#### What are possible reasons for pilot's inability?

The flight crew incapacitation may occur (take place, happen) due to different reasons such as hypoxia in case of depressurization, toxic poisoning if there is fire on board, due to food poisoning, allergic reaction, because of a heart attack or stroke. Also pilots may receive serious injuries from bird strikes, laser attacks or aggressive passengers. Besides pilots may just fall asleep. Pilot's incapacitation is really a dangerous situation and controllers will/may have an uncontrolled flight in the area.

#### • When does such a situation become critical?

Such a situation becomes critical if both pilots of a multi crew aircraft or the single pilot become incapacitated. Especially it's dangerous at low levels and particularly during a precision approach in low visibility conditions. It may lead to loss of control of the aircraft and fatality.

### • Why is it easier to avoid serious problems in a multi crew aircraft?

If it is multi crew aircraft the other crew may take over (replace) and maintain control of the aircraft and bring the aircraft to/provide safe landing.

### • Why do pilots and cabin crew require good mental and physical health?

During the flight pilots and cabin crew operate in specific and difficult environment/conditions (I mean): in small and closed area, sitting long hours. They often experience noise, vibration, limited/reduced (lack of ) oxygen. So they must have both good physical and mental health to do the job well in such conditions, to stay calm in emergencies. They are responsible for the safety and lives of thousands of passengers.

### • How can a controller identify pilot's incapacitation?

The controller may recognize pilot's incapacitation by his abnormal speech, irregular breathing, strange behavior such as delayed or too fast maneuvers. By the information of the crew itself. Squawk 7700.

### • What is the first indication of total crew incapacitation?

Possible/the first indication of total crew incapacitation is loss of communication.

(If the crew don't /doesn't reply but we don't experience loss of communication we can realize/understand/guess that it's total crew incapacitation)

# • Do you think cabin crew are able to provide any assistance for the flight crew in case of captain incapacitation?

I think, yes. In such a case the cabin crew must help to remove the captain from the cockpit (flight deck), examine him and provide/render the first aid. Also the cabin crew may try to find a doctor or a nurse on board among the passengers for qualified medical treatment.

## • What related problems can a controller expect in case of in-flight pilot incapacitation?

The remaining/other crew members will have increased workload, experience stress and great pressure. So they may have problems with controlling the aircraft, it might be difficult to keep necessary separation with other aircraft. It can lead to a near miss situations. It's a very serious problem. Also controllers may expect communication problems.

## • What must a controller do to ensure safety of surrounding traffic in such a case?

To provide safety of other aircraft a controller will reroute other aircraft and use (apply) next special procedures: double separation, increased time separation, vectoring, orbiting, holding procedure, speed control procedure.

# • Why may aviation authorities stop pilot's license in case of health problem?

Unfortunately, I don't know exactly. But I can suppose (in my opinion) it may be a very serious medical situation, probably heart, blood pressure and mental problems, also epilepsy and diabetes. Because any severe pilot's health problem can negatively affect flight safety. At least I think so.

# • Have you ever had/heard of a situation connected with a pilot incapacitation?

I'd like to tell a true story, it happened many years ago but I still remember it. The crew reported engine failure and their decision to change the original destination and use our airport as alternate. The situation was very serious because broken parts of the engine destroyed the fuselage causing explosive decompression. All persons on board lost consciousness, the total crew became incapacitated and the aircraft started to fall down. Fortunately after reaching the safe altitude one of the pilots regained consciousness (became conscious again) and could (managed to) land the aircraft safely without fatality. But to a great pity, aviation authorities stopped the pilot's license due to health problems after this incident.