

DDAS Accident Report

Accident details

Report date: 18/05/2006	Accident number: 226
Accident time: not recorded	Accident Date: 14/08/1997
Where it occurred: Donja Rovna, Nr Busovaca	Country: Bosnia Herzegovina
Primary cause: Inadequate training (?)	Secondary cause: Inadequate equipment (?)
Class: Survey accident	Date of main report: [No date recorded]
ID original source: Incident no.730	Name of source: BiH MAC
Organisation: Name removed	
Mine/device: PROM-1 AP Bfrag	Ground condition: agricultural (recent) bushes/scrub
Date record created: 17/02/2004	Date last modified: 17/02/2004
No of victims: 2	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 communications (?)
inadequate equipment (?)
inadequate training (?)
safety distances ignored (?)
inadequate medical provision (?)
protective equipment not worn (?)

Accident report

A Board of Inquiry report was ordered by the UN MAC and their field investigation was observed by a representative of the demining group. The report was made briefly available and the following summarises its content.

The accident occurred in an area known to be a former "confrontation line". The site was ten metres away from a dirt track on a gentle slope in a field "with small bush and scrub". The area showed no evidence of having been used by farmers. The "fairly dense" scrub made it difficult to look for "objects" visually.

The commercial company was involved in Survey work and had withdrawn their EOD kit because the team was supposed to be engaged only in reconnaissance and were not properly trained [they were reported to be hoping to return to complete training when more money was available]. The team were "instructed... to identify potential tasks". The team were in the area to "identify the location and type of device when the accident happened".

A local farmer had reported a UXO to the police. The team located the farmer, then parked their vehicle 50m from the accident site and walked with the farmer towards the suspected UXO. The farmer entered the field with Victim No.1 following. The farmer indicated the rough direction of the device and Victim No.2 moved up behind him. All three began to search, all within 1.5 metres of each other. The medic returned to the vehicle to be near to the medical kit. "Statements indicate that at the moment of detonation Victim No.1 bent over slightly and the other two were on their haunches."

After the detonation the medic hurried forward and found Victim No.2 running from the field calling her. The farmer was calling that Victim No.1 was dead. Victim No.2 returned to examine Victim No.1 with the medic who confirmed that he was dead. He had "taken the blast on the right side of his body and his right arm was detached and blown a distance from his body. He was blown back about 1.5 metres. He had very extensive blast and shrapnel injuries to the right hand side of his head, body and legs. The medic treated Victim No.2 who had "various minor injuries" later detailed as "injuries to his face and body and a more serious injury to his hand" with hearing problems. The farmer was unscathed, apart from a hearing problem.

The medic went with Victim No.2 (who drove the vehicle) to inform the police, then to the hospital "for stitches". They then returned to the accident site where the police were waiting.

For funding reasons, the ex-pat supervision of the team was absent at the time. The team had no means of communicating from the accident site "and had to travel by road to inform the authorities".

The investigators decided that the team included a well trained and equipped medical officer. She was 50 metres from the accident site when it occurred. No protective equipment or demining/EOD tools were on site.

The mine's base plate was recovered and it was identified as a PROM-1.

Victim No.2 stated that they had only gone to survey and had no intention of doing more than confirm the existence of the UXO. When the accident occurred they were all squatting and Victim No.1 was searching the grass very carefully. He was 1.5 metres behind Victim No.1 when the accident occurred.

Conclusion

The investigators' conclusion centred on the fact that the team made a poor judgment when they decided to leave the track. They did not have the equipment or the SOPs to enter a "high risk" area.

Recommendations

The investigators recommended that the demining company involved enforce SOPs that include guidance on how to safely enter an unknown area to reach a suspected "target". They further recommended that the vehicle keys be left with people outside the area (they

were in the deceased's pocket), that no team should do field work without all the necessary equipment, and that after an accident the area should be "thoroughly cleared" before anyone was allowed to enter the area.

Victim Report

Victim number: 292	Name: Name removed
Age: 27	Gender: Male
Status: surveyor	Fit for work: DECEASED
Compensation: not made available	Time to hospital: not recorded
Protection issued: None	Protection used: none

Summary of injuries:

INJURIES

severe Body

severe Hand

severe Head

severe Legs

severe Shoulder

FATAL

COMMENT

See medical report.

Medical report

The field medic's statement made a brief mention of Victim No.1's injuries "the whole right side of his body was broken into pieces, parts of brains could be seen, pieces of torn off flesh and pieces of his clothes on the nearby grass and bushes". She felt his pulse and found no signs of life.

A one page medical report by an "Urgent medicine specialist" on Victim No.1 mentioned that he was born in 1970. It listed the injuries found on the corpse as:

"head was broken on the right side, the bones of skull crushed, the brains was out. Next to left ear open wound, horizontal, 5cm long deep to the bone.

Right shoulder destroyed and the right side of chest and the arm below elbow torn off.

The right hip torn off.

Right leg smashed above the knee, the bone smashed and the lower part of leg hanging on muscles and tendons.

On the left palm a hole in the shape of a fragment

DG. Vv explosiva capitis l.sin et corporos l.dex

Amputation man. Dex.

Vc explosiva femoris l.dex.

Politrauma

Death caused by force of mine explosion of great destructive power, which caused cracking of head, right shoulder, hip, upper leg and other injuries."

Victim Report

Victim number: 293	Name: Name removed
Age:	Gender: Male
Status: surveyor	Fit for work: yes
Compensation: not made available	Time to hospital: not recorded
Protection issued: None	Protection used: none

Summary of injuries:

INJURIES

minor Body

minor Face

minor Hearing

severe Chest

severe Hand

COMMENT

See medical report.

Medical report

The field medic stated that Victim No.2 had a "wound on his left hand between the middle and the fourth finger, caused by a fragment, the wound was bleeding; then I noticed that there were two holes on his shirt on the upper right side of the chest, and I checked and found there was no bleeding and they were only scratches; on the right thigh he had a wound by fragments and also on the left knee where fragments remained in the wounds. All over the head he had scratches from fragments and I suspected that fragments could have remained in these wounds."

The victim complained of "pains in his chest", that his right leg was numb and he had been deafened. "He was very pale, completely conscious...he was forced to drive the car... started seriously to perspire... was nervous and trembled".

It seems likely that Victim No.2 suffered chest penetrations ("scratches" in other incidents have turned out to conceal penetrations) because a Technical Advisor reported that the victim suffered chest penetrations in a separate interview.

Analysis

The primary cause of this accident is listed as a "*Management/control inadequacy*" because the UN MAC had not adequately distinguished between reconnaissance and Level 1 Survey, if such a distinction is possible. By supposing that reconnaissance could be done without risk, it allowed teams to be sent out inadequately trained and equipped (no protective wear, detector or tools, and no driver). The secondary cause is listed as "*Inadequate equipment*".

The international commercial company carrying out the survey knew that its personnel were inadequately trained and equipped, so bear some responsibility for the accident.

Although a trained medic was available, the inadequate medical provision noted refers to the fact that there was no ambulance and one of the victims was obliged to drive another vehicle to the hospital.

Related papers

Other documents in the file included statements from the survivors and the farmer, who had previously removed two devices "which we call TV mines" but he did not recognise the fuse of the one in question. [TV mines are improvised Claymore AV/AP mines that may be 60cm long and 30cm high.] He had found them after burning off the grass. After the accident he was blown into the air and saw another body flying. He got up and ran and fell again, then realised he was running deeper into the meadow so turned back and discovered Victim No.1.

After the others had left to go to the police and hospital, he trembled and vomited. In the week between the statement being made and the accident he had headaches and could not sleep.

A statement from the demining group included crude sketch maps and ID cards but no detail.

Documents were not made available for copying.