2-3-1998

DDASaccident052

Humanitarian Demining Accident and Incident Database
AID

DDAS Accident Report

Accident details

Report date:	19/04/2006	**Accident number:**	52
Accident time:	12:40	**Accident Date:**	03/02/1998
Where it occurred:	Gabela, Kwanza South	**Country:**	Angola
Primary cause:	Unavoidable (?)	**Secondary cause:**	Other (?)
Class:	Vegetation removal accident	**Date of main report:**	04/02/1998
ID original source:	FG/D OPS	**Name of source:**	NPA (field)
Organisation:	[Name removed]		
Mine/device:	not known	**Ground condition:**	bushes/scrub grass/grazing area
Date record created:	23/01/2004	**Date last modified:**	21/07/2005
No of victims:	1	**No of documents:**	2

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	GR: 323 011	**Coordinates fixed by:**	
Map east:		**Map north:**	
Map scale:	Gabela	**Map series:**	
Map edition:		**Map sheet:**	
Map name:	1:100 000		

Accident Notes

inadequate medical provision (?)

no independent investigation available (?)

vegetation clearance problem (?)

Accident report

No formal accident report was on file at the country MAC in December 1998. The country Manager of the demining group supplied an internal document notifying the country MAC of the accident. Dated 3rd February 1998, the following summarises its content.

At 12:40 the victim was kneeling behind his base stick and demining in a heavily overgrown area. While cutting grass in front of his base stick he noticed some smoke ahead of him. He stood up to run and was only a metre away when something detonated behind him.

The victim received two 20cm-long wounds to his left leg, one on the back of his calf and the other on the back of his thigh. They were not deep and no bones were broken. "The deminer did not suffer from any fragmentation." He was wearing a flak jacket, visor and gloves. The victim was evacuated by "car" from Gabela to Sumbe and then airlifted to Alvadale clinic, Luanda arriving at 17:15.

The investigators found a small crater at the site and some grass lying flat 30cm in front of the stick. The victim's flak jacket was inspected and no fragments were found. There was no evidence of a trip-wire. "The device was most likely buried since some of the fragments were found inside the crater while no fragments escaped the ground during detonation." The sound made by the detonation was "low", which together with the small size of the crater and the absence of fragmentation indicates that it was not a mine. Also, had it been a mine or a grenade it was thought that the deminer would have suffered more serious injury. There are "no mines with delay mechanisms in Angola" but "some grenade fuzes do use safety fuze as a delay mechanism. This may cause some smoke".

Although not able to be certain about the cause of the accident, it was felt that the most likely explanation was a small improvised device or a shock grenade that was just leaning against a root, rather than attached to a trip wire. The smoke could have been dust thrown up by the spring-loaded grenade handle.

Conclusion

The deminer disturbed a booby trap (most likely a shock grenade) with a time delay. It did not appear that any safety procedures were broken. The evacuation procedures were felt to have "functioned perfectly".

Victim Report

Victim number:	71	**Name:**	**[Name removed]**
Age:		**Gender:**	Male
Status:	deminer	**Fit for work:**	yes
Compensation:	not made available	**Time to hospital:**	4 hours 35 minutes
Protection issued:	Frontal apron Long visor	**Protection used:**	Frontal apron, Long visor

Summary of injuries:

INJURIES

minor Leg

COMMENT

See medical report.

Medical report

A Medical Coordinator's report was prepared by one of the demining group's medical staff for this research. The author reported that the victim was taken to Alvadale Clinic, Luanda after being given first-aid at the accident site. He did not require an operation and was later discharged to the demining group's house in the capital city, Luanda. He received "ambulatory" treatment at Alvadale Clinic every two days and was later flown to Lobito in the demining group's aircraft. In Lobito the calf wound was dressed every two days and did not become infected. The thigh wound had healed. He was still using crutches and was advised about physiotherapy exercises.

Later a medic from the demining group visited the victim every two days at his home in Benguela to dress his wounds and instruct him on physiotherapy exercises. The medic reported that the victim was not following instructions and was still using one crutch, even though it would retard his recovery. On 5th May it was noted that he had not been doing physiotherapy exercises and had problems straightening his leg due to contractures.

The victim was sent to a specialist NGO for assessment and they found that he could no longer work as a deminer. The victim chose to terminate his contract with the demining group and was awarded compensation.

A nurse from the demining group visited the victim at a later date and found that he did not have any problems with his leg or with contractures.

Analysis

The primary cause of this accident is listed as *"Unavoidable"* because it seems that the victim was working properly (according to widely accepted SOPs) when the accident occurred.

The evacuation of the victim "by car" may imply that an ambulance was not available. Alternatively, it may illustrate the difficulties of reporting in a second language. "By car" may have been used to indicate that he was evacuated by road rather than by air.

From the evidence in the Medical report, the victim appears to have exaggerated his problems with his leg in order to get compensation. Had he stayed on as a deminer he would merely have been paid for "sick leave".

No mention was made of the tool with which the victim was cutting vegetation but it is believed to have been the "sickle" used by this group.

Related papers

An accident report by a Supervisor Trainee, dated 4th February 1998, stated that work started at 07:30 and the accident occurred at 12:40. After the accident the victim was conscious and had a wound on the left leg, but no fractures. The victim said that he was cutting grass when he saw a "little cloud" in front of him. He tried to run away and then there was an explosion.

The report concludes that the likeliest explanation was that "the deminer did not commit any technical mistake… It might happen that a very unstable hand grenade was disturbed by any trailing animal most frequent in the area and rolled to the overlap".

An internal demining group record of the accident was made available in 2005. The document is reproduced below, edited for anonymity.

Catholic Mission Task
The minefield was located in Kuanza Sul province (west of Angola).

[The Demining group] started this task on 8th January 1998, using manual and mechanical demining. The aim was to facilitate school rehabilitation.

On 3rd February 1998, at approximately 13:00 hours, [the Victim], manual deminer had the accident when carrying out manual demining in a heavily vegetated area. He was cutting grass in front of the base stick when he suddenly noticed some smoke (coming from the ground) in front of him. He immediately stood up and tried to run away. He did only manage to run approximately one meter before something detonated behind him. The deminer was injured with two 20 cm long wounds, one on the backside of his left leg and other on the backside of the thigh. He was wearing a vest, visor, gloves and he did not suffer from any fragmentation.

After a close inspection of the injuries, it was decided to evacuate him by car from Gabela to Zumbe where he was picked up by the [the Demining group] aircraft and lifted to Luanda. The evacuation took four hours.

Accident occurrence:
The deminer was sitting behind the base stick and he was removing some vegetation in front of it.

The first inspection of the site, after the accident, gave no adequate explanation to what caused the accident. There was a small crater on the spot, with some grass laying flat 30 cm in front of the base stick. The vest was inspected subsequently to the accident and there was no evidence of fragmentation. Not evidence of tripwires was found.

The sound of the detonation was low and indicated that it was not a mine. This is supported by the fact that the crater was very small and there was no sign of fragmentation. The deminer would also most likely have suffered from more serious injuries if it was a fragmentation device or a blast mine. Although, it was difficult to determine the cause of the accident, it is likely that a small-improvised device or a grenade caused the detonation. It was probably not attached to a tripwire but more likely leaning to a root or similar. The smoke that deminer noticed before the accident could have been dust created from the release of the spring-loaded grenade handle.

The real cause of the accident was not determined.

The task was completed on 17th July 1998. [The Demining group] removed 68 AP mines and 129 uxo's.