

DDAS Accident Report

Accident details

Report date: 29/01/2008	Accident number: 536
Accident time: Not recorded	Accident Date: 08/07/2004
Where it occurred: MF LK-257, Katkovalam, Point Pedro Municipality, Jaffna District	Country: Sri Lanka
Primary cause: Inadequate training (?)	Secondary cause: Field control inadequacy (?)
Class: Excavation accident	Date of main report: 28/07/2004
ID original source: None	Name of source: [Name removed]
Organisation: [Name removed]	
Mine/device: P2Mk2 P4Mk1 AP blast	Ground condition: rocks/stones
Date record created:	Date last modified: 29/01/2008
No of victims: 1	No of documents: 1

Map details

Longitude:	Latitude:
Alt. coord. system: SL Grid	Coordinates fixed by: GPS
Map east: Easting/Long.: 142219	Map north: Northing/Lat.: 510079
Map scale: Point Pedro, Katkovalam	Map series: GIS Arc Explorer 2.0
Map edition: 27.05.2004	Map sheet: Jaffna.AEP
Map name: 1: 20000	

Accident Notes

inadequate medical provision (?)
inadequate training (?)
long handtool may have reduced injury (?)
metal-detector not used (?)
no independent investigation available (?)
non injurious accident (?)
standing to excavate (?)
use of rake (?)

Accident report

The report of this accident was made available in August 2007 as an IMSMA file. Its conversion to a document had led to the formatting being lost. The substance of the report is reproduced below, edited for anonymity. The original PDF file is held on record. Text in [] is editorial.

IMSMA accident report

Date of report: 08.07.2004

Date of report received: 28.07.2004

Nearest town: MF LK-257, Katkoyalam, Point Pedro Municipality, Jaffna District

Coord system: SL Grid; Easting/ Long.: 142219; Northing/ Lat.: 510079; GPS

Map name: Point Pedro, Katkoyalam

Map series: GIS Arc Explorer 2.0

Map sheet: Jaffna.AEP

Map edition: 27.05.2004

Map scale: 1: 20000

Mine accident coordinates description:

- Antipersonnel Mine model P4 mark 1 exploded during mine-clearance in minefield LK-257, Katkoyalam. Explosion took place 1,5 meters in front of [Demining group] deminer while he was raking the uncleared lane with heavy rake.
- Deminer tried to move a 5-10 kg rock with a heavy rake towards himself to pick it up. Stone was only partly visible, covered by sand and little rocks. When pulling, it started to move, and deminer dragged it slowly towards himself.
- Explosion occurred and broke the stone, throwing pieces everywhere also hitting the deminer.
- Antipersonnel mine was most likely between the stone and the working deminer in a 1,5 meter distance.
- Deminer fell backwards to his bottom and lost his hearing and vision for few minutes. His visor (head protection) was hit by little stones and fell off. Fragmentation vest (body protection) took some punches too. After 15 minutes he recovered to mentally and physically normal state. He did not have any wounds, bruises nor pain anywhere in medic's full body inspection. Nevertheless, he was evacuated against his will.
- There were not other personnel within safety distance which is 10 meters in minefield LK-257.
- Place of incident is situated in the middle of the minefield LK 257 where soil contains a lot of rocks.

Internal demining group Lessons Learned document,

- The team leader didn't close the lane where the incident occurred, and the work in the lane continued after a couple of hours.
- There were no injury report filled by the local doctor in the area, the deminer was only examined by one of the team paramedics.
- The assistants in HQ misunderstood information from the area. Thereby the incident changed from a deminer setting off a mine, into a deminer who had found the crater of a detonated mine in his lane.
- The assistants in HQ didn't have enough insight into the demining process, and thereby they couldn't question the information from the team leader.
- The senior staffs in HQ have to investigate all not normal information from the operation areas, and inform the operation manager about it.
- At the time of the incident there were no technical advisor in the operation area, and it is believed that that is the main reason to all the mistakes.

Action taken within [Demining group]:

- Retraining of all our team leaders in their responsibilities concerning accidents/incidents have been carried out, and they have all been informed about the mistakes in this incident.
- Retraining of all our paramedics and their responsibilities has been carried out.
- HQ will in the future repeat the signals from the operation areas, and the team leader will confirm the reply from HQ.
- In the future the operations manager will personally confirm any not normal signals from the operation areas, to avoid the same mistakes in the future.

Victim Report

Victim number: 708	Name: [Name removed]
Age:	Gender: Male
Status: deminer	Fit for work: yes
Compensation: Not made available	Time to hospital: Not taken to hospital
Protection issued: Frontal apron Long visor	Protection used: Frontal apron, Long visor

Summary of injuries:

minor Hearing

COMMENT: No Medical report was made. This was considered a non-injurious accident.

Analysis

The primary cause of this accident is listed as “Inadequate training” because the deminer should have raked the area leading up to the rock before trying to move it. It seems that he did not know that he should do this.

The secondary cause is listed as a “Management control inadequacy” because the post-accident field and medical events were entirely mismanaged. The internal investigators stated that this was probably because there was no ex-patriot present. If the training of National staff was not good enough for them to operate within the approved SOPs without an ex-patriot present, the work should have been suspended while suitable candidates were trained. Other demining groups in Sri Lanka have no trouble finding well-educated and responsible field supervisors who can be readily trained.

The demining group had put in place the use of a long tool (rake) that kept the Victim far enough away from a blast to avoid injury, and his PPE was effective at protecting him from any risk remaining at that distance. Had he been using conventional short hand-tools, some injury would have been expected.

Stand-off (distance from the detonation) is the most effective PPE and the Rake Excavation system makes use of this. It is possible that the extreme length of the tool makes initiation of small AP blast mines with the Heavy rake more likely, but any increased risk of initiation is offset by the reduced chance of that initiation resulting in injury. The accident is a good example of balancing an effective demining process and PPE to result in a very low risk of injury.