

**GOVERNMENT OF INDIA**  
**OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION**  
**AIR SAFETY DIRECTORATE**  
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**AIR SAFETY CIRCULAR NO. 2 OF 2009**

**Subject: Management of crew fatigue during flight.**

Pilots' fatigue has been recognized as one of the serious safety hazard and lot of research is being done to mitigate the same. In spite of it Pilots' fatigue remains a serious contributory factor in accidents/serious incidents.

There were few incidents in the recent past in India and worldwide wherein both the cockpit crew operating the aircraft fell asleep during the flight. This resulted in aircraft passing over the destination airport/deviating from the assigned track. Pilots did not respond to ATC calls. The situation continued for 15-30 minutes, thereafter, aircraft landed safely. It is felt during this period safety of aircraft and its occupants was compromised.

Analysis of such incidents reveal that the operating crew were affected by micro sleep phenomenon and due fatigue fell asleep when the crew activity was at its minimum.

All the operators are therefore advised to take care to avoid the recurrence of such incidents in future while scheduling the crew for flights. Following measures are suggested:

- Strictly adhere to FDTL Regulations.
- Multiple landings especially for night departures involving the period of Circadian Low should be avoided.
- Pilots should be educated and trained on fatigue management.
- Procedure be introduced wherein the cabin crew should interact with pilots at half an hour basis using intercom during the period when crew activity is low.
- Pilot be advised to keep area speaker on high volume during low activity period.
- Medical department of operator be associated with implementation of Crew Fatigue Management Training.

New Delhi  
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Jt. Director General of Civil Aviation

Distribution: All Operators.  
Internal Distribution: As per list.