

DDAS Accident Report

Accident details

Report date: 15/05/2006	Accident number: 211
Accident time: 06:40	Accident Date: 31/08/1998
Where it occurred: Nr Route Arizona, 25 Km from Brcko	Country: Bosnia Herzegovina
Primary cause: Field control inadequacy (?)	Secondary cause: Management/control inadequacy (?)
Class: Vegetation removal accident	Date of main report: 04/09/1998
ID original source: WL/WM/IP/NH/SB	Name of source: BiH MAC
Organisation: Name removed	
Mine/device: PROM-1 AP Bfrag	Ground condition: bushes/scrub grass/grazing area rocks/stones route (verge) trees
Date record created: 15/02/2004	Date last modified: 15/02/2004
No of victims: 2	No of documents: 2

Map details

Longitude:	Latitude:
Alt. coord. system: CQ 07603 65708	Coordinates fixed by:
Map east:	Map north:
Map scale: WGS 84 Gradacac	Map series: WGS 84
Map edition: 8 DMA	Map sheet: 2784 1
Map name:	

Accident Notes

inadequate metal-detector (?)
inappropriate vegetation cutting tool (?)
partner's failure to "control" (?)
inadequate area marking (?)
visor not worn or worn raised (?)

inadequate area marking (?)

Accident report

The demining group were demining using two-man teams and a one-man drill. In this, a single deminer carries out all the appropriate demining tasks while his partner rests and "controls" him from a distance of 25 metres. A QA Monitor was on site, charged with ensuring contractual compliance, especially with regard "to working methods, safety and effectiveness".

A Board of Inquiry report was ordered by the country MAC and carried out by representatives of the regional MACs including two ex-pat Technical Advisors whose experience and ability came into question. The demining company and Monitor representatives challenged some of the report and gave some more information in their challenges. The entire file was made available and the following summarises its content. The original Bol report is reproduced in full (edited for anonymity) under *Related papers* at the "Other documents" tab.

The demining company asked the country MAC for the information on mines in the area on 16th July 1998 and the investigators could not determine why that information was not provided. [The demining company argued that this lapse was significant but there is no evidence that it contributed to the accident. As a result of the Board's findings, those responsible for the lapse were reprimanded.]

The demining group started work at the site on 20th August 1998 and started work in the accident area on 23rd August 1998. The initial report of the accident from the demining organisation to the country MAC gave the wrong grid reference. At the site, a single Control Point controlled three working areas [presumably at safe working distances along the road verges]. The accident occurred on a verge beside a road. The report describes the verge as "thickly vegetated" with "grass, weeds and small bushes and trees". [A photograph showed tall, largely dry vegetation of sticks and grasses with occasional thin 4-15cm trees.] The deminers had been using a chainsaw to cut undergrowth, including small trees, despite the tool's prohibition.



[The picture above shows the accident site.]

The accident report did not give details of what happened in the incident, but from other documents (including the statement of the victim's partner who was not available to be interviewed by the investigators during their site visit) it seems that the deminers started work at 06:10 and at 06:40 the victim took over clearance. The exchange of duty took place close to the accident site, possibly because the marking system was inadequate and the victim's partner had to explain where he had finished work. The metal contamination along the verge

caused by litter was such that the deminers found it impossible to use their Guartel MD8 detectors, so they were clearing by prodding. The victim's partner began to walk "slowly" away. When he was about twelve metres away the mine went off. When he had last seen his partner, he had been wearing his full protective kit.



[The picture shows the mine crater.]

Photographs of the site showed the area with a chainsaw beyond a pair of long handled shears with one handle apparently missing. The victim's boots (damaged) and his safety helmet (severely damaged) were also shown. Other photographs appeared to show parts of the victim's legs or feet and a pool of blood. [An axe was found on the site and it was implied that there may have been reason to think it was being used.]

The investigators found that Victim No.1 "lost both legs and one arm during the explosion and....had extensive damage to his head". His protective equipment "showed considerable damage...mostly to the left side and upper legs". Victim No.2 was about twelve metres away and sustained fragment injuries to both legs that were not "serious or permanent". The investigators thought it likely that Victim No.2 was shielded from further injury by Victim No.1.

The helmet was subjected to a forensic examination that found to contain no trace of blood or tissue, so indicating that it was not worn at the time of the accident. The victim's partner disputed this, but had his back to the victim so it is possible that the victim removed his helmet without his partner knowing. The loss of both the victim's legs and the damage to his boots may be taken to imply that he trod on the device.

Conclusion

The investigators found that the "supervision and management procedures at the site were minimal" as evidenced by infrequent on-site supervision, lack of end-of-lane marking and the use of the chainsaw. They found that both the demining group's management and the QA Monitor were responsible for this. They further found that the detector in use was capable of finding the PROM-1 mine in the area.

Recommendations

A lengthy list of recommendations included that drills and procedures and tools used on site "should be reviewed", power tools must never be used in clearance lanes, no striking or chopping tools should be used in the clearance lane and that trees 10cm or more thick should not be cut down. They reinforced the need to ensure that protective equipment was worn "at all times" and for the Team Leader to visit the deminers more regularly than twice a day.

The investigators observed that recommendations made after previous incidents involving this group had not been implemented. These were that manual clearance drills should be reviewed to include a second sweep with the metal detector after the vegetation was cut, that all signals from a metal detector should be investigated and removed, that full length end-of-lane marking sticks [called "base sticks" in this theatre] should be used (the sticks should be painted brightly for ten centimetres at each end to show where lanes overlap). Further recommendations that had not been implemented included retraining, using dogs to check

lanes at deminer shift changes and that prodders should be revised to include a guide to prodding depth.

A final recommendation was for an investigation into the MAC information department's failure to provide the mine information when requested, and for changes to be made "as required to prevent a recurrence".

DISTRIBUTION

Director BH MAC

Director Federation MAC

[Demining group]

US State Department

Victim Report

Victim number: 272	Name: Name removed
Age:	Gender: Male
Status: deminer	Fit for work: DECEASED
Compensation: not made available	Time to hospital: not recorded
Protection issued: Frag jacket	Protection used: Frag jacket
Helmet	
Short visor	

Summary of injuries:

INJURIES

severe Head

AMPUTATION/LOSS

Arm

Leg

Leg

FATAL

COMMENT

See medical report.

Medical report

No separate medical report for Victim No.1 was made available.

Victim No.1 "lost both legs and one arm during the explosion and....had extensive damage to his head". His protective equipment "showed considerable damage...mostly to the left side and upper legs".

No record of his treatment (if any) was made.

Victim Report

Victim number: 273	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 Helmet Short visor	Protection used: Frag jacket, Helmet, Short visor

Summary of injuries:

INJURIES

minor Legs

COMMENT

No medical report was made available.

Analysis

The primary cause of this accident is listed as a "*Field control inadequacy*" because the victim was not working in accordance with SOPs, and was not controlled appropriately.

Victim No.1's injuries concentrated around his upper legs implying that the device detonated while he was standing beside it and with his left side more exposed. The damage to the shears and the concern about the axe may be taken to imply that he was clearing vegetation when the mine went off under his foot. Certainly he cannot have been prodding in a standing position. Regardless of the SOP, many deminers remove their helmets and/or visors while cutting vegetation, and it seems likely that this occurred in this case. The accident is classed as a "Vegetation clearance incident" for want of information to the contrary.

The accident report was not detailed and some of the findings not explained, but the demining company and the QA Monitor's office responded with a vehemence that did nothing to improve the unprofessional impression of their field activities [relevant papers are held]. Their failure to recognise the failings of management and control at the site (especially the infrequent supervision and lax monitoring) imply that they were content with the work, which constitutes a significant failing of management systems. The secondary cause is listed as a "*Management/control inadequacy*".

The question of using two-handed shears in tripwire areas was raised. If tripwire feelers are used beyond the extent of the shears' blades, there can be an advantage in using two-handed shears over one-handed versions. That advantage is one of distance from a blast, with two-handed shears usually putting the hands more than twice the distance from a detonation that a one-handed shear would achieve. The safety issue with shears is not straightforward, and includes considerations of the ease with which the tool breaks up (becoming fragmentation) in a blast, the ease of controlled use and the deminer's preference.

In several accident investigations during which photographs were taken, those conducting the investigation are shown ignoring the rules about wearing PPE in the mined area. This occurred during this investigation. The MAC may like to consider the message this sends deminers about the need for PPE rules to be enforced.

Related papers

The Accident file included a detailed sketch map of the site, mined-area maps of the relevant area [that the MAC had on record but had failed to supply to the demining group], many photographs of the site and the scattered equipment. The site had a thin string between red tipped sticks as marking tape and the extent of the cleared area was hard to determine. The precise position of the crater was not clear, and no photograph of it was on file.

Three letters dated 3rd November 1999 the MAC were on file. The letters are reproduced below, edited for anonymity. The original BoI report is reproduced after these letters, also edited for anonymity.

Letter 1:

To the Demining group:

BOARD OF INQUIRY REPORT INTO DEMINING ACCIDENT 31 AUGUST 1998

The Board of Inquiry's report into the [Demining group] mine accident that occurred on 31 August 1998 is attached.

Previous accident reports have commented on a number of issues regarding your operations which apparently remain unresolved and it is obvious that the team involved in this latest accident were not following your own SOPs. The use of a power saw in the clearance lane is not acceptable, your SOP states that only horizontal cutting tools will be used to cut vegetation from the clearance lane. The use of a base stick to mark the limit of clearance in a lane is made mandatory in this country by the Mine Action Centre's Technical Guidelines and you should include base stick usage as part of normal drills in your SOPs with immediate effect.

The Platoon Leader involved in this accident clearly acted in a manner not suited to his position by allowing a power saw to be used and by not visiting the two-man team involved in the accident more than twice each day. His suitability for a position of such responsibility must therefore be questionable.

Boards of Inquiry provide recommendations to demining organisations as part of every accident report. It is always anticipated that these recommendations are actioned promptly. In this case several recommendations from previous accident reports seem to have been ignored.

You are strongly advised to read the attached report carefully and implement changes to operations as recommended.

Signed: Director BH MAC

Letter 2:

Addressed to the Federation PIU

BOARD OF INQUIRY REPORT INTO DEMINING ACCIDENT 31 AUGUST 1998

The Board of Inquiry's report into the [Demining group] mine accident that occurred on 31 August 1998 is attached.

Previous accident reports have commented on a number of issues regarding [the Demining group]'s operations which apparently remain unresolved and it is obvious that the team involved in this latest accident were not following [Demining group]. The use of a power saw in the clearance lane is not acceptable and it would appear that the PIU Monitor involved in this accident did not prevent or advise the team against using it. [The Demining group]'s SOPs and MAC Technical Guidelines were contravened in a number of ways and it would seem that the Monitor did not take any action to remedy the situation or to report the contraventions.

The PIU Monitor involved in this accident clearly acted in a manner not suited to his position by allowing a power saw to be used and by not reporting or advising against unsafe and

dangerous activities in the clearance. His suitability for a position of such responsibility must therefore be questionable.

Signed: Director BH MAC

Letter 3:

Addressed to the Federation MAC

BOARD OF INQUIRY REPORT INTO DEMINING ACCIDENT 31 AUGUST 1998

The Board of Inquiry's report into the [Demining group] mine accident that occurred on 31 August 1998 is attached.

You will already be aware that the team involved in this accident did not have access to information available in the MAC database. The reason that this information was not available to the team is because the [Demining group] request for a Task Folder for this area was not actioned.

This very serious omission was a contributory cause of this accident and it is very strongly recommended that you take steps to ensure that such an error does not occur again.

Signed: Director BH MAC

Original Bol report

The original Bo! report is reproduced below (edited for anonymity).

REPORT OF BOARD OF INQUIRY INTO ACCIDENT 31 AUGUST 1998

4 September 1998

References:

Map WGS 84 2784-1 M709 Edition 8-DMA – Gradacac.

[Demining group] SOPs dated 1 December 1997.

UN MAC Technical and Safety Standards to amendment No. 4 Dated 27 June 1998.

INTRODUCTION

1. As a result of a mine accident on the morning of Monday 31 August 1998, a Board of Inquiry was convened by the Bosnia and Herzegovina Mine Action Centre to investigate the accident on behalf of the Government and in accordance with the National Technical Standards.
2. This is the third mine accident sustained by [the Demining group] this year.
3. The Board comprised:
 - a. Chairman - BH MAC
 - b. Member – United States State Department
 - c. Member – Operations Officer MAC Tuzla
 - d. Member – Operations Officer Fed MAC Sarajevo
 - e. Mr [name excised], representing [demining group] Corporation was present throughout the Board of Inquiry investigation and interviews at the task site.
4. A copy of the Board's Terms of Reference are attached at Annex A.

5. [Demining group] staff members were helpful and cooperative throughout the course of the investigation. [The demining group comprised a collaboration between international and National commercial companies.]

RECOMMENDATIONS FROM PREVIOUS ACCIDENTS

6. The following recommendations to [Demining group] from previous accident reports have not been implemented at this task site.
 - Manual clearance drills should be reviewed. They should include a second sweep of the ground with the metal detector once the vegetation has been cut away. All personnel should understand the clearance drills and they should not be varied without permission from the [Demining group] Regional Manager.
 - 100% metal clearance should be aimed for in all areas where metal detectors are used. All signals given by the metal detector should be investigated.
 - Improved, full-length base-sticks should be used. These should be marked with gradations at 2.5 centimetre intervals and 10 centimetres at the ends should be brightly coloured to show where lanes overlap.
 - Consider the use of dogs to check lanes as part of the changeover procedure between deminer shift changes.
 - Retraining should be carried out to confirm the following points.
7. Manual prodding techniques.
8. Procedures and use of metal detectors, including the confirmation of a second sweep over the clearance area in front of the base stick, after the grass has been cut.
 - a. Where necessary lanes should be sapped to provide a base from which to search for buried mines. Consideration should also be given to marking prodder blades to show depth of penetration into the ground.

SEQUENCE, DOCUMENTATION AND PROCEDURES OF TASKING

9. [Demining group] were tasked by the PIU in accordance with the provisions of their contract. This Task was PIU number 049.
10. A record of a request from [Demining group] Sarajevo for a Tasking Folder for this area is held at Federation MAC Operations department. MAC did not issue a Tasking Folder for this task. Reasons for this non-issuance are not clear at the time of writing this report.
11. MAC holds information for this area and for areas close to this task site. MAC Information shows evidence of mined areas and of PROM-1 mines laid within the area of this task site. A copy of [Demining group]'s original request for a Task Folder, dated 16 July 1998, and information held by MAC about the area is shown at Annex F.
12. [Demining group] started work at this site on 20 August 1998. Work started on the clearance lane in the area of the accident on 23 August.

GEOGRAPHY

13. Initial report from [Demining group] headquarters in Sarajevo stated that the accident had occurred at Grid Reference CQ 07993 66112. This accident actually occurred at CQ 07603 65708.
14. The task site where [Demining group] were operating is next to the Inter Entity Boundary Line near Route Arizona, approximately 25 Kilometres from Brcko.
15. The task site encompasses three task areas, all of which are controlled from one Control Point, situated approximately midway between the three areas. A sketch plan of the site is shown at Annex B. Photographs of the site are shown at Annex D.

16. The task area where the accident occurred is a route verge, next to an unmade road. The verge is thickly vegetated with grass, weeds and small bushes and trees. The site is graded as Category C by the Federation PIU.

PRIORITY OF TASK

17. Priority was set by the Federation PIU.

SITE LAYOUT AND MARKING

18. A plan of the site is attached at Annex B showing the areas of clearance. Marking in clearance lanes was adequate.
19. The team working in the lane where the accident occurred was a two-man team, working a work-safety schedule of operations at half-hourly intervals. The man not working in the clearance lane would normally be approximately twenty-five metres away from the man working.
20. The Control Point for the team was situated approximately one hundred and twenty metres from the site of the accident. The CP was on the road and downhill from the accident area.
21. The Access Route from the Control Point to the clearance lanes was along the road.
22. Marking of the area between cleared and uncleared areas was by use of red topped stakes. Red and white nylon cord was fixed between the stakes.

SUPERVISION AND DISCIPLINE ON SITE

23. The Platoon Leader, [name excised] normally visited this area of his task site about twice each day. On the day of the accident he had not visited this area because operations had been in progress for less than one hour.
24. The [Demining group] Regional Manager, [name excised], had not visited this site.
25. [Demining group] Operations Officer, [name excised], last visited the site on Saturday 22 August.
26. Mr [name excised], Regional Operations officer last visited the site on Tuesday 25 August. Prior to 25 August, [he] was stationed permanently at this site. On the day of the accident [he] was in Drvar, as part of a planned move of operations to that area.
27. Mr [name excised], [Demining group] Senior Dog Supervisor was at the site all day every day.

A PIU monitor was at the site full time. Except for a two-week break, this monitor had been with this team since March 1998. It is normal for every task site to have a PIU monitor deployed to it at all times when operations are in progress.

QUALITY ASSURANCE

28. Part of the Quality Assurance process is the presence at each site of Site Monitors employed by the Regional PIU, as stated above. The role of the Site Monitor is to ensure that the contractor carries out the work as agreed with the PIU, particularly with respect to working methods, safety and effectiveness.

COMMUNICATIONS

29. [Demining group] radio communications network is comprehensive and works well. Each Team Leader has a hand held VHF radio and is able to speak direct to the Platoon Leader, the Regional Manager and Regional Operations Officer.
30. VHF radios are supplemented by vehicle-mounted HF radios. [Name excised] sent an initial report to [Demining group] headquarters in Sarajevo over the HF network immediately after the accident. He sent a full report over a public telephone near to the task site shortly afterwards.

MEDICAL

31. A medic was at the site at the time of the accident, equipped with a comprehensive medical and trauma kit. An ambulance vehicle was also at the site.
32. Deminer [Victim No.1] died from injuries sustained in this accident. It is reported that he lost both legs and one arm during the explosion and that he had extensive damage to his head. Death occurred very shortly after the explosion.
33. Deminer [Victim No.2] sustained injuries. Injuries were fragmentation wounds and bruising to the back of [his] legs. No serious or permanent injuries were sustained. The injured deminer was approximately twelve metres away from the explosion. It is the opinion of the board that [Victim No.2] was shielded from further injuries by the presence of [Victim No.1].
34. Casualty Evacuation after the accident was reported as successful and efficient.

PERSONALITIES INVOLVED

35. Team involved in the accident was Team No. C2. Personalities involved in this accident are shown below.
 - a. Platoon Leader
 - b. Team Leader
 - c. Medic
 - d. No. 1 Deminer - Deceased
 - e. No. 2 Deminer - Injured
 - f. PIU Monitor

EQUIPMENT AND TOOLS

36. The following tools were in the clearance lane at the time of the accident.
 - a. A powered chain saw.
 - b. A chopping tool with approximately 25 centimetre hooked blade.
 - c. A hand file for sharpening tools.
 - d. A manual prodder.
 - e. A hand trowel.
 - f. A broken, red-painted wooden marker picket, reportedly used as a base stick.
 - g. A pair of long-handled garden hedge-cutting shears
 - h. A Guartel MD-8 metal detector.
37. During an on-site test the metal detector functioned correctly. The test was compared with a similar test at the same time with a MAC MD-8 metal detector. Both detectors performed the same. Soil at the site is not metallic or mineralised.
38. The on-site test showed that a PROM-1 mine could easily be found in this area using the available metal detector.
39. The cleared areas around and adjacent to the point of the explosion were littered with metal objects such as soft drinks cans, food cans, barbed wire etc. If the cleared area had been cleared to 100% metal free, these objects should have been removed from the lane.
40. Platoon Leader stated that the power saw at the site was used for cutting down only larger-sized trees. The largest diameter of any tree that the members of the Board of Inquiry saw near the point of detonation was approximately 120mm. Evidence at the site showed that several trees and bushes, some less than 25mm in diameter, had been cut with the power saw.

DETAILS OF MINE INVOLVED

41. The mine involved was a PROM-1, bounding Anti Personnel fragmentation mine. This was confirmed by the discovery of the mine's base-plate in the bottom of the crater. Photographs of the crater are shown at Annex E.
42. The mine was in an area that had been previously worked in, approximately half a metre inside the cleared area. Vegetation, including small trees and bushes had been cut around where the mine was laid.
43. This was the first mine to be found at this task site area. Several mines had been found at associated task areas but no PROM-1 mines had been discovered or reported.
44. The mine was laid vertically, in a conventional manner, approximately two metres from the side of the road. A conventional tripwire, of the type issued with PROM-1 mines was laid next to the crater. It is the opinion of the board that this tripwire was originally laid with the mine. It is not clear whether the mine was activated via the tripwire or directly through pressure on the top of the fuze.
45. Evidence from the clearance lane shows that the deminer who was killed in this accident was not more than half a metre away from the mine when it detonated.

EVIDENCE OF RE-MINING

46. There was no evidence or suspicion of re-mining at any part of the task site.

DRESS & PERSONAL PROTECTIVE EQUIPMENT

47. Each member of the Demining Team was equipped with a helmet with a visor attached and a ballistic jacket. Both deminers were wearing a ballistic jacket at the time of the explosion.
48. Examination of personal protective equipment showed considerable damage from blast and fragmentation. Mostly to the left side and upper legs.
49. [Victim No.1] was wearing standard working boots. The left boot was almost completely destroyed and the right boot showed very severe damage.
50. [Victim No.1]'s helmet was damaged in several places by fragmentation. No blood or tissue was evident on any part of the helmet.

USE OF DOGS

51. Dogs were available at this task site and used in other areas of the task site. No dogs were used on this particular area of the site because the vegetation was too thick to allow dogs access to the ground.

DETAILED ACCOUNT OF ACTIVITIES ON DAY OF ACCIDENT

52. The following account summarises the responses to questions by members of the Board, directed to Supervisors, Team Leader and team members. Statements are shown at Annex C.
53. The team started work on the morning of the accident at the usual time of 06:00hrs. Work started as normal and [Victim no.2] completed the first 30 minutes shift in the clearance lane where the accident occurred.
54. At approximately 06:40hrs, [Victim no.1] took over as the No. 1 deminer in the clearance lane from [Victim No.2]. The handover-takeover was conducted informally, next to the clearance area, less than one metre from the PROM-1 that caused the accident.
55. Less than one minute into his shift the PROM-1 that killed [Victim no.1] detonated.
56. When the accident occurred, [Victim no.2] was walking away from the clearance lane, towards his safety area, which was approximately 25 metres away. When the mine exploded, he was approximately 12 metres away, with his back towards the explosion.

SUMMARY

57. This accident happened at the beginning of a working week in an area where the team had been working for several days in the previous weeks. One man was killed due to the extensive nature of his injuries. A power-saw and a manual chopping tool were in the clearance lane at the time of the accident. No site management personnel had visited the site for six days. Although the MAC holds information that shows PROM-1 mines had been laid in this area, this information was not available at the task site because Federation MAC Operations Department did not issue it as requested.

CONCLUSIONS

58. Supervision and management procedures at the site were minimal. Medical and safety coverage was in place and worked well. Drills and procedures should be reviewed. Tools used at the site should be reviewed.
59. The Guartel MD-8 metal detectors in use at the site are capable of finding PROM-1 mines in this area.

RECOMMENDATIONS

60. The following recommendations are made from the Board of Inquiry.
- a. The use of dogs should be considered to check lanes as part of the changeover procedure between deminer shift changes in clearance lanes.
 - b. Recommendations and relevant information from accident reports, including this report and the reports of [Demining group]'s two previous accidents should be disseminated to all personnel involved in the company's demining operations in this country.
 - c. Changeovers between deminers at changes of shift in clearance lanes should be carried out as a drill, in accordance with [Demining group] SOPs.
 - d. Tools used in clearance lanes should be reviewed.
 - (1). Power saws must never be used in clearance lanes.
 - (2). Only horizontal cutting tools should be used to cut vegetation. No striking or chopping tools should be allowed into the clearance lane.
 - e. Trees thicker than 100 millimetres in diameter should be left standing. The clearance lane should detour around the tree while maintaining a one-metre clearance lane width. The tree itself and the ground around it should be cleared, including the careful removal of branches and foliage as required.
 - f. Helmets and PPE should be worn by all personnel at all times when at work in the clearance lane.
 - g. The Task Folder from MAC Information Department should be made available to personnel operating in the field. This document carries all information held by the MAC about an area, including geographical information, minefield reports, and any intelligence held at MAC. It should be normal practice at the MAC to issue this information as requested and in a timely manner, prior to the start of any new task.
 - h. Management and supervision structures should be increased and arranged so that all sites and areas receive sufficient visits from managers and supervisors.
 - i. Federation MAC Operations Department should carry out the following recommendations:
 - j. Carry out an internal investigation to determine why a Tasking Folder for this site was not issued.
 - k. The structure of filing and office management procedures should be reviewed and changes should be made as required in order to prevent a reoccurrence.

COMMENTS BY THE BOARD

61. The use of two-handed shears for cutting vegetation should be discouraged. This should especially be the case in areas where mines with protruding fuzes or tripwires are suspected. The use of two-handed garden shears provides less control than smaller, one handed shears.

Signed: all board members

ANNEXES (not made available)

Annex A	–	Terms of Reference.
Annex B	–	Sketch map of site.
Annex C	–	Statements of team members.
Annex D	–	Photographs of site.
Annex E	-	Photographs of crater.
Annex F	-	Information from MAC Database.

DISTRIBUTION

Director BH MAC

Director Federation MAC

[Demining group]

US State Department

Federation PIU