations mentioned.

At 07:50 on 10 Aug 2000, [the victim] detonated a mine while conducting clearance in the Cordon Sanitaire Minefield at UTM 0380241 8194342.

At the time of the accident the Operations Manager was located at the Operations Base.

I was made aware of the accident by Crew 2 Supervisor via VHF radio that there was a CASEVAC. The site Doctor was located at Crew 1, and after being informed that the casualty was not seriously injured, he proceeded with the Safety Officer to the accident site.

The casualty had sustained minor lacerations and bruising to his right hand.

### **On site examination**

An on site examination was conducted by [the demining group] and [QA] representatives headed by the field Operations Manager.

The area in which the accident occurred was within the second row of mines of the Cordon Sanitaire. The deminer was working in Box 564, within a washout area. All mines on the first row had been located and destroyed along his accessible frontage.

Marking was clearly visible. The ground was relatively level and not very hard but with small loose rock content. Water was used during the investigation of this signal and on previous mines found.

The detector was still in the on position when the investigation team entered the box. The detector was calibrated in the morning using an R2M2 at 10cm depth and was set correctly.

Full PPE was being worn at the time of accident including hand gloves. There was evidence of the effect of the blast on the chest of the vest and on the front of the visor. The side of the glove had been torn open by the blast.

The blast crater indicated the mine was buried. Evidence of excavation was noticeable. The trowel which the deminer was using at the time of the accident was not located.

### **Witness accounts and observations**

The deminer identified the reading within the confirmed row of mines. The deminer acted on this reading using excavation procedures. The mines destroyed and marked within the first row were R2M2. The predominate mine in this area of the Cordon is R2M2. The deminer stated he was excavating a reading when the mine detonated. There was physical evidence of excavation and water being used.

The crater was located approximately 40cm to the left of his base stick and 25cm forward.

Medical coverage was immediately available on site. A paramedic was stationed with an ambulance which was located at the control point approximately 500m from the accident area.

### **Conclusions**

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

- a) The deminer was excavating when the accident occurred.
- b) It is possible that the deminer either tried to remove too much soil from around the mine, or commenced his excavation too close to the mine.
- c) The marking was clear and easily identifiable. All vegetation had been removed within the area that was marked.
- d) All machines were calibrated using an R2M2 set at 10cm depth.
- e) Once again the PPE served its purpose very well.
- f) Immediate treatment and casevac to the MRU of the casualty was adequate.
- g) Communications proved to be adequate at the time of the accident.

### **Recommendations**

- a) That all clearance activities within the CS washout areas cease, until a safer approach for their clearance is found.

- b) That all deminers be reminded of the importance of excavations and the need to only remove a sufficient amount of soil so as to locate the source of the signal. Over excavation increases the chances of detonating a mine.
- c) More practice of excavation techniques be conducted. This should include emphasis on the need to only expose a part of the mine for charge placement.
- d) Personnel be reminded of the importance of always using PPE correctly.

Signed: Operations Manager

### Victim Report

<b>Victim number:</b> 380	<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 applicable
<b>Protection issued:</b> Frontal apron Long visor	<b>Protection used:</b> Frontal apron, Long visor

**Summary of injuries:**

INJURIES  
 minor Hands  
 COMMENT  
 See medical report.

**Medical report**

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

Blood group: O+

Minor lacerations to both hands

Field management: ATT 5ml Stat; reassurance; suturing of cuts; Benzyl\*\*\*\* 5ml; brufen 400\* TDS x 1/52.

Off duty 1/52.

Referral hospital: Field MRU

Surgical procedures; Suturing of cuts and lacerations at Field Forward Station MRU.

Post operative management: Recovered in one week

Addendum: Patient recommenced work one week later.

**Analysis**

The primary cause of this accident is listed as “Unavoidable” because it seems likely that the victim was working properly in accordance with widely approved SOPs when the accident

occurred. His minor injuries confirm the fact that he was working safely and wearing his full protective equipment.

The site manager ordered that clearance for washout areas stop until a safer method had been devised. This may imply that it was inherently unsafe to clear these areas with manual demining (damaged mines on their sides, etc) which confirms the view that the deminer was not at fault but raises questions over why the methods were used if other methods were available.

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