NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

Attachment 12 – Safari Aviation Company Adverse Weather Procedures and Risk Assessment Tool

OPERATIONAL FACTORS / HUMAN PERFORMANCE

ANC20MA010

HELICOPTER ADVERSE WEATHER PROCEDURES

1. CONDITIONS BELOW PART 136 APPENDIX A MINIMUMS.

If the pilot-in-command determines that the weather conditions are below the minimums required by Part 136 Appendix A and the flight is an Air Tour Operation conducted in the State of Hawaii, the flight will be delayed or rescheduled as appropriate. If during the flight, the pilot-in-command encounters weather conditions below the required minimums, he/she will attempt to circumnavigate the adverse area of weather. If avoidance is not feasible the pilot-in-command will discontinue the tour flight and devote full attention to flight duties and safety of flight as required in FAR Part 91 and Part 135. Any deviations will be reported to the Chief Pilot. During periods of adverse weather, pilots-in-command will utilize all available resources to keep informed of changing conditions.

2. INADVERTENT FLIGHT INTO INSTRUMENT METEROROLOGICAL CONDITIONS.

The use of good judgment, early course reversal, landing, and a high degree of situational awareness will, in most every case, preclude inadvertent flight into IMC. Not every possible circumstance can be anticipated so the possibility does exist for IMC. If a pilot experiences a complete loss of visual reference to the ground the following procedures will apply:

1. If the pilot is reasonably certain that a course reversal will result in a return to VFR conditions and **RISING TERRAIN** is **not** a factor, then;

    a. Level the Aircraft
    b. Determine the reciprocal heading
    c. Execute a 180-degree turn at a maximum of 20 degrees angle of bank.
    d. Maintain altitude until VFR.

2. If **RISING TERRAIN** is a factor, the following procedures will be applied:

    a. Level the aircraft
    b. Determine an appropriate heading AWAY FROM RISING TERRAIN.
    c. Turn to the selected heading at a maximum of 20 degrees angle of bank.
    d. Upon completing the turn initiate a climb to an appropriate safe altitude.
    e. Communicate your situation. (AIM 6-3-1 & 6-3-2)
    f. Contact ATC and get appropriate clearances and follow instructions.

Rotor-Wing Aircraft Flight Risk Assessment Value (RAV) Tool

LOW RISK HAZARD EVENTS

- No LOW RISK EVENTS exceeding parameters and occurring simultaneously with another LOW RISK EVENT being exceeded.
- Weather within Part 136 Air Tour VFR Standards
- Completed mission planning & preflight within 1 hour before ETD.
- Sustained winds are less than 22 knots with gust spread no greater than 5 knots
- Aircraft status is normal for flight
- PIC is qualified for the mission and current
- PIC has flown aircraft category within last 30 days.
- Special VFR Flight not anticipated
- Less than 7 hours anticipated total flight time for the day.
- No night operations anticipated

MEDIUM RISK HAZARD EVENTS

- Two or more LOW RISK EVENTS exceeding parameters & occurring simultaneously
- Two or more MEDIUM RISK hazards occurring simultaneously.
- Forecasted severe turbulence
- Vis marginally 3 miles over land / Ceilings marginally 500 ft AGL over WESA
- High surf warning in the vicinity of off shore operations
- Forecast scattered thunderstorms (10-50% probability).
- Greater than 8 hours flight time.
- Night operations with off airport landing.

HIGH RISK HAZARD EVENTS

- Three or more HIGH RISK hazards occurring simultaneously.
- Forecasted SIGMET turbulence.
- Forecasted severe thunderstorms
- Marginal VFR
- Known icing conditions.
- Weather observer at destination site unavailable
- Driving impaired by weather
- Flooding conditions forecasted

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FLIGHT RELEASE AUTHORITY

Any risk hazard events EXCEEDING the parameters of a HIGH RISK HAZARD EVENTS will be classified as EXTREMELY HIGH RISK.

Weather conditions are historically in constant flux. Operations will be diligent to the observation of the changing local weather conditions and evaluate each flight on a flight to flight basis.

For the following RISK HAZARDS – the Flight Release Authority will be according:

Flight Risk Hazards	Authorized PIC	Chief Pilot	Dir of Ops &/or Dir of Maintenance
LOW RISK	X	Chief Pilot Aware of Flight	
MEDIUM RISK	X	X	
HIGH RISK		X	X
EXTREMELY HIGH RISK			Requires Consultation between A/C Cdr, Chief Pilot, Dir of Ops & Company President

During Medium Risk flight authorization, Pilot in Command is allowed to continue flight operations if exceeded Risk Assessment parameters are mitigated with changes to flight segments, delaying departure for better weather conditions does not create a low level light or night operation.

During High Risk flight authorization, Pilot in Command and Operations managers have reached a non-compromising accord. For flight authorization, either the safety of flight can still be maintained, the necessity of the flight is required and risk factors have been mitigated with clear decisive adjustments to the flight.

Whenever the safety of flight remains in question or there is a doubt of the flight's success, the flight will be terminated.

This Risk Assessment Value document is only a prescribed sampling of the parameters by which Safari Aviation, Inc uses to release flights for hire. The parameters are universal in use by all professionally run aviation organizations. This document does not preclude the use of other parameters not noted in this document, as guidelines for the authorizations of a flight's release. The purpose of this document is to grow in scope as new flight situations are learned and discovered.