Docket No. SA-509

Exhibit No. 3G

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C.

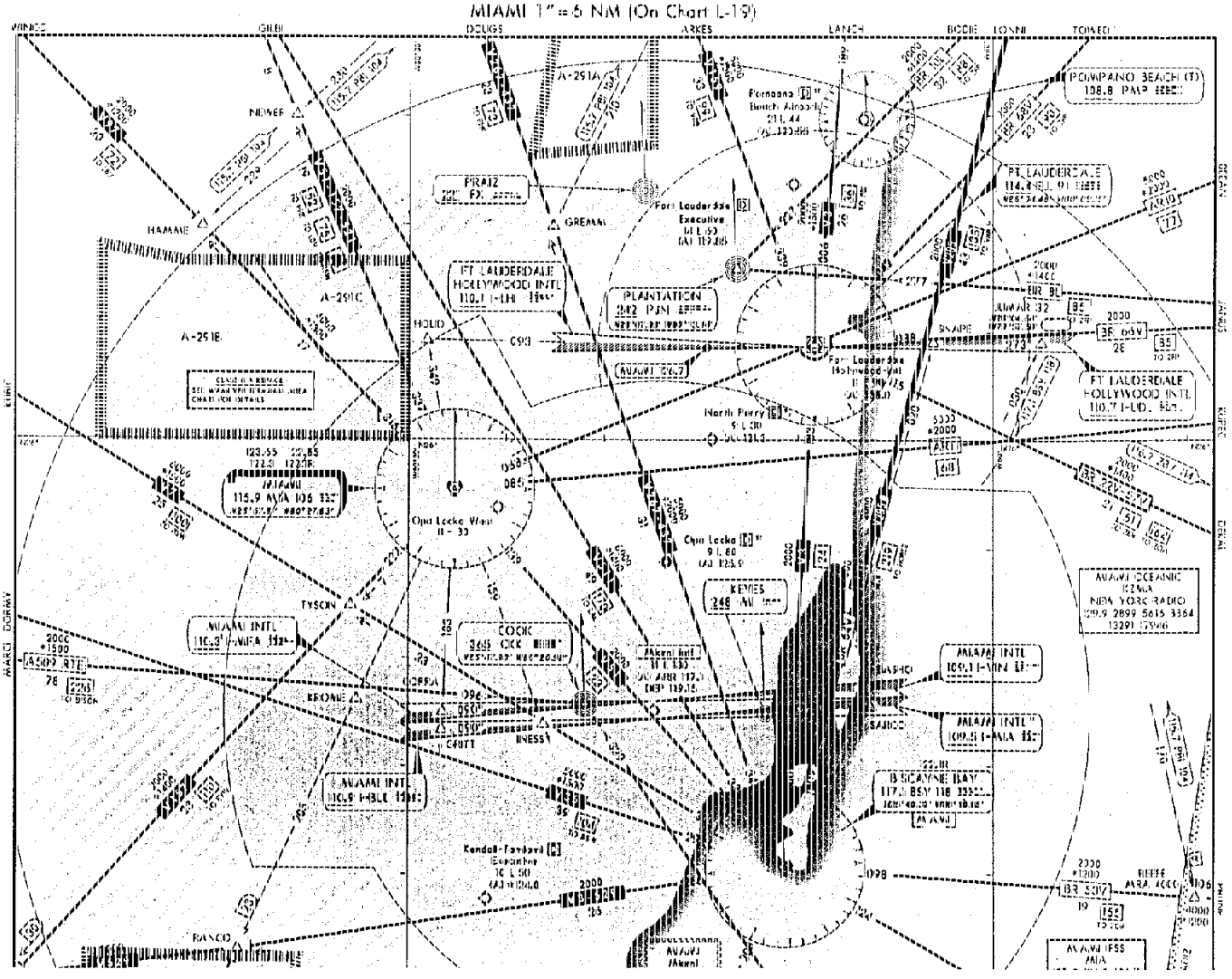
EXCERPTS FROM THE AIR TRAFFIC CONTROL HANDBOOK (FAA ORDER 7110.65)

U.S. Department
of Transportation

Federal Aviation
Administration

7110.65H

Air Traffic Control



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Chapter 2. GENERAL CONTROL

Section 1. GENERAL

2--1 ATC SERVICE

Provide air traffic control service in accordance with the procedures and minima in this order except when:

a. Deviation is necessary to conform with ICAO Documents, National Rules of the Air, or special agreements where the United States provides air traffic control service in airspace outside the United States and its possessions.

2--1a Note.---Pilots are required to abide by FAR's or other applicable regulations regardless of the application of any procedure or minima in this order.

b. Other procedures/minima are prescribed in a letter of agreement or an FAA or a military document.

2--1b Note.---These procedures may include altitude reservations, air refueling, and fighter interceptor operations.

2--1b Reference.---Procedural Letters of Agreement, paragraph 1--8.

2--2 DUTY PRIORITY

a. Give first priority to separating aircraft and issuing safety alerts as required in this order. Good judgment shall be used in prioritizing all other provisions of this order based on the requirements of the situation at hand.

2--2a Reference.---Safety Alert, paragraph 2--6 Note 1.

2--2a Note.---Because there are many variables involved, it is virtually impossible to develop a standard list of duty priorities that would apply uniformly to every conceivable situation. Each set of circumstances must be evaluated on its own merit, and when more than one action is required, the controller shall exercise his best judgment based on the facts and circumstances known to him. That action which is most critical from a safety standpoint is performed first.

b. Provide additional services to the extent possible, contingent only upon higher priority duties and other factors including limitations of radar, volume of traffic, frequency congestion, and workload.

2--2b Note.---The primary purpose of the ATC system is to prevent a collision between aircraft operating in the system and to organize and expedite the flow of traffic. In addition to its primary function, the ATC system has the capability to provide (with certain limitations) additional services. The ability to provide additional services is limited by many factors, such as the volume of traffic, frequency congestion, quality of radar, controller workload, higher priority duties, and the pure physical inability to scan and detect those situations that fall in this category. It is recognized that these services cannot be provided in cases in which the provision of services is precluded by the above factors. Consistent with the aforementioned conditions, controllers shall provide additional service procedures to the extent permitted by higher priority duties and other circumstances. The provision of additional services is not optional on the part of the controller, but rather is required when the work situation permits.

2--3 PROCEDURAL PREFERENCE

a. Use automation procedures in preference to nonautomation procedures when workload, communications, and equipment capabilities permit.

b. Use radar separation in preference to nonradar separation when it will be to an operational advantage and workload, communications, and equipment permit.

c. Use nonradar separation in preference to radar separation when the situation dictates that an operational advantage will be gained.

2--3c Note.---One situation may be where vertical separation would preclude excessive vectoring.

2--4 OPERATIONAL PRIORITY

Provide air traffic control service to aircraft on a "first come, first served" basis as circumstances permit, except the following:

2--4 Note.---It is solely the pilot's prerogative to cancel his IFR flight plan. However, a pilot's retention of an IFR flight plan does not afford priority over VFR aircraft. For example, this does not preclude the requirement for the pilot of an arriving IFR aircraft to adjust his flight path, as necessary, to enter a traffic pattern in sequence with arriving VFR aircraft.

2--4 Reference.---An aircraft in distress has the right of way over all other air traffic, Part 91.113(c).

a. Provide priority to civilian air ambulance flights (LIFEGUARD). When verbally requested, provide priority to military air evacuation flights (AIR EVAC, MED EVAC) and scheduled air carrier/air taxi flight. Assist the pilots of air ambulance/evacuation aircraft to avoid areas of significant weather and turbulent conditions. When requested by a pilot, provide notifications to expedite ground handling of patients, vital organs, or urgently needed medical materials.

2--4a Note.---Air carrier/taxi usage of "LIFEGUARD" call sign, indicates that operational priority is requested.

b. Provide maximum assistance to SAR aircraft performing a SAR mission.

2--4b Reference.---Providing Assistance, paragraph 10--3.

Section 6. WEATHER INFORMATION

2--110 FAMILIARIZATION

Become familiar with pertinent weather information when coming on duty, and stay aware of current weather information needed to perform air traffic control duties.

2--111 HAZARDOUS INFLIGHT WEATHER ADVISORY SERVICE (HIWAS)

Controllers shall advise pilots of hazardous weather that may impact operations within 150 NM of their sector or area of jurisdiction. Hazardous weather information contained in HIWAS broadcasts include: Airmens Meteorological Information (AIRMET), Significant Meteorological Information (SIGMET), Convective SIGMET (WST), Urgent Pilot Weather Reports (UUA), and Center Weather Advisories (CWA). Facilities shall review alert messages to determine the geographical area and operational impact for hazardous weather information broadcasts. The broadcast is not required if aircraft on your frequency/frequencies will not be affected.

a. Controllers within commissioned HIWAS areas shall:

1. Broadcast a HIWAS alert on all frequencies, except emergency, upon receipt of hazardous weather information. Controllers are required to disseminate data based on the operational impact on the sector or area of control jurisdiction.

Phraseology:

ATTENTION ALL AIRCRAFT, HAZARDOUS WEATHER INFORMATION (SIGMET, Convective SIGMET, AIRMET, Urgent Pilot Weather Report (UUA), or Center Weather Advisory (CWA), Number or Numbers) FOR (Geographical Area) AVAILABLE ON INFLIGHT ADVISORY FREQUENCIES.

b. Controllers outside of commissioned HIWAS areas shall:

1. Advise pilots of the availability of hazardous weather advisories. Pilots requesting additional information should be directed to contact the nearest Flight Watch or Flight Service.

2. Apply the same procedure when HIWAS outlets, or outlets with radio coverage extending into your sector or airspace under your jurisdiction, are out of service.

Phraseology:

ATTENTION ALL AIRCRAFT, HAZARDOUS WEATHER INFORMATION FOR (geographical area) AVAILABLE FROM FLIGHT WATCH OR FLIGHT SERVICE.

c. Terminal facilities have the option to limit hazardous weather information broadcasts as follows: Tower cab and approach control facilities may opt to broadcast hazardous weather information alerts only when any part of the area described is within 50 NM of the airspace under their jurisdiction.

2--111 Reference.---Airman's Information Manual, paragraph 7--5 through paragraph 7--9.

2--112 PIREP INFORMATION

Significant PIREP information includes reports of strong frontal activity, squall lines, thunderstorms, light to severe icing, windshear and turbulence (including clear air turbulence) of moderate or greater intensity, or other conditions pertinent to flight safety.

2--112 References.---Low Level Windshear Advisories, paragraph 3--8. FAA Order 7210.3, Handling of SIGMET's, CWA's, and PIREP's, paragraph 8--30; and FAA Order 7210.3, SIGMET and PIREP Handling, paragraph 12--30.

a. Solicit PIREP's when requested or when one of the following conditions exist or are forecast for your area of jurisdiction:

1. Ceilings at or below 5,000 feet. These PIREP's shall include cloud base/top reports when feasible. *TERMINAL:* Ensure that at least one descent/climb-out PIREP, including cloud base/s, top/s, and other related phenomena, is obtained each hour when there is a ceiling at or below 5,000 feet.

2. Visibility (surface or aloft) at or less than 5 miles.

3. Thunderstorms and related phenomena.

4. Turbulence of moderate degree or greater.

5. Icing of light degree or greater.

6. Windshear.

7. *TERMINAL:* Braking Action Advisories are in effect.

2--112a7 References.---Braking Action Advisories, paragraph 3--34. *Pilot/Controller Glossary*---*Braking Action Advisories.*

b. Record with the PIREP's:

1. Time.

2. Aircraft position.

3. Type aircraft.

4. Altitude.

c. Obtain PIREP's directly from the pilot, or if the PIREP has been requested by another facility, you may instruct the pilot to deliver it directly to that facility.

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Phraseology:

REQUEST FLIGHT CONDITIONS.

or if appropriate,

REQUEST (specific conditions --- ie., ride, ceiling, visibility, etc.) CONDITIONS.

if necessary,

OVER (fix),

or

ALONG PRESENT ROUTE,

or

BETWEEN (fix) and (fix).

d. Handle PIREP's as follows:

1. Relay pertinent PIREP information to concerned aircraft in a timely manner.

2. *EN ROUTE:* Relay all operationally significant PIREP's to the facility weather coordinator.

3. *TERMINAL:* Relay all operationally significant PIREP's to:

(a) The appropriate intrafacility positions.

(b) The FSS serving the area in which the report was obtained.

2--112d3(b) Note.---The FSS is responsible for Service A dissemination.

(c) Other concerned terminal or en route ATC facilities, including non-FAA facilities.

(d) Use the words *gain* and/or *loss* when describing to pilots the effects of windshear on airspeed.

2--112d3(d) Examples.----

"Delta Seven Twenty-one, a Boeing Seven Twenty-seven, previously reported windshear, loss of two five knots at four hundred feet."

"U.S. Air Seventy-six, a D-C Niner, previously reported windshear, gain of twenty-five knots between niner hundred and six hundred feet, followed by a loss of five zero knots between five hundred feet and the surface."

2--112d3(d) Reference.----Airman's Information Manual, Windshear PIREPS, paragraph 7--22a.

2--113 WEATHER AND CHAFF SERVICES

a. Issue pertinent information on observed/reported weather or chaff areas. Provide radar navigational guidance and/or approve deviations around weather or chaff areas when requested by the pilot. Do not use the word "turbulence" in describing radar-derived weather.

1. Issue weather and chaff information by defining the area of coverage in terms of azimuth (by referring to the 12--hour clock) and distance from the aircraft or by indicating the general width of the area and the area of coverage in terms of fixes or distance and direction from fixes.

2. When a deviation cannot be approved as requested and the situation permits, suggest an alternative course of action.

b. In areas of significant weather, plan ahead and be prepared to suggest, upon pilot request, the use of alternative routes/altitudes.

2--113b Note.----Weather significant to the safety of aircraft includes such conditions as tornadoes, lines of thunderstorms, embedded thunderstorms, large hail, windshear, moderate to extreme turbulence (including CAT), and light to severe icing.

c. Inform any tower for which you provide approach control services if you observe any weather echoes on radar which might affect their operations.

Phraseology:

WEATHER/CHAFF AREA BETWEEN (number) O'CLOCK AND (number) O'CLOCK (number) MILES,

or

(number) MILE BAND OF WEATHER/CHAFF FROM (fix or number of miles and direction from fix) TO (fix or number of miles and direction from fix),

or

LEVEL (number) WEATHER ECHO BETWEEN (number) O'CLOCK AND (number) O'CLOCK, (number) MILES. MOVING (direction) AT (number) KNOTS, TOPS (altitude).

or

DEVIATION APPROVED, (restrictions if necessary), ADVISE WHEN ABLE TO:

RETURN TO COURSE,

or

RESUME OWN NAVIGATION

or

FLY HEADING (heading)

or

PROCEED DIRECT TO (name of NAVAID). UNABLE DEVIATION (state possible alternate courses of action).

2--113c Example 1.----

"Level five weather echo between eleven o'clock and one o'clock, one zero miles. Moving east at two zero knots, tops flight level three niner zero."

2--113c Example 2.----

"Level four weather echo between ten o'clock and two o'clock, one five miles. Weather area is two five miles in diameter."

2--113c Note.----Phraseology using level number is only applicable when the radar weather echo intensity information is determined by NWS radar equipment or ASR--9 radar equipment.

2--113c Reference.----Pilot/Controller Glossary term----Radar Weather Echo Intensity Levels.

d. The area supervisor/area manager/controller-in-charge shall verify the ASR--9 weather channel information by the best means available (e.g., pilot reports, local tower personnel, etc.) if the weather data display by the ASR--9 is reported as questionable or erroneous. Errors in weather radar presentation shall be reported to the AF technician and the AT supervisor shall determine if the weather channel is to be disabled and a NOTAM distributed.

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2--114 CALM WIND CONDITIONS

TERMINAL

Describe the wind as calm when the wind velocity is less than three knots.

2--114 Reference.---Tailwind Components, paragraph 3--62. Intersecting Runway Separation, paragraph 3--123.

2--115 REPORTING WEATHER CONDITIONS

a. When the prevailing visibility at the usual point of observation, or at the tower level, is less than 4 miles, tower personnel shall take prevailing visibility observations and apply the observations as follows:

1. Use the lower of the two observations (tower or surface) for aircraft operations.

2. Forward tower visibility observations to the weather observer.

3. Notify the weather observer when the tower observes the prevailing visibility to decrease to less than 4 miles or increase to 4 miles or more.

b. Forward current weather changes to the appropriate control facility as follows:

1. When the official weather changes to a condition which is below 1,000--foot ceiling or below the highest circling minimum, whichever is greater, or less than 3 miles visibility, and when it improves to a condition which is better than those above.

2. Changes which are classified as special weather observations during the time that weather conditions are below 1,000--foot ceiling or the highest circling minimum, whichever is greater, or less than 3 miles visibility.

c. Towers at airports where military turbo-jet en route descents are routinely conducted shall also report the conditions to the ARTCC even if it is not the controlling facility.

d. If the receiving facility informs you that weather reports are not required, discontinue the reports. The time period specified should not exceed the duration of your tour of duty.

e. *EN ROUTE:* When you determine that weather reports for an airport will not be required for a specific time period, inform the FSS or tower of this determination. The time period specified should not exceed the duration of your tour of duty.

2--115 Reference.---Forwarding Approach Information by Non-Approach Control Facilities, paragraph 3--121.

2--116 DISSEMINATING WEATHER INFORMATION

TERMINAL

Observed elements of weather information shall be disseminated as follows:

a. General weather information, such as "large breaks in the overcast," "visibility lowering to the south," or similar statements which do not include specific values, and any elements derived directly from instruments, pilots, or radar may be transmitted to pilots or other ATC facilities without consulting the weather reporting station.

b. Specific values, such as ceiling and visibility, may be transmitted if obtained by one of the following means:

1. You are properly certificated and acting as official weather observer for the elements being reported.

2--116b1 Note.---USAF controllers do not serve as official weather observers.

2. You have obtained the information from the official observer for the elements being reported.

3. The weather report was composed or verified by the weather station.

4. The information is obtained from an official Automated Weather Observation System (AWOS) or an Automated Surface Observation System (ASOS).

c. Differences between weather elements observed from the tower and those reported by the weather station shall be reported to the official observer for the element concerned.

2--117 thru 2--119 RESERVED

Section 8. RUNWAY VISIBILITY REPORTING----TERMINAL

2--130 FURNISH RVR/RVV VALUES

Where RVR or RVV equipment is operational, irrespective of subsequent operation or non-operation of navigational or visual aids for the application of RVR/RVV as a takeoff or landing minima, furnish the values for the runway in use in accordance with paragraph 2--132.

2--130 Note.----Readout capability of different type/model RVR equipment varies. For example, older equipment minimum readout value is 600 feet. Newer equipment may have minimum readout capability as low as 100 feet. Readout value increments also may differ. Older equipment have minimum readout increments of 200 feet. *New equipment increments* below 800 feet are 100 feet.

2--130 Reference.----FAA Order 6560.10, Runway Visual Range (RVR). FAA Order 6750.24, ILS Electronic Requirements.

2--131 ARRIVAL/DEPARTURE RUNWAY VISIBILITY

a. Issue current touchdown RVR/RVV for the runway/s in use:

1. When prevailing visibility is 1 mile or less regardless of the value indicated.

2. When RVR/RVV indicates a reportable value regardless of the prevailing visibility.

2--131a2 Note.----Reportable values are: RVR 6,000 feet or less; RVV 1 1/2 miles or less.

3. When it is determined from a reliable source that the indicated RVR value differs by more than 400 feet from the actual conditions within the area of the transmissometer, the RVR data is not acceptable and shall not be reported.

2--131a3 Note.----A reliable source is considered to be a certified weather observer, air traffic controller, flight service specialist, or pilot.

4. When the observer has reliable reports, or has otherwise determined that the instrument values are not representative of the associated runway, the data shall not be used.

b. Issue both mid--point and roll--out RVR when the value of either is less than 2,000 feet or either is less than the touchdown value.

c. Local control shall issue the current RVR/RVV to each aircraft prior to landing or departure in accordance with subparagraphs 2--131 a and b.

2--132 TERMINOLOGY

a. Provide RVR/RVV information by stating the runway, the abbreviation RVR/RVV, and the indicated value. When issued along with other weather elements, transmit these values in the normal sequence used for weather reporting.

2--132a Examples.----

"Runway *One Four* R-V-R *two thousand* four hundred."

"Runway Three Two R-V-V three quarters."

b. When two or more RVR systems serve the runway in use, report the indicated values for the different systems in terms of touchdown, *mid*, and rollout as appropriate.

2--132b Examples.----

"Runway Two Two Left R-V-R two thousand, rollout one thousand eight hundred."

"Runway Two Seven Right R-V-R one thousand, mid eight hundred, rollout six hundred."

c. When there is a requirement to issue an RVR or RVV value and a visibility condition greater or less than the reportable values of the equipment is indicated, state the condition as "MORE THAN" or "LESS THAN" the appropriate minimum or maximum readable value.

2--132c Examples.----

"Runway Three Six R-V-R more than six thousand."

"Runway Niner R-V-R one thousand, rollout less than six hundred."

d. When a readout indicates a rapidly varying visibility condition (1,000 feet or more for RVR; one or more reportable values for RVV), report the current value followed by the range of visibility variance.

2--132d Examples.----

"Runway *Two Four* R-V-R *two thousand*, variable one thousand six hundred to three thousand."

"*Runway Three One* R-V-V three-quarters, variable one-quarter to one."

2--132 Reference.----Furnish RVR/RVV Values, paragraph 2--130.

2--133 thru 2--139 RESERVED

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Chapter 3. AIRPORT TRAFFIC CONTROL—TERMINAL

Section 1. GENERAL

3--1 PROVIDE SERVICE

Provide airport traffic control service based only upon observed or known traffic and airport conditions.

3--1 Note.—When operating in accordance with Title 14 of the Code of Federal Regulations, it is the responsibility of the pilot to avoid collision with other aircraft. However, due to the limited space around terminal locations, traffic information can aid pilots in avoiding collision between aircraft operating within Class B, Class C, or Class D surface areas and the terminal radar service areas, and transiting aircraft operating in proximity to terminal locations.

3--2 PREVENTIVE CONTROL

Provide preventive control service only to aircraft operating in accordance with a letter of agreement. When providing this service, issue advice or instructions only if a situation develops which requires corrective action.

3--2 Note.—Preventive control differs from other airport traffic control in that repetitious, routine approval of pilot action is eliminated. Controllers intervene only when they observe a traffic conflict developing.

3--3 USE OF ACTIVE RUNWAYS

The local controller has primary responsibility for operations conducted on the active runway and must control the use of those runways. Positive coordination and control is required as follows:

3--3 Note.—Exceptions may be authorized only as provided in paragraph 1--9 and FAA Order 7210.3, paragraph 12--7 where justified by extraordinary circumstances at specific locations.

3--3 Reference.—FAA Order 7210.3, Use of Active Runways, paragraph 12--7b.

a. Ground control must obtain approval from local control before authorizing an aircraft or a vehicle to cross or use any portion of an active runway.

b. When the local controller authorizes another controller to cross an active runway, the local controller shall verbally specify the runway to be crossed preceded by the word "cross."

Phraseology:

CROSS (runway) AT (intersection if necessary).

c. The ground controller shall advise the local controller when the coordinated runway operation is complete. This may be accomplished verbally or through visual aids as specified by a facility directive.

d. *USA/USAF NOT APPLICABLE* Authorization for aircraft/vehicles to taxi/proceed on or along an active runway, for purposes other than crossing, shall be provided via direct communications on the appropriate local control frequency. This authorization may be provided on the ground control frequency after coordination with local control is completed for those operations specifically described in a facility directive.

3--3d Note.—The USA and USAF establish local operating procedures in accordance with USA and USAF directives.

e. The local controller shall coordinate with the ground controller before using a runway not previously designated as active.

3--3 Reference.—Coordination Between Local and Ground Controllers, paragraph 3--4.

3--4 COORDINATION BETWEEN LOCAL AND GROUND CONTROLLERS

Local and ground controllers shall exchange information as necessary for the safe and efficient use of airport runways and movement areas. This may be accomplished via verbal means, flight progress strips, other written information, or automation displays. As a minimum, provide aircraft identification and applicable runway/intersection/taxiway information as follows:

a. Ground control shall notify local control when a departing aircraft has been taxied to a runway other than one previously designated as active.

3--4a Reference.—Use of Active Runways, paragraph 3--3. FAA Order 7210.3, Selecting Active Runways, paragraph 12--6.

b. Ground control shall notify local control of any aircraft taxied to an intersection for takeoff, unless departure from that intersection is specifically designated via prior coordination or facility directive as the standard operating procedure for the runway to be used. When standard procedures require departures to use a specific intersection, ground control shall notify local control when aircraft are taxied to other portions of the runway for departure.

3--4b Reference.—Intersection Departure, paragraph 3--106.

c. When the runways in use for landing/departing aircraft are not visible from the tower or the aircraft using them are not visible on radar, advise the local/ground controller of the aircraft's location before releasing the aircraft to the other controller.

3--5 VEHICLES/EQUIPMENT/PERSONNEL ON RUNWAYS

a. Ensure that the runway to be used is free of all known ground vehicles, equipment, and personnel before a departing aircraft starts takeoff or a landing aircraft crosses the runway threshold.

b. Vehicles, equipment, and personnel in direct communications with the control tower, may be authorized to operate up to the edge of an active runway surface when necessary. Provide advisories as specified in paragraph 3--6, Traffic Information, and paragraph 3--84d, Precision Approach Critical Areas, as appropriate.

Phraseology:

PROCEED AS REQUESTED; and if necessary, (additional instructions or information)

3--5 Note.---Establishing hold lines/signs is the responsibility of the airport manager. Standards for surface measurements, markings, and signs are contained in Advisory Circulars 150/5300--13, 150/5340--1, and 150/5340--18. The operator is responsible to properly position the aircraft, vehicle, or equipment at the appropriate hold line/sign or designated point. The requirements in paragraph 3--12, Visually Scanning Runways, remain valid as appropriate.

3--5 Reference.---Runway Proximity, paragraph 3--83, Touch-and-Go or Stop-and-Go or Low Approach, paragraph 3--91, Altitude Restricted Low Approach, paragraph 3--129, AC 150/5300--13, Airport Design, Part 91.129 Operation at Airports With Operating Control Towers, AIM paragraph 2--22 and Pilot/Controller Glossary.

3--6 TRAFFIC INFORMATION

a. Describe vehicles, equipment, or personnel on or near the movement area in a manner which will assist pilots in recognizing them.

3--6a Examples.---

"Mower left of Runway Two Seven."

"Trucks crossing approach end of Runway Two Five."

"Workman on Taxiway Bravo."

"Aircraft left of Runway One Eight."

b. Describe the relative position of traffic in an easy to understand manner, such as "to your right", or "ahead of you."

3--6b Examples.---

"Traffic, Eastern DC--9 on downwind leg to your left."

"Twin Bonanza inbound from outer marker on straight-in approach to Runway One Seven."

c. When using a certified tower radar display, you may issue traffic advisories using the standard radar phraseology prescribed in paragraph 2--21.

3--6 Reference.---- Altitude Restricted Low Approach, paragraph 3--129.

3--7 POSITION DETERMINATION

a. Determine the position of an aircraft before issuing taxi instructions or takeoff clearance.

3--7 Note.---The aircraft's position may be determined visually by the controller, by pilots, or through the use of the ASDE.

b. When a local controller delivers or amends an ATC clearance to an aircraft awaiting departure and that aircraft is holding short of a runway or is holding in position on a runway, an additional clearance shall be issued to prevent the possibility of the aircraft inadvertently taxiing onto the runway and/or beginning takeoff roll. In such cases, append one of the following ATC instructions as appropriate:

1. HOLD SHORT OF RUNWAY, *or*
2. HOLD IN POSITION.

3--8 LOW LEVEL WINDSHEAR ADVISORIES

When low level windshear is reported by pilots or detected on any of the Doppler or Low Level Windshear Alert Systems (LLWAS), a statement shall be included on the ATIS for 20 minutes following the last report or indication of windshear.

3--8 Reference.---PIREP Information, paragraph 2--112, Content, paragraph 2--142, Landing Information, paragraph 3--120.

Phraseology:

LOW LEVEL WINDSHEAR ADVISORIES IN EFFECT.

At facilities without ATIS, ensure that windshear information is broadcast to all arriving and departing aircraft for 20 minutes following the last report or indication of windshear.

a. At locations equipped with LLWAS, the local controller shall provide wind information as follows:

3--8a Note.---The LLWAS is designed to detect low level windshear conditions around the periphery of an airport. It does not detect windshear beyond that limitation.

3--8a Reference.---FAA Order 7210.3, Low Level Windshear Alert System (LLWAS), paragraph 12--32.

1. If an alert is received, issue the centerfield wind and the displayed field boundary wind.

Phraseology:

WINDSHEAR ALERT. CENTERFIELD WIND (direction) AT (velocity). (Location of sensor) BOUNDARY WIND (direction) AT (velocity).

2. If multiple alerts are received, issue an advisory that there are windshear alerts in two/several/all quadrants. After issuing the advisory, issue the centerfield wind in accordance with paragraph 3--100b followed by the field boundary wind most appropriate to the aircraft operation.

Phraseology:

WINDSHEAR ALERTS TWO/SEVERAL/ALL QUADRANTS. CENTERFIELD WIND (direction) AT (velocity). (Location of sensor) BOUNDARY WIND (direction) AT (velocity).

3. If requested by the pilot, issue specific field boundary wind information even though the LLWAS may not be in alert status.

3--8a3 Note.---The requirements of subparagraphs 3--8a and 3--8b, paragraph 3--100, and paragraph 3--120 (reference issuance of wind information) remain valid as appropriate.

b. "Improved" LLWAS systems are designed to detect windshear in the vicinity of the centerfield

sensor as well as around the periphery. Locations equipped with "improved" LLWAS systems will issue centerfield wind variance when an alert is received from the centerfield area.

Phraseology:

WINDSHEAR ALERT, CENTERFIELD WIND (direction) AT (velocity) VARYING TO (direction) AT (velocity).

c. LLWAS "Network Expansion" and LLWAS systems that are integrated with Terminal Doppler Weather radars (TDWR) provide the capability of displaying microburst alerts, windshear alerts, and wind information oriented to the threshold or departure end of a runway.

1. If a windshear or microburst alert is received for the runway in use, issue the displayed alert information for that runway to arriving and departing aircraft.

Phraseology:

WINDSHEAR/MICROBURST ALERT, (windspeed) KNOT GAIN/LOSS, (location).

2. If requested by the pilot or deemed appropriate by the controller, issue the displayed wind information oriented to the threshold or departure end of the runway.

Phraseology:

(runway) DEPARTURE/THRESHOLD WIND (direction) AT (velocity).

3. Alerts occurring on the edge of the system, or if the system is unable to distinguish between windshear and microbursts; an alert message will be displayed advising of a possible windshear outside of the system network.

Phraseology:

(appropriate wind or alert information) POSSIBLE WINDSHEAR OUTSIDE THE NETWORK.

4. If unstable conditions produce multiple alerts, issue an advisory of multiple windshear/microburst alerts followed by specific alert or wind information.

Phraseology:

MULTIPLE WINDSHEAR/MICROBURST ALERTS (specific alert or wind information).

5. When a microburst is detected, a statement shall be included on the ATIS broadcast, "MICROBURST ADVISORIES IN EFFECT." This item shall be included on the ATIS for at least 1 hour following the microburst alert.

6. The LLWAS "Network Expansion" is designed to operate with as many as three sensors inoperative. Whenever one to three sensors are inoperative, the system will display this information in the status area. When an LLWAS sensor is inoperative and windshear/microburst activity is likely; (e.g. frontal activity, convective storms, PIREPS), a statement shall be included on the ATIS, "LLWAS IMPAIRED FOR WINDSHEAR AND MICROBURST DETECTION."

3–9 USE OF TOWER RADAR DISPLAYS

a. Local controllers may use certified tower radar displays for the following purposes:

1. To determine an aircraft's identification, exact location, or spatial relationship to other aircraft.

3–9a1 Note.—This authorization does not alter visual separation procedures. When employing visual separation, the provisions of paragraph 7–10 apply unless otherwise authorized by AAT–1.

3–9a1 Reference.—Primary Radar Identification Methods, paragraph 5–51; Beacon Identification Methods, paragraph 5–52; ARTS/PIDP Identification Methods, paragraph 5–53.

2. To provide aircraft with radar traffic advisories.

3. To provide a direction or suggested headings to VFR aircraft as a method for radar identification or as an advisory aid to navigation.

Phraseology:

(Identification), PROCEED (direction)–BOUND, (other instructions or information as necessary),

or

(identification), SUGGESTED HEADING (degrees), (other instructions as necessary).

3–9a3 Note.—It is important that the pilot be aware of the fact that the directions or headings being provided are suggestions or are advisory in nature. This is to keep the pilot from being inadvertently mislead into assuming that radar vectors (and other associated radar services) are being provided when, in fact, they are not.

4. To provide information and instructions to aircraft operating within the surface area for which the tower has responsibility.

3–9a4 Example.—

"Turn base leg now."

3–9a Note.—Unless otherwise authorized, tower radar displays are intended to be an aid to local controllers in meeting their responsibilities to the aircraft operating on the runways or within the surface area. They are not intended to provide radar benefits to pilots except for those accrued through a more efficient and effective local control position. In addition, local controllers at nonapproach control towers must devote the majority of their time to visually scanning the runways and local area; an assurance of continued positive radar identification could place distracting and operationally inefficient requirements upon the local controller. Therefore, since the requirements of paragraph 5–50 cannot be assured, the radar functions prescribed above are not considered to be radar services and pilots should not be advised of being in "radar contact."

b. Additional functions may be performed provided the procedures have been reviewed and authorized by appropriate management levels.

3–9 Reference.—Minima, paragraph 5–72.

3–10 OBSERVED ABNORMALITIES

When requested by a pilot or when you deem it necessary, inform an aircraft of any observed abnormal aircraft condition.

Phraseology:

(Item) APPEAR/S (observed condition).

3–10 Examples.—

Section 3. AIRPORT CONDITIONS

3--30 LANDING AREA CONDITION

If you observe or are informed of any condition which affects the safe use of a landing area:

3--30 Note 1.----The airport management/military operations office is responsible for observing and reporting the condition of the landing area.

3--30 Note 2.----It is the responsibility of the agency operating the airport to provide the tower with current information regarding airport conditions.

3--30 Note 3.----A disabled aircraft on a runway, after occupants are clear, is normally handled by Flight Standards and airport management/military operations office personnel in the same manner as any obstruction; e.g., construction equipment.

a. Relay the information to the airport manager/military operations office concerned.

b. Copy verbatim any information received and record the name of the person submitting it.

c. Confirm information obtained from other than authorized airport or FAA personnel unless this function is the responsibility of the military operations office.

3--30c Note.----Civil airport managers are required to provide a list of airport employees who are authorized to issue information concerning conditions affecting the safe use of the airport.

d. If you are unable to contact the airport management or operator, issue a Notice to Airmen publicizing an unsafe condition and inform the management or operator as soon as practicable.

3--30d Example.----

"Disabled aircraft on runway."

3--30d Note 1.----Legally, only the airport management/military operations office can close a runway.

3--30d Note 2.----Military controllers are not authorized to issue Notices to Airmen. It is the responsibility of the military operations office.

e. Issue to aircraft only factual information, as reported by the airport management concerning the condition of the runway surface, describing the accumulation of precipitation.

3--30e Example.----

"All runways covered by compacted snow six inches deep."

3--30 Reference.----Airport Conditions, paragraph 4--90.

3--31 CLOSED/UNSAFE RUNWAY INFORMATION

If an aircraft requests to takeoff, land, or touch-and-go on a closed or unsafe runway, inform the pilot the runway is closed or unsafe, and

a. If the pilot persists in his request, quote him the appropriate parts of the Notice to Airmen applying to the runway and inform him that a clearance cannot be issued.

b. Then, if the pilot insists and in your opinion the intended operation would not adversely affect other traffic, inform him that the operation will be at his own risk.

Phraseology:

RUNWAY (runway number) CLOSED/UNSAFE.

If appropriate,

(quote Notice to Airmen information), UNABLE TO ISSUE DEPARTURE/LANDING/TOUCH-AND-GO CLEARANCE.

DEPARTURE/LANDING/TOUCH-AND-GO WILL BE AT YOUR OWN RISK.

c. Except as permitted by paragraph 4--106, where parallel runways are served by separate ILS/MLS systems and one of the runways is closed, the ILS/MLS associated with the closed runway should not be used for approaches unless not using the ILS/MLS would have an adverse impact on the operational efficiency of the airport.

3--31 Reference.----Landing Clearance, paragraph 3--124. Airport Conditions, paragraph 4--90.

3--32 TIMELY INFORMATION

Issue airport condition information necessary for an aircraft's safe operation in time for it to be useful to the pilot. Include the following, as appropriate:

a. Construction work on or immediately adjacent to the movement area.

b. Rough portions of the movement area.

c. Braking conditions caused by ice, snow, slush, or water.

d. Snowdrifts or piles of snow on or along the edges of the area and the extent of any plowed area.

e. Parked aircraft on the movement area.

f. Irregular operation of part or all of the airport lighting system.

g. Other pertinent airport conditions.

3--32 Reference.----Airport Conditions, paragraph 4--90. Reporting Essential Flight Information, paragraph 2--9. Altitude Restricted Low Approach, paragraph 3--129.

3--33 BRAKING ACTION

Furnish quality of braking action, as received from pilots or the airport management, to all aircraft as follows:

a. Describe the quality of braking action using the terms "good," "fair," "poor," "nil," or a combination of these terms. If the pilot or airport management reports braking action in other than the foregoing terms, ask him to categorize braking action in these terms.

3--33a Note.----The term "nil" is used to indicate bad or no braking action.

b. Include type of aircraft or vehicle from which the report is received.

Section 4. AIRPORT LIGHTING

3--40 EMERGENCY LIGHTING

Whenever you become aware that an emergency has or will occur, take action to provide for the operation of all appropriate airport lighting aids as required.

3--40 Reference---Lighting Requirements, paragraph 10--41.

3--41 RUNWAY END IDENTIFIER LIGHTS

When separate on-off controls are provided, operate runway end identifier lights:

a. When the associated runway lights are lighted. Turn the REIL off after:

1. An arriving aircraft has landed.

2. A departing aircraft has left the traffic pattern area.

3. It is determined that the lights are of no further use to the pilot.

b. As required by facility directives to meet local conditions.

c. As requested by the pilot.

d. Operate intensity setting in accordance with the values in the Table 3--41[1] except as prescribed in subparagraphs 3--41b and c.

Table 3--41[1]
REIL Intensity Setting---Three Step System.

Settings	*Visibility*	
	Day	*Night*
3	Less than 2 miles	Less than 1 mile
2	2 to 5 miles inclusive	1 to but not including 3 miles
1	When requested	3 miles or more

3--42 VISUAL APPROACH SLOPE INDICATORS (VASI)

VASI systems with remote on-off switching shall be operated when they serve the runway in use and where intensities are controlled in accordance with the Table 3--42[1] and Table 3--42[2] except:

a. As required by facility directives to meet local conditions.

b. As required by the pilot.

Table 3--42[1]
VASI Intensity Setting---Two Step System

Step	*Period/Condition*
High	Day---Sunrise to sunset.
Low	Night---Sunset to sunrise.

Table 3--42[2]
VASI Intensity Setting---Three Step System.

Step	*Period/Condition*
High	Day---Sunrise to sunset.
Medium	Twilight---From sunset to 30 minutes after sunset and from 30 minutes before sunrise to sunrise, and during twilight in Alaska.*
Low	Night---From 30 minutes after sunset to 30 minutes before sunrise.

*During a 1 year period, twilight may vary 26 to 43 minutes between 25 and 49N latitude.

3--42 Note.---The basic FAA standard for VASI systems permits independent operation by means of photoelectric device. This system has no on-off control feature and is intended for continuous operation. Other VASI systems in use include those that are operated remotely from the control tower. These systems may consist of either a photoelectric intensity control with only an on-off switch, a two step intensity system, or a three step intensity system.

3--42 Reference---FAA Order 7210.3, VASI Systems, paragraph 12--64. FAA Order 6850.2, Visual Guidance Lighting Systems.

3--43 APPROACH LIGHTS

Operate approach lights:

a. Between sunset and sunrise when one of the following conditions exists:

1. They serve the landing runway.

2. They serve a runway to which an approach is being made but aircraft will land on another runway.

b. Between sunrise and sunset when the ceiling is less than 1,000 feet or the prevailing visibility is 5 miles or less and approaches are being made to:

1. A landing runway served by the lights.

2. A runway served by the lights but aircraft are landing on another runway.

3. The airport, but landing will be made on a runway served by the lights.

c. As requested by the pilot.

d. As you deem necessary, if not contrary to pilot's request.

3--43 Note.---In the interest of energy conservation, the ALS should be turned off when not needed for aircraft operations.

3--43 Reference---ALS Intensity Settings, paragraph 3--44.

3--44 ALS INTENSITY SETTINGS

When operating ALS as prescribed in paragraph 3--43, operate intensity controls in accordance with the values in Table 3--44[1] except:

a. When facility directives specify other settings to meet local atmospheric, topographic, and twilight conditions.

b. As requested by the pilot.

c. As you deem necessary, if not contrary to pilot's request.

Table 3--44[1]
ALS Intensity Setting

Step	*Visibility---(Applicable to runway served by lights)*	
	Day	*Night*
5	Less than 1 mile*	When requested
4	1 to but not including 3 miles	When requested
3	3 to but not including 5 miles	Less than 1 mile*
2	5 to but not including 7 miles	1 to 3 miles inclusive
1	When requested	Greater than 3 miles

*and/or 6,000 feet or less of the RVR on the runway served by the ALS and RVR.

3--44 Note.----Daylight Steps 2 and 3 provide recommended settings applicable to conditions in subparagraphs b and c. At night, use step 4 or 5 only when requested by a pilot.

3--45 SEQUENCED FLASHING LIGHTS

Operate Sequenced Flashing Lights:

3--45 Note.----SFL are a component of the ALS and cannot be operated when the ALS is off.

a. When the visibility is less than 3 miles and instrument approaches are being made to the runway served by the associated ALS.

b. As requested by the pilot.

c. As you deem necessary, if not contrary to pilot's request.

3--46 MALSR/ODALS

Operate MALSR/ODALS that have separate on-off and intensity setting controls in accordance with Table 3--46[1] and Table 3--46[2] except:

a. When facility directives specify other settings to meet local atmospheric, topographic, and twilight conditions.

b. As requested by the pilot.

c. As you deem necessary if not contrary to pilot's request.

Table 3--46[1]
Two Step MALS/One Step RAIL/Two Step ODALS

Settings		*Visibility*	
		Day	*Night*
MALS/ODALS RAIL	Hi On	Less than 3 miles	Less than 3 miles*
MALS/ODALS RAIL	Low Off	When requested	3 miles or more

* At locations providing part-time control tower service, if duplicate controls are not provided in the associated FSS, the MALSR/ODALS shall be set to low intensity during the hours of darkness when the tower is unmanned.

Table 3--46[2] Three Step MALS/Three Step RAIL/ Three Step ODALS

Settings	*Visibility*	
	Day	*Night*
3	Less than 2 miles	Less than 1 mile
2	2 to 5 miles inclusive	1 to but not including 3 miles*
1	When requested	3 miles or more

*At locations providing part-time control tower service, if duplicate controls are not provided in the FSS on the airport, the air-to-ground radio link shall be activated during the hours of darkness when the tower is unmanned. If there is no radio air-to-ground control, the MALSR/ODALS shall be set on intensity setting 2 during the hours of darkness when the tower is unmanned.

Table 3--46[2] Reference.----FAA Order 7210.3, Operation of Lights When Tower is Closed, paragraph 12--61.

3--47 ALSF--2/SSALR

a. When the prevailing visibility is 3/4 mile or less or the RVR is 4,000 feet or less, operate the ALSF--2 system as follows:

1. As requested by the pilot.

2. As you deem necessary if not contrary to pilot request.

b. Operate the SSALR system when the conditions in subparagraph 3--47a are not a factor.

3--48 RUNWAY EDGE LIGHTS

Operate the runway edge light system/s serving the runway/s in use as follows:

a. Between sunset and sunrise, turn the lights on:

1. For departures----Before an aircraft taxies onto the runway and until it leaves the Class B, Class C, or Class D surface area.

2. For arrivals----

(a) IFR aircraft----Before the aircraft begins final approach, or

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(b) VFR aircraft----Before the aircraft enters the Class B, Class C, or Class D surface area, and

(c) Until the aircraft has taxied off the landing runway.

b. Between sunrise and sunset, turn the lights on as shown in subpargraphs a1 and 2 above when the surface visibility is less than 2 miles.

c. As required by facility directives to meet local conditions.

d. Different from subparagraphs 3--48a, b, or c when:

1. You consider it necessary, or

2. Requested by a pilot and no other known aircraft will be adversely affected.

3--48d2 Note.----Pilots may request lights to be turned on or off contrary to subparagraphs 3--48a, b, or c. However, Part 135 operators are required to land/takeoff on lighted runways/heliport landing areas at night.

e. Do not turn on the runway edge lights when a NOTAM closing the runway is in effect.

3--48 Note.----Application concerns use for takeoffs/landings/approaches and does not preclude turning lights on for use of unaffected portions of a runway for taxiing aircraft, surface vehicles, maintenance, repair, etc.

3--48 Reference.----Simultaneous Approach and Runway Edge Light Operation, paragraph 3--53. FAA Order 7210.3, Incompatible Light System Operation, paragraph 12--62; Runway Edge Lights Associated with Medium Approach Light System/Runway Alignment Indicator Lights, paragraph 12--67.

3--49 HIGH INTENSITY RUNWAY, RUNWAY CENTERLINE, AND TOUCHDOWN ZONE LIGHTS

Operate high intensity runway and associated runway centerline and touchdown zone lights in accordance with Table 3--49[1], except:

a. Where a facility directive specifies other settings to meet local conditions.

b. As requested by the pilot.

c. As you deem necessary, if not contrary to pilot request.

Table 3--49[1]
HIRL, RCLS, TDZL Intensity Setting

Step	*Visibility*	
	Day	*Night*
5	Less than 1 mile*	When requested
4	1 to but not including 2 miles*	Less than 1 mile*
3	2 to but not including 3 miles	1 to but not including 3 miles*
2	When requested	3 to 5 miles inclusive
1	When requested	More than 5 miles

*and/or appropriate RVR/RVV equivalent.

3--50 HIRL ASSOCIATED WITH MALSR

Operate HIRL which control the associated MALSR in accordance with Table 3--50[1], except:

a. As requested by the pilot.

b. As you deem necessary, if not contrary to the pilot's request.

Table 3--50[1]
HIRL associated with MALSR

Step	*Visibility*	
	Day	*Night*
5	Less than 1 mile	When requested
4	1 to but not including 2 miles	Less than 1 mile
3	2 to but not including 3 miles	1 to but not including 3 miles
2	When requested	3 to 5 miles inclusive
1	When requested	More than 5 miles

3--50 Note.----When going from a given brightness step setting to a lower setting, rotation of the brightness control to a point below the intended step setting and then back to the appropriate step setting will ensure that the MALSR will operate at the appropriate brightness.

3--50 Reference.----Medium Intensity Runway Lights, paragraph 3--52.

3--51 HIRL CHANGES AFFECTING RVR

Keep the appropriate approach controller or PAR controller informed, in advance if possible, of HIRL changes that affect RVR.

3--52 MEDIUM INTENSITY RUNWAY LIGHTS

Operate MIRL or MIRL which control the associated MALSR in accordance with Table 3--52[1], except:

a. As requested by the pilot.

b. As you deem necessary, if not contrary to the pilot's request.

Table 3--52[1]
MIRL Intensity Setting

Step	*Visibility*	
	Day	*Night*
3	Less than 2 miles	Less than 1 mile

Table 3--52[1]----CONTINUED
MIRL Intensity Setting

Step	Visibility	
	Day	*Night*
2	2 to 3 miles	1 to 3 miles
1	When requested	More than 3 miles

3--52 Reference.----See HIRL Associated with MALSR, paragraph 3--50 Note.

3--53 SIMULTANEOUS APPROACH AND RUNWAY EDGE LIGHT OPERATION

Turn on the runway edge lights for the runway in use whenever the associated approach lights are on. If multiple runway light selection is not possible, you may leave the approach lights on and switch the runway lights to another runway to accommodate another aircraft

3--53 Reference.----Runway Edge Lights, paragraph 3--48.

3--54 HIGH SPEED TURNOFF LIGHTS

Operate high speed turnoff lights:

a. Whenever the associated runway lights are used for arriving aircraft. Leave them on until the aircraft has either entered a taxiway or passed the last light.

b. As required by facility directives to meet local conditions.

c. As requested by the pilot.

3--55 TAXIWAY LIGHTS

Operate taxiway lights in accordance with Table's 3--55[1], 3--55[2], or 3--55[3] except:

a. Where a facility directive specifies other settings or times to meet local conditions.

b. As requested by the pilot.

c. As you deem necessary, if not contrary to pilot request.

Table 3--55[1]
Three Step Taxiway Lights

Step	Visibility	
	Day	*Night*
3	Less than 1 mile	When requested

Table 3--55[1]----CONTINUED
Three Step Taxiway Lights

Step	Visibility	
	Day	*Night*
2	When requested	Less than 1 mile
1	When requested	1 mile or more

Table 3--55[2]
Five Step Taxiway Lights

Step	Visibility	
	Day	*Night*
5	Less than 1 mile	When requested
4	When requested	Less than 1 mile
3	When requested	1 mile or more
1 & 2	When requested	When requested

Table 3--55[3]
One Step Taxiway Lights

Day	*Night*
Less than 1 mile	On

3--55 Note. AC/150 5340--24 contains recommended brightness levels for variable setting taxiway lights.

3--56 OBSTRUCTION LIGHTS

If controls are provided, turn the lights on between sunset and sunrise.

3--57 ROTATING BEACON

If controls are provided, turn the rotating beacon on:

a. Between sunset and sunrise.

b. Between sunrise and sunset when the reported ceiling or visibility is below basic VFR minima.

3--58 thru 3--59 RESERVED

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Section 5. RUNWAY SELECTION

3--60 SELECTION

a. Except where a ''runway use'' program is in effect, use the runway most nearly aligned with the wind when 5 knots or more or the ''calm wind'' runway when less than 5 knots (set tetrahedrons accordingly) unless use of another runway:

3--60a Note 1.---If a pilot prefers to use a runway different from that specified, he/she is expected to advise ATC.

3--60a Note 2.---At airports where a ''runway use'' program is established, ATC will assign runways deemed to have the least noise impact. If in the interest of safety a runway different from that specified is preferred, the pilot is expected to advise ATC accordingly. ATC will honor such requests and advise pilots when the requested runway is noise sensitive.

3--60a Reference.---FAA Order 8400.9, National Safety and Operational Criteria for Runway Use Programs.

1. Will be operationally advantageous, or
2. Is requested by the pilot.

b. When conducting aircraft operations on other than the advertised active runway, state the runway in use.

3--61 STOL RUNWAYS

Use STOL runways as follows:

a. A designated STOL runway may be assigned only when requested by the pilot or as specified in a letter of agreement with an aircraft operator.

b. Issue the measured STOL runway length if the pilot requests it.

3--62 TAILWIND COMPONENTS

When authorizing use of runways and a tailwind component exists, always state both wind direction and velocity.

3--62 Note.---The wind may be described as ''calm'' when appropriate.

3--62 Reference.---Calm Wind Condition, paragraph 2--114.

3--63 thru 3--69 RESERVED

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b. Forward the following information to approach control facilities before transfer of control jurisdiction:

4-86b Note.----Transfer points are usually specified in a letter of agreement.

1. Aircraft identification.

2. Type of aircraft and appropriate aircraft equipment suffix.

3. ETA or actual time, and proposed or actual altitude over clearance limit. The ETA need not be given if the arrival information is being forwarded during a radar handoff.

4. Clearance limit (when other than the destination airport) and EFC issued to the aircraft. Clearance limit may be omitted when provided for in a letter of agreement.

5. Time, fix, or altitude when control responsibility is transferred to the approach control facility. This information may be omitted when provided for in a letter of agreement.

Phraseology:

(Identification), (type of aircraft), ESTIMATED/OVER (clearance limit), (time), (altitude), EFC (time).

If required,

YOUR CONTROL,

or

YOUR CONTROL AT (time, fix or altitude).

4-87 WEATHER INFORMATION

EN ROUTE

When an available official weather report indicates weather conditions are below a 1,000-foot *(USAF:* 1,500-foot) ceiling or below the highest circling minimum, whichever is higher, or less than three-miles visibility for the airport concerned, transmit the weather report and changes classified as special weather observations to an arriving aircraft prior to or as part of the approach clearance when:

a. It is transmitted directly to the pilot via center controller-to-pilot communications.

b. It is relayed through a communications station other than an air carrier company radio or through a nonapproach control facility. You may do this by telling the station or non-approach control facility to issue current weather.

4-88 BELOW MINIMA REPORT BY PILOT

If an arriving aircraft reports weather conditions are below his landing minima:

4-88 Note.----Determination that existing weather/visibility is adequate for approach/landing is the responsibility of the pilot/aircraft operator.

a. Issue appropriate instructions to the aircraft to hold or proceed to another airport.

b. Adjust, as necessary, the position in the landing sequence of any other aircraft desiring to make approaches and issue approach clearances accordingly.

4-89 TRANSFER OF JURISDICTION

Transfer radio communications and control responsibility early enough to allow the receiving facility to clear an aircraft beyond the clearance limit before the aircraft reaches it.

4-90 AIRPORT CONDITIONS

a. *EN ROUTE:* Before issuing an approach clearance or en route descent, and subsequently as changes occur, inform an aircraft of any abnormal operation of approach and landing aids and of destination airport conditions that you know of which might restrict an approach or landing.

b. *TERMINAL:* On first contact or as soon as possible thereafter, and subsequently as changes occur, inform an aircraft of any abnormal operation of approach and landing aids and of destination airport conditions that you know of which might restrict an approach or landing. This information may be omitted if it is contained in the ATIS broadcast and the pilot states the appropriate ATIS code.

4-90b Reference.----Chapter 3, Airport Traffic Control---Terminal, Section 3., Airport Conditions.

c. *TERMINAL:* Where RCR's are provided, transmit this information to USAF and ANG aircraft in accordance with one of the following. Issue the RCR to other aircraft upon pilot request.

1. Before or when an approach clearance is issued.

2. Before an en route descent clearance is issued.

3. Prior to departure.

4. As soon as possible after receipt of any subsequent changes in previously issued RCR information.

4-90c Note 1.----USAF has established RCR procedures for determining the average deceleration readings of runways under conditions of water, slush, ice, or snow. The use of RCR code is dependent upon the pilot having a "stopping capability chart" specifically applicable to his aircraft.

4-90c Note 2.----USAF offices furnish RCR information at airports serving USAF and ANG aircraft.

4-90c Reference.----Landing Area Conditions, paragraph 3-30.

4-91 ARRIVAL INFORMATION BY APPROACH CONTROL FACILITIES

TERMINAL

a. Forward the following information to nonapproach control towers soon enough to permit adjustment of the traffic flow or to FSS's soon

starting descent on final approach for surveillance approach.

Phraseology:
PERFORM LANDING CHECK

5--135 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--136 POSITION INFORMATION

Inform the aircraft of its position at least once before starting final approach.

Phraseology:
(Number) MILES (direction) OF (airport name) AIRPORT,

or

(Number) MILES (direction) OF (airport name) AIRPORT ON DOWNWIND/BASE LEG.

5--136 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--137 FINAL CONTROLLER CHANGEOVER

When instructing the aircraft to change frequency for final approach guidance, include the name of the facility.

Phraseology:
CONTACT (name of facility) FINAL CONTROLLER ON (frequency).

5--137 Reference.---Radio Communications Transfer, paragraph 2--17. Final Approach Course Intersection, paragraph 5--121. Arrival Instructions, paragraph 5--123. Elevation Failure, paragraph 5--168.

5--138 COMMUNICATIONS CHECK

On initial contact with the final controller, ask the aircraft for a communication check.

Phraseology:
(Aircraft call sign), (name of facility) FINAL CONTROLLER.

HOW DO YOU HEAR ME?

5--138 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--139 TRANSMISSION ACKNOWLEDGMENT

After contact has been established with the final controller and while on the final approach course, instruct the aircraft not to acknowledge further transmissions.

Phraseology:
DO NOT ACKNOWLEDGE FURTHER TRANSMISSIONS.

5--139 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--140 MISSED APPROACH

Before an aircraft starts final descent for a full stop landing and weather reports indicate that any portion of the final approach will be conducted in IFR conditions, issue a specific missed approach procedure approved for the radar approach being conducted.

Phraseology:
YOUR MISSED APPROACH PROCEDURE IS (missed approach procedure).

5--140 Note. 1---The specific missed approach procedure is published on FAA Form 8260--4 or applicable military document.

5--140 Note. 2---*USAF:* At locations where missed approach instructions are published in base flying regulations, controllers need not issue missed approach instructions to locally assigned/attached aircraft.

5--140 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--141 LOW APPROACH AND TOUCH-AND-GO

Before an aircraft which plans to execute a low approach or touch-and-go begins final descent, issue appropriate departure instructions to be followed upon completion of the approach. Climb--out instructions must include a specific heading and altitude except when the aircraft will maintain VFR and contact the tower.

Phraseology:
AFTER COMPLETING LOW APPROACH/

TOUCH AND GO:

CLIMB AND MAINTAIN (altitude).

TURN (right or left) HEADING (degrees)/FLY RUNWAY HEADING,

or

MAINTAIN VFR, CONTACT TOWER,

or

(other instructions as appropriate).

5--141 Note.---This may be omitted after the first approach if instructions remain the same.

5--141 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--142 TOWER CLEARANCE

a. When an aircraft is on final approach to an airport served by a tower, obtain a clearance to land, touch-and-go, or make low approach. Issue the clearance and the surface wind to the aircraft.

b. If the clearance is not obtained or is canceled, inform the aircraft and issue alternative instructions.

Phraseology:
TOWER CLEARANCE CANCELED/NOT RECEIVED (alternative instructions).

5--142 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--143 FINAL APPROACH ABNORMALITIES

Instruct the aircraft if runway environment not in sight, execute a missed approach if previously given; or climb to or maintain a specified altitude and fly a specified course whenever the completion of a safe approach is questionable because one or more of the following conditions exists. The conditions in subparagraphs 5--143a, b, and c do not apply after the aircraft passes decision height on a PAR approach.

5--143 Examples---

Examples of reasons for issuing missed approach instructions:

"Radar contact lost."

"Too high/low for safe approach."

"Too far right/left for safe approach."

5--143 Reference.---Position Advisories, paragraph 5--166.

a. Safety limits are exceeded or radical target deviations are observed.

b. Position or identification of the aircraft is in doubt.

c. Radar contact is lost or a malfunctioning radar is suspected.

Phraseology:

(Reason) IF RUNWAY/APPROACH LIGHTS/RUNWAY LIGHTS NOT IN SIGHT, EXECUTE MISSED APPROACH/(alternative instructions).

5--143c Note.---If the pilot requests, approval may be granted to proceed with the approach via ILS or another navigational aid/approach aid.

5--143c Reference.---Radar Contact Lost, paragraph 5--134.

d. Airport conditions or traffic preclude approach completion.

Phraseology:

EXECUTE MISSED APPROACH/(alternative instructions). (Reason).

5--143 Reference.---Final Approach Course Intersection, paragraph 5--121. Elevation Failure, paragraph 5--168.

5--144 MILITARY SINGLE FREQUENCY APPROACHES

a. Utilize single frequency approach procedures as contained in a Letter of Agreement.

b. Do not require a frequency change from aircraft on a single frequency approach after the approach has begun unless:

1. Landing or low approach has been completed.

2. The aircraft is in visual flight rules (VFR) conditions during daylight hours.

3. The pilot requests the frequency change.

4. An emergency situation exists.

5. The aircraft is cleared for a visual approach.

6. The pilot cancels instrument instrument flight rules (IFR).

c. Accomplish the following steps to complete communications transfer on single frequency approaches after completion of a handoff:

1. Transferring controller: Position transmitter selectors to preclude further transmissions on the special use frequencies.

2. Receiving controller: Position transmitter and receiver selectors to enable communications on the special use frequencies.

3. Do not require or expect the flight to check on frequency unless an actual frequency change is transmitted to the pilot.

5--145 thru 5--149 RESERVED