Airplane-crash: A Case Report

O Wenker, A Meyer

Abstract

The original case report was published in German language by "Rettungsdienst" (Author Olivier Wenker). It is re-published with full authorization of "Stumpf & Kossendey Zeitschriftenverlag-Buchverlag" in Germany. The original reference is: Wenker O: Flugzeugabsturz DC-9 am Stadlerberg. Der Rettungsdienst 1992; 15: 278-281.

BACKGROUND STORY

On November 14, 1990 a DC-9, Flight AZ 404, takes off at 7:25 in Milan-Italy for its regular scheduled flight to Zuerich-Switzerland. On board are 40 passengers and 6 crew. The plane is directed by an air controller onto the automatic landing system ILS of Zuerich airport. The pilot is then asked to switch over to tower frequency and to continue on ILS. 6 other airplane are approaching at the same time Zuerich airport. However, the plane fails to contact Zuerich tower and disappears from the radar screen.

Figure 1

Part of the engine of the crashed DC-9

CHAIN OF ALERT

At 8:13 p.m., about 30 seconds after disappearance of the airplane from the screen, airport firefighters and paramedics are alerted. The medical group consists of 32 paramedics whereas 7 are always on duty. They have a total of

- 5 ambulances
- 1 special headquarters/equipment vehicle
- 1 container vehicle with 4 tents (all heatable and with illumination), 54 stretchers, 200 blankets, and first aid equipment
- 1 disaster relief equipment vehicle with another 4 heatable tents, an emergency power unit, light poles, and more first aid equipment
- 1 large capacity ambulance bus

At the same time first calls reporting an air plane crash at Stadlerberg, a site 9 km in front of runway 14 are received by local radio stations and then by the police. At 8:14 p.m. Zuerich airport announces a regional disaster alert. Meanwhile, a first rescue unit consisting of the command vehicle, 2 ambulances, 1 large capacity ambulance bus, several fire trucks and 1 container vehicle reach the end of runway 14. No crashed airplane can be seen at this point and the commander-in-chief alerts the Swiss Air Rescue REGA in order to get help from helicopters to search the area. Local firefighters from a nearby town locate a fire on the hill of Stadlerberg and direct the airport rescue units to this spot. At 8:27 p.m. the first REGA helicopter takes off with a pilot, a paramedic, and two trauma/emergency physicians on board. More physicians are alerted by the REGA. At 8:48 p.m. the police disaster relief unit has installed mobile headquarters (specially designed bus with communication equipment) at the crash site. At 8:49 p.m. special police forces such as search dog teams, scientific teams, and airplane crash investigators are alerted. An additional REGA helicopter brings at 9:02 p.m. 3 more trauma physicians to the spot. At 9:30 p.m. the Swiss army police joins the rescue teams. It becomes evident that there are no survivors and the regional disaster alert is canceled at 10:04 p.m..

Figure 2

Rescue personnel in action at the crash site in the wooded hills of Stadlerberg

SCENE OF ACCIDENT

The DC-9 crashed into a steep and densely wooded hill of Stadlerberg. It is dark and raining heavily. The plane plunged a straight glade of 120 m in length and 40 m in width. The remains of the plane are compressed into small and scarcely recognizable parts to a total length of 10 m. The rescue teams start immediately with the search for survivors. Four remnants of human bodies are found next to this site and all other corpses are in the heaps of the unrecognizable compressed and still burning cabin. The trees around the site are burning. A methodical search around the crash site is conducted. Meanwhile firefighters start extinguishing the fires and installing light poles with strong and wide beams, thus illuminating the densely wooded area. One of the helicopters searches the area from the air and checks the trees with a special search light for possible survivors.

Ambulances from different townships arrive and police direct them to a specially designated waiting area in order to keep access to the crash site open.The police also deviates all regular traffic for the same purpose. A total of 15 additional ambulances with another 15 paramedics, 2 anesthesia nurses, and 2 more physicians have joined the rescue teams. Several hundred people are at work by now.

Figure 3

Regular briefings are organized at the crash site in order to maintain a open information flow between the different rescue specialty teams

As it becomes evident that there are no survivors, the disaster alert is canceled and airport army units secure the crash site and install phone lines to the disaster area. On the airport a special information service for families and friends waiting for AZ 404 is organized and social services from REGA are attending the now severely shocked and crying people.

A first press conference is held at a nearby school. Media members are allowed to visit a designated area at the crash site. Medical personnel is sent home together with most of the disaster relief units. On site remain army units, investigators, units of the scientific department of the police, 1 special rescue ambulance with 2 paramedics and a REGA trauma/emergency physician. This medical team is on duty until next morning 7:00 a.m. mainly to care of the remaining rescue personnel working on that steep, slippery, densely wooded hill side. Hot tea and some food is organized for the rescue workers. Units of the scientific department of the police mark the remains of human bodies and prepare them for identification.

Figure 4

Remains of the compressed cabin with identification mark on the corpses

CONCLUSION

A DC-9 crashed because of pilot error and technical problems into the steep hill of Stadlerberg near Zuerich airport. The crash was not survivable. By coincidence, local firefighters had recently organized a routine training operation at the exact same spot. Therefore, they were familiar with the geographical situation and thus were able to direct incoming rescue teams to the best possible positions. Jamming on the narrow path in the forest could be avoided. Within very short period of time sufficient rescue forces were present at the spot of the accident. Cordoning off and illumination of the site was fast and effective. REGA helicopters bring additional medical personnel to the spot and help to search the area from the air. Problems were noted in the field of radio communication due to overload of existing frequencies. Some of the physicians were not adequately marked and therefore not easily recognizable.

Regular training with all involved rescue specialties is imperative for effective and good disaster relief. All teams are have knowledge of the specially designed First Aid Station which was created to manage disasters with large amount of patients. Please read more about this First Aid Station FAS and the Casualty Handling System CHS in the previous issue of The Internet Journal of Disaster Medicine.

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References