DDAS Accident Report

Accident details

Report date:	19/04/2006	**Accident number:**	63
Accident time:	not recorded	**Accident Date:**	21/10/1996
Where it occurred:	Mabubas, Caxito	**Country:**	Angola
Primary cause:	Management/control inadequacy (?)	**Secondary cause:**	Field control inadequacy (?)
Class:	Missed-mine accident	**Date of main report:**	[No date recorded]
ID original source:	none	**Name of source:**	Other
Organisation:	[Name removed]		
Mine/device:	PPM-2 AP blast	**Ground condition:**	pylons and surrounds
Date record created:	23/01/2004	**Date last modified:**	23/03/2004
No of victims:	5	**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

inadequate medical provision (?)

protective equipment not worn (?)

no independent investigation available (?)

safety distances ignored (?)

victim squatting and stepped on mine (?)

inadequate area marking (?)

inadequate investigation (?)

Accident report

The demining group worked in three-man teams using a two-man drill at the time of the accident. This method has one man using the detector, one cutting undergrowth and excavating, and one man resting at any one time.

A Board of Inquiry was held and a report made but no copy of that report was found on file at the Angola MAC. An interview with a member of that Board on 10th December 1998 yielded the following information.

The demining team was clearing around the base of pylons along a power line. They had found that the PPM-2 mines were placed one by each corner of the pylon base (four mines per pylon). Using a three man drill, two members of the team worked around a particular pylon and found three mines. They had left marking sticks lying on the ground where the fourth was expected but had not located the mine, so assumed it had been detonated at some time in the past. When they had found the last of the three mines they called their resting colleague to bring the marking sticks to them.

Meanwhile deminers from another team approached and joined the two who had moved closer to the sticks lying by the missed mine. As Victim No.1 bent to pick up the sticks he stepped on the mine with his left foot. His body was low down and immediately over the mine. As he had been resting, he was not wearing any protective equipment. He suffered traumatic amputation of his left foot, amputation of "several" fingers of his right hand, a broken jaw, his lower lip was torn away, both eyes were severely damaged (resulting in blindness) and the "frontal area of his chest was open".

The group of four other deminers were standing 2-4 metres away talking. They were wearing frontal body protection and visors. It is possible that Victim No.1's body deflected some of the blast and fragmentation in their direction. The Board member did not remember the names of those involved but recalled that one deminer with his back to the accident received a minor eye injury from a fragment that came past his cheek and deflected from the inside of his visor into his eye. One had fragment injuries in his shoulder (outside the coverage of the frontal armour). He reported that two others had light frontal fragmentation.

The medic did not treat and stabilise the amputee adequately prior to all of the victims being put into an ambulance which rushed to the nearest hospital at high speed over bad roads (the interior of the ambulance was reported to look like "an abattoir" after the journey). The ambulance had a puncture en-route and had no spare wheel. The accompanying car crashed and a wheel was taken from it to complete the journey.

It was suggested that inadequate marking and "mine-hunting" were the main causes of the accident.

Victim No.1 was not expected to live (by the hospital) but was reported to have survived. None of the other victims were retained in hospital.

Victim Report

Victim number: 86 **Name:** [Name removed]

Age: **Gender:** Male

Status: deminer **Fit for work:** no

Compensation: not made available **Time to hospital:** not recorded

Protection issued: None **Protection used:** none

Summary of injuries:

INJURIES

severe Chest

severe Eyes

severe Face

AMPUTATION/LOSS

Leg Below knee

Fingers

COMMENT

No Medical report was made available. See Related papers.

Victim Report

Victim number: 87
Name: [Name removed]
Age:
Gender: Male
Status: deminer
Fit for work: yes
Compensation: not made available
Time to hospital: not recorded
Protection issued: Frag jacket, Long visor
Protection used: Frag jacket, Long visor

Summary of injuries:

INJURIES

minor Leg

COMMENT

No medical report was made available.

Victim Report

Victim number: 88
Name: [Name removed]
Age:
Gender: Male
Status: deminer
Fit for work: yes
Compensation: not made available
Time to hospital: not recorded
Protection issued: Frag jacket, Long visor
Protection used: Frag jacket, Long visor

Summary of injuries:

INJURIES

minor Leg

COMMENT

No medical report was made available

Victim Report

Victim number: 89

Name: [Name removed]

Age:

Gender: Male

Status: deminer

Fit for work: presumed

Compensation: not made available

Time to hospital: not recorded

Protection issued: Frag jacket
Long visor

Protection used: Frag jacket, Long visor

Summary of injuries:

INJURIES

minor Body

minor Eye

COMMENT

No medical report was made available.

Victim Report

Victim number: 90

Name: [Name removed]

Age:

Gender: Male

Status: deminer

Fit for work: presumed

Compensation: not made available

Time to hospital: not recorded

Protection issued: Frag jacket
Long visor

Protection used: Frag jacket, Long visor

Summary of injuries:

INJURIES

minor Arm

minor Leg

COMMENT

No medical report was made available.

Analysis

The primary cause of this accident is listed as a *"Management/control inadequacy"* because management failed to provide enough protective equipment for all personnel in the field, and allowed SOPs to be developed that allowed unprotected personnel into dangerous areas.

There were also *“Field control inadequacies”* because the victims were clustered together in the danger area and working inadequately (missing mines despite them being in a known pattern).

While the practice of "mine-hunting" whereby mines are only anticipated in a particular area or pattern is frowned upon in the industry, it is done. However, missing an easily detected mine in an obvious pattern looks like carelessness. There can be little doubt that the absence of authoritative field management and basic safety procedures led to this accident.

The demining group involved is no longer involved in humanitarian demining in Angola and their operating procedures are not available for inspection.

Related papers

According to a document on file at the Angola MAC, the demining group involved in this accident subsequently left Angola for four reasons. These are listed as: they had budget difficulties; they had problems of institutional capacity (accidents); questions had arisen over basic assumptions (such as the belief that IDPs would not return until clearing had been completed); and the organisation wanted to use its funds elsewhere.

A Supervisor with the demining group returned to the area in 2001 and tried to visit Victim No.1. He found that the victim had been discharged from hospital with a large part of his cheek missing which made it hard for him to eat. His wife had taken his compensation money and left him. Other villagers reported that he had starved to death.