D. Weather Minimum - General Helicopter Operations

(1) Pilots shall be familiar with and comply with weather minimum restrictions, and altitude requirements of FAR Part 91 and 135.

(2) In some cases Metro's minimums are more restrictive than those in the FAR's and in all cases the more conservative minimum will apply.

(3) The minimum altitude for helicopters is 300 feet above the surface unless in the take-off or landing phase for all flights unless approved by Metro Aviation, Inc. operations for special job requirements. The recommended minimum altitude is greater than 1000 feet AGL.

(4) If, during a flight, unforeseen weather is encountered that is below operating minimums or if the unforeseen weather would compromise the original destination, it would be acceptable to continue only if that course of action is safer than flight to an alternate or returning to the point of departure.

(5) Helicopter flights during icing conditions are prohibited.

(6) Pilots shall operate their aircraft clear of all thunderstorms. If in flight, and the pilot can not circumnavigate the thunderstorm, he shall land at the nearest suitable landing site or return to the base and secure the aircraft. Take-off for continuation of flight shall not be accomplished until the storm has passed and conditions are suitable for flight.

(7) No person may operate a helicopter under VFR unless that person has visual surface reference, or at night, visual surface light reference, sufficient to safely control the helicopter. Attitude indicators in VFR aircraft will not be used to initiate flight into below VFR or IFR conditions, but used to turn away from inclement weather.

(8) Pilots are required to report any potential hazardous meteorological conditions or irregularity in a ground communications or navigation facility in flight, the knowledge of which the pilot considers essential to the safety of other flights. An appropriate ground station shall be notified and requested to disseminate the information.

(9) Multi-Engine helicopters may conduct day VFR operations over clouds provided:

(a) The pilot has visual reference to the surface.
(b) Climb and descent can be conducted VFR clear of clouds and in accordance with FAR 91.105, 91.109, and 135.209.
(c) The point of origin and destination is forecast to allow descent under VFR and to remain so for 1 hour after ETA.
(d) Conditions allow continuation of flight under VFR if the critical engine fails.

For the purposes of this section, "Preflight Planning" means the pilot has checked METARS, TERMINAL FORECASTS, AREA FORECASTS, and the current RADAR for the intended route(s) prior to accepting a flight. When the current conditions and the forecast meet or exceed the "Preflight Planning" a flight can be accepted. The flight(s) may continue as long as the ceiling and visibility maintain or exceed the weather minimums.

Weather Minimums Table 1– Onshore Helicopter Operations

Weather Minimums and Lighting Conditions

	Non-Mountainous		**Mountainous (see 14 CFR 95)**	
Area / **Condition**	Local*	Cross Country	Local*	Cross Country
Day	500/1	800/2	600/2	1000/3
Night—High Light Conditions	800/2	1000/3	1000/3	1200/4
Night—Low Light Conditions	1000/3	1200/5	1200/4	1500/5

* "Local" is defined in Table 2 of Operational Specification A021.

Preflight Planning Minimums - Add 200 feet to Ceiling and add 1 mile to Visibility.

Weather Minimums Table 2 - Offshore Helicopter Operations

Weather Minimums and Lighting Conditions

	Offshore Operations	
Area / **Condition**	Local*	Cross Country
Day	500/2	800/3
Night—High Light Conditions	1000/3	1200/4
Night—Low Light Conditions	1200/4	1500/5

* "Local" is defined in Table 2 of Operational Specification A021.

Preflight Planning Minimums - Add 200 feet to Ceiling and add 1 mile to Visibility.

E. Lighting Conditions:

1) High Lighting Conditions: Means conditions in which the cloud cover is less than broken (less than 5/8 cloud cover), the time is between local Moonrise and Moonset, and at least 50% of the lunar disk illuminated, or the entire operation is conducted over a light surface area.

2) Low Lighting Condition: Other than high light conditions described in Paragraph E 1) above.

3) Light Surface Area: Is an area in which prominent objects are lighted, and surface light is adequate to identify terrain feature and establish a usable horizontal reference. The lighting required to support this level of surface definition may be man made, natural, direct or indirect, or any combination thereof: provide these stated requirements, and requirements of 14 CFR 135.207 (VFR Helicopter Surface Reference Requirements), are met.

4) Moonrise, moonset and percentage of lunar disk illuminated data shall be consistent with data available from the United States Naval Observatory. http://aa.usno.navy.mil/

5) High lighting condition minima may be used in low lighting conditions if both the aircraft and pilot are approved for use of NVGs under paragraph A050 of the Operations Specifications, Night Vision Goggle (NVG) Operations, and NVGs are used.

F. With the approval of the Director of Operations, individual bases are allowed to adopt higher minimums to meet local conditions.

G. Emergency Medical Services - Helicopter Operational Procedures

(1) Weather minimums - the weather minimums as specified in Section 301 page 11 of this manual apply for all emergency medical helicopter operations.

(2) Landing areas - If dispatched to other than approved landing areas, extreme caution and judgment shall be utilized by the pilot-in-command to insure safety of flight operations.

3. Day-time Scene Operations

(a). For landings to emergency scene sites in remote areas inaccessible to emergency personnel, the pilot-in-command after evaluation of available information may accept requests for flights to remote scene sites and upon reaching the site he/she will utilize high and low recon flight procedures over the site to plan and choose an adequate landing site that will insure security and safe flight operations while accomplishing the mission.

(b). For landings at other emergency scene sites where the site is secured and defined by emergency personnel who can assist in the security and defining of the landing area, the pilot-in-command shall establish communications in order to exchange information concerning the landing site requirements and instructions.

(c). The following procedures will be utilized by the pilot-in-command at all emergency scene sites:

(d). The pilot-in-command shall execute a high recon flight over the landing site to locate obstructions and to insure that the landing site is adequate and to plan an approach and landing route with a planned abort path if he/she chooses not to accept landing at the site.

(e). The pilot-in-command will then execute a low recon during a steep approach to the landing site considering the best approach path and allowing for further recon of the area before committing to landing.

(f). If the pilot-in-command accepts the landing site as an acceptable landing area, then he/she may continue the approach to landing using extreme caution and judgment to insure a safe operation, with a planned route for missed approach and aborted landing go-around.

(g). The pilot-in-command may utilize the aid of the medical attendant(s) to clear the area on the opposite side of the pilot station to insure adequate clearance and site security before landing.

(h). Once on the ground, the pilot-in-command will exit the aircraft if possible in order to make a ground recon of the intended take-off and departure area to further confirm the location of obstructions and site security.

(i). On take-off, helicopter performance and density altitude permitting, the pilot-in-command will execute a max performance take-off to an altitude of 50 feet above the highest known obstruction or 150 feet AGL whichever is higher.

4. Night-Time Scene Operations

(a). The pilot-in-command shall use all available means of communication to communicate with site personnel prior to arrival over the site or utilize relayed information to insure that the landing site is adequate for the operation and clear of obstructions and that the area is clear of bystanders.

(b). The pilot-in-command will abort the flight to the emergency scene site if communications cannot be established or is lost, or on arrival he/she can not adequately communicate with ground personnel to insure the security and safety of the landing site area.

(c). Landing to emergency scene sites at night may be executed if the landing area is marked by flares, vehicle lights, or other light sources which will provide for adequate illumination of the area and obstructions provided:

I) Aircraft additional lighting must be installed and operational.

II) The pilot-in-command shall execute a high recon flight over the landing site to locate obstructions and to plan an approach and landing route with a planned abort path if he/she chooses not to accept landing at the site. Communications with on site personnel will be used to ensure location of obstructions and the security of the site for landing. Extreme caution must be used to ensure clearance from obstructions in this phase.

III) The pilot-in-command may instruct the ground personnel to use additional lights to illuminate any obstructions but must insure that the lights do not create a blinding effect to him/her during the flight operations.

IV) The pilot-in-command will then execute a low recon of the landing site to further confirm that the site is acceptable and making final selection of his approach path using extreme caution to insure clearance with obstructions. He/She will also communicate with ground personnel to insure that the landing site is secure for landing.

V) The pilot-in-command may utilize the aid of the medical attendant(s) to clear the area on the opposite side of the pilot station to insure adequate clearances and site security before landing.

VI) If the pilot-in-command accepts the landing site as an acceptable landing area, then he/she may continue the approach to landing using extreme caution and judgment to insure safe operation, with a planned route for a missed approach or aborted landing go-around.

VII) On the ground, the pilot-in-command will exit the aircraft if possible in order to make a ground recon of the intended take-off and departure area to further confirm the location of obstructions and site security. At the pilot's discretion, ground personnel may be utilized to assist him in the survey with additional lights to aid him/her in the planning for departure. It is extremely important that this recon be done to insure the safety of this operation.

VIII) On take-off, helicopter performance and density altitude permitting, the pilot-in-command will execute a max performance take-off to an altitude of 50 feet above the highest known obstruction or 150 feet AGL whichever is higher. Extreme caution must be used in the planning of the takeoff path if the maximum performance climb altitude is not possible. A reference altitude will be utilized on the altimeter or radar altimeter to ensure obstruction clearance.