DDAS Accident Report

Accident details

Report date: 18/05/2006

Accident number: 260

Accident time: 08:15

Accident Date: 25/08/1999

Where it occurred: Plowshare Minefield, Cordon Sanitaire

Country: Zimbabwe

Primary cause: Field control inadequacy (?)

Secondary cause: Inadequate training (?)

Class: Excavation accident

Date of main report: [No date recorded]

ID original source: none

Name of source: KMS

Organisation: Name removed

Mine/device: M969 AP blast

Ground condition: woodland (bush)

Date record created: 18/02/2004

Date last modified: 18/02/2004

No of victims: 1

No of documents: 1

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

no independent investigation available (?)

handtool may have increased injury (?)

inadequate medical provision (?)

partner's failure to "control" (?)

squatting/kneeling to excavate (?)

visor not worn or worn raised (?)

inadequate area marking (?)

disciplinary action against victim (?)

inadequate training (?)

Accident report

At the time of this accident the demining company operated in two-man teams using a one-man drill. One deminer looked for tripwires, cut undergrowth, used the detector and excavated finds while the other watched from a safe distance and "controlled" him. The group issued frontal protection and their drills assumed that the deminer would kneel or squat while excavating.

An internal Accident report was made available by the demining group in December 1999. The following summarises its content.

The victim was cutting an exploratory lane "to identify the direction of the Plough share mines". This appears to have been done by identifying a picket (post on which the plough share mines were originally placed) and working towards the next. The victim missed the next picket and returned to a place 30 metres from the last picket. "This is the normal drill to be used when row direction is lost". The victim did not use the correct marking and clearance procedures. He was investigating a detector reading at 08:15 when the accident occurred.

The victim suffered severe facial injuries and lacerations to his right hand. He was treated by a paramedic and then taken to hospital. The Site Supervisor was confused over which hospital the victim was taken to and called the Medevac route "unclear" [from which I infer that the route to be taken was not clear in advance]. At 08:55 the Site Supervisor was told that the victim was "at hospital receiving treatment".

The investigators found detector readings in the lane leading to the accident site. No lane markings for the last five metres were evident and the vegetation had not been cut. The victim's mine detector was found to be operating properly. His visor was on the site and had been smeared with blood, but there was no sign of any blast damage to it. From this the investigators inferred that it was not worn at the time of the accident.

They found no sign of excavation around the blast crater. They also found no sign of the victim's prodder and trowel, [and so did not determine which was in use at the time].

They found no evidence of the mine but decided it was "more than likely" an M969 or a VS50.

Conclusion

The investigators concluded that the victim was working incorrectly in numerous ways and used incorrect "prodding/excavation" methods. They felt that "complacency had set in". They found that the immediate treatment and Medevac of the victim was "adequate" (although the route was unclear) and stated that radio communications worked well.

Recommendations

The investigators recommended retraining stressing the problems of working in a "patterned minefield and complacency". Supervisors were to give refresher training to Team Leaders, who (if satisfactory) would pass on the training to deminers. A general personnel reassessment was scheduled [partly as the result of a second severe injury occurring on the same day]. They further recommended that the Medevac route "be reviewed immediately" and the victim and his partner should be dismissed for "gross negligence of SOPs".

Victim Report

Victim number:	334	**Name:**	**Name removed**
Age:		**Gender:**	Male
Status:	deminer	**Fit for work:**	not known
Compensation:	not made available	**Time to hospital:**	7 hours 45 minutes
Protection issued:	Frontal apron	**Protection used:**	Frontal apron

Long visor

Summary of injuries:

INJURIES

severe Eyes

severe Face

AMPUTATION/LOSS

Finger

COMMENT

See medical report.

Medical report

An internal "Medical report" was made available in December 1999. This stated that the victim reached the field medical unit by 08:30 where he was stabilised and then evacuated to St Albert's hospital. He was treated and stabilised there again before being moved to Karanda hospital [where the Site supervisor thought he was going directly] at 12:30, arriving at around 16:00 hours. On arrival he was treated in the "casualty theatre". He had "reconstructive surgery to left eye" and "right eye surgery". The following day the victim was transferred to a specialist eye unit in the capital city.

The victim's injuries were described as "bilateral penetrating eye injuries, multiple second degree facial burns, traumatic amputation of distal left index finger". The prognosis was that the victim would "probably" retain 70% vision in his left eye, while having 0-10% in his right.

The report included an explanation of the deviation from the usual medevac route – saying that immediate examination of the eye in a sterile environment was thought necessary, so the route was changed.

Analysis

The primary cause of this accident is listed as a *"Field control inadequacy"* because the victim was in breach of several basic safety rules and his errors were not corrected. Peer control by partners is known to be ineffective and the management's decision to dismiss the victim and his partner while not punishing the Team Leader seems strange. The Team Leader was retrained along with all other personnel, and it seems likely that the victim's partner could have benefited from that as well. Because retraining was accepted as necessary, the secondary cause is listed as *“Inadequate training”*.

The management of this demining group's willingness to admit its own failings and attempts to address them was unusual, and refreshing. Their open attitude to "mine-hunting", which is common but usually denied at senior level, is noteworthy.