

# DDAS Accident Report

## Accident details

<b>Report date:</b> 15/07/2011	<b>Accident number:</b> 765
<b>Accident time:</b> 12:15	<b>Accident Date:</b> 03/12/2009
<b>Where it occurred:</b> AF0308/01635/5324, Qala-e-Ahmad jan village, Bagram District, Parwan Province	<b>Country:</b> Afghanistan
<b>Primary cause:</b> Inadequate training (?)	<b>Secondary cause:</b> Victim inattention (?)
<b>Class:</b> Handling accident	<b>Date of main report:</b> 09/12/2009
<b>ID original source:</b> None	<b>Name of source:</b> Demining group
<b>Organisation:</b> [Name removed]	
<b>Mine/device:</b> VOG-17, 30mm rifle grenade	<b>Ground condition:</b> soft wet
<b>Date record created:</b>	<b>Date last modified:</b> 15/07/2011
<b>No of victims:</b> 1	<b>No of documents:</b> 1

## Map details

<b>Longitude:</b>	<b>Latitude:</b>
<b>Alt. coord. system:</b> Not recorded	<b>Coordinates fixed by:</b>
<b>Map east:</b>	<b>Map north:</b>
<b>Map scale:</b>	<b>Map series:</b>
<b>Map edition:</b>	<b>Map sheet:</b>
<b>Map name:</b>	

## Accident Notes

mechanical follow-up (?)  
no independent investigation available (?)  
inadequate training (?)

## Accident report

The demining group made available the details of this accident in 2011. Its conversion into a DDAS file has led to some of the original formatting being lost. Text in square brackets [ ] is editorial. The report is reproduced below, edited for anonymity.

[Letter]

Dear all,

Today the 3rd December at 12.15 pm [Demining group] had an incident at one of our minefields in Bagram, Parwan Province, Afghanistan (Central). The incident happened at a [Demining group] site where this particular clearance section is funded by [Name removed]. The [Name removed] sections are working under the auspice of [Demining group]'s accreditation and SOPs.

There was one casualty, but I am glad to say that the deminer concerned, [Name removed] did not lose his life, at present he is undergoing surgery at a hospital in Kabul. The hospital's diagnosis is that he may loose his leg below the knee at present, there were no other members of his section injured.

Initial investigation by Afghanistan Mine Action Centre (AMAC Central) and [Demining group], has been carried out this evening however, I must mention that the deminer breached all standard safety and security procedures according to [Demining group]'s SOPs.

A further investigation will be carried out over the next couple of days and a detailed report will be sent Sunday the 6th December 2009.

[Demining group] Operations Manager in country has notified [Name removed]'s family.

Best Regards, [Name removed], Programme Coordinator HQ

[Demining group] / [Funder]

Detailed Demining Incident Report

From: [Demining group] / [Donor group]

Date report submitted: 09 Dec 2009

To: Mine Action Co-ordination Centre for Afghanistan (MACCA)

References:

- A. Demining Accident Report (copy attached).
- B. Afghanistan Mine Action Standards (AMAS).
- C. [Demining group] SOPs.

**Part one – background** (This is a summary of information from the initial Demining incident report)

1. Demining organisation name: [Demining group/Donor group]
2. Organisation sub unit, team name/number: Clearance Section # 80
3. Name of worksite supervisor: Group Supervisor, [Name removed] ([Name removed], was acting group Supervisor) at the time of the accident. Section leader, [Name removed]
4. Location of incident; (province, district, village, minefield number).  
Parwan Province, Bagram District, Qala-e-Ahmad jan village, MF # AF0308/01635/5324.
5. Date and time of incident: 03 Dec 2009 and time 12:15 PM
6. Type of incident: Demining Accident

**Part two - Demining Accident details of incident:**

The accident occurred at 12:15, approximately 15 minutes after a short break of (10 min). According to the section leader, one of the deminers [Name removed] was working in his clearance lane, located approximately 80m south east of TP-1 in the centre of the MF.

The deminer found one mortar type- 62mm High Explosive with fuse, according to the section Leader the fuse had an actual fuse cover and was safe to handle. The DM reported to the Section Leader, the Section Leader then reported to the Group Supervisor about the UXO found. The Section Leader did a visual check to see if the UXO was safe to move.

The deminer was instructed by his Section Leader to move the UXO and place the item concerned in the demolition pit, which was located 21 metres away from the deminer's working area / lane. On the way to the demolition pit the deminer accidentally dropped the UXO and according to the Section Leader, the deminer dropped the UXO directly on to stone that was in the ground and subsequently the UXO detonated. Timings for the accident were recorded as follows:

12:15hrs Accident occurred.

12:17hrs SL, Paramedic & one Deminer reach the accident point.

12:18hrs Accident reported to JMAS Radio Room by Section leader.

12:25hrs Initial first aid applied at the accident site & casualty evacuated to the ambulance pick up point.

12:27hrs Casualty was loaded into Ambulance & stabilised for 2min.

12:28hrs Ambulance departs for Kabul Emergency hospital.

12:30hrs AMAC Central Area informed by [Demining group] Field Officer.

13:20hrs the External Accident Investigation Team (AMAC) arrives on site.

13:41hrs Ambulance Arrives Kabul Emergency hospital, patient re-irrigated & wounds re-dressed.

14:20hrs Internal [Demining group] Investigation team arrives on site.

09:00hrs AM IMSMA Demining Accident Report delivered to AMAC Central (one day after).

### **Part three – incident site conditions**

7. Conditions on the incident site at the time of the incident in terms of worksite layout and marking, ground and terrain, vegetation and weather were as follows:

a. Worksite layout and marking. The incident location was seven metres away from the deminer's clearance lane. The area around the accident is a cleared area. Markings of the clearance lane were as per [Demining group] SOPs & AMAS. The Section Leader's location was approximately 30m away when the accident occurred. The ambulance pick up point was approximately 20m away. A sketch map is located at Annex A, in the Demining Accident Report. [Not made available.]

b. Ground and terrain. Soil at the site was sandy & wet from heavy rain from the day before. The terrain is mainly flat. And it was also noted that the ground was heavily contaminated with AP mines and scattered ordnance.

c. Vegetation. Vegetation in the area is desert type vegetation. It did not have any involvement in causing the accident.

d. Weather. Temperature was approximately +8°C. This is not believed to have played any part in causing the accident.

9. Photographs of the site, damaged equipment and patient are at Annex B.

#### **Part four – team and task details**

9. Team details. The [Demining group] Clearance Section (CS) comprises one SL, one Paramedic, 4 Deminers / Operator and one Driver. All members are qualified under [Demining group] training courses. The EOD 2 (160mm) course was conducted in October 2009; refresher training is conducted every Friday during mission periods. Retraining is also conducted after significant leave periods as per AMAS. Retraining & Friday refresher details are at Annex C. Two external and two internal conformity reports were received during the period from 01 November to 03 Dec 2009. The team and the individual concerned appear to have been working normally in the lead up to the accident. All members involved were trained according to [Demining group] SOPs.

10. Task details. The [Demining group] Clearance section was assigned the task from 07 April 2009 as per first quarter operation plan year 1388. The team had been working 3 days of the mission in the MF. The area to be cleared is 57335sqm, 54076sqm had been cleared from 07 April 09. 219 PMN-2 types mine and 67 UXO had been found during that period. The Site operations plan is at Annex D. No problems had been reported during the task. And preparation area was by MDU Mini mine wolf (54091sqm) and destroyed AP mines by MMW (625).

11. Copies of the IMSMA Task Data Sheet, Internal & External conformity reports and Progress report are at Annex E.

#### **Part five – Equipment and procedures used**

12. Equipment used. The accident occurred whilst carrying an item of unidentified UXO, however Personal Protective Equipment (PPE) (vest & visor) was being worn at the time.

13. Procedures used. The procedures relevant to this accident are contained in [Demining group] (Afghanistan) Demining and EOD-SOP as following Chapters:

Demining SOP Chapter - 4.3 Identification:

When a positive identification has been made, a correct method of disposal is to be determined and the appropriate precautions are to be undertaken accordingly. If no positive identification can be made, the demolition is not to proceed and further advice is to be sought from the EOD Officer or Technical Advisor.

EOD SOP Chapter - 5.4.2. Demolition Procedure:

If any UXO needs be moved to a better position for demolitions, a pulling drill method must be used.

Demining SOP Chapter - 4.1 Informing the Team Leader:

When an object is uncovered it is to be confirmed as being a mine or UXO, the team leader must be informed immediately.

The team leader / section leader with protective equipment, are then to approach the object and decide on the appropriate action.

14. Work routines. The team was following the standard 8 hour work routine and had been working approximately 5 hours 35 minutes when the accident occurred. The [Demining group] Daily working schedule for December 2009 is at Annex F.



Overview

### **Part six – Explosive hazards involved**

15. Details of the UXO involved in the incident are as follows:

- a. As per the IMSMA Progress report dated 03/12/2009 one UXO had been located in the clearance lane.
- b. Details of the crater size. Diameter Approx 80cm, Depth Approx 20cm, fragments was found in close proximity to the incident site by team members. No other UXO or mines are located in the immediate area of the clearance lane where the incident occurred.

### **Part Seven – Details of injuries**

16. Details of the person injured in the incident and their injuries are as follows:

Name: [Name removed]

Occupation: Deminer/operator

Date of Birth: 1984 – 25 Years of age;

Place of Birth: Balkh province, Afghanistan;

Blood Group: O Rh +

Injuries:

The patient has direct blast injuries below the knee on the right leg.

Bad Fractures, (Shattered) of the Tibia and Fibula bones.

The patient was conscious and his vital signs were normal.

The [Demining group] accident report detailing medical treatment is attached at Annex G.

### **Part eight – Equipment/property/infrastructure damage**

17. The following equipment was damaged during accident: Visor, Personal Protective Equipment

For property and infrastructure provide details of the owner(s), damage incurred, insurance held by the owner(s) and if known, the cost of restitution or repair.

18. PPE. Details of all PPE damaged as a result of the incident are as follows:

- a. Owner; [Demining group], Description; Visor, Damage; Blast in to fragments, Value; \$120.

- b. Owner; [Demining group], Description; Uniform, Damage: Blast / Frag damage, Value \$40.
- c. Owner; [Demining group], Description; PPE, Damage: Blast / Frag Damage, Value \$600.
19. Copy of the initial Demining accident report IMSMA, Annex H [Not made available].

#### **Part nine – Medical and emergency support**

20. The medical support was as per [Demining group] SOPs. The Paramedic from CS- was located approximately 100m from the accident site and the Ambulance was 180m. The pick up point was located 20m from the accident site. Communications was by VHF radio and mobile phone between the team, Site office & [Demining group] HQ. The last MEDEVAC drill was conducted on 01.12.09. Drills are conducted at least once during every mission period.

21. Medical and emergency response was effective and as per [Demining group] SOPs.



[The Victim being treated in the field.]

#### **Part ten – Reporting procedures**

22. The initial incident reporting procedures were carried out to a good standard, the initial report relayed to the Central area (AMAC) verbally by phone within 15 min and written report submitted within 18 hours.

#### **Part eleven – Any other matters of relevance.**

23. No other matters of relevance.

#### **Part twelve – Discussion, conclusions and recommendations**

24. Provide any additional discussion, conclusions and recommendations.

#### **Conclusion**

We believe the accident was attributed to an error on behalf of the section leader, in that the wrong identification of this particular UXO was made.

The investigation team could not find any signs of fragments of a mortar. No mortar tail or fins were found in the vicinity of the accident. The fragments that were found were from a

(FIRED) VOG-17-30mm grenade, this particular grenade has a self destruct mechanism. (See attached drawings), Annex- I [not made available].

The accident area at the time of accident was wet, soft and sandy, there were no stones visible in the area, as the Section Leader previously mentioned the deminer may have dropped the UXO (mortar) on a stone, this is highly unlikely, as the fragmentation found in the crater were found to be fragments from the fore mentioned VOG 17 self destruct grenade.

### **Recommendations**

[Demining group] SOP clearly defines that when a UXO is found that is unidentifiable, it should be blown in situ or hook & lined, then pulled to the area required, in this case the demolition pit.

The fact that it was identified as a 62 mm HE mortar, shows us that we need to provide re-training for the particular clearance section, not to mention the Team Leader, to identify different types of UXO, also the actions that should be taken after the correct identification is made.

We also recommend that retraining is given to all [Demining group] Clearance Sections, to ensure the error is understood and this type of accident is not repeated.

Demining refresher training was undertaken on Friday 4th December; also EOD refresh training was conducted on 8th December included in this training was hook and line procedures, ordnance recognition and the dangers associated with the VOG 17 grenade, including movement and transportation of the same. See Annex J, Refresher Training Plan.

The Section Leader responsible in this accident should be relieved from his position immediately. This particular Section Leader was involved in the last 3 accidents with [Demining group]. It clearly shows that he is not capable as a Section Leader and can not control his deminers and his procedures are incorrect.

25. Internal investigation team members:

[Name removed] Head of Operations

[Name removed], Senior Technical Advisor

[Name removed] Field officer Central

[Name removed] [Demining group] Operation officer

[Name removed], IDT Office

[Name removed] Head of Operations, [Demining group] Afghanistan

**Annexes:** [all except photographs, not made available]

Annex A - Sketch map of task and location of accident.

Annex B- Photographs of the site, damaged equipments and patient.

Annex C- Friday refresher plans.

Annex D - Site clearance plan.

Annex E - Copies of the IMSMA Task Data Sheet, Internal & External conformity reports, and Progress report.

Annex F - Team daily working schedule for Dec 2009.

Annex G - Medical treatment with injured.

Annex H- Copy of the initial Demining accident report IMSMA.

Annex I - Pictures of a VOG 17 Self Destruct Grenade.

Annex J - Refresher Training Plan.

## Victim Report

<b>Victim number:</b> 951	<b>Name:</b> [Name removed]
<b>Age:</b> 25	<b>Gender:</b> Male
<b>Status:</b> deminer	<b>Fit for work:</b> not known
<b>Compensation:</b> Not made available	<b>Time to hospital:</b> 86 minutes
<b>Protection issued:</b> Frontal apron Long visor	<b>Protection used:</b> Frontal apron; Long visor

### Summary of injuries:

INJURIES: severe Leg

COMMENT: No Medical report was made available. "Bad Fractures, (Shattered) of the Tibia and Fibula bones".

### Analysis

The primary cause of this accident is listed as *Inadequate training* because the Victim and his supervisor did not know the difference between a rifle grenade and a mortar. The VOG-17 is a 30mm rifle grenade and could not readily be confused with a mortar by anyone with any knowledge of ordnance. This implies that the training had been entirely inadequate.

It is not clear why the grenade exploded, although the injury implies that it exploded on the ground and beside the Victim's leg. It seems that the Victim must have dropped the grenade, so the secondary cause is listed as *Victim inattention*.

The accident occurred seven metres from the Victim's working lane, so within the safety distance for the threats, but the investigators were photographed at the site without wearing PPE. This sets a regrettably common example of double standards.

The demining group which made the report available is to be applauded for its transparency and for the actions it took to prevent a repetition of the errors that led to the accident.