James Madison University

JMU Scholarly Commons

Global CWD Repository

Center for International Stabilization and Recovery

5-10-1999

DDASaccident121

HD-AID
Humanitarian DeminingAccident and Incident Database

Follow this and additional works at: https://commons.lib.jmu.edu/cisr-globalcwd

 Part of the Defense and Security Studies Commons, Peace and Conflict Studies Commons, Public Policy Commons, and the Social Policy Commons

Recommended Citation

HD-AID, "DDASaccident121" (1999). *Global CWD Repository*. 321.
https://commons.lib.jmu.edu/cisr-globalcwd/321

This Other is brought to you for free and open access by the Center for International Stabilization and Recovery at JMU Scholarly Commons. It has been accepted for inclusion in Global CWD Repository by an authorized administrator of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.

DDAS Accident Report

Accident details

Report date:	12/02/2004	**Accident number:**	121
Accident time:	06:27	**Accident Date:**	10/05/1999
Where it occurred:	Cordon Sanitaire,	**Country:**	Zimbabwe
Primary cause:	Unavoidable (?)	**Secondary cause:**	Unavoidable (?)
Class:	Handling accident	**Date of main report:**	[No date recorded]
ID original source:	none	**Name of source:**	KMS
Organisation:	Name removed		
Mine/device:	R2M2 AP blast	**Ground condition:**	not applicable
Date record created:	12/02/2004	**Date last modified:**	12/02/2004
No of victims:	1	**No of documents:**	2

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 (?)

Accident report

The demining group were clearing the Zimbabwe/Mozambique border minefields at the time of the accident.

An internal memo reporting on the accident was made available by the demining group in December 1999. The following summarises its content.

The victim was a Team Leader whose duties included disarming R2M2 mines. At 06:27 the Victim was "neutralising" an R2M2 mine by removing its booster charge [unscrewed from below] when the mine detonated. Another Team Leader witnessed the event and reported that the Victim was wearing his protective equipment (visor and apron) properly.

The blast removed both of the victim's hands and injured both his arms and his lower face. It damaged the collar of the blast apron and marked the visor, but the victim's face, throat and chest were believed to have been saved from severe injury by the protective equipment.

The victim was taken to the on-site medical facility after "10-15" minutes, and from there by ambulance to hospital [not identified].

The apron is shown below. The dark blue aramid inside the orange cotton cover is clearly visible on the left of the collar.

The investigators decided that there were two possible reasons for the accident. Either the victim inadvertently applied pressure to the mine while unscrewing the booster or the "oxidisation of friction sensitive crystals from the booster" made the mine detonate as he worked.

Victim Report

Victim number:	157	**Name:**	**Name removed**
Age:		**Gender:**	Male
Status:	supervisory	**Fit for work:**	no
Compensation:	not made available	**Time to hospital:**	not recorded
Protection issued:	Frontal apron Long visor	**Protection used:**	Frontal apron, Long visor

Summary of injuries:

INJURIES

minor Arms

minor Face

AMPUTATION/LOSS

Hand Both

COMMENT

No medical report was made available.

Analysis

The primary cause of this accident has been listed as *"Unavoidable"* because it seems that the victim may have been working as directed when the accident occurred. However, if there was really a danger of crystallisation around the booster causing a detonation through friction when it was unscrewed (or delayed action of the mechanism) the group's management should have identified the danger and changed the SOP which called for disarming. See “Related papers”.

The disarming SOP is not widely employed throughout the demining industry, but was used until recently by the largest NGO involved in demining (and is still used in some countries by that group). Many field people feel that – as long as the final decision on the condition of a known device rests with them – the procedure is no more dangerous than laying a charge against the mine. There are not enough disarming/detonating accidents in this database for it to be used to provide evidence to make a compelling judgement on this issue.

If the victim was inexperienced, poorly trained or poorly supervised, the accident would illustrate a failure of management. One of the ex-pat supervisors has subsequently stated that the victim was screwing an unfamiliar booster back into the mine when the accident occurred. It is possible that the unfamiliar booster was the type with a bayonet-fitting to take a plastic spike used to anchor the mine in moving soil. It was suggested that the supervisor was puzzled by it being different and screwed it back into the mine without thinking. [For details of the plastic spike, click on "More" at the Mine/device field on the Incident/accident tab.]

Related papers

When interviewed during December 1999, a representative of the demining group said that the victim had come to terms with his injuries well and confirmed that he had not suffered significant throat or face injuries. During the same interview the demining group management agreed that many deminers were inexperienced when recruited, but pointed out that "the majority of deminers have now cleared more than 100 mines each".

From the fact that each deminer found more than 100 mines, I infer that Team Leaders routinely dealt with disarming dozens of mines a day. The density of mines in the area being cleared was exceptional, and it is partly the huge number of mines that led to the group's policy of disarming for later demolition by burning.

The “crystallisation” explanation given by the demining group does not make immediate sense. The researcher has dismantled many R2M2 mines in order to make detector test-pieces (some shown above).

In several cases the ball bearing mechanism has jammed and although the balls are lined up with their exit holes, they have not moved sideways to allow the spring-loaded pin to drop. In these cases, they could move at any time – which may explain why the mine went off as the supervisor unscrewed the booster charge. The picture alongside shows the mechanism with the pin just visible above the detonator.

The demining group declined to give any details of compensation, which was reported to have been "miserly".

In 2002 the Victim had been employed in the factory of a PPE manufacturer in Zimbabwe.