

# DDAS Accident Report

## Accident details

<b>Report date:</b> 18/05/2006	<b>Accident number:</b> 194
<b>Accident time:</b> 14:00	<b>Accident Date:</b> 27/01/1994
<b>Where it occurred:</b> Bosknor - Chey Mean Chey, Banan District, Battambang province	<b>Country:</b> Cambodia
<b>Primary cause:</b> Inadequate equipment (?)	<b>Secondary cause:</b> Field control inadequacy (?)
<b>Class:</b> Missed-mine accident	<b>Date of main report:</b> 29/01/1994
<b>ID original source:</b> NS (date inferred)	<b>Name of source:</b> CMAC/MAG
<b>Organisation:</b> Name removed	
<b>Mine/device:</b> Type 72 AP blast	<b>Ground condition:</b> metal fragments
<b>Date record created:</b> 14/02/2004	<b>Date last modified:</b> 14/02/2004
<b>No of victims:</b> 1	<b>No of documents:</b> 2

## Map details

<b>Longitude:</b>	<b>Latitude:</b>
<b>Alt. coord. system:</b> GR: 9320 2330	<b>Coordinates fixed by:</b> GPS
<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 metal-detector (?)  
no independent investigation available (?)  
protective equipment not worn (?)  
safety distances ignored (?)

## Accident report

At the time of the accident the demining group were using a two-man drill. In this, one deminer uses the detector and marks any signals. A second deminer checks for tripwires, cuts undergrowth and investigates any detector readings.

An internal demining group accident report was written by their "Senior Specialist" after a site visit on 28<sup>th</sup> January 1994. The report was found at file at the country MAC in January 1999. The following details of the accident are drawn from the statements of the victim's supervisor and partner because the report author provided no summary of events.

At the time of the accident the victim was wearing boots, helmet and jacket and was retrieving his "goggles and scissors" from an area believed safe. [The group's "goggles" were in fact safety spectacles and "scissors" were shears.]

After a "smoke break" the Supervisor went to the victim's lane to check the work. He used their detector which signalled and the tip of a bullet and two Type 72a mines were discovered. [It is unclear whether this was in an area they had declared clear or not: if not, he was checking the detector rather than their work.]

The supervisor began to suspect that the detector was faulty but continued and the detector gave a low whistle. He prodded the suspect area and excavated by hand but found nothing. He then signalled to the expatriate Specialist to come and destroy the finds.

When the expatriate arrived the deminers went into the lane to get their equipment. The victim was going to fetch "scissors and goggles". As they returned with their equipment the victim, who was three metres behind his partner, stood on a Type 72a mine.

### **Conclusion**

The investigator concluded that the Schiebel AN 19/2 detector in use would locate a Type 72a under normal operating conditions, but had failed to detect a Type 72a just prior to the accident.

The detector used was tested and found to be faulty. It passed the Schiebel set-up test but then failed to signal on a test Type 72a mine that gave readings to other detectors. The faulty detector was passed to the country MAC for examination.

### **Recommendations**

The investigator recommended that all Schiebel detectors should be held in stores until checked by the manufacturer. Also that, due to the "anti-handling nature" of the Type 72a [this mine does not include an anti-handling device – the Type 72b does] and the "hard, dry ground conditions" prodding was too dangerous, so all the group's demining operations in Cambodia should cease until the problem was resolved.

## **Victim Report**

<b>Victim number:</b> 247	<b>Name:</b> Name removed
<b>Age:</b>	<b>Gender:</b> Male
<b>Status:</b> deminer	<b>Fit for work:</b> not known
<b>Compensation:</b> not made available	<b>Time to hospital:</b> 1 hour
<b>Protection issued:</b> Frag jacket	<b>Protection used:</b> Frag jacket
Helmet	
Short visor	
<b>Summary of injuries:</b>	
AMPUTATION/LOSS	
Leg Below knee	
COMMENT	

No medical report was made available.

## **Analysis**

The primary cause of this accident is listed as a "*Inadequate equipment*" because of the detector failure. The secondary cause is listed as "*Field control inadequacy*" because the victim trod on a mine that would have been found if appropriate field controls had been in place and if the detector inadequacy had been recognised in a timely manner.

Given that six detectors had failed similarly [see Related papers], the problem should have been addressed before an accident occurred.

## **Related papers**

A report on detector failure was prepared by the country MAC by an expatriate Technical Advisor. Dated 28th January 1994, it concluded that the detector was "prone to intermittent failure", and that the "fault has been identified to be with the cable from the search head to the box, with the join at the box being the location of the problem". The cable did not look faulty and the detector passed the standard tuning SOP. It detected a Type 72a on several occasions, was retuned, tested and retuned again. After the third retuning it was not able to detect the test mine and made an intermittent noise.

The author felt that "there is a major problem with the detectors, and that their effectiveness and reliability is in serious doubt." He recommended that all detectors be withdrawn from operations until Schiebel themselves subjected the detectors to electronic tests.

The demining group involved in the accident produced a brief report stating that they had six detectors with search head connection to control box faults. They had sent "at least 10" others back to the manufacturer in the past. The current faults were first brought to the attention of the Schiebel Sales representative in mid-December 1993.