BRIEFING GUIDE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Initiated By: AJV-0
Vice President, Mission Support Services

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1. PARAGRAPH NUMBER AND TITLE: 1−2−6. ABBREVIATIONS

2. BACKGROUND: FAA Order 8260.40B, Flight Management System (FMS) Instrument Procedures Development was cancelled in January 2013. All of the applicable content has been incorporated into FAA Order 8260.58, United States Standard for Performance−Based Navigation (PBN) Instrument Procedure Design.

3. CHANGE:

OLD	**NEW**
1−2−6. ABBREVIATIONS	**1−2−6. ABBREVIATIONS**
FMSP − Flight Management System Procedure	Delete

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1. PARAGRAPH NUMBER AND TITLE:
1−2−6. ABBREVIATIONS
3−4−20. RUNWAY STATUS LIGHTS (RWSL)
3−6−5. RADAR−ONLY MODE

2. BACKGROUND: The Federal Aviation Administration (FAA) Surveillance and Broadcast Services (SBS) Program Office (PO) intends to implement the Airport Surface Surveillance Capability (ASSC) for situational awareness and surveillance of the surface movement area as well as approach and departure routes at select airports within the National Airspace System (NAS). ASSC will augment visual observation of landing or departing aircraft, and aircraft or vehicle traffic on the surface movement area.

3. CHANGE:

OLD	**NEW**
1−2−6. ABBREVIATIONS	**1−2−6. ABBREVIATIONS**
Add	**ASSC − Airport Surface Surveillance Capability**

OLD	**NEW**
3−4−20. RUNWAY STATUS LIGHTS (RWSL)	**3−4−20. RUNWAY STATUS LIGHTS (RWSL)**
Title through **a1**	No Change
2. If a portion of the runway is not visible from the tower, ATC must visually scan the ASDE−X system. If the runway is observed to be clear and the lights are still illuminated, then the lights must be turned off and clearance re−issued.	**2.** If a portion of the runway is not visible from the tower, ATC must visually scan the **ASDE** system. If the runway is observed to be clear and the lights are still illuminated, then the lights must be turned off and clearance re−issued.

OLD	**NEW**
3−6−5. RADAR−ONLY MODE	**3−6−5. RADAR−ONLY MODE**
Radar−only mode is an enhancement of the ASDE−X system which allows the system to stay operational with safety logic processing, despite a critical fault in the Multilateration (MLAT) subsystem. The system stays in full core alert status under radar−only mode without data block capability.	Radar−only mode is an enhancement of the ASDE−X **and ASSC** system**s** which allows the system to stay operational with safety logic processing, despite a critical fault in the Multilateration (MLAT) subsystem. The system stays in full core alert status under radar−only mode without data block capability.

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1. PARAGRAPH NUMBER AND TITLE:
2−1−2. DUTY PRIORITY
2−1−4. OPERATIONAL PRIORITY

2. BACKGROUND: The TOP 5 is a quantifiable list of hazards that contribute to the highest risk in the National Airspace System. It is the culmination of the ATO's proactive safety management activities – valuing input from the frontline employees, deploying technology to gather data, improving analysis to identify risk and embracing correction to mitigate risk. In 2015, one of the Top 5 items involved weather dissemination and the need to solicit and disseminate significant PIREPS. In 2016, the 7110.65 Handbook Revision Steering Committee proposed adding a subparagraph to Paragraph 2−1−2, Duty Priority, clearly identifying solicitation and dissemination of weather as a duty priority. Additionally, the committee proposed a change to Paragraph 2−1−4, Operational Priority, to emphasize those flights listed in the paragraph that demand an extra level of ATC service. Except for an aircraft in distress the flights identified in paragraph 2−1−4, are not listed in a hierarchical order of priority.

3. CHANGE:

OLD	**NEW**
2−1−2. DUTY PRIORITY	**2−1−2. DUTY PRIORITY**
Title through **b** ***REFERENCE***	No Change
c. 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.	**c.** Provide **and/or solicit weather information in accordance with procedures and requirements outlined in this order**.
Add	***NOTE−*** ***Controllers are responsible to become familiar with and stay aware of current weather information needed to perform ATC duties.***
Add	**d. 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.**

OLD	**NEW**
2−1−4. OPERATIONAL PRIORITY	**2−1−4. OPERATIONAL PRIORITY**
Provide air traffic control service to aircraft on a "first come, first served" basis as circumstances permit, except the following:	**It is recognized that traffic flow may affect the controller's ability to provide priority handling. However, without compromising safety, good judgment must be used in each situation to facilitate the most expeditious movement of priority aircraft.** Provide air traffic control service to aircraft on a "first come, first served" basis as circumstances permit, except the following:
NOTE through **a** ***REFERENCE***	No Change

b. Provide priority to civilian air ambulance flights (call sign "MEDEVAC"). Use of the MEDEVAC call sign indicates that operational priority is requested. When verbally requested, provide priority to AIR EVAC, HOSP, and scheduled air carrier/air taxi flights. Assist the pilots of MEDEVAC, AIR EVAC, and HOSP 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.

NOTE–
It is recognized that heavy traffic flow may affect the controller's ability to provide priority handling. However, without compromising safety, good judgment must be used in each situation to facilitate the most expeditious movement of a MEDEVAC aircraft.

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

REFERENCE–
FAAO JO 7110.65, Para 10–1–3, Providing Assistance.

Add

Add

d. Expedite the movement of presidential aircraft and entourage and any rescue support aircraft as well as related control messages when traffic conditions and communications facilities permit.

NOTE–
As used herein the terms presidential aircraft and entourage include aircraft and entourage of the President, Vice President, or other public figures when designated by the White House.

REFERENCE–
FAAO JO 7110.65, Para 2–4–20 Aircraft Identification.
FAAO JO 7110.65, Para 4–3–2 Departure Clearances.
FAAO JO 7210.3, Para 5–1–1 Advance Coordination.

Add

e. Provide special handling, as required to expedite Flight Check aircraft.

b. Provide priority **handling** to civilian air ambulance flights (call sign "MEDEVAC"). Use of the MEDEVAC call sign indicates that operational priority is requested. When verbally requested, provide priority **handling** to AIR EVAC, HOSP, and scheduled air carrier/air taxi flights. Assist the pilots of MEDEVAC, AIR EVAC, and HOSP 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.

NOTE–
G*ood judgment must be used in each situation to facilitate the most expeditious movement of a MEDEVAC aircraft.*

c. Provide **priority handling and expedite the movement of presidential aircraft and entourage and any rescue support aircraft as well as related control messages when traffic conditions and communications facilities permit.**

Delete

NOTE–
As used herein the terms presidential aircraft and entourage include aircraft and entourage of the President, Vice President, or other public figures when designated by the White House.

REFERENCE–
FAA Order JO 7110.65, Para 2–4–20 Aircraft Identification.
FAA Order JO 7110.65, Para 4–3–2 Departure Clearances.
FAA Order JO 7210.3, Para 5–1–1 Advance Coordination.

d. Provide priority handling and maximum assistance to SAR aircraft performing a SAR mission.

Delete

Delete

REFERENCE–
FAA Order JO 7110.65, Para 10–1–3, Providing Assistance.

e. Provide **priority handling and maximum assistance to expedite the movement of interceptor aircraft on active air defense missions until the unknown aircraft is identified.**

NOTE– *It is recognized that unexpected wind conditions, weather, or heavy traffic flows may affect controller's ability to provide priority or special handling at the specific time requested.*	Delete
REFERENCE– *FAAO JO 7110.65, Para 9–1–3, Flight Check Aircraft.*	Delete
f. Expedite movement of NIGHT WATCH aircraft when NAOC (pronounced NA–YOCK) is indicated in the remarks section of the flight plan or in air/ground communications.	**f**. **Provide priority handling to** NIGHT WATCH aircraft when NAOC (pronounced NA–YOCK) is indicated in the remarks section of the flight plan or in air/ground communications.
NOTE– *The term "NAOC" will not be a part of the call sign but may be used when the aircraft is airborne to indicate a request for special handling.*	No Change
REFERENCE– *FAAO JO 7610.4, Para 12–1–1 Applications.*	***REFERENCE–*** *FAA **Order** JO 7610.4, Para 12–1–1 Applications.*
g. Provide expeditious handling for any civil or military aircraft using the code name "FLYNET."	**g.** Provide **priority** handling **to** any civil or military aircraft using the code name "FLYNET."
REFERENCE– *FAAO JO 7110.65, Para 9–2–6 FLYNET.* *FAAO JO 7610.4, Para 12–4–1 "FLYNET" Flights, Nuclear Emergency Teams.*	***REFERENCE–*** *FAA **Order** JO 7110.65, Para 9–2–6 FLYNET.* *FAA **Order** JO 7610.4, Para 12–4–1 "FLYNET" Flights, Nuclear Emergency Teams.*
h. Provide expeditious handling of aircraft using the code name "Garden Plot" only when CARF notifies you that such priority is authorized. Refer any questions regarding flight procedures to CARF for resolution.	**h.** Provide **priority** handling **to** aircraft using the code name "Garden Plot" only when CARF notifies you that such priority is authorized. Refer any questions regarding flight procedures to CARF for resolution.
NOTE– *Garden Plot flights require priority movement and are coordinated by the military with CARF. State authority will contact the Regional Administrator to arrange for priority of National Guard troop movements within a particular state.*	No Change
i. Provide special handling for USAF aircraft engaged in aerial sampling missions using the code name "SAMP."	**i.** Provide **priority** handling **to** USAF aircraft engaged in aerial sampling missions using the code name "SAMP."
REFERENCE– *FAAO JO 7110.65, Para 9–2–17, SAMP.* *FAAO JO 7210.3, Para 5–3–4, Atmosphere Sampling For Nuclear Contamination.* *FAAO JO 7610.4, Para 12–4–3, Atmospheric Sampling For Nuclear Contamination.*	***REFERENCE–*** *FAA **Order** JO 7110.65, Para 9–2–17, SAMP.* *FAA **Order** JO 7210.3, Para 5–3–4, Atmosphere Sampling For Nuclear Contamination.* *FAA **Order** JO 7610.4, Para 12–4–3, Atmospheric Sampling For Nuclear Contamination.*
j. Provide maximum assistance to expedite the movement of interceptor aircraft on active air defense missions until the unknown aircraft is identified.	**j.** Provide **priority handling to Special Air Mission aircraft when SCOOT is indicated in the remarks section of the flight plan or used in air/ground communications.**
Add	***NOTE–*** ***The term "SCOOT" will not be part of the call sign but may be used when the aircraft is airborne to indicate a request for special handling.***
Add	***REFERENCE–*** ***FAA Order JO 7610.4, Para 12–6–1, Applications.***

k. Expedite movement of Special Air Mission aircraft when SCOOT is indicated in the remarks section of the flight plan or in air/ground communications.

NOTE–
The term "SCOOT" will not be part of the call sign but may be used when the aircraft is airborne to indicate a request for special handling.

REFERENCE–
FAAO JO 7610.4, Para 12–7–1, Applications.

l. When requested, provide priority handling to TEAL and NOAA mission aircraft.

NOTE–
Priority handling may be requested by the pilot, or via telephone from CARCAH or the 53rd Weather Reconnaissance Squadron (53WRS) operations center personnel, or in the remarks section of the flight plan.

Add

REFERENCE–
FAAO JO 7110.65, Para 9–2–19, Weather Reconnaissance Flights.

m. IFR aircraft must have priority over SVFR aircraft.

Add

REFERENCE–
FAAO JO 7110.65, Chapter 7, Section 5, Special VFR (SVFR).

n. Providing priority and special handling to expedite the movement of OPEN SKIES Treaty observation and demonstration (F and D) flights.

k. When requested, provide priority handling to TEAL and NOAA mission aircraft.

NOTE–
Priority handling may be requested by the pilot, or via telephone from CARCAH or the 53rd Weather Reconnaissance Squadron (53WRS) operations center personnel, or in the remarks section of the flight plan.

REFERENCE–
FAA Order JO 7110.65, Para 9–2–19, Weather Reconnaissance Flights.

l. Provide priority handling to **expedite the movement of OPEN SKIES Treaty observation and demonstration (F and D) flights.**

NOTE–
An OPEN SKIES Treaty (F and D) aircraft has priority over all "regular" air traffic. "Regular" is defined as all aircraft traffic other than:

1. Emergencies
2. Aircraft directly involved in presidential movement.
3. Forces or activities in actual combat.
4. MEDEVAC, and active SAR missions.
5. AIR EVAC and HOSP aircraft that have requested priority handling.

REFERENCE–
FAA Order JO 7110.65, Para 9–2–22, OPEN SKIES Treaty Aircraft.
FAA Order JO 7210.3, Para 5–3–7, OPEN SKIES Treaty Aircraft Priority Flight (F and D). Treaty on OPEN SKIES, Treaty Document, 102–37.

m. Provide priority handling, as required to expedite Flight Check aircraft.

NOTE–
It is recognized that unexpected wind conditions, weather, or heavy traffic flows may affect controller's ability to provide priority or special handling at the specific time requested.

REFERENCE–
FAA Order JO 7110.65, Para 9–1–3, Flight Check Aircraft.

n. IFR aircraft must have priority over SVFR aircraft.

NOTE– *An OPEN SKIES Treaty (F and D) aircraft has priority over all "regular" air traffic. "Regular" is defined as all aircraft traffic other than:* ***1.*** *Emergencies.* ***2.*** *Aircraft directly involved in presidential movement.* ***3.*** *Forces or activities in actual combat.* ***4.*** *MEDEVAC, and active SAR missions.* ***5.*** *AIR EVAC and HOSP aircraft that have requested priority handling.*	Delete
REFERENCE– *FAAO JO 7110.65, Para 9–2–22, OPEN SKIES Treaty Aircraft.* *FAAO JO 7210.3, Para 5–3–7, OPEN SKIES Treaty Aircraft Priority Flight (F and D). Treaty on OPEN SKIES, Treaty Document, 102–37.*	***REFERENCE–*** ***FAA Order JO 7110.65, Chapter 7, Section 5, Special VFR (SVFR).***

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1. PARAGRAPH NUMBER AND TITLE: 2–3–8. AIRCRAFT EQUIPMENT SUFFIX

2. BACKGROUND: A document change proposal was submitted for FAA Order JO 7110.65W that would have added an additional aircraft equipment suffix, slant O (/O), for RVSM capable aircraft with an operating transponder but with no Mode C altitude reporting capability. Instead of adding the /O suffix, the published change incorrectly substituted the existing slant H (/H) suffix with the /O suffix. Additionally, as of the effective date of the order, the /O had not been adapted in the various automation platforms for use by air traffic control.

3. CHANGE:

OLD	**NEW**
2–3–8. AIRCRAFT EQUIPMENT SUFFIX	**2–3–8. AIRCRAFT EQUIPMENT SUFFIX**
Title through **c**	No Change
d. Utilize aircraft equipment suffix /O to indicate "RVSM–capable, no transponder."	**d.** Utilize aircraft equipment suffix **/H** to indicate "RVSM–capable, no transponder."
NOTE– */O is for ATC use only. Users are not authorized to file these suffixes.*	***NOTE–*** ***/H*** *is for ATC use only. Users are not authorized to file this suffix.*

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1. PARAGRAPH NUMBER AND TITLE:
2–6–1. FAMILIARIZATION
2–6–2. HAZARDOUS INFLIGHT WEATHER ADVISORY SERVICE (HIWAS)
2–6–3. PIREP INFORMATION
2–6–4. WEATHER AND CHAFF SERVICES
2–6–5. CALM WIND CONDITIONS
2–6–6. REPORTING WEATHER CONDITIONS
2–6–7. DISSEMINATING WEATHER INFORMATION

2. BACKGROUND: Weather issues continue to be a challenge in the National Airspace System. This topic was featured in the ATO Top 5 for the year of 2015. A collaborative workgroup was put together to review and clarify the Air Traffic Control (ATC) requirements for Weather Information in this order. This will improve and clarify the level of awareness and requirements concerning weather solicitation and dissemination procedures.

3. CHANGE:

OLD	NEW
2–6–1. FAMILIARIZATION	**2–6–1. FAMILIARIZATION**
Become familiar with pertinent weather information when coming on duty, and stay aware of current weather information needed to perform ATC duties.	**Controllers must** become familiar with pertinent weather information when coming on duty, and stay aware of current and **forecasted** weather information needed to perform ATC duties.
Add	***NOTE–*** ***Every phase of flight has the potential to be impacted by weather, and emphasis must be placed on gathering, reporting and disseminating weather information.***

OLD	NEW
2–6–2. HAZARDOUS INFLIGHT WEATHER ADVISORY SERVICE (HIWAS)	Delete
Controllers must 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 includes Airmen's Meteorological Information (AIRMET), Significant Meteorological Information (SIGMET), Convective SIGMET (WST), Urgent Pilot Weather Reports (UUA), and Center Weather Advisories (CWA). Facilities must 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(s) will not be affected.	Delete
a. Controllers within commissioned HIWAS areas must broadcast a HIWAS alert on all frequencies, except emergency frequency, 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.	Delete
NOTE– *The inclusion of the type and number of weather advisory responsible for the HIWAS advisory is optional.*	Delete
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 HIWAS OR FLIGHT SERVICE FREQUENCIES.*	Delete
b. Controllers outside of commissioned HIWAS areas must:	Delete

1. Advise pilots of the availability of hazardous weather advisories. Pilots requesting additional information should be directed to contact the nearest Flight Service.	Delete
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.	Delete
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.	Delete
REFERENCE– *AIM, Chapter 7, Section 1, Meteorology, Para 7–1–5 through Para 7–1–9.*	Delete
d. *EN ROUTE*. ERAM. Controllers must electronically acknowledge hazardous weather information messages after appropriate action has been taken.	Delete
NOTE– *EN ROUTE. While hazardous weather information is commonly distributed via the SIGMET View, it is possible to receive the information via the GI View.*	Delete

OLD	**NEW**
2–6–3. PIREP INFORMATION	Delete
Significant PIREP information includes reports of strong frontal activity, squall lines, thunderstorms, light to severe icing, wind shear and turbulence (including clear air turbulence) of moderate or greater intensity, volcanic eruptions and volcanic ash clouds, detection of sulfur gases (SO_2 or H_2S) in the cabin, and other conditions pertinent to flight safety.	Delete
REFERENCE– *FAAO JO 7110.65, Para 3–1–8, Low Level Wind Shear/Microburst Advisories.* *FAAO JO 7210.3, Para 6–3–1, Handling of SIGMETs, CWAs, and PIREPs.* *AIM, Para 7–5–9, Flight Operations in Volcanic Ash.* *FAAO JO 7210.3, Para 10–3–1, SIGMET and PIREP Handling.*	Delete
a. Solicit PIREPs when requested or when one of the following conditions exists or is forecast for your area of jurisdiction:	Delete
1. Ceilings at or below 5,000 feet. These PIREPs must include cloud base/top reports when feasible.	Delete

TERMINAL. Ensure that at least one descent/climb-out PIREP, including cloud base/s, top/s, and other related phenomena, is obtained each hour. *EN ROUTE*. When providing approach control services, the requirements stated in TERMINAL above apply.	Delete
2. Visibility (surface or aloft) at or less than 5 miles.	Delete
3. Thunderstorms and related phenomena.	Delete
4. Turbulence of moderate degree or greater.	Delete
5. Icing of light degree or greater.	Delete
6. Wind shear.	Delete
7. Volcanic ash clouds.	Delete
NOTE– *Pilots may forward PIREPs regarding volcanic activity using the format described in the Volcanic Activity Reporting Form (VAR) as depicted in the AIM, Appendix 2.*	Delete
8. Detection of sulfur gases (SO_2 or H_2S), associated with volcanic activity, in the cabin.	Delete
NOTE– *The smell of sulfur gases in the cockpit may indicate volcanic activity that has not yet been detected or reported and/or possible entry into an ash-bearing cloud. SO_2 is identifiable as the sharp, acrid odor of a freshly struck match. H_2S has the odor of rotten eggs.*	Delete
9. *TERMINAL*. Braking Action Advisories are in effect.	Delete
REFERENCE– *FAAO JO 7110.65, Para 3–3–5, Braking Action Advisories.* *P/CG Term– Braking Action Advisories.*	Delete
b. Record with the PIREPs:	Delete
1. Time.	Delete
2. Aircraft position.	Delete
3. Type aircraft.	Delete
4. Altitude.	Delete
5. When the PIREP involves icing include:	Delete
(a) Icing type and intensity.	Delete
(b) Air temperature in which icing is occurring.	Delete
c. Obtain PIREPs 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.	Delete

PHRASEOLOGY– Delete
REQUEST/SAY FLIGHT CONDITIONS.

Or if appropriate,

REQUEST/SAY (specific conditions; i.e., ride, cloud, visibility, etc.) CONDITIONS.

If necessary,

OVER (fix),

or

ALONG PRESENT ROUTE,

or

BETWEEN (fix) AND (fix).

d. Handle PIREPs as follows: Delete

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

2. *EN ROUTE.* Relay all operationally significant PIREPs to the facility weather coordinator. Delete

3. *TERMINAL.* Relay all operationally significant PIREPs to: Delete

(a) The appropriate intrafacility positions. Delete

(b) The FLM/CIC for long line dissemination via an FAA approved electronic system (for example, AIS–R, or similar systems); or, Delete

(c) Outside Alaska: The overlying ARTCC's Flight Data Unit for long–line dissemination; or, Delete

(d) Alaska Only: The FSS serving the area in which the report was obtained. Delete

NOTE– Delete
The FSS in Alaska is responsible for long line dissemination.

REFERENCE– Delete
FAAO JO 7110.65, Para 2–1–2, Duty Priority.

(e) Other concerned terminal or en route ATC facilities, including non–FAA facilities. Delete

(f) Use the word *gain* and/or *loss* when describing to pilots the effects of wind shear on airspeed. Delete

EXAMPLE– *"Delta Seven Twenty–one, a Boeing Seven Twenty–seven, previously reported wind shear, loss of Two Five knots at Four Hundred feet."* *"U.S. Air Seventy–six, a D–C Niner, previously reported wind shear, 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."*	Delete
REFERENCE– *AIM, Para 7–1–24, Wind Shear PIREPs.*	Delete

OLD	**NEW**
2–6–4. WEATHER AND CHAFF SERVICES	Delete
a. Issue pertinent information on observed/reported weather and chaff areas 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.	Delete
NOTE– *Weather significant to the safety of aircraft includes such conditions as funnel cloud activity, lines of thunderstorms, embedded thunderstorms, large hail, wind shear, microbursts, moderate to extreme turbulence (including CAT), and light to severe icing.*	Delete
REFERENCE– *AIM, Paragraph 7-1-14, ATC Inflight Weather Avoidance Assistance.*	Delete
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).*	Delete
b. Inform any tower for which you provide approach control services of observed precipitation on radar which is likely to affect their operations.	Delete
c. Use the term "precipitation" when describing radar–derived weather. Issue the precipitation intensity from the lowest descriptor (LIGHT) to the highest descriptor (EXTREME) when that information is available. Do not use the word "turbulence" in describing radar–derived weather.	Delete
1. LIGHT.	Delete
2. MODERATE.	Delete
3. HEAVY.	Delete

4. EXTREME. Delete

NOTE– Delete
Weather and Radar Processor (WARP) does not display light intensity.

PHRASEOLOGY–
AREA OF (Intensity) PRECIPITATION BETWEEN (number) O'CLOCK AND (number) O'CLOCK, (number) MILES, MOVING (direction) AT (number) KNOTS, TOPS (altitude). AREA IS (number) MILES IN DIAMETER.

EXAMPLE– Delete
1. *"Area of extreme precipitation between eleven o'clock and one o'clock, one zero miles moving east at two zero knots, tops flight level three niner zero."*
2. *"Area of heavy precipitation between ten o'clock and two o'clock, one five miles. Area is two five miles in diameter."*
3. *"Area of heavy to extreme precipitation between ten o'clock and two o'clock, one five miles. Area is two five miles in diameter."*

REFERENCE– Delete
P/CG Term– Precipitation Radar Weather Descriptions.

d. When precipitation intensity information is not available. Delete

PHRASEOLOGY– Delete
AREA OF PRECIPITATION BETWEEN (number) O'CLOCK AND (number) O'CLOCK, (number) MILES. MOVING (direction) AT (number) KNOTS, TOPS (altitude). AREA IS (number) MILES IN DIAMETER, INTENSITY UNKNOWN.

EXAMPLE– Delete
"Area of precipitation between one o'clock and three o'clock, three five miles moving south at one five knots, tops flight level three three zero. Area is three zero miles in diameter, intensity unknown."

NOTE– Delete
Phraseology using precipitation intensity descriptions is only applicable when the radar precipitation intensity information is determined by NWS radar equipment or NAS ground based digitized radar equipment with weather capabilities. This precipitation may not reach the surface.

e. *EN ROUTE*. When issuing Air Route Surveillance Radar (ARSR) precipitation intensity use the following: Delete

1. Describe the lowest displayable precipitation intensity as MODERATE. Delete

2. Describe the highest displayable precipitation intensity as HEAVY to EXTREME. Delete

PHRASEOLOGY– Delete

AREA OF (Intensity) PRECIPITATION BETWEEN (number) O'CLOCK and (number) O'CLOCK, (number) MILES, MOVING (direction) AT (number) KNOTS, TOPS (altitude). AREA IS (number) MILES IN DIAMETER.

EXAMPLE– Delete

1. *"Area of moderate precipitation between ten o'clock and one o'clock, three zero miles moving east at two zero knots, tops flight level three seven zero.*

2. *"Area of moderate precipitation between ten o'clock and three o'clock, two zero miles. Area is two five miles in diameter.*

f. When operational/equipment limitations exist, controllers must ensure that the highest available level of precipitation intensity within their area of jurisdiction is displayed. Delete

g. When requested by the pilot, provide radar navigational guidance and/or approve deviations around weather or chaff areas. In areas of significant weather, plan ahead and be prepared to suggest, upon pilot request, the use of alternative routes/altitudes. Delete

1. An approval for lateral deviation authorizes the pilot to maneuver left or right within the limits of the lateral deviation area. Delete

REFERENCE– Delete

AIM, Paragraph 7-1-14b, 1. (a) ATC Inflight Weather Avoidance Assistance

2. When approving a weather deviation for an aircraft that had previously been issued a crossing altitude, including Climb Via or Descend Via clearances, issue an altitude to maintain along with the clearance to deviate. If you intend on clearing the aircraft to resume the procedure, advise the pilot. Delete

PHRASEOLOGY– Delete

DEVIATION (restrictions if necessary) APPROVED, MAINTAIN (altitude), (if applicable) EXPECT TO RESUME (SID, STAR, etc.) AT (NAVAID, fix, waypoint)

NOTE– Delete

After a Climb Via or Descend Via clearance has been issued, a vector/deviation off of a SID/STAR cancels the altitude restrictions on the procedure. The aircraft's Flight Management System (FMS) may be unable to process crossing altitude restrictions once the aircraft leaves the SID/STAR lateral path. Without an assigned altitude, the aircraft's FMS may revert to leveling off at the altitude set by the pilot, which may be the SID/STAR's published top or bottom altitude.

REFERENCE– Delete

FAAO JO 7110.65, Para 4-2-5, Route or Altitude Amendments

FAAO JO 7110.65, Para 5-6-2, Methods

3. If a pilot enters your area of jurisdiction already deviating for weather, advise the pilot of any additional pertinent weather which may affect his route. Delete

4. If traffic and airspace (i.e., special use airspace boundaries, LOA constraints) permit, combine the approval for weather deviation with a clearance on course. Delete

PHRASEOLOGY– Delete

DEVIATION (restrictions if necessary) APPROVED, WHEN ABLE, PROCEED DIRECT (name of NAVAID/WAYPOINT/FIX)

or

DEVIATION (restrictions if necessary) APPROVED, WHEN ABLE, FLY HEADING (degrees), VECTOR TO JOIN (airway) AND ADVISE.

EXAMPLE– Delete

1. *"Deviation twenty degrees right approved, when able proceed direct O'Neill VORTAC and advise." En Route: The corresponding fourth line entry is "D20R/ONL" or "D20R/F."*

2. *"Deviation 30 degrees left approved, when able fly heading zero niner zero, vector join J324 and advise."En Route: In this case the free text character limitation prevents use of fourth line coordination and verbal coordination is required.*

5. If traffic or airspace prevent you from clearing the aircraft on course at the time of the approval for a weather deviation, instruct the pilot to advise when clear of weather. Delete

PHRASEOLOGY– Delete

DEVIATION (restrictions if necessary) APPROVED, ADVISE CLEAR OF WEATHER.

EXAMPLE– Delete

"Deviation North of course approved, advise clear of weather."

En Route: In this case the corresponding fourth line entry is "DN," and the receiving controller must provide a clearance to rejoin the route in accordance with paragraph 2-1-15 c.

h. When a deviation cannot be approved as requested because of traffic, take an alternate course of action that provides positive control for traffic resolution and satisfies the pilot's need to avoid weather. Delete

PHRASEOLOGY– Delete

UNABLE DEVIATION, FLY HEADING (heading), ADVISE CLEAR OF WEATHER

or

UNABLE DEVIATION, TURN (number of degrees) DEGREES (left or right)FOR TRAFFIC, ADVISE CLEAR OF WEATHER,

EXAMPLE– Delete

"Unable deviation, turn thirty degrees right vector for traffic, advise clear of weather."

i. When forwarding weather deviation information, the transferring controller must clearly coordinate the nature of the route guidance service being provided. This coordination should include, but is not limited to: assigned headings, suggested headings, pilot-initiated deviations. Coordination can be accomplished by: verbal, automated, or pre-arranged procedures. Emphasis should be made between: controller assigned headings, suggested headings, or pilot initiated deviations. Delete

EXAMPLE– Delete

"(call sign) assigned heading 330 for weather avoidance"

"(call sign) deviating west, pilot requested…"

REFERENCE– Delete

FAA Order JO 7110.65 2-1-14 Coordinate Use Of Airspace
FAA Order JO 7110.65 5-4-5 Transferring Controller Handoff
FAA Order JO 7110.65 5-4-6 Receiving Controller Handoff
FAA Order JO 7110.65 5-4-10 Prearranged Coordination
FAA Order JO 7110.65 5-4-11 En Route Fourth Line Data Block Usage

j. En Route Fourth Line Data Transfer Delete

1. The inclusion of a NAVAID, waypoint, or /F in the fourth line data indicates that the pilot has been authorized to deviate for weather and must rejoin the route at the next NAVAID or waypoint in the route of flight. Delete

REFERENCE– Delete

FAA Order JO 7110.65 5-4-11 En Route Fourth Line Data Block Usage

EXAMPLE– Delete

"Deviation twenty degrees right approved, when able proceed direct O'Neill VORTAC and advise." In this case, the corresponding fourth line entry is "D20R/ONL" or "D20R/F."

2. The absence of a NAVAID, waypoint, or /F in the fourth line indicates that: Delete

(a) The pilot has been authorized to deviate for weather only, and the receiving controller must provide a clearance to rejoin the route in accordance with paragraph 2-1-15c. Delete

EXAMPLE– *"Deviation twenty degrees right approved, advise clear of weather."*	Delete
(b) The free text character limitation prevents the use of fourth line coordination. Verbal coordination is required.	Delete
EXAMPLE– *"Deviation 30 degrees left approved, when able fly heading zero niner zero, vector join J324 and advise."*	Delete
k. The supervisory traffic management coordinator-in-charge/operations supervisor/controller-in-charge shall verify the digitized radar weather information by the best means available (e.g., pilot reports, local tower personnel, etc.) if the weather data displayed by digitized radar is reported as questionable or erroneous. Errors in weather radar presentation shall be reported to the technical operations technician and the air traffic supervisor shall determine if the digitized radar derived weather data is to be displayed and a NOTAM distributed.	Delete
NOTE– *Anomalous propagation (AP) is a natural occurrence affecting radar and does not in itself constitute a weather circuit failure.*	Delete

OLD	NEW
2–6–5. CALM WIND CONDITIONS	Delete
TERMINAL. Describe the wind as calm when the wind velocity is less than three knots.	Delete
REFERENCE– *FAAO JO 7110.65, Para 3–5–3, Tailwind Components.* *FAAO JO 7110.65, Para 3–10–4, Intersecting Runway/Intersecting Flight Path Separation.*	Delete

OLD	NEW
2–6–6. REPORTING WEATHER CONDITIONS	Delete
a. When the prevailing visibility at the usual point of observation, or at the tower level, is less than 4 miles, tower personnel must take prevailing visibility observations and apply the observations as follows:	Delete
1. Use the lower of the two observations (tower or surface) for aircraft operations.	Delete
2. Forward tower visibility observations to the weather observer.	Delete
3. Notify the weather observer when the tower observes the prevailing visibility decrease to less than 4 miles or increase to 4 miles or more.	Delete

b. Forward current weather changes to the appropriate control facility as follows:	Delete
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.	Delete
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.	Delete
c. Towers at airports where military turbo-jet en route descents are routinely conducted must also report the conditions to the ARTCC even if it is not the controlling facility.	Delete
d. If the receiving facility informs you that weather reports are not required for a specific time period, discontinue the reports. The time period specified should not exceed the duration of the receiving controller's tour of duty.	Delete
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 receiving controller's tour of duty.	Delete
REFERENCE– *FAAO JO 7110.65, Para 3–10–2, Forwarding Approach Information by Nonapproach Control Facilities.*	Delete
OLD	**NEW**
2–6–7. DISSEMINATING WEATHER INFORMATION	Delete
TERMINAL. Observed elements of weather information must be disseminated as follows:	Delete
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.	Delete
b. Specific values, such as ceiling and visibility, may be transmitted if obtained by one of the following means:	Delete
1. You are properly certificated and acting as official weather observer for the elements being reported.	Delete

NOTE– *USAF controllers do not serve as official weather observers.*	Delete
2. You have obtained the information from the official observer for the elements being reported.	Delete
3. The weather report was composed or verified by the weather station.	Delete
4. The information is obtained from an official Automated Weather Observation System (AWOS) or an Automated Surface Observation System (ASOS).	Delete
c. Differences between weather elements observed from the tower and those reported by the weather station must be reported to the official observer for the element concerned.	Delete

OLD	NEW
Add	**2–6–2. PIREP SOLICITATION AND DISSEMINATION**
Add	**Emphasis must be placed on the solicitation and dissemination of PIREPs. Timely dissemination of PIREPs alerts pilots to significant weather reports. PIREPS also provide information required by ATC to provide for the safe and efficient use of airspace. This includes reports of strong frontal activity, squall lines, thunderstorms, light to severe icing, wind shear and turbulence (including clear air turbulence) of moderate or greater intensity, braking action, volcanic eruptions and volcanic ash clouds, detection of sulfur gases in the cabin, and other conditions pertinent to flight safety. Controllers must provide the information in sufficient detail to assist pilots in making decisions pertinent to flight safety.**
Add	***REFERENCE–*** ***FAA Order JO 7110.65, Para 3–1–8, Low Level Wind Shear/Microburst Advisories.*** ***FAA Order JO 7110.65, Para 3–3–4, Braking Action. P/CG Term– Braking Action.*** ***FAA Order JO 7210.3, Para 6–3–1, Handling of SIGMETs, CWAs, and PIREPs.*** ***AIM, Para 7–5–9, Flight Operations in Volcanic Ash.*** ***FAA Order JO 7210.3, Para 10–3–1, SIGMET and PIREP Handling*** ***FAA Order JO 7110.10, Chapter 9, Section 2, Pilot Weather Report (UA/UUA)***
Add	**a. Solicit PIREPs when requested, deemed necessary or any of the following conditions exists or is forecast for your area of jurisdiction:**

Add	**1. Ceilings at or below 5,000 feet. These PIREPs must include cloud base/top reports when feasible. When providing approach control services, ensure that at least one descent/climb–out PIREP, including cloud base(s), top(s), and other related phenomena, is obtained each hour.**
Add	**2. Visibility (surface or aloft) at or less than 5 miles.**
Add	**3. Thunderstorms and related phenomena.**
Add	**4. Turbulence of moderate degree or greater.**
Add	**5. Icing of light degree or greater.**
Add	**6. Wind shear.**
Add	**7. Braking action reports.**
Add	**8. Volcanic ash clouds.**
Add	**9. Detection of sulfur gases (SO2 or H2S), associated with volcanic activity, in the cabin.**
Add	***NOTE–*** ***1. The smell of sulfur gases in the cockpit may indicate volcanic activity that has not yet been detected or reported and/or possible entry into an ash–bearing cloud. SO2 is identifiable as the sharp, acrid odor of a freshly struck match. H2S has the odor of rotten eggs.*** ***2. Pilots may forward PIREPs regarding volcanic activity using the format described in the Volcanic Activity Reporting Form (VAR) as depicted in the AIM, Appendix 2.***
Add	**b. Record with the PIREPs:**
Add	**1. Time.**
Add	**2. Aircraft position.**
Add	**3. Type aircraft.**
Add	**4. Altitude.**
Add	**5. When the PIREP involves icing include:**
Add	**(a) Icing type and intensity.**
Add	**(b) Air temperature in which icing is occurring.**
Add	**c. Obtain PIREPs 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.**

Add

PHRASEOLOGY–
REQUEST/SAY FLIGHT CONDITIONS. Or if appropriate,
REQUEST/SAY (specific conditions; i.e., ride, cloud, visibility, etc.) CONDITIONS.
If necessary,
OVER (fix),

or

ALONG PRESENT ROUTE,

or

BETWEEN (fix) AND (fix).

Add

d. Disseminate PIREPs as follows:

Add

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

Add

NOTE–
Use the word gain and/or loss when describing to pilots the effects of wind shear on airspeed.

Add

EXAMPLE–
"Delta Seven Twenty–one, a Boeing Seven Thirty–seven, previously reported wind shear, loss of two five knots at four hundred feet."
"Alaska One, a Boeing Seven Thirty–seven, previously reported wind shear, gain of two–five knots between niner hundred and six hundred feet, followed by a loss of five zero knots between five hundred feet and the surface."

Add

REFERENCE–
AIM, Para 7–1–24, Wind Shear PIREPs.

Add

2. *EN ROUTE*. Relay all operationally significant PIREPs to the facility weather coordinator.

Add

3. *TERMINAL*. Relay all operationally significant PIREPs to:

Add

(a) The appropriate intra–facility positions.

Add

(b) The FLM/CIC for long line dissemination via an FAA approved electronic system (for example, AIS–R, or similar systems).

Add

(c) Outside Alaska: The overlying ARTCC's Flight Data Unit for long–line dissemination; or,

Add

(d) Alaska Only: The FSS serving the area in which the report was obtained.

Add

NOTE–
The FSS in Alaska is responsible for long line dissemination.

OLD	NEW
Add	***REFERENCE–*** ***FAA Order JO 7110.65, Para 2–1–2, Duty Priority.***
Add	**(e) Other concerned terminal or en route ATC facilities, including non–FAA facilities.**
OLD	**NEW**
Add	**2–6–3. REPORTING WEATHER CONDITIONS**
Add	**a. When the prevailing visibility at the usual point of observation, or at the tower level, is less than 4 miles, tower personnel must take prevailing visibility observations and apply the observations as follows:**
Add	**1. Use the lower of the two observations (tower or surface) for aircraft operations.**
Add	**2. Forward tower visibility observations to the weather observer.**
Add	**3. Notify the weather observer when the tower observes the prevailing visibility decrease to less than 4 miles or increase to 4 miles or more.**
Add	**b. Describe the wind as calm when the wind velocity is less than three knots.**
Add	***REFERENCE–*** ***FAA Order JO 7110.65, Para 3–5–3, Tailwind Components.*** ***FAA Order JO 7110.65, Para 3–10–4, Intersecting Runway/Intersecting Flight Path Separation.***
Add	**c. Forward current weather changes to the appropriate control facility as follows:**
Add	**1. When the official weather changes to a condition:**
Add	**(a) Less than a 1,000–foot ceiling or below the highest circling minimum, whichever is greater.**
Add	**(b) Where the visibility is less than 3 miles.**
Add	**(c) Where conditions improve to values greater than those listed in (a) and (b).**
Add	**2. When 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.**
Add	**d. Towers at airports where military turbo–jet en route descents are routinely conducted must also report the conditions to the ARTCC even if it is not the controlling facility.**
Add	**e. If the receiving facility informs you that weather reports are not required for a specific time period, discontinue the reports.**

Add	**f. *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.**
Add	***REFERENCE–*** ***FAA Order JO 7110.65, Para 3–10–2, Forwarding Approach Information by Nonapproach Control Facilities.***

OLD	NEW
Add	**2–6–4. ISSUING WEATHER AND CHAFF AREAS**
Add	**a. Controllers must issue pertinent information on observed/reported weather and chaff areas to potentially affected aircraft. Define the area of coverage in terms of:**
Add	**1. Azimuth (by referring to the 12–hour clock) and distance from the aircraft and/or**
Add	**2. The general width of the area and the area of coverage in terms of fixes or distance and direction from fixes.**
Add	***NOTE–*** ***Weather significant to the safety of aircraft includes conditions such as funnel cloud activity, lines of thunderstorms, embedded thunderstorms, large hail, wind shear, microbursts, moderate to extreme turbulence (including CAT), and light to severe icing.*** ***REFERENCE–*** ***AIM, Paragraph 7–1–14, ATC Inflight Weather Avoidance Assistance.***
Add	***PHRASEOLOGY–*** ***WEATHER/CHAFF AREA BETWEEN (number)O'CLOCK AND (number) O'CLOCK (number) MILES, and/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).***
Add	**b. Inform any tower for which you provide approach control services of observed precipitation on radar which is likely to affect their operations.**
Add	**c. Use the term "precipitation" when describing radar–derived weather. Issue the precipitation intensity from the lowest descriptor (LIGHT) to the highest descriptor (EXTREME) when that information is available. Do not use the word "turbulence" in describing radar–derived weather.**
Add	**1. LIGHT.**
Add	**2. MODERATE.**
Add	**3. HEAVY.**
Add	**4. EXTREME.**

Add

NOTE–
Weather and Radar Processor (WARP) does not display light intensity.

Add

PHRASEOLOGY–
AREA OF (Intensity) PRECIPITATION BETWEEN (number) O'CLOCK AND (number) O'CLOCK, (number) MILES, MOVING (direction) AT (number) KNOTS, TOPS (altitude). AREA IS (number) MILES IN DIAMETER.

Add

EXAMPLE–
1. "Area of heavy precipitation between ten o'clock and two o'clock, one five miles. Area is two five miles in diameter."
2. "Area of heavy to extreme precipitation between ten o'clock and two o'clock, one five miles. Area is two five miles in diameter."

Add

REFERENCE–
P/CG Term– Precipitation Radar Weather Descriptions.

Add

d. When precipitation intensity information is not available.

Add

PHRASEOLOGY–
AREA OF PRECIPITATION BETWEEN (number) O'CLOCK AND (number) O'CLOCK, (number) MILES. MOVING (direction) AT (number) KNOTS, TOPS (altitude). AREA IS (number) MILES IN DIAMETER, INTENSITY UNKNOWN.

Add

EXAMPLE–
"Area of precipitation between one o'clock and three o'clock, three five miles moving south at one five knots, tops flight level three three zero. Area is three zero miles in diameter, intensity unknown."

Add

NOTE–
Phraseology using precipitation intensity descriptions is only applicable when the radar precipitation intensity information is determined by NWS radar equipment or NAS ground based digitized radar equipment with weather capabilities. This precipitation may not reach the surface.

Add

e. *EN ROUTE*. When issuing Air Route Surveillance Radar (ARSR) precipitation intensity use the following:

Add

1. Describe the lowest displayable precipitation intensity as MODERATE.

Add

2. Describe the highest displayable precipitation intensity as HEAVY to EXTREME.

Add

PHRASEOLOGY–
AREA OF (Intensity) PRECIPITATION BETWEEN (number) O'CLOCK and (number) O'CLOCK, (number) MILES, MOVING (direction) AT (number) KNOTS, TOPS (altitude). If applicable, AREA IS (number) MILES IN DIAMETER.

Add	***EXAMPLE–*** ***1. "Area of moderate precipitation between ten o'clock and one o'clock, three zero miles moving east at two zero knots, tops flight level three seven zero.*** ***2. "Area of moderate precipitation between ten o'clock and three o'clock, two zero miles. Area is two five miles in diameter."***
Add	**f. Controllers must ensure that the highest available level of precipitation intensity within their area of jurisdiction is displayed unless operational/equipment limitations exist.**
Add	**g. When requested by the pilot, provide radar navigational guidance and/or approve deviations around weather or chaff areas. In areas of significant weather, plan ahead and be prepared to suggest, upon pilot request, the use of alternative routes/altitudes.**
Add	**1. An approval for lateral deviation authorizes the pilot to maneuver left or right within the limits of the lateral deviation area.**
Add	***REFERENCE–*** ***AIM, Paragraph 7–1–14b, 1. (a) ATC Inflight Weather Avoidance Assistance***
Add	**2. If a pilot enters your area of jurisdiction already deviating for weather, advise the pilot of any additional weather which may affect the route.**
Add	**3. If traffic and airspace (i.e., special use airspace boundaries, LOA constraints) permit, combine the approval for weather deviation with a clearance on course.**
Add	***PHRASEOLOGY–*** ***DEVIATION (restrictions if necessary) APPROVED, WHEN ABLE, PROCEED DIRECT (name of NAVAID/WAYPOINT/FIX)*** ***or*** ***DEVIATION (restrictions if necessary) APPROVED, WHEN ABLE, FLY HEADING (degrees), VECTOR TO JOIN (airway) AND ADVISE.***
Add	***EXAMPLE–*** ***1. "Deviation 20 degrees right approved, when able proceed direct O'Neill VORTAC and advise." En Route: The corresponding fourth line entry is "D20R/ONL" or "D20R/F."*** ***2. "Deviation 30 degrees left approved, when able fly heading zero niner zero, vector to join J324 and advise." En Route: In this case the free text character limitation prevents use of fourth line coordination and verbal coordination is required.***

Add

4. If traffic or airspace prevents you from clearing the aircraft on course at the time of the approval for a weather deviation, instruct the pilot to advise when clear of weather.

Add

PHRASEOLOGY–
DEVIATION (restrictions if necessary) APPROVED, ADVISE CLEAR OF WEATHER.

Add

EXAMPLE–
"Deviation North of course approved, advise clear of weather."
En Route: In this case the corresponding fourth line entry is "DN," and the receiving controller must provide a clearance to rejoin the route in accordance with paragraph 2–1–15 c.

Add

h. When a deviation cannot be approved as requested because of traffic, take an alternate course of action that provides positive control for traffic resolution and satisfies the pilot's need to avoid weather.

Add

PHRASEOLOGY–
UNABLE REQUESTED DEVIATION, FLY HEADING (heading), ADVISE CLEAR OF WEATHER

or

UNABLE REQUESTED DEVIATION, TURN (number of degrees) DEGREES (left or right) VECTOR FOR TRAFFIC, ADVISE CLEAR OF WEATHER,

Add

EXAMPLE–
"Unable requested deviation, turn thirty degrees right vector for traffic, advise clear of weather."

Add

i. When forwarding weather deviation information, the transferring controller must clearly coordinate the nature of the route guidance service being provided. This coordination should include, but is not limited to: assigned headings, suggested headings, pilot–initiated deviations. Coordination can be accomplished by: verbal, automated, or predetermined procedures. Emphasis should be made between: controller assigned headings, suggested headings, or pilot initiated deviations.

Add

EXAMPLE–
"(call sign) assigned heading three three zero for weather avoidance"
"(call sign) deviating west, pilot requested…"

Add

REFERENCE–
FAA Order JO 7110.65 2–1–14 Coordinate Use Of Airspace
FAA Order JO 7110.65 5–4–5 Transferring Controller Handoff
FAA Order JO 7110.65 5–4–6 Receiving Controller Handoff
FAA Order JO 7110.65 5–4–10 Prearranged Coordination
FAA Order JO 7110.65 5–4–11 En Route Fourth Line Data Block Usage

Add

j. En Route Fourth Line Data Transfer

Add	**1. The inclusion of a NAVAID, waypoint, or /F in the fourth line data indicates that the pilot has been authorized to deviate for weather and must rejoin the route at the next NAVAID or waypoint in the route of flight.**
Add	***REFERENCE–*** ***FAA Order JO 7110.65, 5–4–11, En Route Fourth Line Data Block Usage***
Add	***EXAMPLE–*** ***"Deviation twenty degrees right approved, when able proceed direct O'Neill VORTAC and advise." In this case, the corresponding fourth line entry is "D20R/ONL" or "D20R/F."***
Add	**2. The absence of a NAVAID, waypoint, or /F in the fourth line indicates that:**
Add	**(a) The pilot has been authorized to deviate for weather only, and the receiving controller must provide a clearance to rejoin the route in accordance with paragraph 2–1–15c.**
Add	***EXAMPLE–*** ***"Deviation twenty degrees right approved, advise clear of weather."***
Add	**(b) The free text character limitation prevents the use of fourth line coordination. Verbal coordination is required.**
Add	***EXAMPLE–*** ***"Deviation 30 degrees left approved, when able fly heading zero niner zero, vector to join J324 and advise."***
Add	**k. The supervisory traffic management coordinator–in–charge/operations supervisor/controller–in–charge must verify the digitized radar weather information by the best means available (e.g., pilot reports, local tower personnel, etc.) if the weather data displayed by digitized radar is reported as questionable or erroneous. Errors in weather radar presentation must be reported to the technical operations technician and the air traffic supervisor must determine if the digitized radar derived weather data is to be displayed and a NOTAM distributed.**
Add	***NOTE–*** ***Anomalous propagation (AP) is a natural occurrence affecting radar and does not in itself constitute a weather circuit failure.***
OLD	**NEW**
Add	**2–6–5. DISSEMINATING OFFICIAL WEATHER INFORMATION**
Add	***TERMINAL.*** **Observed elements of weather information must be disseminated as follows:**

Add	**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.**
Add	**b. Specific values, such as ceiling and visibility, may be transmitted if obtained by one of the following means:**
Add	**1. You are properly certificated and acting as official weather observer for the elements being reported.**
Add	***NOTE–*** ***USAF controllers do not serve as official weather observers.***
Add	**2. You have obtained the information from the official observer for the elements being reported.**
Add	**3. The weather report was composed or verified by the weather station.**
Add	**4. The information is obtained from a FAA approved automation surface weather system.**
Add	**c. Differences between weather elements observed from the tower and those reported by the weather station must be reported to the official observer for the element concerned.**

OLD	NEW
Add	**2–6–6. HAZARDOUS INFLIGHT WEATHER ADVISORY SERVICE (HIWAS)**
Add	**Controllers must 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 includes Airmen's Meteorological Information (AIRMET), Significant Meteorological Information (SIGMET), Convective SIGMET (WST), Urgent Pilot Weather Reports (UUA), and Center Weather Advisories (CWA). Facilities must 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(s) will not be affected.**

Add

a. Controllers within commissioned HIWAS areas must broadcast a HIWAS alert on all frequencies, except emergency frequency, 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.

Add

NOTE–
The inclusion of the type and number of weather advisory responsible for the HIWAS advisory is optional.

Add

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 (specific weather phenomenon) WITHIN (geographical area) AVAILABLE ON HIWAS, OR FLIGHT SERVICE FREQUENCIES.

Add

b. Controllers outside of commissioned HIWAS areas must:

Add

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

Add

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.

Add

PHRASEOLOGY–
ATTENTION ALL AIRCRAFT. HAZARDOUS WEATHER INFORMATION FOR (specific weather phenomenon) WITHIN (geographical area) AVAILABLE FROM FLIGHT SERVICE.

Add

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.

Add

REFERENCE–
AIM, Chapter 7, Section 1, Meteorology, Para 7–1–5 through Para 7–1–9.

Add

d. *EN ROUTE*. ERAM. Controllers must electronically acknowledge hazardous weather information messages after appropriate action has been taken.

Add

NOTE–
EN ROUTE. While hazardous weather information is commonly distributed via the SIGMET View, it is possible to receive the information via the GI View.

1. PARAGRAPH NUMBER AND TITLE: 2−7−2. ALTIMETER SETTING ISSUANCE BELOW LOWEST USABLE FL

2. BACKGROUND: When issuing an altitude assignment that will descend an aircraft out of Class A airspace, current guidance requires controllers to issue the altimeter setting along with the descent clearance. Some Optimal Profile Descents (OPD) begin in sectors that have a base altitude in Class A airspace. Prior to the incorporation of OPDs, these sectors did not issue altimeters on a recurring basis.

3. CHANGE:

OLD	NEW
2−7−2. ALTIMETER SETTING ISSUANCE BELOW LOWEST USABLE FL	**2−7−2. ALTIMETER SETTING ISSUANCE BELOW LOWEST USABLE FL**
Title through **d** ***NOTE***	No Change
e. When issuing clearance to descend below the lowest usable flight level, advise the pilot of the altimeter setting of the weather reporting station nearest the point the aircraft will descend below that flight level.	**e.** When issuing clearance to descend below the lowest usable flight level, advise the pilot of the altimeter setting of the weather reporting station nearest the point the aircraft will descend below that flight level. **Local directives may delegate this responsibility to an alternate sector when Optimized Profile Descents (OPD) commence in sectors consisting entirely of Class A airspace.**

1. PARAGRAPH NUMBER AND TITLE: 3−7−6. PRECISION OBSTACLE FREE ZONE (POFZ) AND FINAL APPROACH OBSTACLE CLEARANCE SURFACES (OCS)

2. BACKGROUND: It has come to our attention from Flight Standards that a reference to FAA Order 8260.3 (TERPS) within a Note in paragraph 3−7−6 is no longer correct. This reference concerns dimensions of the POFZ and are no longer contained in the TERPS orders, and have been moved to an advisory circular. Additionally, the dimensions of the POFZ are contained in Figure 3−7−1.

3. CHANGE:

OLD	NEW
3−7−6. PRECISION OBSTACLE FREE ZONE (POFZ) AND FINAL APPROACH OBSTACLE CLEARANCE SURFACES (OCS)	**3−7−6. PRECISION OBSTACLE FREE ZONE (POFZ) AND FINAL APPROACH OBSTACLE CLEARANCE SURFACES (OCS)**
Title through **b**	No Change
NOTE− ***1.*** *The POFZ and the close−in portion of the final approach obstacle clearance surfaces protect aircraft executing a missed approach. Their dimensions are described in FAAO 8260.3b, Volume III, Chapter 3, para 3.4, United States Standards for Terminal Instrument Procedures.* ***2.*** *Vehicles that are less than 10 feet in height, necessary for the maintenance of the airport and/or navigation facilities operating outside the movement are,are exempt.*	***NOTE−*** ***1.*** *The POFZ and the close−in portion of the final approach obstacle clearance surfaces protect aircraft executing a missed approach.* ***2.*** *Vehicles that are less than 10 feet in height, necessary for the maintenance of the airport and/or navigation facilities operating outside the movement are,are exempt.*

c through ***EXAMPLE***	No Change
REFERENCE– *FAAO JO 7110.65, Para 3–1–6, Traffic Information.*	***REFERENCE–*** *FAA Order JO 7110.65, Para 3–1–6, Traffic Information.* ***AC150/5300–13, Airport Design***

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1. PARAGRAPH NUMBER AND TITLE: 3–9–4 LINE UP AND WAIT (LUAW)

2. BACKGROUND: Because of changes to FAA Order JO 7110.65 Para 3–9–4d. Line Up And Wait (LUAW), some adjustments to the USAF/USN specific procedures are being made to align with the existing NAS wide requirements. The current language in para 3–9–4e combines arrival and departure information into the same paragraph. By deleting 3–9–4e USAF/USN will follow the new language in paragraph 3–9–4d. This expands the existing USAF/USN LUAW requirement outside of 6–mile final approach to include the closest traffic within 6 flying miles to the same runway. The USAF/USN requirement to advise the landing aircraft, on a different frequency, of traffic holding in position is consistent with paragraph 3–10–5c Landing Clearance. In that paragraph there is no distinction made for radio frequency, ATC must advise the appropriate landing aircraft of traffic holding in position on the same runway.

3. CHANGE:

OLD	**NEW**
3–9–4 LINE UP AND WAIT (LUAW)	**3–9–4 LINE UP AND WAIT (LUAW)**
a through **d**	No Change
e. *USAF/USN*. When an aircraft is authorized to line up and wait, inform it of the closest traffic within 6 miles on final approach to the same runway. If the approaching aircraft is on a different frequency, inform it of the aircraft taxiing into position.	Delete
f through **q**	Re–letter **e** through **p**

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1. PARAGRAPH NUMBER AND TITLE:
3–9–6. SAME RUNWAY SEPARATION
3–9–7. WAKE TURBULENCE SEPARATION FOR INTERSECTION DEPARTURES
3–9–8. INTERSECTING RUNWAY/INTERSECTING FLIGHT PATH OPERATIONS
3–9–9. NONINTERSECTING CONVERGING RUNWAY OPERATIONS
3–9–10. TAKEOFF CLEARANCE
5–5–4. MINIMA

2. BACKGROUND: FAA Order JO 7110.65W contained changes to the wake turbulence separation minima behind B757 aircraft. These changes eliminated separation requirements for heavy and large aircraft behind a B757 and reduced the separation for small aircraft to four miles and less than 500 feet below when operating directly behind a B757. Also, the runway separation requirement for a small behind a B757 was changed from the same or parallel runway separated by less than 2,500 feet to the same runway. AJV–8 recently became aware that the analysis of the wake vortex dispersion which allowed for the reduction in separation for small aircraft departing a parallel runway behind a B757 aircraft was conducted to runways separated by 700 feet or more. This requires that parallel runways separated by less than 700 feet be treated as the same runway when a small aircraft departs behind a B757. While developing this change, it created an opportunity to relocate the requirement to provide wake turbulence separation for aircraft departing a parallel runway separated by 2,500 feet or more from paragraph 3–9–8 to paragraph 3–9–6, which also restored the option to apply radar separation for this operation.

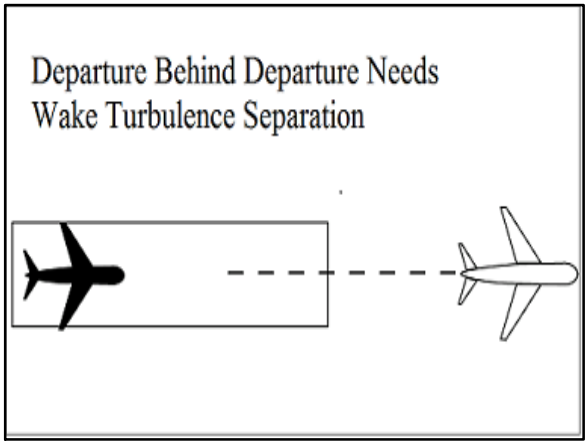
3. CHANGE:

OLD	NEW
3–9–6. SAME RUNWAY SEPARATION	**3–9–6. SAME RUNWAY SEPARATION**
Title through **d** ***REFERENCE***	No Change
e. The minima in Para 5–5–4, Minima, subparagraph g, may be applied in lieu of the time interval requirements in subparagraphs f and g. When Para 5–5–4, Minima, is applied, ensure that the appropriate radar separation exists at or prior to the time an aircraft becomes airborne.	**e.** The minima in Para 5–5–4, Minima, subparagraph g, may be applied in lieu of the time interval requirements in subparagraphs f, g, **and h**. When Para 5–5–4, Minima, is applied, ensure that the appropriate radar separation exists at or prior to the time an aircraft becomes airborne.
Add	***REFERENCE–*** ***FAA Order JO 7210.3, Para 2–1–15, Authorization for Separation Services by Towers.*** ***FAA Order JO 7210.3, Para 10–5–3, Functional Use of Certified Tower radar Displays.***
NOTE– *The pilot may request additional separation, but should make this request before taxiing on the runway.*	***NOTE–*** **1.** *The pilot may request additional separation, but should make this request before taxiing on the runway.*
Add	**2.** ***Takeoff clearance to the following aircraft should not be issued until the time interval has passed after the preceding aircraft begins takeoff roll.***
f. Separate IFR/VFR aircraft taking off from the same runway or a parallel runway separated by less than 2,500 feet:	**f.** Separate aircraft taking off from the same runway or a parallel runway separated by less than 2,500 feet **(See FIG 3–9–4.):**
NOTE– *Takeoff clearance to the following aircraft should not be issued until the time interval has passed after the preceding aircraft begins takeoff roll.*	Delete
f1 and **f2**	No Change

Add

FIG 3–9–4

Same Runway Separation



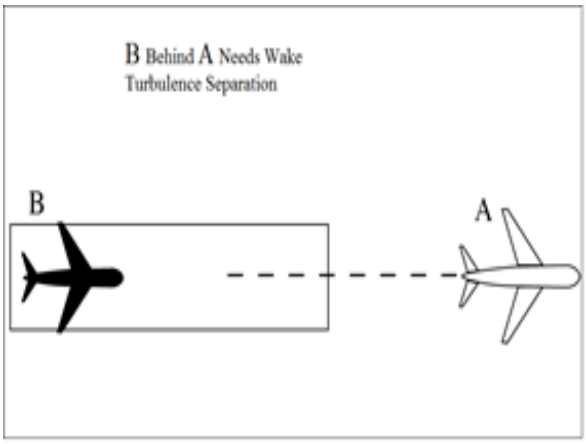
g. Separate a small aircraft behind a B757 by *2 minutes* when departing:	No Change

1. The same runway.	**1.** The same runway **or a parallel runway separated by less than 700 feet. (See FIG 3–9–5 and FIG 3–9–6.)**
2. A parallel runway separated by less than 2,500 feet if flight paths will cross.	Delete

Delete

FIG 3–9–4

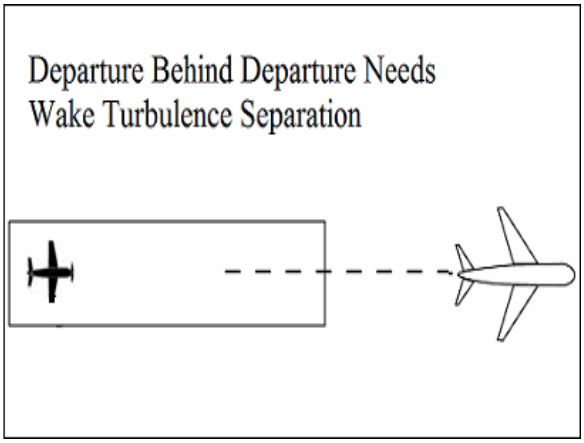
Same Runway Separation



Add

FIG 3–9–5

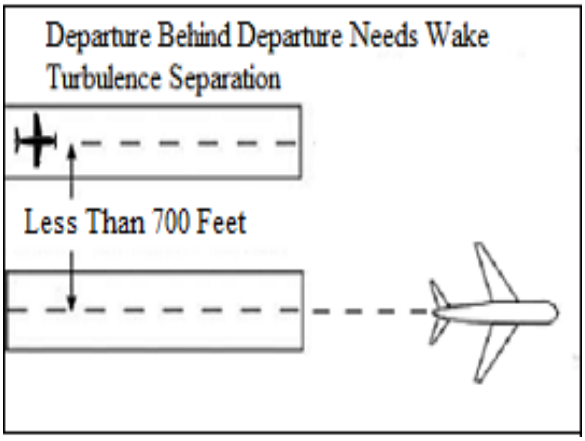
Same Runway Separation



Add

FIG 3–9–6

Parallel Runway Separated by Less than 700 Feet



Add

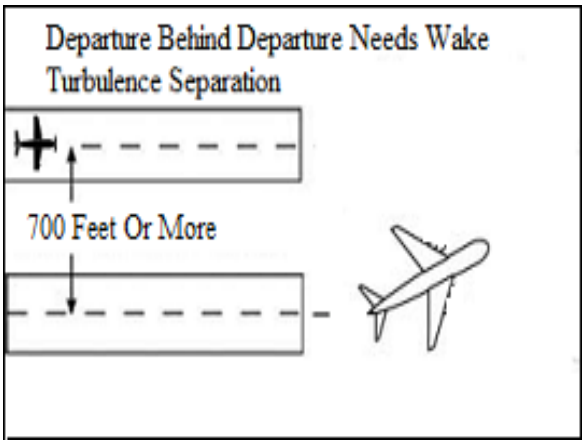
2. A parallel runway separated by 700 feet or more if projected flight paths will cross. (See Fig 3–9–7.)

Add

FIG 3–9–7

Parallel Runway Separated by 700 Feet or More

Projected Flight Paths Cross



Add

h. Separate aircraft departing from a parallel runway separated by 2,500 feet or more if projected flight paths will cross (See FIG 3–9–8):

Add

1. Heavy, large, or small behind super – *3 minutes.*

Add

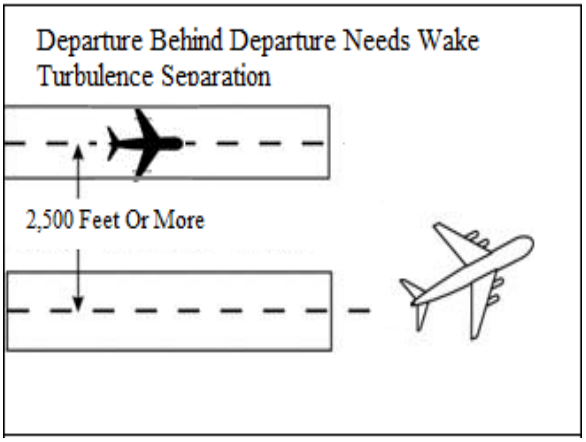
2. Heavy, large, or small behind heavy – *2 minutes.*

Add

Add

FIG 3–9–8

Parallel Runways Separated by 2,500 feet or More



i and **j**

j. Separate a small aircraft behind a B757 that has departed or made a low/missed approach when utilizing opposite direction takeoffs or landings on the same runway by – *3 minutes.*

Add

Add

k. Do not approve pilot requests to deviate from the required intervals contained in subparagraphs f through j.

PHRASEOLOGY–
HOLD FOR WAKE TURBULENCE

REFERENCE–
FAA Order JO 7110.65, Para. 3–9–7, Wake Turbulence Separation for Intersection Departures.

l

NOTE–
A request for takeoff does not initiate a waiver request.

m

Re–letter **k** and **l**

k. Separate a small aircraft behind a B757 that has departed or made a low/missed approach **by *3 minutes*** when utilizing opposite direction takeoffs or landings **from:**

1. The same runway or a parallel runway separated by less than 700 feet.

2. A parallel runway separated by 700 feet or more if projected flight paths will cross.

l. Do not approve pilot requests to deviate from the required intervals contained in subparagraphs f through **k**.

No Change

No Change

Re–letter **m**

No Change

Re–letter **n**

OLD

3–9–7. WAKE TURBULENCE SEPARATION FOR INTERSECTION DEPARTURES

Title through **a2**

3. Separate a small aircraft taking off from an intersection (same or opposite direction takeoff) behind a preceding departing B757 aircraft by ensuring that the small aircraft does not start takeoff roll until at least *3 minutes* after the B757 has taken off from:

NEW

3–9–7. WAKE TURBULENCE SEPARATION FOR INTERSECTION DEPARTURES

No Change

No Change

(a) The same runway.

(b) Parallel runways separated by less than 2,500 feet, or parallel runways separated by less than 2,500 feet with the runway thresholds offset by 500 feet or more, if flight paths will cross.

OLD

3–9–8. INTERSECTING RUNWAY/ INTERSECTING FLIGHT PATH OPERATIONS

Title through **b** ***REFERENCE***

1. The preceding aircraft has departed and passed the intersection or is turning to avert any conflict. (See FIG 3–9–5).

FIG 3–9–5

2. A preceding arriving aircraft is clear of the landing runway, completed the landing roll and will hold short of the intersection, or has passed the intersection. (See FIG 3–9–6)

REFERENCE–
P/CG Term – Clear of the Runway.

FIG 3–9–6

WAKE TURBULENCE APPLICATION

3. Separate IFR/VFR aircraft taking off behind a departing or landing aircraft on an intersecting runway if flight paths will cross (See FIG 3–9–7 and FIG 3–9–8), or an aircraft departing a parallel runway separated by 2,500 feet or more if projected flight paths will cross (see FIG 3–9–9):

NOTE–
Takeoff clearance to the following aircraft should not be issued until the appropriate time interval has passed after the preceding aircraft began takeoff roll.

b3(a) through **b3(c)**

FIG 3–9–7

FIG 3–9–8

(a) The same runway **or a parallel runway separated by lees than 700 feet**.

(b) Parallel runways separated by **700 feet or more**, or parallel runways separated by **700 feet or more** with the runway thresholds offset by 500 feet or more, if **projected** flight paths will cross.

NEW

3–9–8. INTERSECTING RUNWAY/ INTERSECTING FLIGHT PATH OPERATIONS

No Change

1. The preceding aircraft has departed and passed the intersection or is turning to avert any conflict. (See FIG 3–9–**9**.)

Renumber *FIG 3–9–**9***

2. A preceding arriving aircraft is clear of the landing runway, completed the landing roll and will hold short of the intersection, or has passed the intersection. (See FIG 3–9–**10**)

No Change

Re–number *FIG 3–9–**10***

No Change

3. Separate IFR/VFR aircraft taking off behind a departing or landing aircraft on an intersecting runway if flight paths will cross (See FIG 3–9–**11** and FIG 3–9–**12**):

No Change

No Change

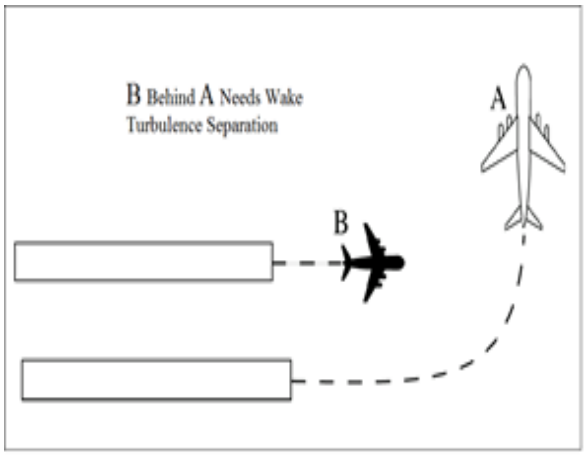
Re–number ***FIG 3–9–11***

Re–number ***FIG 3–9–12***

Delete

FIG 3–9–9

Parallel Runway



OLD

3–9–9. NONINTERSECTING CONVERGING RUNWAY OPERATIONS

Title through **a** ***REFERENCE***

1. The preceding aircraft has departed and crossed the departure runway, or is turning to avert any conflict. (See FIG 3–9–10)

FIG 3–9–10

2. A preceding arriving aircraft has completed the landing roll and will hold short of the projected intersection, passed the projected intersection, or has crossed over the departure runway. (See FIG 3–9–11 and FIG 3–9–12)

FIG 3–9–11

FIG 3–9–12

b. If the extended centerline of a runway crosses a converging runway or the extended centerline of a converging runway at a distance on 1NM or less from either departure end, apply the provisions of Paragraph 3–9–8, Intersecting Runway Separation, unless: The facility is using aids specified in a facility directive, (may include but are not limited to, Arrival/Departure Window (ADW), ASDE–X Virtual Runway Intersection Point (VRIP), cut–off points or automation). See FIG 3–9–15 and FIG 3–9–16.)

REFERENCE–
FAAO JO 7210.3, Para 10–3–14, Go–Around/Missed Approach

WAKE TURBULENCE APPLICATION

FIG 3–9–13

FIG 3–9–14

NEW

3–9–9. NONINTERSECTING CONVERGING RUNWAY OPERATIONS

No Change

1. The preceding aircraft has departed and crossed the departure runway, or is turning to avert any conflict. (See FIG 3–9–**13**)

Re–number *FIG 3–9–**13***

2. A preceding arriving aircraft has completed the landing roll and will hold short of the projected intersection, passed the projected intersection, or has crossed over the departure runway. (See FIG 3–9–1**4** and FIG 3–9–1**5**)

Re–number *FIG 3–9–**14***

Re–number *FIG 3–9–**15***

b. If the extended centerline of a runway crosses a converging runway or the extended centerline of a converging runway at a distance on 1NM or less from either departure end, apply the provisions of Paragraph 3–9–8, Intersecting Runway/ **Intersecting Flight Path Operations**, unless **t**he facility is using aids specified in a facility directive, (may include but are not limited to, Arrival/Departure Window (ADW), ASDE–X Virtual Runway Intersection Point (VRIP), cut–off points or automation). (See FIG 3–9–1**6** and FIG 3–9–1**7**.)

REFERENCE–
*FAA **Order** JO 7210.3, Para 10–3–14, Go–Around/Missed Approach*

Delete

Re–number *FIG 3–9–**16***

Re–number *FIG 3–9–**17***

Add	**WAKE TURBULENCE APPLICATION**
c. Separate IFR/VFR aircraft taking off behind a departing aircraft on a crossing runway if projected flight paths will cross (See FIG 3−9−15.):	**c.** Separate aircraft taking off behind a departing aircraft on a crossing runway if projected flight paths will cross (See FIG 3−9−**18**.):
c1 through **c3**	No Change
FIG 3−9−15	Re−number *FIG 3−9−**18***
NOTE− *Takeoff clearance to the following aircraft should not be issued until the time interval has passed from when the preceding aircraft began takeoff roll.*	No Change
d. Separate IFR/VFR aircraft departing behind a landing aircraft on a crossing runway if the departure will fly through the airborne path of the arrival (See FIG 3−9−16.):	**d.** Separate aircraft departing behind a landing aircraft on a crossing runway if the departure will fly through the airborne path of the arrival (See FIG 3−9−**19**.):
d1 through **d3**	No Change
FIG 3−9−16	Re−number FIG 3−9−**19**
OLD	**NEW**
3−9−10. TAKEOFF CLEARANCE	**3−9−10. TAKEOFF CLEARANCE**
Title through **d**	No Change
FIG 3−9−17	Re−number FIG 3−9−**20**
e through ***EXAMPLE***	No Change
FIG 3−9−18	Re−number FIG 3−9−**21**
OLD	**NEW**
5−5−4. MINIMA	**5−5−4. MINIMA**
Title through **g3**	No Change
NOTE− *The application of paragraph 5−8−3, Successive or Simultaneous Departures, satisfies this requirement.*	***NOTE−*** ***1.*** *The application of paragraph 5−8−3, Successive or Simultaneous Departures, satisfies this requirement.*
Add	***2. Consider runways separated by less than 700 feet as a single runway because of the possible effects of wake turbulence.***

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1. PARAGRAPH NUMBER AND TITLE:
4−3−2. DEPARTURE CLEARANCES
4−3−3. ABBREVIATED DEPARTURE CLEARANCES
4−5−7. ALTITUDE INFORMATION
5−6−2. METHODS

2. BACKGROUND: Climb Via procedures were introduced in April 2014. Since introduction of these procedures, confusion and frustration within industry has been communicated. The premise of one size fits all in the use of climb via clearances when departure procedures do not contain published crossing restrictions has not been successful. As a result, action is being taken to restore direction for use of "Maintain" when formulating departure clearances containing SID procedures that do not contain published crossing restrictions, radar vector SIDs and those SIDs with a Radar Vector Segment.

3. CHANGE:

OLD	NEW
4–3–2. DEPARTURE CLEARANCES	**4–3–2. DEPARTURE CLEARANCES**
Title through **d**	No Change
e. Altitude. Use one of the following in the order of preference listed. Altitude may be omitted if the top altitude is published in the SID route description.	**e.** Altitude. Use one of the following in the order of preference listed.
e1 through **e3(b)**	No Change
Add	**4. When a SID does not contain published crossing restrictions and/or is a SID with a Radar Vector segment or a Radar Vector SID; or a SID is constructed with a Radar Vector segment and contains published crossing restrictions after the vector segment, instruct aircraft to "MAINTAIN (altitude)."**
NOTE, PHRASEOLOGY, EXAMPLE AND REFERENCE	No Change
4. Use one of the following when the SID contains published crossing restrictions:	**5.** Use one of the following when the SID contains published crossing restrictions:
(a) When the top altitude is included in the SID route description, instruct aircraft to "climb via SID."	**(a) I**nstruct aircraft to "**C**limb via SID."
(b) When a top altitude is not published on a SID that contains published crossing restrictions, or when it is necessary to issue an interim altitude instruct the aircraft to "Climb via SID except (altitude assignment/ change)".	**(b) Instruct the aircraft to "Climb via SID except maintain (altitude)" when a top altitude is not published or when it is necessary to issue an interim altitude.**
EXAMPLE– *"Cleared to Johnston Airport, Scott One departure, Jonez transition, Q–One Forty–five. Climb via SID."* *"Cleared to Johnston Airport, Scott One departure, Jonez transition, Q–One Forty–five, Climb via SID except maintain flight level one eight zero."* *"Cleared to Johnston Airport, Scott One departure, Jonez transition, Q–One Forty–five, Climb Via SID except maintain flight level one eight zero, expect flight level three five zero one zero minutes after departure."*	No Change
NOTE– *Considering the principle that the last ATC clearance issued has precedence over the previous, the phraseology 'maintain (altitude)' alone cancels previously issued altitude restrictions, including SID/STAR altitude restrictions, unless they are restated or modified.*	***NOTE–*** ***1. Use of "Climb via SID Except Maintain" to emphasize a published procedural constraint is an inappropriate use of this phraseology.*** ***2.*** *Considering the principle that the last ATC clearance issued has precedence over the previous, the phraseology 'maintain (altitude)' alone cancels previously issued altitude restrictions, including SID/STAR altitude restrictions, unless they are restated or modified.*

OLD	NEW
4–3–3. ABBREVIATED DEPARTURE CLEARANCES	**4–3–3. ABBREVIATED DEPARTURE CLEARANCES**
Title through **a3** ***NOTE***	No Change
4. The assigned altitude, according to the provisions in para 4–3–2, Departure Clearances, subparagraph e, is stated in the clearance. Where a top altitude is published in the SID route description it may be omitted.	**4.** The assigned altitude, according to the provisions in para 4–3–2, Departure Clearances, subparagraph e, is stated in the clearance.
b through **c**	No Change
d. When no changes are required in the filed route, state the phrase: "Cleared to (destination) airport, ([SID name and number] and SID transition, as appropriate); then, as filed." If a SID is not assigned, follow with "As filed."	**d.** When no changes are required in the filed route, state the phrase: "Cleared to (destination) airport, ([SID name and number] and SID transition, as appropriate); then, as filed." If a SID is not assigned, follow with "As filed." **If required, add any additional instructions or information, including requested altitude if different than assigned.**
1. Specify the assigned altitude. The altitude may be omitted and pilots instructed to "climb via SID" when a top altitude is published in the SID route description.	Delete
2. When the SID has published altitude restrictions but the top altitude is not published or must be changed, state the phrase "climb via SID except maintain" to assign the top altitude. If required, add any additional instructions or information, including final requested altitude if different than assigned except if Pre–Departure Clearance (PDC) is utilized.	Delete
Add	**e. Use one of the following when the SID contains published crossing restrictions:**
Add	**1. Instruct aircraft to "Climb via SID."**
Add	**2. Instruct aircraft to "Climb via SID except maintain (altitude)" when a top altitude is not published or when it is necessary to issue an interim altitude.**
Add	***NOTE–*** ***Use of "Climb via SID Except Maintain" to emphasize a published procedural constraint is an inappropriate use of this phraseology.***
Add	**f. Instruct aircraft to MAINTAIN (altitude) when:**
Add	**1. No SID is assigned.**
Add	**2. A SID does not contain published crossing restrictions and/or is a SID with a Radar Vector segment or is a Radar Vector SID.**

Add

PHRASEOLOGY–
CLEARED TO (destination) AIRPORT;

and as appropriate,

(SID name and number) DEPARTURE,
THEN AS FILED.

MAINTAIN (altitude); (additional instructions or information).

Or as appropriate,

CLIMB VIA SID.

CLIMB VIA SID except maintain (altitude); (additional instructions or information).

If a SID is not assigned,

CLEARED TO (destination) AIRPORT AS FILED.
MAINTAIN (altitude);

and if required,

(additional instructions or information).

EXAMPLE, NOTE AND REFERENCE

e. When a filed route will require revisions, the controller responsible for initiating the clearance to the aircraft must either:

1. Issue a FRC/FRC until a fix; or

2. If it reduces verbiage, state the phrase: "Cleared to (destination) airport, or cleared NAVAID, intersection, or waypoint (type if known), (SID name and number and SID transition, as appropriate), then as filed, except ..." Specify the necessary revision.

3. Specify the assigned altitude. The altitude may be omitted and pilots instructed to "climb via SID" when a top altitude is published in the SID route description.

3. A SID is constructed with a Radar Vector segment and contains published crossing restrictions after the vector segment.

PHRASEOLOGY–
CLEARED TO (destination) AIRPORT;

and as appropriate,

(SID name and number) DEPARTURE,
THEN AS FILED.

When the SID does not contain published crossing restrictions and/or is a SID with a Radar Vector segment or a Radar Vector SID; or is a SID with a radar vector segment and contains published crossing restrictions after the vector segment.

MAINTAIN (altitude); (additional instructions or information).

*Or **when a SID contains published crossing restrictions**,*

CLIMB VIA SID.

*CLIMB VIA SID **EXCEPT MAINTAIN** (altitude); (additional instructions or information).*

If a SID is not assigned,

CLEARED TO (destination) AIRPORT AS FILED.
MAINTAIN (altitude);

and if required,

(additional instructions or information).

No Change

g. When a filed route will require revisions, the controller responsible for initiating the clearance to the aircraft must:

1. Issue a FRC/FRC until a fix**.**

2. **Specify the assigned altitude to maintain, or Climb Via SID, or Climb Via SID except maintain (altitude), as appropriate.**

Delete

4. When the SID has published altitude restrictions but the top altitude is not published or must be changed state the phrase “climb via SID except maintain” and the assign the top altitude. If required, add any additional instructions or information.	Delete
5. If a SID is not assigned, state: “Cleared to (destination) airport or cleared to NAVAID, intersection, or waypoint (type if known) as filed, except ...” Specify the necessary revision, the assigned altitude; and if required, add any additional instructions or information.	Delete

PHRASEOLOGY–
CLEARED TO (destination) AIRPORT.

Or

CLEARED TO (NAVAID name and type).

Or

CLEARED TO (intersection or waypoint name and type).

and as appropriate,

(SID name and number) DEPARTURE,
(transition name)

TRANSITION; THEN,

AS FILED, EXCEPT CHANGE ROUTE TO READ (amended route portion).

MAINTAIN (altitude);
Or as appropriate,

CLIMB VIA SID

CLIMB VIA SID except maintain (altitude); (additional instructions or information);

and if required,

(additional instructions or information).

If a SID is not assigned,

CLEARED TO (destination) AIRPORT AS FILED,

EXCEPT CHANGE ROUTE TO READ (amended route portion).

MAINTAIN (altitude);

and if required,

(additional instructions or information).

EXAMPLE

f and **g**

PHRASEOLOGY –
CLEARED TO (destination) AIRPORT.

Or when the SID does not contain published crossing restrictions and/ or is a SID with a Radar Vector segment or a Radar Vector SID

(SID name and number) DEPARTURE,
(transition name) TRANSITION; THEN, AS FILED, EXCEPT CHANGE ROUTE TO READ (amended route portion). MAINTAIN (altitude);

Or ***when the SID contains published crossing restrictions,***

CLIMB VIA SID

CLIMB VIA SID ***EXCEPT MAINTAIN*** *(altitude).*
and if required,

(additional instructions or information).

If a SID is not assigned,

CLEARED TO (destination) AIRPORT AS FILED, EXCEPT CHANGE ROUTE TO READ (amended route portion). MAINTAIN (altitude);

and if required,

(additional instructions or information).

No Change

Re–letter **h** and **i**

OLD

4–5–7. ALTITUDE INFORMATION

Title through **g**

h. Instructions to vertically navigate on a STAR/SID with published restrictions.

NEW

4–5–7. ALTITUDE INFORMATION

No Change

h. Instructions to vertically navigate on a STAR/SID with published **crossing** restrictions.

PHRASELOLGY through **h5**	No Change
6. When an aircraft has been issued an interim altitude and after departure ATC can subsequently clear the aircraft to climb to the original top altitude published in the SID instruct aircraft to "climb via SID." When issuing a new altitude and compliance with published restrictions is still required instruct aircraft to "climb via SID except maintain (altitude)."	**6.** When an aircraft has been issued an interim altitude and after departure ATC can subsequently clear the aircraft to climb to the original top altitude published in **a** SID **that contains published crossing restrictions,** instruct aircraft to "climb via SID." When issuing a **different** altitude and compliance with published restrictions is still required**,** instruct aircraft to "climb via SID except maintain (altitude)."
OLD	**NEW**
5–6–2. METHODS	**5–6–2. METHODS**
Title through **e**	No Change
f. Aircraft instructed to resume a procedure which contains restrictions (SID/STAR, etc.) must be issued/reissued all applicable restrictions or must be advised to comply with those restrictions.	**f.** Aircraft instructed to resume a procedure which contains **published crossing** restrictions (SID/STAR) must be issued/reissued all applicable restrictions or **be instructed to Climb Via/Descend Via.**
PHRASEOLOGY– *RESUME (name/SID/transition/STAR), COMPLY WITH RESTRICTIONS.* *PROCEED DIRECT (NAVAID, fix, waypoint) CROSS (NAVAID, fix, waypoint) AT/AT OR ABOVE/AT OR BELOW (altitude) CLIMB VIA/DESCEND VIA (SID/STAR)*	***PHRASEOLOGY–*** *PROCEED DIRECT (NAVAID, fix, waypoint) CROSS (NAVAID, fix, waypoint) AT/AT OR ABOVE/AT OR BELOW (altitude)**, then** CLIMB VIA/DESCEND VIA (SID/STAR)*
EXAMPLE– *"Resume the Mudde One Arrival, comply with restrictions."* *"Cleared direct Luxor, resume the Ksino One arrival, comply with restrictions."* *"Cleared direct HITME, cross HITME at or above one one thousand, climb via the Boach Five departure."*	***EXAMPLE–*** *"Cleared direct Luxor, **then descend via** the Ksino One arrival."* *"Cleared direct HITME, cross HITME at or above one one thousand, **then** climb via the Boach Five departure."*

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1. PARAGRAPH NUMBER AND TITLE: 4–6–1. CLEARANCE TO HOLDING FIX

2. BACKGROUND: Advances in aviation technology and navigation systems have led to multiple holding patterns at certain fixes and the possibility that holding patterns published on RNAV procedures do not mirror those on conventional STARs. "As published" holding clearances were always intended to be on the route or procedure being flown by an aircraft. In order to clarify existing language, the requirement was added that an aircraft may only be issued an "as published" holding clearance when the holding pattern is published on that aircraft's assigned procedure or route of flight.

3. CHANGE:

OLD	NEW
4–6–1. CLEARANCE TO HOLDING FIX	**4–6–1. CLEARANCE TO HOLDING FIX**

Title through **b1**	No Change
2. When the pattern is charted, you may omit all holding instructions except the charted holding direction and the statement "as published." Always issue complete holding instructions when the pilot requests them.	**2.** When **the assigned procedure or route being flown includes a charted pattern**, you may omit all holding instructions except the charted holding direction and the statement "as published." Always issue complete holding instructions when the pilot requests them.

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1. PARAGRAPH NUMBER AND TITLE: 5–1–2. ALIGNMENT ACCURACY CHECK

2. BACKGROUND: A recent comment received from the field brought to light changes needed for the subject paragraph. This provision does not account for advances in operating platforms now fielded for both domains.

3. CHANGE:

OLD	NEW
5–1–2. ALIGNMENT ACCURACY CHECK	**5–1–2. ALIGNMENT ACCURACY CHECK**
Add	*TERMINAL*
During relief briefing, or as soon as possible after assuming responsibility for a control position, check the operating equipment for alignment accuracy and display acceptability. Recheck periodically throughout the watch.	**a. At locations not equipped with Digital Terminal Automation Systems (DTAS), d**uring relief briefing, or as soon as possible after assuming responsibility for a control position, check the operating equipment for alignment accuracy and display acceptability. Recheck periodically throughout the watch.
REFERENCE– *FAAO JO 7210.3, Chapter 3, Chapter 8, Chapter 9, Chapter 10, and Chapter 11.* *Comparable Military Directives.*	***REFERENCE–*** *FAA **Order** JO 7210.3, Chapter 3, Chapter 8, Chapter 9, Chapter 10, and* *Chapter 11.* *Comparable Military Directives.*
TERMINAL	Delete
a. Check the alignment of the radar video display by assuring that the video/digital map or overlay is properly aligned with a permanent target of known range and azimuth on the radar display. Where possible, check one permanent target per quadrant.	**1.** Check the alignment of the radar video display by assuring that the video/digital map or overlay is properly aligned with a permanent target of known range and azimuth on the radar display. Where possible, check one permanent target per quadrant.
b. Accuracy of the radar video display must be verified for digitized radar systems by using the moving target indicator (MTI) reflectors, fixed location beacon transponders (Parrots), beacon real–time quality control (RTQC) symbols or calibration performance monitor equipment (CPME) beacon targets.	**2.** Accuracy of the radar video display must be verified for digitized radar systems by using the moving target indicator (MTI) reflectors, fixed location beacon transponders (Parrots), beacon real–time quality control (RTQC) symbols or calibration performance monitor equipment (CPME) beacon targets.
REFERENCE– *FAAO JO 7210.3, Para 3–8–1, Tolerance for Radar Fix Accuracy.*	***REFERENCE–*** *FAA **Order** JO 7210.3, Para 3–7–1, Tolerance for Radar Fix Accuracy.*
c. In Digital Terminal Automation Systems (DTAS) conducts continuous self–monitoring of alignment accuracy; therefore, controller alignment checks are not required.	**3.** In Digital Terminal Automation Systems (DTAS) conducts continuous self–monitoring of alignment accuracy; therefore, controller alignment checks are not required.
EN ROUTE	Delete

c. Radar Data Processing (RDP) alignment checking is accomplished by the operational program as part of the certification procedures for system startup and then on a real–time basis during operational hours.	Delete
d. Ensure the situation display center and altitude limits for the system are appropriate for the operating position.	Delete
REFERENCE– *FAAO JO 7110.65, Para 5–14–5, Selected Altitude Limits.*	Delete

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1. PARAGRAPH NUMBER AND TITLE: 5–2–9. UNMANNED AIRCRAFT SYSTEMS (UAS) LOST LINK

2. BACKGROUND: Unmanned Aircraft Systems (UAS) are unique as they are operated through commands sent via line of sight, relayed by satellite relay, or by responding to pre–set programming in the on–board computer. There are two components to lost link: one is the uplink that transmits command and control (C2) instructions to the aircraft; the second is the downlink which relays the operation/status of onboard systems within the aircraft to the ground control station. If either link is disabled or malfunctions, the result is defined as "lost link", and some aircraft transponders will automatically reset to code 7400, execute a pre–programmed flight profile and controllers will react accordingly. NAS automation changes have been made to all NAS platforms to recognize the Mode 3 7400 Code. Upon this introduction to the NAS, not all UAS platforms are adapted for this code, some will still Squawk Mode 3 7600; therefore ATC personnel should continue to treat each situation as a Lost Link and continue existing procedures.

3. CHANGE:

OLD	NEW
Add	**5–2–9. UNMANNED AIRCRAFT SYSTEMS (UAS) LOST LINK**
Add	**Code 7400 may be displayed by unmanned aircraft systems (UAS) when the control link between the aircraft and the pilot is lost. Lost link procedures are programmed into the flight management system and associated with the flight plan being flown.**
Add	**When you observe a Code 7400 display, do the following:**
Add	**a. Determine the lost link procedure, as outlined in the Special Airworthiness Certificate or Certificate of Waiver or Authorization (COA).**
Add	**b. Coordinate, as required, to allow UAS to execute the lost link procedure.**
Add	**c. Advise Front Line Manager (FLM), when feasible, so the event can be documented.**

Add	**d. If you observe or are informed by the PIC that the UAS is deviating from the programmed Lost Link procedure, or is encountering another anomaly, treat the situation in accordance with FAA Order JO 7110.65 Chapter 10, Section 1,Para 10−1−1(c).**
Add	***NOTE−*** ***1. The available lost link procedure should, at a minimum, include lost link route of flight, lost link orbit points, lost link altitudes, communications procedures and preplanned flight termination points if the event recovery of the UAS is deemed unfeasible.*** ***2. Each lost link procedure may differ and is dependent upon airframe and operation. These items are contained in the flight's Certificate of Authorization or Waiver (COA) and must be made available to ATC personnel in their simplest form at positions responsible for Unmanned Aircraft (UAs).*** ***3. Some UA airframes (Global Hawk) will not be programmed upon the NAS Automation roll out to squawk 7400. These airframes will continue to squawk 7600 should a lost link occur. The ATC Specialist must apply the same procedures described above.***
5−2−9 through **5−2−24**	Re−number **5−2−10** through **5−2−25**

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1. PARAGRAPH NUMBER AND TITLE:
5−2−24. INOPERATIVE OR MALFUNCTIONING ADS−B TRANSMITTER
5−2−26. ADS−B ALERTS

2. BACKGROUND: CALL SIGN MISMATCH: If the Call Sign entered into the ADS−B avionics does not match the Call Sign in the flight plan, referred to as a Call Sign Mismatch (CSMM), an alert will be generated. Some aircraft are able to correct this in the cockpit. Phraseology has been added to advise the pilot of the CSMM. DUPLICATE ICAO ADDRESS: Each ADS−B equipped aircraft is expected to broadcast a unique ICAO address. Should two or more aircraft broadcast the same ICAO address within the same ADS−B Service Volume (regardless of altitude), the ADS−B network may be unable to resolve the targets. If radar reinforcement is available, then tracking will continue. If radar is unavailable, the controller may lose target resolution on one or both targets.

3. CHANGE:

OLD	NEW
5−2−24. INOPERATIVE OR MALFUNCTIONING ADS−B TRANSMITTER	**5−2−25. INOPERATIVE OR MALFUNCTIONING ADS−B TRANSMITTER**
TERMINAL− Inform an aircraft when the ADS−B transmitter appears to be inoperative or malfunctioning.	Inform an aircraft when the ADS−B transmitter appears to be inoperative or malfunctioning. **Notify the FLM/CIC of the aircraft call sign and location of aircraft.**

OLD	NEW
Add	**5−2−26. ADS−B ALERTS**

Add	**a. Call Sign Mis−Match (CSMM). A CSMM alert will occur when the ADS−B broadcast call sign does not match the flight plan call sign.**
Add	***PHRASEOLOGY−*** ***(Aircraft ID) YOUR ADS−B CALL SIGN DOES NOT MATCH YOUR FLIGHT PLAN CALL SIGN.***
Add	**b. Duplicate ICAO Address. If the broadcast ICAO address is shared with one or more flights in the same ADS−B Service Area (regardless of altitude), and radar reinforcement is not available, target resolution may be lost on one or both targets. Notify the FLM/CIC of the aircraft call sign and location of aircraft.**
Add	***NOTE−*** ***1. If this occurs controllers should ensure targets remain radar reinforced or at least 6 NMs apart.*** ***2. Duplicate ICAO Address Alerts appear as "DA" and are associated with the Data Block (DB) on STARS and CARTS systems. Duplicate ICAO Address Alerts appear as "DUP" and are associated with the DB on MEARTS systems. Duplicate ICAO Address Alerts appear as "Duplicate 24−bit Address" on ERAM systems.***

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1. PARAGRAPH NUMBER AND TITLE: 5−5−9. SEPARATION FROM OBSTRUCTIONS

2. BACKGROUND: AJV−8 recently released an interpretation concerning Separation from Obstructions and the sub−paragraph that permits discontinuing vertical separation after passing an obstruction displayed on the radar scope. In the interpretation, AJV−8 clarified that the application of the paragraph applies to a prominent obstruction and that it be contained within a buffer area. It is a misapplication to discontinue vertical separation after passing an obstruction if the obstacle is displayed in an isolated manner within a MVA sector, is not a prominent obstruction, and not contained within a buffer area. The term prominent obstruction was removed due to the lack of a definition of prominent obstruction at the time. A new "prominent obstacle" definition was added to the Pilot/Controller Glossary in 2011. When this change is incorporated into the order, the June 2016 interpretation from AJV−8 will be rescinded.

3. CHANGE:

OLD	NEW
5−5−9. SEPARATION FROM OBSTRUCTIONS	**5−5−9. SEPARATION FROM OBSTRUCTIONS**
a. TERMINAL. Separate aircraft from obstructions depicted on the radar display by the following minima:	**a.** TERMINAL. Separate aircraft from **prominent** obstructions depicted on the radar display by the following minima:
a1 and **a2**	No Change
b. TERMINAL. Vertical separation of aircraft above an obstruction depicted on the radar display may be discontinued after the aircraft has passed it.	**b.** TERMINAL. Vertical separation of aircraft above a **prominent** obstruction depicted on the radar display **and contained within a buffer area** may be discontinued after the aircraft has passed **the obstruction.**

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1. PARAGRAPH NUMBER AND TITLE: 5−8−2. INITIAL HEADING

2. BACKGROUND: "Climb Via" was developed in collaboration with the FAA, NATCA, and the Pilot and Controller Procedures and System Integration (PCPSI) working group under the Performance Based Operations Aviation Rulemaking Committee (PARC). Since the implementation of Climb Via in 2014, aircraft that have filed or have been cleared on an RNAV SID with a published lateral path from the runway end are taken off the SID by being assigned an initial heading to fly. In these instances, pilots require an altitude to maintain since they are no longer flying the lateral path that the SID was protecting.

3. CHANGE:

OLD	NEW
5−8−2. INITIAL HEADING	**5−8−2. INITIAL HEADING**
Title through **a** ***PHRASEOLOGY***	No Change
NOTE− *TERMINAL. A purpose for the heading is not necessary, since pilots operating in a radar environment associate assigned headings with vectors to their planned route of flight.*	***NOTE−*** ***1.*** *TERMINAL. A purpose for the heading is not necessary,* *since pilots operating in a radar environment associate assigned headings with vectors to their planned route of flight.* ***2. ATC assumes responsibility for terrain and obstacle avoidance when IFR aircraft are below the minimum IFR altitude (MVA, MIA, MEA) and are taken off departure/ missed approach procedures, or are issued go−around instructions, except when utilizing a Diverse Vector Area (DVA) with an aircraft departing from the surface.***
REFERENCE− *FAAO JO 7110.65, Para 4−3−2, Departure Clearances.* *FAAO JO 7110.65, Para 5−6−3, Vectors Below Minimum Altitude.*	***REFERENCE−*** *FAA* ***Order*** *JO 7110.65, Para 4−3−2, Departure Clearances.* *FAA* ***Order*** *JO 7110.65, Para 5−6−3, Vectors Below Minimum Altitude.*
Add	**b. Issue an altitude to maintain with the initial heading when the heading will take the aircraft off a departure procedure that contains both a published lateral path to a waypoint and crossing restrictions.**
b	Re−letter **c**

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1. PARAGRAPH NUMBER AND TITLE: 5−14−3. COMPUTER ENTRY OF FLIGHT PLAN INFORMATION

2. BACKGROUND: FAA Order 7110.311C, Procedural Guidance for FAA Order 7110.65, En Route Automation Modernization, effective October 15, 2014, included revised guidance for the use of the Local Interim Altitude (LIA) but restricted its use to the transferring controller. It also introduced a Note that provided different definitions for a transferring or receiving controller regarding current status of the aircraft. As a result, numerous Air Traffic Safety Action Program (ATSAP) reports were filed describing occurrences where someone other than the controller in direct communication with the aircraft altered the data block on the transferring controller's display. Because En Route Automation Modernization (ERAM) passes data back to the previous ARTCC after an automated handoff is accomplished, attempting to adhere to the language in the Note (after coordination of an altitude) can result in the data block being unexpectedly altered on the transferring controller's display. This type of practice causes confusion and can result in a coordinated altitude never being issued. In February 2016, the language of the Note was examined by a Safety Risk Management (SRM) panel. This issue was identified as a hazard and the panel recommended to remove the Note.

3. CHANGE:

OLD	NEW
5−14−3. COMPUTER ENTRY OF FLIGHT PLAN INFORMATION	**5−14−3. COMPUTER ENTRY OF FLIGHT PLAN INFORMATION**
Title through **a1**	No Change
NOTE− *As it applies to altitude, the current status of the aircraft, for the transferring controller, indicates the clearance given by air traffic control, directly to and read back by an aircraft. This ensures the aircraft has received the clearance and is expected to comply with the instructions. The current status of the aircraft, for the receiving controller, indicates the specific verbally coordinated altitude, if that differs from the altitude coordinated by automated means.*	Delete
2. Assigned and Interim altitude information must not be modified outside of the controller's area of jurisdiction unless verbally coordinated or specified in a Letter of Agreement or Facility Directive.	**2. Unless otherwise specified in a facility directive or letter of agreement, do not modify assigned or interim altitude information prior to establishing communication with an aircraft that is outside your area of jurisdiction unless verbal coordination identifying who will modify the data block has been accomplished.**
Add	***NOTE−*** ***1. A local interim altitude (LIA) can be used as a means of recording interfacility coordination.*** ***2. Conflict probe in EDST does not probe for the LIA.***
a3 through **a3(b)**	No Change
(c) A Local Interim Altitude (LIA), entered by the transferring controller when the assigned altitude differs from the coordinated altitude unless verbally coordinated or specified in a Letter of Agreement or Facility Directive.	**(c) Where appropriate for interfacility handoffs, an** LIA when the assigned altitude differs from the coordinated altitude unless verbally coordinated or specified in a **l**etter of **a**greement or **f**acility **d**irective.

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1. PARAGRAPH NUMBER AND TITLE: 6−7−5. INTERVAL MINIMA

2. BACKGROUND: FAA Order7110.65W contained changes to wake turbulence separation minima. When developing these changes, the basic minima of 2 minutes or 5 miles was inadvertently removed from the paragraph, and contained only wake turbulence separations.

3. CHANGE:

OLD	NEW
6−7−5. INTERVAL MINIMA	**6−7−5. INTERVAL MINIMA**
Use the following time or radar interval as the minimum interval between successive approaches:	**a. Except as provided in Subparagraph b, use a *2−minute* or a *5−mile*** radar interval as the minimum between successive approaches**.**
REFERENCE− *FAAO JO 7110.65, Para 5−9−5, Approach Separation Responsibility.* *FAAO JO 7110.65, Para 6−7−1, Application.* *FAAO JO 7110.65, Para 6−7−2, Approach Sequence.*	***REFERENCE−*** *FAA **Order** JO 7110.65, Para 5−9−5, Approach Separation Responsibility.* *FAA **Order** JO 7110.65, Para 6−7−1, Application.* *FAA **Order** JO 7110.65, Para 6−7−2, Approach Sequence.*

Add	**WAKE TURBULENCE APPLICATION**
Add	**b. Use the following time or radar interval as the minimum interval:**
a. Behind super:	**1.** Behind super:
1. Heavy – *3 minutes* or *6 miles.*	**(a)** Heavy – *3 minutes* or *6 miles.*
2. Large – *3 minutes* or *7 miles.*	**(b)** Large – *3 minutes* or *7 miles.*
3. Small – *4 minutes* or *8 miles.*	**(c)** Small – *4 minutes* or *8 miles.*
b. Behind heavy:	**2. Small** behind heavy – ***3 minutes* or *6 miles.***
1. Heavy – *2 minutes or 4 miles.*	Delete
2. Large – *2 minutes* or *5 miles.*	Delete
3. Small – *3 minutes* or *6 miles.*	Delete
c. Small behind B757 – *2 minutes* or *4 miles.*	Delete
d. Increase the interval, as necessary, taking into account the:	**c.** Increase the interval, as necessary, taking into account the:
1 through **4**	No Change

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1. PARAGRAPH NUMBER AND TITLE: 7−2−1. VISUAL SEPARATION

2. BACKGROUND: FAA Order7110.65W contained a restriction that did not allow visual separation to be applied behind Super aircraft. Due to overlapping efforts to effect changes to paragraph 7−2−1 at the time, the restriction concerning visual separation behind super aircraft was omitted.

3. CHANGE:

OLD	**NEW**
7−2−1. VISUAL SEPARATION	**7−2−1. VISUAL SEPARATION**
Visual separation may be applied when other approved separation is assured before and after the application of visual separation. To ensure that other separation will exist, consider aircraft performance, wake turbulence, closure rate, routes of flight known weather conditions, and aircraft position. Weather conditions must allow the aircraft to remain within sight until other separation exists.	Visual separation may be applied when other approved separation is assured before and after the application of visual separation. To ensure that other separation will exist, consider aircraft performance, wake turbulence, closure rate, routes of flight known weather conditions, and aircraft position. Weather conditions must allow the aircraft to remain within sight until other separation exists. **Visual separation is not authorized when the lead aircraft is a super.**

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1. PARAGRAPH NUMBER AND TITLE: 7−4−1. VISUAL APPROACH

2. BACKGROUND: Through a review of safety data, the 7110.65 Handbook Steering Committee has identified a need to clarify the status and separation requirements for an aircraft on a Visual Approach that is unable to complete a landing. There have been several incidents following a go−around where the controller has incorrectly cancelled the IFR flight plan without a request from the pilot and applied VFR procedures. It must be understood that a Visual Approach does not end at the runway threshold. A Visual Approach continues until one of the following has occurred: the aircraft lands; the pilot cancels their IFR flight plan; or ATC issues alternate

instructions. A Visual Approach is not a standard instrument approach and therefore has no published missed approach segment. ATC is responsible for maintaining standard IFR separation including the use of visual separation provided by the pilot or the tower. At airfields with an operating control tower, ATC may instruct the pilot to enter the traffic pattern. Appropriate IFR separation must be provided until the aircraft lands or the pilot cancels their IFR flight plan. At airfields without an operating control tower, aircraft are expected to complete a landing as soon as possible or contact ATC for further clearance.

3. CHANGE:

OLD	NEW
7−4−1. VISUAL APPROACH	**7−4−1. VISUAL APPROACH**
A visual approach is an ATC authorization for an aircraft on an IFR flight plan to proceed visually to the airport of intended landing; it is not an instrument approach procedure. Also, there is no missed approach segment. An aircraft unable to complete a visual approach must be handled as any go−around and appropriate separation must be provided.	A visual approach is an ATC authorization for an aircraft on an IFR flight plan to proceed visually **and clear of clouds** to the airport of intended landing**. A visual approach is** not a **standard** instrument approach procedure **and has** no missed approach segment. An aircraft unable to complete **a landing from** a visual approach must be handled as any go−around and appropriate **IFR** separation must be provided **until the aircraft lands or the pilot cancels their IFR flight plan.**
Add	**a. At airports with an operating control tower, aircraft executing a go−around may be instructed to enter the traffic pattern for landing and an altitude assignment is not required. The pilot is expected to climb to pattern altitude and is required to maintain terrain and obstruction clearance. ATC must maintain applicable separation from other aircraft.**
Add	**b. At airports without an operating control tower, aircraft executing a go−around are expected to complete a landing as soon as possible or contact ATC for further clearance. ATC must maintain separation from other IFR aircraft.**
REFERENCE− *FAAO JO 7110.65, Para 2−1−20, Wake Turbulence Cautionary Advisories.* *FAAO JO 7110.65, Para 3−10−2, Forwarding Approach Information by Nonapproach Control Facilities.* *FAAO JO 7110.65, Para 7−2−1, Visual Separation.* *FAAO JO 7110.65, Para 7−4−4, Approaches to Multiple Runways*	***REFERENCE−*** ***FAA Order JO 7110.65, Para 2−1−4, Operational Priority.*** *FAA **Order** JO 7110.65, Para 2−1−20, Wake Turbulence Cautionary Advisories.* *FAA **Order** JO 7110.65, Para 3−10−2, Forwarding Approach Information by Nonapproach Control Facilities.* *FAA **Order** JO 7110.65, Para 7−2−1, Visual Separation.* *FAA **Order** JO 7110.65, Para 7−4−4, Approaches to Multiple Runways.* ***FAA Order JO 7210.3, Para 10−3−14, Go−around/Missed Approach.*** ***P/CG Term – Go−around.*** ***AIM, Para 5−4−23, Visual Approach.***

1. PARAGRAPH NUMBER AND TITLE:
8−7−3. LONGITUDINAL SEPARATION
8−8−3. LONGITUDINAL SEPARATION
8−9−3. LONGITUDINAL SEPARATION
8−10−3. LONGITUDINAL SEPARATION

2. BACKGROUND: The Advanced Technologies and Oceanic Procedures (ATOP) platform allows the controller to issue an ADS−B ITP clearance if either the aircraft performing the ITP or the reference aircraft have a turn in their flight plan provided that required separation is maintained.

3. CHANGE:

OLD	NEW
8−7−3. LONGITUDINAL SEPARATION	**8−7−3. LONGITUDINAL SEPARATION**
Title through **d4(a)**	No Change
(b) same tracks with no turns permitted that degrade required separation during the ITP.	**(b)** same tracks with no turns permitted that **reduce** required separation during the ITP.
OLD	**NEW**
8−8−3. LONGITUDINAL SEPARATION	**8−8−3. LONGITUDINAL SEPARATION**
Title through **e4(a)**	No Change
(b) same tracks with no turns permitted that degrade required separation during the ITP.	**(b)** same tracks with no turns permitted that **reduce** required separation during the ITP.
OLD	**NEW**
8−9−3. LONGITUDINAL SEPARATION	**8−9−3. LONGITUDINAL SEPARATION**
Title through **b4(a)**	No Change
(b) same tracks with no turns permitted that degrade required separation during the ITP.	**(b)** same tracks with no turns permitted that **reduce** required separation during the ITP.
OLD	**NEW**
8−10−3. LONGITUDINAL SEPARATION	**8−10−3. LONGITUDINAL SEPARATION**
Title through **b4(a)**	No Change
(b) same tracks with no turns permitted that degrade required separation during the ITP.	**(b)** same tracks with no turns permitted that **reduce** required separation during the ITP.

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1. PARAGRAPH NUMBER AND TITLE: Appendix B. Standard Operating Practice (SOP) for Aircraft Deviating for Weather Near Active Special Activity Airspace (SAA)

2. BACKGROUND: As a result of an Air Traffic Safety Action Program (ATSAP) Corrective Action Request (CAR), Standard Operating Procedure(s) (SOP), were created from existing guidance contained throughout FAA Order 7110.65, Air Traffic Control, for handling weather related deviations into active Special Activity Airspace (SAA).

3. CHANGE:

OLD	NEW
Add	**Appendix B. Standard Operating Practice (SOP) for Aircraft Deviating for Weather Near Active Special Activity Airspace (SAA)**

Add	**The procedures listed below must be applied and contained in a facility SOP when aircraft deviate into and/or near an active or scheduled SAA:**
Add	**1. PURPOSE**
Add	**This appendix prescribes the method and step–by–step process for handling aircraft deviations for weather near active Special Activity Airspace (SAA). The procedures are intended to work in parallel to the preventive procedures outlined in FAA Order JO 7210.3, Facility Operation and Administration, Para 17–2–4a.9, which must be applied when weather is scheduled to impact an active or scheduled SAA.**
Add	**2. DISCUSSION**
Add	**a. In all operational facilities, the increase in traffic density and the need for the expeditious movement of traffic without compromising safety have emphasized the importance of handling aircraft deviations for weather in the vicinity of active SAA.**
Add	**b. The methods, and practices used for handling aircraft requesting or initiating deviations off of their filed route due to weather require time critical responses to the request or in response to observed course deviations. Major issues can occur whenever there is a heavy reliance upon reactive control actions when not performed according to this handbook and the procedures outlined in FAA Order JO 7210.3.**
Add	**c. Course deviations in areas near active SAA's increase the workload for specialists at the time of their request or observation. The intent of this SOP is to make the handling of the requested deviation or to correct the observed course deviation take place smoothly and to ensure a safe operation with a minimum amount of workload.**
Add	**3. TERMS**
Add	**The following terms are important for a complete understanding of this SOP:**
Add	**a. Status Information Area (SIA). Manual or automatic displays of the current status of position related equipment and operational conditions or procedures.**

Add	**b. Special Activity Airspace (SAA). Airspace of defined dimensions as an Alert Area, Controlled Firing Area, Military Operations Area (MOA), Prohibited Area, Restricted Area or Warning Area.**
Add	**c. Deviations. A departure from a current clearance, such as an off course maneuvers to avoid weather or turbulence.**
Add	**d. Using Agency. The using agency is the military unit or other organization whose activity established the requirement for the SAA. The using agency is responsible for ensuring that:**
Add	**1. The airspace is used only for its designated purpose.**
Add	**2. Proper scheduling procedures are established and utilized.**
Add	**3. The controlling agency is kept informed of changes in scheduled activity, to include the completion of activities for the day.**
Add	**4. A point of contact is made available to enable the controlling agency to verify schedules, and coordinate access for emergencies, weather diversions, etc.**
Add	**5. An ATC facility may be designated as the using agency for joint–use areas when that facility has been granted priority for use of the airspace in a joint–use letter of procedure or letter of agreement.**
Add	**4. PRECAUTIONS**
Add	**a. Unless clearance of nonparticipating aircraft in/through/adjacent to an active SAA is provided for in a Letter of Agreement or Letter of Procedure, any clearance issued to a nonparticipating aircraft must ensure separation from that SAA by the appropriate minima specified in paragraph 9–3–2.**
Add	**b. The specialist receiving a request for a route deviation in the vicinity of an active SAA cannot issue a clearance into the active SAA airspace, unless the provisions of Paragraph 9–3–4 of this handbook are applied. The FAA has no jurisdictional authority over the use of non–joint use prohibited/restricted/warning area airspace; therefore, clearance cannot be issued for flight therein without appropriate approval.**

Add	**c. If the specialist is able to coordinate approval for entry into the SAA from the using agency, a clearance to the aircraft complying with the provisions coordinated with the using agency can be issued; the specialist must notify the FLM/CIC of this situation and of subsequent requests or deviations from other aircraft in the same area.**
Add	**d. Use of Code 7700 for aircraft deviations into active SAA is not encouraged, particularly in situations involving multiple aircraft. Positive identification of aircraft may be lost if an aircraft deviates from flight plan track, particularly in the event of a momentary loss of radar or other interruption in tracking.**
Add	**5. RESPONSIBILITY:**
Add	**If a deviation occurs that causes an aircraft to enter SAA the air traffic team must follow the procedures outlined below:**
Add	**a. Attempt the following:**
Add	**1. Handoff the aircraft to the Using Agency and transfer communications; or**
Add	**2. Point Out the aircraft to the Using Agency. The controller must:**
Add	**(a) Continue to provide safety alerts and traffic advisories, as appropriate, to the affected aircraft.**
Add	**(b) Continue to coordinate with the Using Agency until the situation is resolved.**
Add	**(c) Assist the aircraft in exiting the SAA.**
Add	**3. If the handoff or point out is unsuccessful, the controller must:**
Add	**(a) If able, advise the Using Agency of the pilot's actions.**
Add	**(b) Provide safety alerts and traffic advisories, as appropriate.**
Add	**(c) Assist the aircraft in exiting the SAA as quickly as the weather allows.**
Add	**(d) Continue to coordinate with the Using Agency until the situation is resolved.**
Add	**4. If no approval to enter the SAA is given by the using agency:**
Add	**(a) The specialist must advise the aircraft requesting the course deviation, or deviating toward the SAA, the status of the SAA, and that no clearance can be issued permitting entry into the airspace or;**

Add	**(b) If an alternative course, which remains clear of the active SAA, is available, offer it to the pilot of the aircraft in question.**
Add	**5. If the pilot of the nonparticipating aircraft exercises their discretion to deviate from that clearance which ensures separation from an active SAA, and the track of the aircraft will not maintain the required minima from an active SAA, controllers must ascertain if the pilot is exercising emergency authority:**
Add	**(a) If so, provide assistance and obtain information as provided in Chapter 10, Emergencies.**
Add	**(b) If not, provide appropriate pilot deviation notification as specified in Paragraph 2–1–26, Pilot Deviation Notification.**