

# DDAS Accident Report

## Accident details

<b>Report date:</b> 22/01/2004	<b>Accident number:</b> 37
<b>Accident time:</b> 09:50	<b>Accident Date:</b> 10/07/1995
<b>Where it occurred:</b> Canada Dry Factory, Namaacha, Maputo Province	<b>Country:</b> Mozambique
<b>Primary cause:</b> Management/control inadequacy (?)	<b>Secondary cause:</b> Inadequate equipment (?)
<b>Class:</b> Vegetation removal accident	<b>Date of main report:</b> [No date recorded]
<b>ID original source:</b> ADP-4/ TL/JS	<b>Name of source:</b> ADP/CND/IND
<b>Organisation:</b> [Name removed]	
<b>Mine/device:</b> OZM-3 or 4 AP Bfrag	<b>Ground condition:</b> not recorded
<b>Date record created:</b> 22/01/2004	<b>Date last modified:</b> 22/01/2004
<b>No of victims:</b> 2	<b>No of documents:</b> 2

## Map details

<b>Longitude:</b> 25° 56' 31" E	<b>Latitude:</b> 31° 59' 19" S
<b>Alt. coord. system:</b>	<b>Coordinates fixed by:</b>
<b>Map east:</b>	<b>Map north:</b>
<b>Map scale:</b>	<b>Map series:</b>
<b>Map edition:</b>	<b>Map sheet:</b>
<b>Map name:</b>	

## Accident Notes

inadequate equipment (?)  
inadequate medical provision (?)  
inadequate training (?)  
pressure to work quickly (?)  
request for clearance with explosive charge (?)  
safety distances ignored (?)  
no independent investigation available (?)  
vegetation clearance problem (?)

## Accident report

An internal investigation was carried out by the UN Technical Advisors. The report was made available and the following summarises its content. As the victim was killed, a Board of Inquiry was established.

The investigators stated that at 09:50 on 10<sup>th</sup> July 1995 Victim No.2 initiated an OZM-3 that was behind a tree. He heard the "click" and threw himself to the ground suffering minor abrasions. "The mine may not have reached its intended height on detonation". Victim No.2 was not significantly injured despite being less than two metres from the blast. Victim No.1, another deminer working 31 metres from the accident, was struck by a single fragment in the neck causing fatal injuries.

Deminers had been seen clearing the overgrown area by pulling branches away. Victim No.2 had a broken branch (not cut) in his hand after the accident. The shears that he did not use "were not as sharp as they could have been". The directive to cut rather than break branches was not in the SOPs but the investigators considered it well known. They stated that "there is a noted shortfall in either the ability or the desire of the Platoon and Section commanders... to impose the required standards upon the deminers". Leadership training was suggested to give the leaders "the moral courage to discipline their comrades".

Medevac facilities failed - arrangements for helicopter evacuation by SabinAir were unexpectedly unavailable. The victim was loaded into a pickup for evacuation by road but died at 10.30.

## Recommendations

The investigation recommended that "ballistic protection" fragmentation jackets and protective helmets be available for areas with a "high threat level". The issue of search mirrors for checking behind trees was also suggested. Three methods of clearing dense undergrowth prior to demining were suggested. These were burning, defoliation and the "use of concrete improvised Claymore type devices" [!]. Other recommendations included following tripwires to their full extent, improved training for the relevant terrain, and that no further work go on at the site without special training.

Another UN Technical Advisor commented at length on errors in the investigation of this accident on 26th July. He claimed the mine was an OZM-4. He stated that "the benefits of safety equipment are offset by more risky behaviour", and said that "closer attention to detail and less promotion of self interest" would have been beneficial to the inquiry [he did not explain how].

## Victim Report

<b>Victim number:</b> 53	<b>Name:</b> [Name removed]
<b>Age:</b>	<b>Gender:</b> Male
<b>Status:</b> deminer	<b>Fit for work:</b> DECEASED
<b>Compensation:</b> US\$6,600	<b>Time to hospital:</b> not recorded
<b>Protection issued:</b> Safety spectacles	<b>Protection used:</b> not recorded

## Summary of injuries:

INJURIES

severe Neck

FATAL

## COMMENT

No medical report was made available. The victim died 40 minutes after the accident.

## Victim Report

<b>Victim number:</b> 54	<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 recorded
<b>Protection issued:</b> Safety spectacles	<b>Protection used:</b> Safety spectacles

**Summary of injuries:**

## INJURIES

minor Hearing

## COMMENT

No medical report was made available.

## Analysis

The primary cause of this accident is listed as a "*Management/control inadequacy*" because the group were not supplied with appropriate tools by its management. The secondary cause is listed as "*Inadequate equipment*".

The researcher visited the site in 1995 and was shown the relative positions of the victims. Safety distances on the site had obviously been ignored because witnesses were between the two victims when the accident occurred. Victim No.1 was actually outside the mined area at the time.

The supervisor training needs that were identified during the investigation are another management failing, along with the squabbling between Technical Advisors.

## Related papers

One of the investigators commented in correspondence with the researcher (4<sup>th</sup> September 1998): "Basically a deminer had pulled a branch too hard, the branch had snagged a tripwire and sent an OZM-3 into the air. He was a metre away from the mine wearing a pair of [deminer] specs. Fortunately, there was a tree in-between him and the mine and when he heard the mine go up in the air, he dived for the floor and escaped without a scratch. His mate in the next lane, 32m away, was not so lucky. Similarly equipped he took one small fragment through the back of his neck which killed him within two minutes...."

Compensation: on death the deminer was due 60x monthly salary of 110\$ so US\$6,600.

The Officer in Charge of the group at the time issued a directive on 10th July 1995 stating that clearance at the site was to be suspended pending a refresher course. That course would cover investigation of all detector alarms, use of marking tape and lane markers and the need to clear steep slopes uphill. Deminers were to be told that speed must never compromise safety – no competition or pressure "to prove their value" must be allowed. Meantime staff were to assess alternative means of clearance in areas of "close country" with an "abundance of tripwires". Commanders and Supervisors were to be told to enforce safety distances, especially when tripwires are found. A leadership training package was to be developed to make continual enforcement of discipline easier.