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DDAS Accident Report

Accident details

Report date:	25/08/2016	**Accident number:**	811
Accident time:	07:53	**Accident Date:**	06/05/2014
Where it occurred:	Junction of Panj and Vakhsh rivers, Jilikul District, Khatlon region	**Country:**	Tajikistan
Primary cause:	Victim inattention (?)	**Secondary cause:**	Inadequate training (?)
Class:	Other	**Date of main report:**	12/05/2014
ID original source:		**Name of source:**	Demining group
Organisation:	[Name removed]		
Mine/device:	PMN AP blast and ML-7	**Ground condition:**	dry/dusty; soft
Date record created:		**Date last modified:**	25/08/2016
No of victims:	1	**No of documents:**	2

Map details

Alt. coord. system:	WGS 84	**Coordinates fixed by:**	GPS
Map east:	068° 19' 01.4" E	**Map north:**	37° 06' 39.5" N
Map scale:	Kalai-Zail	**Map series:**	Series 1984
Map edition:	General Staff	**Map sheet:**	10-42-101-4 J-42-101
Map name:	1:50000		

Accident Notes

visor not worn or worn raised (?)

inadequate area marking (?)

no independent investigation available (?)

inadequate training (?)

Accident report

This report was made available by the demining group in 2015. Some of the formatting and pictures have been removed for inclusion in the DDAS. The report is reproduced below, edited for anonymity. Text in square brackets [ ] is editorial.

1. Administrative decision of forming the board

The investigation board was established on May 06, 2014.

Internal investigation board members are as follows:

1. [Name removed], [Demining group] Country Director

2. [Name removed], Operations Manager [Demining group] HD Tajikistan
3. [Name removed], Technical Advisor [Demining group] HD Tajikistan

External investigation board members are as follow:

1. [Name removed], Operations Manager TNMAC/UNDP
2. [Name removed], QA/QC Officer TNMAC/UNDP
3. [Name removed], QA/QC Officer TNMAC/UNDP
4. [Name removed], Director TNMAC

Board was established the same day accident have occurred, May 06, 2014 and its members arrived to accident place for physical inspection the same day but at different times due to different locations of investigation board members.

[Demining group] HD Tajikistan OM and TA have arrived to control point at 09:20am.

TNMAC/UNDP QA/QC officers arrived from neighbouring district Qabodiyan to control point at 12:40pm.

TNMAC Director and TNMAC/UNDP OM came from Dushanbe and arrived to control point at 17:00pm.

2. Introduction

Accident occurred in one of remote tasks in Jilikul district (56km to nearest hospital), where civilian team (8 deminers) was deployed. The team was supervised by Task Supervisor (TS) [Name removed] and Team Leader (TL) [Name removed] (casualty). Due to geography and terrain of the task team was split into two sections.

First section, controlled by TS, consisting of five deminers was recovering PMN mines according to MF record and second section, controlled by TL, was conducting manual Technical Survey 10x10m boxing searching for the presence of directional fragmentation mines type MON-50. The sections were working in very close proximity but due to topography there was no visual contact between the sections.

At 07:50AM TL announced normal ten minutes break and deminers took the rest close to their working lanes. TS before the break was down the hill, in PMN part of the minefield, where [Name removed], deminer had discovered a PMN mine. Upon announcement of the break TS with 5 deminers got out from working lanes and gathered in the resting area. Three minutes later, explosion occurred and some seconds later TL talked on the radio something like: “[Name removed]! I am at the bank of the river, take me away!” Meanwhile, another deminer [Name removed], approached TS and showed the direction of explosion, since he was in upper part of minefield and saw detonating wave with TNT black smoke. TS immediately took control of the situation and soon he realised that the casualty was in a dangerous area, some 60 metres from the safe area. TS personally cleared rescue 2m wide lane and evacuated injured TL to the safe area. Due to significant amount of metal signals, it took almost 22 minutes to reach injured TL (54mx2m). When casualty was under first aid treatment TS informed OM.

From 08-15am to 08-25 [Name removed], team medic, provided first aid to casualty in safe area and prepared him for the further evacuation. 08-28am, deminers brought TL on stretchers to control point, loaded him to ambulance and evacuated him to Dusti hospital. On the way to hospital the ambulance stopped three times in order to make anesthetise reliever injections to causality. Whole evacuation time from control point to hospital took 1 hour 05 minutes. [One hour 43 minutes from time of detonation.]

Upon arrival to Dusti at 09-33, the injured was handed over to hospital doctors ([Name removed] and [Name removed]) for further treatment. According the doctors initial conclusion, patient was in very difficult condition and evacuation to Dushanbe, was not option at all. After x-rays procedures and blood analysis the surgery (amputation of right leg just under the knee) was conducted [there may be some confusion over which leg was amputated and which required extensive surgery].

Later, same evening, with support of TNMAC Director through Ministry of Health three expert doctors from Dusanbe arrived to Dusti for second independent opinion about health condition of the injured. They conducted second surgery on left leg, which was broken in four places above and under the knee. Some numbers of fragments was taken off. Patient is now very stable, he can talk and all main life functions are normal so far.

3. History of the minefield and terrain of the land

Minefield is relatively remote (56km from Dusti Hospital) and located along Tajik-Afghan border, in Jilikul district, Khatlon Region, South Tajikistan. The area where accident occurred is under control of border frontier post #1 “Vakhsh”, which is located almost 9km from accident place.

Minefield TNMAC ID is LRTM68MF1.

TNMAC Minefield record ID #60 (Russian border forces MFR ID: #48/5/1.2.3.4)

Minefield was set up on April 24, 1997 by Russian border forces. Minefield is defensive type and was purposed to protect the border block post behind the watch tower.

Minefield is combination of several mine belts and two strikes of air delivered dispenser [PFM-1 and 1S] mines.

First line of mines is directional fragmentation AP mine type MON50 (20pcs), set up via UMP-3 minefield control system (the minefield control consists in arming and disabling minefield with the aid of the control panel). Mines are connected to each other and execution units via subsurface cable. Distance between each mine indicated in MFR is 30m. Estimated area of MON50 was technically surveyed by 10x10 boxes

Two belts of AP mines PMN type. Due to direction of already discovered mines it is most likely that in combination, these two mine belts form L-profile shape line of PMN mines, fencing a semi-island. Each PMN mine is equipped with an anti-lifting device beneath it –ML7. PMNs are set up in two rows (zigzag mining). Distance between mines in the row is 1m. Distance between rows is 1,5m. Total number of PMN mines equipped with ML7 is 80pcs.

The accident occurred by activation PMN equipped with ML7 by stepping on it.

PFM strike. According MFR there are two strikes of air delivered dispensers mine type PFM. Each strike consists of 72 PFM mines. Totally, there are 144 PFM mine registered and indicated in MFR. Normally, each PFM strike covers ellipse shape in size of 15-18m by 20-25m. According to MFR location of the strike is close to small forest on the bank of river.

Reference and orientation points indicated in MFR are watching tower “Bashnya” and border stone (land mark) #118. Additionally, it is indicated in MFR that minefield starts in 10m behind the fence towards Panj River.

Minefield is located at the bank of junction of two rivers (delta): Panj and Vakhsh. The area is more or less flat with insignificant hills. However, in some parts of the minefield visibility is limited due to natural obstacles (3-5m high hills, small gorges, and separate bushes, high and dense reeds). Originally, vegetation is mixed by thorn bushes on the slope area and dense

reeds along the bank of the Vakhsh River. However most part of vegetation is not considered as big deal for operations.

The weather during May 06, 2014 was clear and sunny. Ground was soft and dry.

Only one manual demining team was working at the task. The operational progress of the task so far is as follow:

Start date of operations: April 28, 2014

Cleared by detector MineLab F3S: 612sqm

TS lanes: 2512sqm

Items discovered and destroyed: PMN x12; ML7 x12

4. Location

The accident occurred outside of cleared and marked area, in the bank of Panj River, just 3m away from water line.

TL left his helmet and map case in the cleared area (found later in systematic technical survey lane), stepped over the marking and proceeded passing through the uncleared dangerous area towards to river. The foot prints on the ground are clearly visible where TL stepped over the marking. The distance (straight line) between this place and place of explosion is 77m.

The length of rapid rescue lane (straight line) which was cleared by Task Supervisor in order to reach injured Team Leader from the nearest safe spot was 54m.

5. Time and date of the accident

Accident occurred at 07-53am on May 06, 2014.

07-50 task supervisor and team leader announced second regular 10 minutes break.

As to witnesses' statements (task supervisors, medic, drivers, and deminers) the explosion was heard after 2-3 minutes of break announcement.

6. Timings of accident day [small conflict with earlier text]**:**

04:30: Team wake up at camp in border frontier post #1, morning routine.

05:30: Arrival of team to control point;

05:50: Daily task and safety briefing by TS and TL.

06:00: Start of operations in the field.

06:50 First rest 10 minutes break of daily routine announced by TL.

07:00 Second working hour in the field;

07:50 Second rest 10 minutes break of daily routine announced by TL.

07:53 Accident has occurred;

08:15 TS cleared rescue access lane and reached casualty;

08:16 OM was informed about accident;

08:25 Team medic finished first aid to casualty;

08:28 Casualty reached ambulance;

09:32 Casualty arrived at the hospital and was admitted to the emergency ward

7. Casualty Background

Name: [the Victim]

Internal Victim ID: #038

Age: 27

DoB and sex: July 05 1986, Male

Job Title: Team Leader

History of Employment: Deminer (November 10, 2010 - December 31, 2012)

Team Leader (January 01, 2013 to date)

Previously disciplinary action against him: None

Compensation: Not yet known [Not made known]

Protection issued: Frontal apron. Helmet with [short] visor

Protection used: Frontal apron. Helmet found left inside the cleared area

8. Personnel present at time of accident

During accident whole team was in the minefield. Below is names and positions of staff during accident:

Minefield:
Task Supervisor [Name removed], (down part of minefield)
Team Leader [The Victim] (injured)
Deminer [Name removed] (upper part of minefield)
Deminer [Name removed] (upper part of minefield)
Deminer [Name removed] (upper part of minefield)
Deminer [Name removed] (down part of minefield)
Deminer [Name removed] (down part of minefield)
Deminer [Name removed] (down part of minefield)
Deminer [Name removed] (down part of minefield)
Deminer [Name removed] (down part of minefield)

Control Point:
Team Medic [Name removed]
Ambulance Driver [Name removed]
Driver [Name removed]

9. Actions Leading to the Accident

Accident has occurred by activating blasting AP mine equipped with ML7.

After announcing of second regular 10 minutes break, TL took off helmet, left it in the cleared 1m wide line between TS boxes, stepped over the marking and entered uncleared area. TL has passed 77 meters of uncleared dangerous area and already approached bank of the river. Just 3 metres before water line he stepped on mine and detonation has occurred.

[The picture shows the accident site]

This is an example of violation and breaking of primary safety rules and procedures listed in SOP and NMAS (chapter#2: Safety).

10. Procedures used (reference to the SOP)

N/A

11. Personal Protective Equipment

Casualty was found in his flak jacket [frontal apron]. Flak jacket Rofi type was put on during the explosion correctly. As to team medic and deminers assisting in providing first aid all belts were fixed and locked properly. Textile cover of the lower part of the flak jacket that protect perineum of the body are burnt and broken. However, aramid fiber inside is not harmed. Genital organs of the casualty as to hospital doctors are in normal function.

Helmet was found left inside the cleared area later on, almost 90 straight meters away from place of accident. Helmet was in good condition.

American WELCO desert boots were issued to TL in the beginning of demining operational season. Lower part of right boots including sole had disappeared up to lacer part of the boots as a result of mine explosion. Heel of the left boot was broken. [These boots are not sold as providing any blast protection, see below.]

12. Monitoring process during clearance

First internal QA in the task was conducted by OM and TA on 28/04/2014.

It was start day of operations in the minefield. Small comments regarding lay-out of control point futures (task brief board; location of toilet; location of field explosive storage) were given by TA [Name removed].

All comments are indicated and documented in [Demining group] internal QA form and attached to Task Folder.

All recorded comments were not negatively linked to direct supervision of TS and TL.

During monitoring the task it was noticed that team doctor was not aware about position of two deminers in lower part of the minefield. This fault was indicated and commented in QA form by TA. Later TS, TL, and team medic were briefed about constant updates between TS, TL, and medic in case of any change of deminers' positions in the field.

Same day CASEVAC exercise was practised. Scenario was snake bite of deminer [Name removed], who was working in upper part of the minefield discovering presence of MON50 mines via systematic TS (10x10 boxing). Team medic approached deminer in 3 minutes. Further first aid and evacuation to ambulance was done correctly. TL was leading the CASEVAC process in calm and confident manner.

Later, on 05/05/2014, just day before accident, OM and TA were visiting the task again. It was second monitoring visit from the one week of opening the task.

At the end of the working day planned demolition of found 3 PMN mines with ML7 under it was conducted by TS in assistance of TL. Demolition was done successfully and in accordance with SOP. Leading of demolition was recorded by TA.

Additionally, TS conducted QA of the team and filled out his monitoring form on 29/04/14 and on 03/05/14. No negative comments were registered.

13. Medevac process

Medevac map for minefield was developed and prepared jointly with team medic [Name removed] and TS on April 28, 2014.Distance and time to hospital according medevac plan is as follow: 55km, 01 hour 15 minutes.

Casualty was delivered from uncleared to safe area after 22 minutes after explosion occurred.

Medic assessed the casualty, assured that injure is conscious, and provided immediate aid as follow:

- Stopped bleeding of the right lower extremity;
- Did initial de-bridement of the wound and bandaged it;

- Did splinting on the right leg;
- Fixed neck fixator;
- Did anesthetise reliever injections to casualty (trimeperidine hydrochloride)

All this, including taking off flak jacket, boots, and cutting pants took 10 minutes.

Later, casualty was fixed by belts on the stretchers and was placed into ambulance at control point (3 minutes).

Later, on the way to hospital in ambulance medic did splinting of the left broken leg. Additionally, medic checked blood pulsation and temperature of the casualty. Additional pain killer and antibiotics injections were made as well.

After one hour and 5 minutes of driving, ambulance arrived to hospital and hand over casualty to local doctors.

14. Collected evidences from the accident site

Hole of detonation was discovered some 50cm to the place where TS found injured TL was laying down. Diameter of the hole was 35cm with a depth of 30cm.

Rumpled vegetation indicate position of TL in the ground. Blood on the grass was visible where position of amputated foot was.

Some pieces of fragments of PMN and ML7 mines as well as part of the boot together with small pieces of the foot were found in radius of 1 meter from the explosion hole.

Further detailed evidences of accident will be updated upon reopening the task in close future.

In the safe area where injured TL was rendered first aid, his flak jacket and boots were found.

Signs of provision of first aid to casualty were visible:

- Medic gloves
- Small bottle of medical alcohol
- Packages of used bandages
- Syringes

In addition, all picture will be attached to this report.

Foot print of TL boots in the place we he crossed marking towards uncleared area and place of accident.

15. Chain of events

04:30 Team wake up at camp in border frontier post #1, morning routine.

05:30 Arrival of team to control point; Loading off and preparing of equipment;

05:50 Daily task and safety briefing by TS and TL; TS divided team into two sections and gave instructions to deminers;

06:00 Start of operations in the field.

06:50 First rest 10 minutes break of daily routine announced by TL.

07:00 Second working hour in the field;

07:50 TL announced second regular break to team. All team (8 deminers) and TS went out working lanes.

07:51 TL took off his helmet and left together with map case and pen in the 1m wide TS lane;

07:52 TL stepped over marking and proceed to place of accident by passing uncleared dangerous area towards the bank of the river.

07:53 TL almost approached river and activated mine by stepping on it. Explosion occurred.

08:15 TS cleared rescue access lane and reached casualty;

08:16 OM was informed about accident by TS via phone;

08:25 Team medic finished first aid to casualty;

08:28 Casualty reached ambulance;

08:30 TS gathered team in the CP and closed down the minefield;

09:20 OM and TA arrived to CP;

09:32 Casualty arrived at the hospital and was admitted to the emergency ward.

16. Accident investigation

Investigation of accident was conducted same day in one hour after explosion.

First, upon arrival to control point OM and TS were briefed by TS about accident.

TS shortly briefed: WHO? WHEN? HOW? Explanation of position and actions of each team member during and after explosion we given.

Team members were asked at control point to submit own statements about accident in writing.

Investigation team reached place of explosion by using rapid rescue access line cleared by TS earlier.

Physical inspection of the area, included exploring of fire hole, collecting of evidences at the place of explosion, first aid place, and taking coordinates and measuring of the distances.

Later, external TNMAC investigation team arrived to task. In presence of OM, and TA, TNMAC team was briefed by TS about accident. Further, investigation team proceed into the place of accident.

Task staff were interviewed by TNMAC, appropriate written statements were submitted as well.

Pictures of all evidence were taken and attached to report. [Held on record.]

17. Trials

N/A

18. Conclusion

Accident occurred by personal mistake of victim. Casualty violated primary safety rules by intentionally and voluntarily breaching marking and entering deeply into uncleared dangerous area, directly into mine belt.

07:51am TL left his helmet in lane end entered into hazardous area. During 2-3 minutes TL managed to pass almost 77 metres. Implicit speed of TL’s itinerary was either normal walking

(approximately 30 meters per minute) or faster (achieved place of accident early and spent some time stopped). TL activated mine by pressure of right leg. During explosion he fell down close to fire hole. He was conscious. In the lying position TL managed to use radio and call TS. In 22 minutes TL was rescued from hazardous area to medic's point and later, evacuated to hospital.

As to Team Leader, the reason he passed uncleared unsafe area was to warn Afghans to do not come close since deminers are working in the field. Once, couple days before, TL passed the same path to the bank of the river using metal detector. That time he saw three armed Afghans fishing close to our side. Again, as to him the reason he entered and walked dangerous area was to inform Afghans to do not approach our deminers.

19. Recommendation

Remind, and if required, increase field staff knowledge of safety procedures and respect of marking system in accordance to SOP (chapter #2: safety; and chapter #4: marking);

Increase supervision of any staff movements in the minefield up to as high level, as it possible.

Develop daily safety brief form to be signed by TL and TS on daily basis prior to work in the field.

Increase command skills of at least one deminer in each team by practice of CASEVAC exercises with scenario as TL is casualty.

Taking into consideration the nature of accident, there is no need to conduct refresher training on demining procedures to team, however, at least one day off is recommended for accident stress recovery.

Temporary suspend accident minefield.

20. Action Points

Minefield was suspended the same day. Team was sent to camp for one day off.

All field staff was briefed about accident and its reasons.

Separate learning session only for task supervisors and team leaders on increasing of safety in the task was conducted.

CASEVAC exercises with supervisors as casualty will be conducted during the year as well as CASEVAC with deminer.

Victim Report

Victim number:	1014	**Name:**	[Name removed]
Age:	27	**Gender:**	Male
Status:	supervisory	**Fit for work:**	not known
Compensation:	Not made available	**Time to hospital:**	103 minutes
Protection issued:	Frontal apron; Long visor	**Protection used:**	Frontal apron

Summary of injuries: minor Arms; severe Leg

AMPUTATION/LOSS: Leg Below knee

COMMENT**:** No formal medical report was made available A psychological report is appended. Amputation of "right leg just under the knee" may mean that it is not possible for the victim to use a lower leg prosthetic.

Psychological Assessment Report

Patient: [Name removed]

Date/Time: 20.05.2014, 14.30-15.30

Location: Traumatology Ward, National Clinical Hospital

Psychological assessment of [the Victim] took place in the Traumatology Ward, National Clinical Hospital in the presence of his older brother and other patients based in the same ward.

[the Victim] was conscious during interview and answered the questions with low voice, little reluctantly and curt answers. His mental capacity, volume of knowledge and vocabulary are scarce. Often his brother suggested him the answers, who is based in the ward together with him. [The Victim]'s physical appearance is observed adynamic and malnutrition. His behavior is adequate, but the frame of his mood is lowered.

His flesh-back memory is unmarked. He is indifferent with his future, as he said "he doesn't think about the future, as the future depends on his health statement". He doesn't show particular interest towards upcoming prosthesis.

[The Victim]'s biography data: He grew up in large family with 7 children; he is the second child in the family. His father died at early age, while his single-mother brought them up. Due to family difficulty conditions, [the Victim] was rolled to boarding school and completed 6-9 grades with main difficulties. During 2006-2008 [the Victim] served the Tajik army, while during 2008-2010 he worked as salesperson at market selling vegetables. Following [Demining group] staff recruitment for deminers [the Victim] joined [Demining group] in 2010, since 2013 he has been promoted to team leader position.

Memory degradation is observed. [The Victim] is married for the second time, but does not remember the wedding date. He lived for 16 months with the first spouse, but divorced as the spouse left the house. His second marriage is one month only. During interview it was obvious that [the Victim] is indifferent and irresponsible towards important life events, such as marriage – he thinks it is not important to see the bride before the marriage and believes that "most important his mom to like the bride, since the would-be spouse would live the family"

Complaints: Sleep disorder is observed. He under-sleeps and wakes up early. He complains that is not used to sleep on his back due to trauma, amputation and pain syndrome. His brother mentioned that he periodically flinches when he is asleep.

Regarding mine accident [the Victim] mentioned the following: On 6 May 2014 the mine clearance started as usual at 6 o'clock in the morning. The team was assigned to clear the minefield since 26 April 2014. At 7:50 during the ten-minutes break, [the Victim] headed towards the river as he saw some Afghans who were fishing in boats. Accordingly [the Victim] wanted to urge them to keep off the Tajik side in order not to distract other deminers working in the spot. In other hand, later [the Victim] said that he wanted to warn the Afghans that it is minefield and to avoid the mine accidents. According to [the Victim] the Afghans periodically have been crossing the borders.

[The Victim] was irresponsible on his action: [the Victim] did not use metal detector when he headed towards the river. [The Victim] replied that a day before he cleared the track with metal detector, therefore he did not use it when he headed towards the river the next day. However, [the Victim] mentioned that he made additional 2 steps towards the river when warning the Afghan fishermen, then on return when he made a step back, the mine exploded. After explosion, [the Victim] did not lose conscious and fell down on his back. He saw the traumatic injuries of his right leg and immediately called up the paramedic and task supervisor with radio.

After mine accident, [the Victim] was delivered to Kumsangir district hospital where he received necessary emergency operation and treatment.

The interview with doctor revealed that [the Victim] was aggressive and impatient during the first week of hospitalization, he constantly complained about inadequate care by medical personnel and required excessive attention. However he calmed down during next weeks of hospitalization. Following the treatment plan, [the Victim] will have operation on repositioning of lower left leg bones and skin surgery on 21 May 2014.

Family interview on telephone (older brother and uncle) – It revealed that [the Victim] was always laconic, calm, complaisant and had difficulties with school performance.

Conclusion: The mine accident trauma and leg amputation of one-third of right lower leg and bone fracture of left leg. The condition is acute post-accident street.

The personality, psychological and characterological aspects of [the Victim] and his low level of individual development are explained by the particulars of individual development and up-bringing.

Recommendation – Re-assessment by psychologist in separate ward after the surgery.

Recommendation for [Demining group]: To consider psychological consultations during recruitment of new deminers.

Prepared by:

M.D., PhD. [Name removed] Disability Support Unit Officer, TNMAC

Statements

Statements of the staff who were in the task when accident has happened were written and submitted to OM same day. Later on, upon casualty's health condition improved, his statement will be attached to report as well [it is appended below].

Task Supervisor:

I, {Demining group] TS [Name removed], at 5:30 am, with all colleagues left our base, and went to working place. In the control point I briefed all deminers and TL about safety rules, and at 6:00 am, we started our work.

Three deminers with TL were working in one side of the minefield, and I with five other deminers was working in other side of the minefield. During the work I was called by deminer [Name removed]. When I reach his working lane, he informed me that he find a mine, then I pulled out deminer from his working lane. In this moment TL [Name removed] announced second break at 7:50 am. I was sitting with the other deminers. After 2-3 minutes, in one side of the minefield occurred detonation. Then I saw that TL blow up outside of the field, and I informed everybody about what's happened. I took deminer [Name removed]'s detector and start to clear access lane towards casualty TL [The Victim]. Behind me in safety distance 25

meters, deminer was making marking. I took the casualty and together with deminers we pulled out him to the safe area. I informed OM about accident through other Task Supervisor [Name removed], since OM's as well as TA's mobile were outside the coverage network.

Then we put the casualty into the ambulance and send to the hospital. All this activities started from 7:50 am, and continued till 8:25 am. After it, I collect all deminers in control point, and I closed deminer [Name removed]'s working lane, because he found a mine in his working lane. After one hour OM together with TA are arrived to the control point.

I went with them to the field to show to them place of accident, and to tell details.

Deminer:

I, [Demining group] deminer team #1 [Name removed], on date 06.05.2014 woke up and at 5:30 am, we left our base, and went to working place. We arrived to the field at 5:50, then TL [Name removed] and TS [Name removed] briefed us. We signed in safety briefing form and at 6:00 am, we start our work. TL [Name removed] with three deminers has started work in one side of the minefield and TS [Name removed] with five deminers has started work in other side of the minefield.

After announced second break on radio by TL [Name removed] , passed couple minutes and we heard detonation. We stand up from our place and we heard TL [The Victim's] voice from one side of the field. On that moment I gave my detector and small shovel to TS [Name removed], and he went towards TL [The Victim]. After cleaning access lane, we pull him out together with other deminers to the safe area to the medic. After rendering first medical aid, we put him into the ambulance and send to the hospital.

Then TS [Name removed] told us to take all equipment, we took our equipment and after one hour OM and TA are arrived, and together with TS [Name removed] went to the accident place.

Deminer:

I, [Demining group] deminer team #1 [Name removed], on date 06.05.2014 woke up and had a breakfast. At 5:30 am, we left our base, and went to working place. Then TL [Name removed] and TS [Name removed] briefed us, and then we entered to the minefield and start our work.

Me, and two deminers were working in upper part of the minefield and TL [Name removed] was with us. TS and the rest of deminers were working in downer part of the minefield. At 7:50 was second break, we were sitting together, then we heard detonation and TS [Name removed] informed us that TL [the Victim] blow up. I went to the medical point, to assist medic to bring his medical bag. Together with medic we provide first medical aid and transport up to the ambulance.

Team Medic:

I, [Name removed], on date 06.05.2014 at 5:30 am, with colleagues left our base, and went to working place. In control point TS and TL briefed deminers about safety rules. At 6:00 am, we started our work. TL [Name removed] with three deminers has started work in one side of the minefield and TS [Name removed] with five deminers has started work in other side of the minefield.

During second break occurred detonation, TS [Name removed] informed me, and I put my PPE and helmet, took medical bag and went to the minefield. Inside the minefield, deminer [Name removed] met me and led to the casualty. I did first medical aid, then we put the

casualty into the ambulance and went to the Kumsangir central hospital. In the hospital I handover the casualty to traumatologist [Name removed] and surgeon [Name removed].

Ambulance Driver:

I, [Demining group] ambulance driver [Name removed], on date 06.05.2014 woke up at 4:30 am, and had a breakfast. At 5:30 am, we left our base, and went to working place. At 5:50 TL [Name removed] briefed us, and at 6:00 am, deminers entered to the minefield and start their work.

I, with medic [Name removed] and field driver [Name removed] remained in control point. The end of first working hour was at 6:50 am, and TL N [Name removed] announced break, and after 10 minutes at 7:00, deminers started their work. At 7:50 am, TL [Name removed] announced break, and during 2-3 minutes detonation is occurred, then medic was informed that TL [the Victim] blow up on mine. Medic put his PPE, helmet, took medical bag and went to casualty side. I, with field driver [Name removed] prepared ambulance. Medic with deminers and TS took the casualty and brought up to the ambulance. They put the casualty into the ambulance and we went to the hospital. During transportation we stopped three times, and medic provides medical aid. The distance 55 km, was passed in one hour and five minutes, and casualty was transported to Dusti hospital. In hospital, medical staff met us and we hand over the casualty to them. With me were two deminers and medic [Name removed].

Team Driver:

I, [Name removed], on date 06.05.2014 woke up at 4:30 am, and had a breakfast. We left our base, and arrived to working place At 5:30 am. At 5:50 TL [Name removed] briefed us, and at 6:00 am, deminers entered to the minefield and start their work.

I, with medic [Name removed] and ambulance driver [Name removed] remained in control point. The end of first working hour was at 6:50 am, and by radio TL [Name removed] announced break, and after 10 minutes at 7:00, deminers started their work. At 7:50 am, TL [Name removed] announced break, and during 2-3 minutes detonation is occurred, then medic was informed by radio that TL [the Victim] blow up on mine. Medic put his PPE, helmet, took medical bag and went to casualty side. I, with ambulance driver prepared ambulance. Medic with deminers and TS took the casualty and brought up to the ambulance. They put the casualty into the ambulance and ambulance went to the hospital.

After one hour, OM and TA are arrived.

Team Leader (casualty):

I, [Demining group] TL team #1 [Name removed] on 06/05/2014 at 7:50 am, announced second break. After announcing second break, I saw how two Afghans coming to our side by boat for fishing. I went to the riverside to turn them back. I went through un-cleared area to the riverside, and when I reach them, I told to them that they are not allowed to be here, because we conducting mine clearance operations and they turn back. I was waiting while they will move further. When they moved, I turn to go back to the deminers and suddenly detonation is occurred. After detonation I saw that I don't have right foot. I call by handheld radio TS [Name removed]. [Name removed] with using metal detector cleared access lane towards me. When he reaches me, he took me from my shoulders and pull out into the cleared access lane 2-3 meters, after that other deminers helped him. They put me on a stretcher and took me to the medic. Medic provides to me first medical aid, and together with other deminers put me into the ambulance.

Before that, Afghans were sailing to our side once more, about on 05/03/2014. At that time using metal detector I reached them, I told to them that here is a minefield and we conducting mine clearance operations and I turn them back.

Analysis

The primary cause of this accident is listed as "*Victim inattention"* because the victim deliberately walked through the uncleared area to the riverbank, knowing that this was hazardous. Having searched along a path to the river quickly on a previous occasion, the evidence in the psychological report shows that he believed he could walk along the same route safely, but then stepped a little closer to the river than he had when searching. The fact that he left his visor behind and did not take the direct route followed by his rescuers seems to support this version of events. Had he marked the route he took when he searched the first time, he might not have unwittingly overstepped the searched ground.

If he was moving to warn Afghan fishermen away from the area it is hard not to feel some sympathy with him. He was, however, breaking the rules that he should have known it was his duty as a Supervisor to always obey, so the secondary cause is listed as "Inadequate training". While the psychological assessment in the Medical Report was conducted in less than ideal conditions and seems remarkably harsh, the doctor's implied conclusion that the Victim was inadequately equipped to be a supervisor may have been correct.

The high quality and transparency of the internal demining group accident investigation is commended once again.