

DDAS Accident Report

Accident details

Report date: 11/04/2019	Accident number: 819
Accident time: Not recorded	Accident Date: 20/01/2019
Where it occurred: MASAM compound, Marib City, Marib governate	Country: Yemen
Primary cause: Field control inadequacy (?)	Secondary cause: Inadequate training (?)
Class: Handling accident	Date of main report: 21/01/2019
ID original source:	Name of source: Press/social media
Organisation: [Name removed]	Ground condition: hard; residential/urban
Mine/device: AT (unrecorded)	Date last modified: 11/04/2019
Date record created:	No of documents: 1
No of victims: 5	

Map details

Longitude:	Latitude:
Alt. coord. system: Not recorded	Coordinates fixed by:

Accident Notes

inadequate investigation (?)
no independent investigation available (?)
inadequate training (?)
safety distances ignored (?)

Accident report

This accident was reported in the press and parts of those reports are reproduced below, edited for anonymity. The 'vehicle after' pictures below were taken on 21st and posted on Twitter and in some press articles. Pictures of the passports of the five dead were posted on Twitter and are held on file. Text in square brackets [] is editorial. The press reports are followed by a summary under the heading 'What happened?'.

[Quotations from press sources, Twitter, Facebook and one other source.]

<https://www.yemenwatch.com/news/five-mine-clearing-experts-gets-killed-while-removing-mines-in-yemen/>

<https://www.aa.con.tr/en/middle-east/explosion-kills-5-mine-clearance-experts-in-yemen-en/1369521>

<http://www.arabnews.com/node/1439396/middle-east>

<https://www.total-croatia-news.com/politics/33684-mine-removal>

<https://www.bbc.co.uk/news/world-middle-east-46958455>

"The explosion took place in a building used for training Yemeni government forces on defusing mines."

"The experts were killed after a mine exploded during the training, said the report without disclosing the experts' nationalities."

"The landmines were gathered by the experts to be disposed, but they exploded," the source said on condition of anonymity due to restrictions on speaking to the media."

"The state-run King Salman Humanitarian Aid and Relief Centre (KSRelief) said two South Africans, a Croatian, a Bosnian and a Kosovan were killed on Sunday when a vehicle carrying mines to be destroyed exploded in the central province of Marib."

"Five foreign demining specialists were killed in an accidental explosion in Yemen while transporting mines and explosives to be destroyed, their employer said Monday."

"A number of mines exploded inside the Saudi Project for Landmine Clearance MASAM in the city, a source with the center told Anadolu Agency."

"they were apparently loading mines from a store onto a truck."

"they were moving mines which were fused."

<https://www.thenational.ae/world/mena/five-mine-removal-staff-killed-in-yemen-1.815805>

A source told the UAE-based newspaper The National that one mine detonated, causing a blast that set off others in the vehicle. "The mines continued going off for more than 30 minutes but the impact of the explosions fortunately didn't reach the team's headquarters, where thousands of mines and explosive devices were stored," the source added.

Five foreign experts clearing mines planted by Houthi rebels in Yemen were killed on Sunday when a device exploded.

The team was working for [name removed], a Saudi-funded project, and died near the headquarters of the programme in Marib province, a source at the scene told The National.

A landmine blew up as the technicians were preparing to move hundreds of similar devices cleared from sites in Marib. The munitions were to be taken to a remote area for disposal.

A source at the scene told The National that a mine exploded, starting a chain reaction which set off other devices. Assistant programme manager [Victim No.1], a UK citizen of South African origin, was among the dead, the source said.

"The mines continued going off for more than 30 minutes but the impact of the explosions fortunately didn't reach the team's headquarters, where thousands of mines and explosive devices were stored.

"No injuries were reported among other members of the team or civilians," the source said.



[This photograph apparently shows preparations for a previous demolition. Some mines shown may still be fuzed. The pile appears to have IEDs or IED components on top. No PPE is being worn.]



[This picture shows [Victim no.1] in front of hundreds of recovered AT mines, all of which would have been transported in the back of the pick-up trucks behind. As is common, the supervisor is proudly photographed not wearing any PPE.]



[This picture was taken after the pickup truck top centre has exploded. The blast damage indicates that it occurred in the back of the truck. Two other trucks are wrecked. People

anywhere close by would have been killed by the blast and fragmentation from the metal mine casings and the truck. The blue tarpaulin may conceal body parts.]



[Another view shows a third burned out pickup truck and seems to confirm that this happened inside a compound, not in transit.]



[The storage area for explosives may be behind the protected door on the right.]

[The reported continuation of explosions occurring for 30 minutes may indicate that there was a prolonged fire, or may simply reflect the time that people waited before approaching the accident site.]

[In the press reports, there is a suggestion that the Victims were engaged in training others in the movement of mines. Because the only Victims were the experienced ex-patriot staff, it is presumed that no trainees were present.]

[From the photographs posted, it can be reliably inferred that the accident happened inside the MASAM compound loading area. Whether the Victims were loading mines or training how to load mines, the mines had not (or not all) had their fuzes removed, or possibly the live fuzes were being transported at the same time. The mines had been recovered from the field and were being transported to a remote place for demolition.]



[A major detonation occurred in the back of this truck, destroying the second pickup truck close by. A third pickup truck some 25 metres away caught fire and burned out, which implies a very significant blast or may imply that other munitions, possibly including incendiary materials, were being transported along with the mines.]

“A medic at a Maarib hospital confirmed five bodies were brought to the hospital, adding that a number of other people were injured in the incident.”

“A Briton was also hurt, according to the King Salman Humanitarian Aid and Relief Centre (KSrelief).”

Victim Report

Victim number: 1033	Name: [Name removed]
Age: 48	Gender: Male
Status: supervisory	Fit for work: DECEASED
Compensation: not made available	Time to hospital: not recorded
Protection issued: Not recorded	Protection used: not recorded

Summary of injuries: Severe trauma; FATAL

COMMENT: No medical report was made available.

Victim Report

Victim number: 1034	Name: [Name removed]
Age: 42	Gender: Male
Status: supervisory	Fit for work: DECEASED
Compensation: Not made available	Time to hospital: not recorded
Protection issued: Not recorded	Protection used: Not recorded

Summary of injuries: Severe trauma; FATAL

COMMENT: No medical report was made available.

Victim Report

Victim number: 1035	Name: [Name removed]
Age: 43	Gender: Male
Status: supervisory	Fit for work: DECEASED
Compensation: Not made available	Time to hospital: not recorded
Protection issued: Not recorded	Protection used: Not recorded

Summary of injuries: Severe trauma; FATAL

COMMENT: No medical report was made available.

Victim Report

Victim number: 1036	Name: [Name removed]
Age: 38	Gender: Male
Status: supervisory	Fit for work: DECEASED
Compensation: Not made available	Time to hospital: Not recorded
Protection issued: Not recorded	Protection used: Not recorded

Summary of injuries: Severe trauma; FATAL

COMMENT: No medical report was made available.

Victim Report

Victim number: 1037	Name: [Name removed]
Age: 49	Gender: Male
Status: supervisory	Fit for work: DECEASED
Compensation: Not made available	Time to hospital: Not recorded
Protection issued: Not recorded	Protection used: Not recorded

Summary of injuries: Severe trauma; FATAL

COMMENT: No medical report was made available.

Analysis

The primary cause of this accident is listed as a 'Field control inadequacy' because the person in charge at the site had decided to move fuzed explosive hazards and did not enforce safety distances that would have reduced the casualty toll in the event of an accident.

The secondary cause is listed as 'Inadequate training', because, while all of the victims had extensive experience, it seems that their training had not prepared them to conduct this task safely.

It is surprising that five ex-pat specialists who had been supervising the teams of national deminers who found the mines should have been loading the trucks for transit without the help of the deminers. This may indicate that there was something 'unusual' about the hazards being moved, so they did not want to ask deminers to take the risk. However, if an increased risk had been anticipated the 'one person at risk' rule should have been applied. If the story of continued explosions for 30 minutes is true, it seems that some explosions were caused by the vehicle fires that followed the first blast. These may have been of ammunition or munitions other than mines.

One picture (poor definition) showed what may be two partial bodies some distance from the seat of the explosion. If these are bodies, they may have been thrown there or may have already been at a 20 metre distance when the major detonation occurred.

The hospital report that "a number of other people were injured in the incident" raises questions over whether passing civilians were also involved, or whether deminers/drivers were present but at a distance.