ALLIANCE AIR
Connecting India

March 2024

Flight Safety News Letter

- **In Focus-** Conducted SRM 4th Quarter 2023 (Safety Review Meeting) on 5th March 2024
- **Aviation Hazards During Pre-Monsoon**
- **Flight Safety Recommendation of Pre-Monsoon**

For Flight Safety kindly Contact :-
Phone & Email ID :- 01125671574 & aasl.flightsafety@allianceair.in
For ERP kindly Contact :-
Phone & Email ID:- 01125672289, 08800744303, 09871149284 & emergency.response@allianceair.in

In Focus

SRM (Safety Review Meeting) on 5th March 2024

The SRM meeting for 4th Quarter (October–December) 2023 was convened at Alliance Bhawan on 5th March 2024

- **Major Points Discussed in SRM:-**
  - **Average Operational Fleet and No. of Occurrences reported during the quarter.**
  - **Discussed major Technical issues pertaining to the Occurrences reported.**
  - **Discussed FDMA exceedances & FDMA Trends.**
  - **During 4th Quarter - Safety Audit of 06 station (Imphal, Bikaner, Main Base Station Delhi, Shimla, Jaffna, Vidyanagar) conducted / 06 Spot Check at (Imphal, Delhi, Ahemdabad, Amritsar, Shimla & Delhi Dispatch) conducted.**
  - **Safety Initiatives – IATA trainings i.e. "Trained the Trainer", "Ops Risk Management Training" were organized in Oct & Nov '23 and "ERP Table Top Exercise" was conducted in Dec 2023.**
  - **Discussed Safety Performance Indicators for 3rd & 4th Quarter & Safety Performance Targets are set for next quarter.**
  - **Case Studies of windshield crack incident (04) cases were discussed**

ALLIANCE AIR
Connecting India

March 2024

Aviation Hazards During Pre-Monsoon

The season of hot Indian summers or Pre-Monsoon has commenced in India. April to June every year, varying over different parts of the country. Triggered by the influx of warm moist air in association with the Western Disturbances this season is characterized by:

- **Widespread dust haze and extremely high temperatures over North India.**
- **Heat islands over central and eastern parts of the country.**
- **Dust storms (Andhi) over western India**
- **Thunder-squalls (Morwesters/Kalbaisakhis) over eastern India.**
- **Land and sea breeze effect is more prominent over the coastal areas.**
- **With the increased influx of moist air, the frequency of thundershowers increases progressively in South India.**
- **Tropical cyclones form in the Indian seas threatening coastline on either side.**

Aviation Hazards During Pre-Monsoon

The most dangerous aspect of pre-monsoon is that the season gets infested with far too many aviation weather hazards. Quite a few of these are the invisible ones which are also capable of striking without any notice. The paucity of preparation time leaves the air operations vulnerable to flight safety occurrences. Without fail these invisible hazards need to be catered for: (The following list is just an outline of the primary aviation hazards during pre-monsoon and is not exhaustive)

- **High Temperatures and Low pressure:** Surface temperature is the one of the most important and decisive factor for the performance of the aircraft. This becomes rather more significant for shorter runways during extreme temperatures and low atmospheric pressure, particularly over North India where dry conditions prevail. Miscalculations of density altitude, if any, may lead to an unsafe situation during take-off, approach and landing or go around.

Aviation Hazards During Pre-Monsoon

- **Wind Shear:** Drop in surface pressure due to excessive heating may lead to strong and gusting winds closer to ground, resulting in low level wind shear. The phenomenon may also be experienced in case of dissipation of vertical clouds in the vicinity of aerodrome. Speed and direction of prevailing winds remain a critical factor for satisfactory and stabilised aircraft performance.

- **Turbulence:** High temperatures do give rise to eddies and thermals in the lower levels, particularly over an uneven terrain. Weather in and around a thunderstorm is inherently turbulent, posing major threat to safe aircraft operations. Light to moderate turbulence has the capacity to cause discomfort or even injury to unstrapped passengers and crew. Severe turbulence may cause exceedance of aircraft structural limitations leading to structural failure.

Aviation Hazards During Pre-Monsoon

- **Wake Turbulence:** Wake turbulence may pose significant threat to aircraft safety during any weather condition; however, it specially gets accentuated during the hot and dry atmospheric conditions of pre-Monsoon. It is more significant during critical stages of aircraft operation closer to ground surface where the preceding aircraft are at lower speeds with high flap setting and have significantly high vortex/wake generation.

- **Dust storms:** Convective weather cells in the absence of sufficient moisture do not develop into full grown CB/thunderstorms but cause severe dust storms, especially in the arid and semi-arid regions of north western part of the country. These are associated with widespread low visibility in addition to the hazards similar to Thunderstorms.

Aviation Hazards During Pre-Monsoon

- **Thunderstorms:** It is a very prominent pre monsoon weather phenomenon produced by strong convection currents. Thunderstorms are short lived and unpredictable by nature; primarily consisting of CB clouds which cause lightning flashes, thunder, squally winds, sharp showers, hail storms, tornadoes, water sprouts, microbursts etc. From aviation standpoint this is one of the most hazardous weather phenomenon and pose threats of lightning strike; extreme turbulence; severe icing; low level windshear; strong gusts and squalls; darkness and disorientation; structurally hazardous hail, etc

ALLIANCE AIR
Connecting India

March 2024

Flight Safety Recommendation of Pre-Monsoon

It has been observed by Alliance Air Flight safety that every year with the onset of Pre-monsoon the flight safety occurrences also increase in number. In our continuous endeavour to make flights safer, we would like to recommend some safety enhancement measures to our flight crew:

- Minimum total cockpit experience should be maintained as per the requirements laid down in Alliance Air Operations Manual.
- Strict adherence to standard company procedures as laid down in Alliance Air Operations Manual and Manufacturer procedures as mentioned in FCOM/AFM/FCTM/QRH (ATR) or POH (Dornier).
- Flight preparation must include MEL briefing and all available NOTAMs to ensure safe operations.
- For Dispatch planning purpose Flight Safety encourages judicious use of all available sources to get latest weather information of departure, destination and alternate aerodromes. In addition the possibility of enroute weather deviations and inflight delays must be considered, Fuel planning should be done considering all these factors.

ALLIANCE AIR
Connecting India

March 2024

Flight Safety Recommendation of Pre-Monsoon

- Precision approaches are to be preferred over non-precision and visual approaches. In case of non-precision approaches emphasis must be given to Continuous Descend Final Approaches (CDFA).
- Correct usage of weather radar for all weather detection and deviations must be carried out, as per the manufacturer recommendations.
- All weather deviations must be in coordination with ATC to avoid any traffic violations. If unable to coordinate before deviation, all attempts must be made to inform ATC as soon as possible.
- Subject to airspace and ATC limitations, the flight crew must endeavour to stay upwind when circumnavigating around a CB or thunderstorm and ensure sufficient safety margin.
- Anti-icing and De-icing systems must be used as per the manufacturer recommendations and AFM/FCOM procedures and limitations must be strictly adhered to.
- Sterile cockpit policy must be strictly adhered to.
- Greater emphasis on stabilised approaches must be given. Any time an approach becomes unstabilised at or below its stabilisation gate a missed approach must be executed.

ALLIANCE AIR
Connecting India

March 2024

Flight Safety Recommendation of Pre-Monsoon

- Cabin crew briefing must include the possibility of turbulence. Passenger signs must be turned 'ON' whenever turbulence is expected and cabin crew/passengers informed well in time.
- No supervised take-off and landing to be carried out during adverse weather conditions.
- During the first flight of the day for a set of flight crew, upset recovery and windshear escape manoeuvres must be discussed.
- Wake separation must be strictly adhered to and if required additional separation may be requested with ATC.
- Go Around and Diversions, when required, are completely at Commander's discretion for the prevailing circumstances. All applicable MEL limitations and/or procedures must be referred to; and strictly complied with.
- Any flight safety related occurrence must be reported in accordance with the Alliance Air Operations Manual (Part-A: Chapter-34) and Alliance Air Flight Safety Manual (Chapter-3).

एलाइंस एयर
ALLIANCE AIR
Connecting India

March 2024

Our Fleet

ATR 72-600

ATR 42-600

HAL Do-228

एलाइंस एअर
ALLIANCE AIR
Connecting India

March 2024

Azadi Ka Amrit Mahotsav

सादर/ Regards,

विकास शर्मा / Vikas Sharma
उड़ान संरक्षा प्रमुख/ Chief of Flight Safety, Head-ERP
एलाइंस एअर / Alliance Air

Flight Safety Department, AAAL