Explanation of Changes
Change 3

Direct questions through appropriate facility/service center office staff to the Office of Primary Interest (OPI)

a. 2–6–2. PIREP SOLICITATION AND DISSEMINATION

This change incorporates the ATO's Top 5 Pilot Weather Report (PIREP) Corrective Action Plan to ensure FAA Order JO 7110.65 contains consistent guidance regarding the solicitation and dissemination of PIREPs. This change includes soliciting more information about volcanic eruptions, ash clouds, and detection of sulphur gases and includes updated dissemination terminology.

b. 3–1–7. POSITION DETERMINATION

This change adds a requirement for air traffic control specialists (ATCS) to verify the position of personnel and/or equipment prior to authorizing access to movement areas.

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

This change, applicable during Intersecting Runway/Intersecting Flight Path Operations, allow ATCSs to determine by visual reference that an aircraft will exit the runway at a certain point. This change cancels and incorporates N JO 7110.753, Intersecting Runway, Intersecting Flight Path Operations, effective July 25, 2018.

d. 3–10–5. LANDING CLEARANCE

This change requires ATCSs to emphasize the changed runway number when issuing a landing clearance by stating the runway number in the change to runway instruction as well as the runway number in the landing clearance. This change cancels and incorporates N JO 7110.761, Landing Clearance, effective October 26, 2018.

e. 4–2–2. CLEARANCE PREFIX
4–3–4. DEPARTURE RESTRICTIONS, CLEARANCE VOID TIMES, HOLD FOR RELEASE, AND RELEASE TIMES
4–3–9. VFR RELEASE OF IFR DEPARTURE

This change provides instruction to the ATCS on how to properly relay clearance request information to the Flight Data Communications Specialists at Air Route Traffic Control Centers.

f. 4–3–2. DEPARTURE CLEARANCES

This change adds language to ensure that ATCSs understand their responsibilities when assigning a Departure Procedure (DP) or Diverse Vector Area (DVA). It explains that pilots may be required to comply with specific performance criteria that must be understood and accepted before they depart. Because of these criteria, ATCSs may be subject to restrictions on interrupting the climb of, or changing headings on, aircraft that are flying these procedures. This change cancels and incorporates N JO 7110.754, Departure Clearances, effective September 13, 2018.

g. 4–4–2. ROUTE STRUCTURE TRANSITIONS
5–5–1. APPLICATION
6–5–4. MINIMA ALONG OTHER THAN ESTABLISHED AIRWAYS OR ROUTES

This change allows aircraft, during nonradar operations, to transition from one point–to–point RNAV random route to another, utilizing an impromptu RNAV random route of short duration, provided vertical separation is utilized to facilitate the transition.

h. 4–4–5. CLASS G AIRSPACE

This change adds a new note to the paragraph that restates services to be provided in Class G airspace. Additionally, three references are added; one to FAA Order JO 7110.65, Paragraph 2–1–1, ATC Service, one to the Pilot/Controller Glossary (P/CG) regarding Class G Airspace, and a final one to the P/CG definition of uncontrolled airspace.

i. 4–8–11. PRACTICE APPROACHES

This change clarifies that separation services should only be required during the missed approach

segment of a VFR practice approach if they were required procedurally during the approach segment as detailed by paragraph 4−8−11.

j. 5−5−7. PASSING OR DIVERGING

This change clarifies that the 15−degrees/45 degrees (as applicable) divergence requirements may be accomplished with assigned courses, radar vectors, or a combination of these.

k. 5−7−1. APPLICATION

This change adds language clarifying that a climb or descend via clearance cancels any previously assigned speed.

l. 6−1−1. DISTANCE

This change clarifies the requirement for the use of direct pilot/ATCS VHF/UHF voice communication for application of distance−based nonradar procedures contained in FAA Order JO 7110.65, Chapter 6, and aligns with ICAO PANS−ATM Doc. 4444 requirements. This change cancels and incorporates N JO 7110.758, VHF/UHF Voice Communications, effective September 10, 2018.

m. 7−2−1. VISUAL SEPARATION

This change amends subparagraph 7−2−1a1(f) and authorizes ATCSs at ATCTs to apply visual separation between their traffic and traffic at an adjacent facility through the use of tower−applied visual separation without the need for an approved waiver. This change cancels and incorporates N JO 7110.752, Visual Separation, effective June 18, 2018.

n. 7−9−4. SEPARATION

This change explains aircraft types weighing 19,000 pounds or less are listed in FAA Order JO 7360.1, and Note 2 is updated to direct readers to that order.

o. Entire publication

Additional editorial/format changes were made where necessary. Revision bars were not used because of the insignificant nature of these changes.

BRIEFING GUIDE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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

Table of Contents

1. PARAGRAPH NUMBER AND TITLE: 2−6−2. PIREP SOLICITATION AND DISSEMINATION

2. BACKGROUND: A National Transportation Safety Board Special Investigation Report recommended that the Federal Aviation Administration (FAA) revise FAA Order JO 7110.65 to ensure the chapter relating to pilot weather reports (PIREP) include improved and consistent guidance about PIREP coding, handling, solicitation, and dissemination. Additionally, the FAA included PIREPs in the ATO's Top 5 highest−risk safety issues. A Corrective Action Plan was formulated to mitigate PIREP related concerns, these changes are a part of the result.

3. CHANGE:

OLD	NEW
2−6−2. PIREP SOLICITATION AND DISSEMINATION	**2−6−2. PIREP SOLICITATION AND DISSEMINATION**
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.	Emphasis must be placed on the solicitation and dissemination of PIREPs. Timely dissemination of PIREPs alerts pilots to weather **conditions and provides information useful to forecasters in the development of aviation forecasts**. PIREP**s** also provide information required by ATC in the provision of 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. **Null reports are critical to aviation weather forecasters and pilots and must be disseminated**. Controllers must provide the information in sufficient detail to assist pilots in making decisions pertinent to flight safety.
REFERENCE through **a**	No Change
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.	**1.** Ceilings at or below 5,000 feet. These PIREPs must include cloud **bases, tops and sky conditions when available**. **Additionally,** when providing approach control services, ensure that at least one descent/climb-out PIREP is obtained each hour.
a2 through **a6**	No Change
7. Braking action reports.	**7.** Braking action reports **less than good**.
8. Volcanic ash clouds.	**8. Volcanic eruptions, ash clouds, and/or detection of sulfur gases in the cabin: sulfur dioxide (SO_2) or hydrogen sulfide (H_2S)**.
Add	**(a) If only SO_2 or H_2S are detected with no reported volcanic ash clouds, ask the pilot if volcanic ash clouds are in the vicinity.**
9. Detection of sulfur gases (SO2 or H2S), associated with volcanic activity, in the cabin.	Delete

NOTE–	No Change
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.*	No Change
b through **d**	No Change
1. Relay pertinent PIREP information to concerned aircraft in a timely manner.	**1.** Relay PIREP information to concerned aircraft in a timely manner.
NOTE– *Use the word gain and/or loss when describing to pilots the effects of wind shear on airspeed.*	***NOTE–*** *Use the word gain and/or loss when describing to pilots the effects of wind shear on airspeed.* ***The word "chop" may be used by pilots in lieu of the term "turbulence" in pilot communications with ATC. Chop is a type of turbulence.***
EXAMPLE and ***REFERENCE***	No Change
2. *EN ROUTE.* Relay all operationally significant PIREPs to the facility weather coordinator.	**2.** *EN ROUTE.* Relay all PIREPs to the facility weather coordinator **and to all aircraft in sector(s) below and adjacent to the report.**
3. *TERMINAL.* Relay all operationally significant PIREPs to:	**3.** *TERMINAL.* Relay all PIREPs to:

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1. PARAGRAPH NUMBER AND TITLE: 3–1–7. POSITION DETERMINATION

2. BACKGROUND: The March 29, 2018, Change 1 to FAA Order JO 7110.65, Paragraph 3–7–2a1 and 3–7–2a2, specifically requires ATCS to give routes for aircraft or vehicles to proceed on airport movement areas. There is currently no requirement for ATC to verify the position of pedestrians or equipment before providing instructions to proceed onto an airport movement area.

3. CHANGE:

OLD	**NEW**
3–1–7. POSITION DETERMINATION	**3–1–7. POSITION DETERMINATION**
Determine the position of an aircraft before issuing taxi instructions or takeoff clearance.	Determine the position of an aircraft**, personnel or equipment** before issuing taxi instructions, takeoff clearance, **or authorizing personnel, and/or equipment to proceed onto the movement area.**
NOTE– *The aircraft's position may be determined visually by the controller, by pilots, or through the use of the ASDE.*	***NOTE–*** ***When possible, positions of aircraft, vehicles, equipment and/or personnel may be determined visually or through use of a display system. When ATC is unable to determine position visually or via a display system, position reports may be used.***

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1. PARAGRAPH NUMBER AND TITLE: 3−9−8. INTERSECTING RUNWAY/INTERSECTING FLIGHT PATH OPERATIONS

2. BACKGROUND: In November 2016, FAA Order JO 7110.65W, Change 2, Paragraph 3−7−2, Taxi and Ground Movement Operations, added language allowing ATCSs to ascertain by visual reference that an aircraft would exit a runway at a certain point. Though the change pertained specifically to taxi and ground movement operations, the application is relevant to Paragraph 3−9−8, Intersecting Runway/Intersecting Flight Path Operations, and the same functionality is sought.

3. CHANGE:

OLD	NEW
3−9−8. INTERSECTING RUNWAY/ INTERSECTING FLIGHT PATH OPERATIONS	**3−9−8. INTERSECTING RUNWAY/ INTERSECTING FLIGHT PATH OPERATIONS**
Title through **b1**	No Change
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).	**2. A preceding arriving aircraft (See FIG 3−9−10):**
Add	**(a) Is clear of the landing runway, or**
Add	**(b) Has completed the landing roll on the runway and will hold short of the intersection, or**
Add	**(c) Has completed the landing roll and is observed turning at an exit point prior to the intersection, or**
Add	**(d) Has passed the intersection.**
REFERENCE− *P/CG Term − Clear of the Runway.*	***REFERENCE−*** *P/CG Term − Clear of the Runway.* ***P/CG Term − Landing Roll.***

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1. PARAGRAPH NUMBER AND TITLE: 3−10−5. LANDING CLEARANCE

2. BACKGROUND: On March 4, 2010, Notice 7110.517 to FAA Order JO 7110.65 became effective. This notice amended the phraseology requirement in Paragraph 3−10−5, Landing Clearance, to include “change to runway” when issuing a landing clearance after a change to the runway assignment. This phraseology was identified in National Transportation Safety Board Recommendation A−06−65 following an incident of miscommunication when an assigned landing runway was changed. The new phraseology was intended to clearly communicate that a runway change had occurred. Currently, wrong surface landings are one of the Air Traffic Organization’s Top 5 highest−risk safety issues. This new language builds on previous mitigations and is intended to clarify the “runway” on which a pilot is to land.

3. CHANGE:

OLD	NEW
3–10–5. LANDING CLEARANCE	**3–10–5. LANDING CLEARANCE**
a. When issuing a clearance to land, first state the runway number followed by landing clearance. If the landing runway is changed, controllers must preface the landing clearance with "Change to runway."	**a.** When issuing a clearance to land, first state the runway number followed by landing clearance. If the landing runway is changed, controllers must preface the landing clearance with "Change to runway" **followed by the runway number. Controllers must then restate the runway number followed by the landing clearance.**
PHRASEOLOGY– *RUNWAY (number) CLEARED TO LAND.*	***PHRASEOLOGY–*** *RUNWAY (number) CLEARED TO LAND.*
Or	*Or*
CHANGE TO RUNWAY (number) CLEARED TO LAND.	*CHANGE TO RUNWAY (number)* ***RUNWAY (number)*** *CLEARED TO LAND.*
Add	***NOTE–*** ***The purpose of the "change to runway" phraseology and restating the runway number is to emphasize to the pilot that they are being cleared to land on a runway other than what they were expecting.***

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1. PARAGRAPH NUMBER AND TITLE:
4–2–2. CLEARANCE PREFIX
4–3–4. DEPARTURE RESTRICTIONS, CLEARANCE VOID TIMES, HOLD FOR RELEASE, AND RELEASE TIMES
4–3–9. VFR RELEASE OF IFR DEPARTURE

2. BACKGROUND: Flight Service currently relays clearances to pilots via telephone at airports which lack direct radio communications with air traffic control (ATC) or Flight Service. Flight Service also relays cancellations of IFR Instrument Flight Rule (IFR) flight plans from pilots to ATC. Except in Alaska, this change will discontinue the Flight Service telephone relay of IFR clearances from all ATC facilities operated by the FAA and reduce the number of IFR flight plan cancellations handled by Flight Service. Clearance Relay, Part 1, was implemented last year to publish existing telephone numbers for approach control facilities that delivered clearances directly to users. The lines may also be used for the cancellation of IFR flight plans. Pilots now call these facilities directly instead of calling Flight Service to relay the clearance, formalizing a process already in place by publishing the phone numbers of the facilities in the Chart Supplement U.S. The initiative included 30 approach controls covering 667 airports. Clearance Relay, Part 2, will enable pilots to obtain an IFR clearance and/or cancel IFR flight plans via telephone by: 1. Calling the overlying Air Route Traffic Control Center (ARTCC) Flight Data Units (FDU) which will then relay the clearance from the appropriate sector, specialty, or control facility to the pilot. 2. Calling an approach control facility with clearance delivery phone numbers published in the Chart Supplement U.S. Pilots requesting clearances via radio from ATC or Leidos (formerly Lockheed Martin) are not affected by this change. The lines may also be used for cancellation of IFR flight plans. Flight Service will continue to relay clearances to pilots via telephone until these phone numbers have been published. Once published, Flight Service will provide pilots with either the name of the facility to contact or the correct phone number to use in order to obtain a clearance. In addition, Flight Service will continue to provide priority handling for MedEvac Flights.

3. CHANGE:

OLD

4–2–2. CLEARANCE PREFIX

Title through **a**

b. Flight service stations must prefix a clearance with the appropriate phrase: "ATC clears," "ATC advises," etc.

NEW

4–2–2. CLEARANCE PREFIX

No Change

b. Flight service stations **and ARTCC Flight Data Units** must prefix a clearance with the appropriate phrase: "ATC clears," "ATC advises," etc.

OLD

4–3–4. DEPARTURE RESTRICTIONS, CLEARANCE VOID TIMES, HOLD FOR RELEASE, AND RELEASE TIMES

Title through **b2**

3. When conditions allow, release the aircraft as soon as possible.

PHRASEOLOGY–
To another controller,

(aircraft identification) RELEASED.

To a flight service specialist,

ADVISE (aircraft identification) RELEASED FOR DEPARTURE.

To a pilot at an airport not served by a control tower,

(aircraft identification) RELEASED FOR DEPARTURE.

NEW

4–3–4. DEPARTURE RESTRICTIONS, CLEARANCE VOID TIMES, HOLD FOR RELEASE, AND RELEASE TIMES

No Change

No Change

PHRASEOLOGY–
To another controller,

(aircraft identification) RELEASED.

To a flight service specialist, ***or Flight Data Communication Specialist (FDCS)***

ADVISE (aircraft identification) RELEASED FOR DEPARTURE.

To a pilot at an airport not served by a control tower,

(aircraft identification) RELEASED FOR DEPARTURE.

OLD

4–3–9. VFR RELEASE OF IFR DEPARTURE

When an aircraft which has filed an IFR flight plan requests a VFR departure through a terminal facility, FSS, or air/ground communications station:

NEW

4–3–9. VFR RELEASE OF IFR DEPARTURE

When an aircraft which has filed an IFR flight plan requests a VFR departure through a terminal facility, FSS, **ARTCC Flight Data Unit,** or air/ground communications station:

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1. PARAGRAPH NUMBER AND TITLE: 4–3–2. DEPARTURE CLEARANCES

2. BACKGROUND: Aircraft departing an airport on an IFR flight plan may file for and/or be assigned a Departure Procedure (DP) or a heading within a Diverse Vector Area (DVA). The use of these assignments requires very specific understandings that can limit both the pilot and/or the controller. Language has been updated to provide clarification concerning the assignment and use of DPs or DVAs.

3. CHANGE:

OLD	NEW
4–3–2. DEPARTURE CLEARANCES	**4–3–2. DEPARTURE CLEARANCES**
Title through **c**	No Change
1. Specify direction of takeoff/turn or initial heading to be flown after takeoff as follows:	No Change
(a) Locations with Airport Traffic Control Service–Specify direction of takeoff/turn or initial heading as necessary, consistent with published departure procedures (DP) or diverse vector areas (DVA), where applicable.	**(a)** Locations with Airport Traffic Control Service–Specify direction of takeoff/turn or initial heading as necessary, consistent with published**:**
Add	**(1) Departure Procedures (DP). If an aircraft is vectored off a published Standard Instrument Departure (SID) or Obstacle Departure Procedure (ODP), that vector cancels the DP and ATC becomes responsible for separation from terrain and /or obstructions. IFR aircraft must be assigned an altitude.**
Add	**(2) Diverse Vector Areas (DVA). The assignment of an initial heading using a DVA can be given to the pilot as part of the initial clearance, but must be given no later than with the takeoff clearance. Once airborne, an aircraft assigned headings within the DVA can be vectored below the MVA/MIA. Controllers cannot interrupt an aircraft's climb in the DVA until the aircraft is at or above the MVA/MIA.**
Add	***NOTE–*** ***It is important for controllers to understand that there can be differences in published climb gradients applicable to individual departure procedures serving the same airport or runway. Assigning a different departure procedure without the pilot being able to re–brief may result in the pilot rejecting the new procedure.***
Add	***REFERENCE–*** ***AIM, Para 5–2–7. Departure Control.*** ***AIM, Para 5–2–9. Instrument Departure Procedures (DP) – Obstacle Departure Procedures (ODP) and Standard Instrument Departures (SID).***
NOTE– *If an initial heading is assigned in lieu of an assigned/filed Pilot Nav SID, and an ODP is published for that runway, pilots may commence turn after reaching a safe altitude or they may complete the ODP instructions for obstacle clearance, based on the regulations they are operating under before turning to the assigned heading.*	Delete

1. PARAGRAPH NUMBER AND TITLE:
4−4−2. ROUTE STRUCTURE TRANSITIONS
5−5−1. APPLICATION
6−5−4. MINIMA ALONG OTHER THAN ESTABLISHED AIRWAYS OR ROUTES

2. BACKGROUND: In April 2014, the use of RNAV point−to−point random routes without radar monitoring was permitted under certain conditions NAS−wide. Since that time, facilities have asked for a means to transition from one point−to−point route to another if necessary for weather deviations, pilot requests, or operational need. Current procedures do not account for this need.

3. CHANGE:

OLD

4−4−2. ROUTE STRUCTURE TRANSITIONS

Title through **f**

g. Clear RNAV aircraft between designated or established ATS routes via random RNAV routes to a NAVAID, waypoint, airport or fix on the new route.

h. Provide radar monitoring to RNAV equipped aircraft transitioning via random RNAV routes.

EXCEPTION. GNSS equipped aircraft /G, /L, /S, and /V not on a random impromptu route.

REFERENCE−
FAA Order JO 7110.65, Para 4−1−2, Exceptions.
FAA Order JO 7110.65, Para 4−4−1, Route Use.
FAA Order JO 7110.65, Para 5−5−1, Application.
*P/CG Term * Global Navigation Satellite System (GNSS) [ICAO].*

NEW

4−4−2. ROUTE STRUCTURE TRANSITIONS

No Change

g. Clear RNAV aircraft between designated or established ATS routes via random RNAV routes to a NAVAID, waypoint, airport or fix on the new route. **Provide radar monitoring to aircraft transitioning via random RNAV routes.**

Delete

EXCEPTION. GNSS−equipped aircraft /G, /L, /S, and /V on **point−to−point** route**s, or transitioning between two point−to−point routes via an impromptu route.**

REFERENCE−
FAA Order JO 7110.65, Para 4−1−2, Exceptions.
FAA Order JO 7110.65, Para 4−4−1, Route Use.
FAA Order JO 7110.65, Para 5−5−1, Application.
P/CG Term − Global Navigation Satellite System (GNSS) [ICAO].
FAA Order JO 7110.65, Para 6−5−4, Minima Along Other Than Established Airways Or Routes.

OLD

5−5−1. APPLICATION

Title through **a**

EXCEPTION. GNSS equipped aircraft /G, /L, /S, and /V not on a random impromptu route.

REFERENCE−
FAA Order JO 7110.5, Para 2−3−8, Aircraft Equipment Suffixes.
FAA Order JO 7110.5, TBL 2−3−10, Aircraft Equipment Suffixes
FAA Order JO 7110.65, Para 4−4−1, Route Use.
AIM, Para 5−1−8d., Area Navigation (RNAV).
AIM, Para 5−3−4a. 3. Area Navigation (RNAV) Routes.
P/CG Term − Global Navigation Satellite System (GNSS) [ICAO].
P/CG Term − Global Positioning Satellite/ Wide Area Augmentation Minimum En Route IFR Altitude (GPS/WAAS MEA).
P/CG Term − Parallel Offset Route.

AC 90−101A, U.S. Terminal and En Route Area Navigation (RNAV) Operations, Para 8a, Navigation System Accuracy.

NEW

5−5−1. APPLICATION

No Change

EXCEPTION. GNSS−equipped aircraft /G, /L, /S, and /V on **point−to−point** route**s, or transitioning between two point−to−point routes via an impromptu route.**

REFERENCE−
FAA Order JO 7110.65, Para 2−3−8, Aircraft Equipment Suffixes.
FAA Order JO 7110.65, TBL 2−3−10, Aircraft Equipment Suffixes
FAA Order JO 7110.65, Para 4−4−1, Route Use.
AIM, Para 5−1−8, Area Navigation (RNAV).
AIM, Para 5−3−4, Area Navigation (RNAV) Routes.
P/CG Term − Global Navigation Satellite System (GNSS) [ICAO].
P/CG Term − Global Positioning Satellite/ Wide Area Augmentation Minimum En Route IFR Altitude (GPS/WAAS MEA).
P/CG Term − Parallel Offset Route.

Delete

OLD	NEW
6–5–4. MINIMA ALONG OTHER THAN ESTABLISHED AIRWAYS OR ROUTES	**6–5–4. MINIMA ALONG OTHER THAN ESTABLISHED AIRWAYS OR ROUTES**
Title through **a4(b)**	No Change
(c) Assigned altitudes must be at or above the highest MIA along the projected route segment being flown, including the protected airspace of that route segment.	No Change
Add	***EXAMPLE–*** ***A pilot has filed a point–to–point route from XYZ to ABC at 13,000 feet. Departure procedures from the originating airport place the aircraft a significant distance from XYZ; however, the aircraft can establish itself along the route segment from XYZ to ABC. Ascertain when the pilot is established on the point–to–point route segment and at an altitude that meets or exceeds the highest MVA/MIA projected along the route of flight, then issue a clearance. "Verify when you are established on the XYZ to ABC route segment at or above 6,000 feet."***
(d) When the GNSS aircraft is being provided radar service and is transitioning to non–radar airspace, provide clearance direct to the named point in non–radar airspace in accordance with subparagraphs a4(a) through (c).	No Change
EXAMPLE– *A pilot has filed a point–to–point route from XYZ to ABC at 13,000 feet. Departure procedures from the originating airport place the aircraft a significant distance from XYZ; however, the aircraft can establish itself along the route segment from XYZ to ABC. Ascertain when the pilot is established on the point–to–point route segment and at an altitude, which meets or exceeds the highest MVA/MIA projected along the route of flight, then issue a clearance. "Verify when you are established on the XYZ to ABC route segment at or above 6,000 feet."*	Delete
Add	**5. If transitioning between two random point–to–point routes, GNSS–equipped aircraft being provided non–radar separation may be cleared via an impromptu route when the following conditions are met:**
Add	**(a) The impromptu route segment must not exceed the distance to the nearest available recallable fix/waypoint consistent with the direction of flight; and**
Add	**(b) Assigned altitudes must be at or above the highest MIA along the projected route segment being flown; and**

Add	**(c) Aircraft conducting the impromptu route must be separated vertically from other aircraft until established on the new point−to−point route.**
REFERENCE− *FAA Order JO 7110.65, Para 4–4–2, Route Structure Transitions* *FAA Order JO 7110.65, Para 5–5–1, Application*	***REFERENCE−*** ***FAA Order JO 7110.65, Para 4–4–1, Route Use*** *FAA Order JO 7110.65, Para 4–4–2, Route Structure Transitions* *FAA Order JO 7110.65, Para 5–5–1, Application*

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1. PARAGRAPH NUMBER AND TITLE: 4−4−5. CLASS G AIRSPACE

2. BACKGROUND: With the reclassification of United States airspace, on September 16, 1993, FAA Order JO 7110.65H, Change 1, the definition of uncontrolled airspace was removed and replaced with Class G airspace. Although the airspace in question was still uncontrolled, it was newly defined as "Class G Airspace − that is airspace not designated as Class A, B, C, D or E."

3. CHANGE:

OLD	**NEW**
4−4−5. CLASS G AIRSPACE	**4−4−5. CLASS G AIRSPACE**
Include routes through Class G airspace only when requested by the pilot.	No Change
Add	***NOTE−*** **1.** ***Separation criteria are not applicable in Class G airspace. Traffic advisories and safety alerts are applicable within Class G airspace to aircraft that are in direct communication with ATC.***
NOTE− **1.** *Flight plans filed for random RNAV routes through Class G airspace are considered a request by the pilot.*	**2.** *Flight plans filed for random RNAV routes through Class G airspace are considered a request by the pilot.*
2. *Flight plans containing MTR segments in/through Class G airspace are considered a request by the pilot.*	**3.** *Flight plans containing MTR segments in/through Class G airspace are considered a request by the pilot.*
Add	***REFERENCE−*** ***FAA Order JO 7110.65, Para 2−1−1, ATC Service*** ***PCG, Class G Airspace*** ***PCG, Uncontrolled Airspace***

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1. PARAGRAPH NUMBER AND TITLE: 4−8−11. PRACTICE APPROACHES

2. BACKGROUND: When providing service to Visual Flight Rules (VFR) aircraft conducting practice approaches, pilots are instructed to maintain VFR and further advised that separation services are not provided in accordance with paragraph 4−8−11a3(a) and (b). Often, this clearance is followed with a request by the pilot to practice the missed approach as well. However, paragraph 4−8−11b2 states that separation must be provided throughout the missed approach. This indicates that separation services must now be provided during the missed approach segment although they were not provided during the practice approach segment.

3. CHANGE:

OLD	NEW
4–8–11. PRACTICE APPROACHES	**4–8–11. PRACTICE APPROACHES**
Title through **b1**	No Change
2. VFR aircraft are not automatically authorized to execute the missed approach procedure. This authorization must be specifically requested by the pilot and approved by the controller. When a missed approach has been approved, separation must be provided throughout the missed approach.	**2.** VFR aircraft are not automatically authorized to execute the missed approach procedure. This authorization must be specifically requested by the pilot and approved by the controller. When a missed approach has been approved **and the practice approach is conducted in accordance with paragraph 4–8–11 a2,** separation must be provided throughout the **procedure including the** missed approach. **If the practice approach is conducted in accordance with paragraph 4–8–11 a3, separation services are not required during the missed approach.**

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1. PARAGRAPH NUMBER AND TITLE: 5–5–7. PASSING OR DIVERGING

2. BACKGROUND: In June 2015, paragraph 5–5–7 was appended with a note to clarify that the assignment of an angular difference of 15 degrees/45 degrees (as applicable), applied in accordance with the paragraph, was a correct application. The note created a question from the field regarding the 15–degrees/45 degrees (as applicable) divergence requirements. Specifically, must this be achieved through radar vectors alone or with vectors or course assignments as is indicated in the body of the paragraph? This DCP adds further clarification.

3. CHANGE:

OLD	NEW
5–5–7. PASSING OR DIVERGING	**5–5–7. PASSING OR DIVERGING**
Title through **a1(a)**	No Change
NOTE– *Two aircraft, both assigned radar vectors with an angular difference of at least 15 degrees, is considered a correct application of this paragraph.*	***NOTE–*** *Two aircraft, both assigned **courses and/or** radar vectors with an angular difference of at least 15 degrees, is considered a correct application of this paragraph.*
a1(b) through **2(a)**	No Change
NOTE– *Two aircraft, both assigned radar vectors with an angular difference of at least 45 degrees, is considered a correct application of this paragraph.*	***NOTE–*** *Two aircraft, both assigned **courses and/or** radar vectors with an angular difference of at least 45 degrees, is considered a correct application of this paragraph.*

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1. PARAGRAPH NUMBER AND TITLE: 5−7−1. APPLICATION

2. BACKGROUND: A climb or descend via clearance cancels any previously issued speed restriction in order to allow the pilot to meet all published altitude and speed restrictions. But what is expected of a pilot when there are no published speed restrictions on the procedure? If an airspeed was previously assigned, is the pilot expected to maintain that speed, or does the climb or descend via clearance allow the pilot to operate at any speed? The Pilot Controller Procedures & Systems Integration (PCPSI) work group discussed this issue and identified that FAA Order JO 7110.65 does not match the Aeronautical Information Manual (AIM). The AIM advises pilots that a climb or descend via clearance cancels any previously assigned speed. It does not specify that a procedure must have published speeds for that guidance to apply. The 7110.65 is being revised to match the guidance in the AIM. For procedures with no published speeds, if an ATCS needs an aircraft to continue at a previously assigned speed after a climb or descend via clearance is issued, he or she must restate the speed.

3. CHANGE:

OLD	NEW
5−7−1. APPLICATION	**5−7−1. APPLICATION**
Title through **b**	No Change
c. At the time approach clearance is issued, previously issued speed adjustments must be restated if required.	**c**. At the time approach clearance **or a climb via/descend via clearance** is issued, previously **assigned** speed**s** must be restated if required.
d. Approach clearances cancel any previously assigned speed adjustment. Pilots are expected to make their own speed adjustments to complete the approach unless the adjustments are restated.	**d.** Approach clearances **or climb via/descend via clearances** cancel any previously assigned speed**s**. Pilots are expected to make their own speed adjustments to **fly** the approach**, SID, or STAR** unless **assigned speeds** are restated.
Add	***NOTE−*** ***Pilots are required to comply with published speed restrictions.***
e and **f**	No Change
NOTE− **1.** *Pilots complying with speed adjustment instructions should maintain a speed within plus or minus 10 knots or 0.02 Mach number of the specified speed.*	***NOTE−*** **1.** *Pilots complying with speed adjustment instructions **(published or assigned)** should maintain a speed within plus or minus 10 knots or 0.02 Mach number of the specified speed.*
2. *When assigning speeds to achieve spacing between aircraft at different altitudes, consider that ground speed may vary with altitude. Further speed adjustment may be necessary to attain the desired spacing.*	**2.** *When assigning speeds to achieve spacing between aircraft at different altitudes, consider that ground speed may vary with altitude. Further speed adjustment may be necessary to attain the desired spacing.*
Add	**3.** ***Controllers should anticipate pilots will begin adjusting speed at the minimum distance necessary prior to a published speed restriction so as to cross the waypoint/fix at the published speed. Once at the published speed, controllers should expect pilots will maintain the published speed until additional adjustment is required to comply with further published restrictions or ATC assigned speed restrictions.***

1. PARAGRAPH NUMBER AND TITLE: 6−1−1. DISTANCE

2. BACKGROUND: The nonradar procedures contained in FAA Order JO 7110.65, Chapter 6 are based upon ICAO Procedures for Air Navigation Services−Air Traffic Management (PANS−ATM) Doc. 4444, Chapter 5, paragraph 5.4.2.3.1 which specifies "direct pilot/controller VHF voice communication" as a requirement for distance−based nonradar separation. In FAA Order JO 7110.65, Chapter 6, paragraph 6−1−1, the term "direct pilot/controller communication" has been understood to mean direct voice communication. However, as new technologies such as controller/pilot data link communication (CPDLC) have emerged, the definition of direct pilot/controller communication has also changed. While CPDLC is considered a form of direct pilot/controller communication, its use for application of distance−based procedures outlined in FAA Order JO 7110.65, Chapter 6, would not meet the requirement set forth in paragraph 6−1−1. This is an instance where technology has evolved and the requirement in the 7110.65 no longer aligns with its intended purpose.

3. CHANGE:

OLD	NEW
6−1−1. DISTANCE	**6−1−1. DISTANCE**
Use mileage-based (DME and/or ATD) procedures and minima only when direct pilot/controller communications are maintained.	Use mileage-based (DME and/or ATD) procedures and minima only when direct pilot/controller **VHF or UHF voice** communications are maintained.

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

2. BACKGROUND: Since 2003, several facilities in the National Airspace System have filed for a waiver to FAA Order JO 7110.65, Paragraph 7−2−1, Visual Separation, in order to enable ATCSs to apply visual separation between their traffic and traffic at an adjacent airport traffic control tower (ATCT). This change allows the use of tower−applied visual separation between adjacent airport traffic control towers ATCTs. Seven facilities have received waivers authorizing the use of tower−applied visual separation between adjacent ATCTs. There are three additional waivers pending. Since the issuance of these waivers, there have been no reported events, such as losses of approved separation, associated with the use of tower−applied visual separation.

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 is not authorized when the lead aircraft is a super.	No Change

REFERENCE– *FAA Order JO 7110.65, Para 2–1–20, Wake Turbulence Cautionary Advisories.* *FAA Order JO 7110.65, Para 2–1–21, Traffic Advisories.* *FAA Order JO 7110.65, Para 3–1–9, Use of Tower Radar Displays.* *FAA Order JO 7110.65, Para 5–9–5, Approach Separation Responsibility.* *FAA Order JO 7110.65, Para 7–4–1, Visual Approach.* *FAA Order JO 7110.65, Para 7–4–2, Vectors for Visual Approach.* *FAA Order JO 7110.65, Para 7–4–4, Approaches to Multiple Runways.* *P/CG Term–Visual Approach.* *P/CG Term–Visual Separation.*	***REFERENCE–*** *FAA Order JO 7110.65, Para 2–1–20, Wake Turbulence Cautionary Advisories.* *FAA Order JO 7110.65, Para 2–1–21, Traffic Advisories.* *FAA Order JO 7110.65, Para 3–1–9, Use of Tower Radar Displays.* *FAA Order JO 7110.65, Para 5–9–5, Approach Separation Responsibility.* *FAA Order JO 7110.65, Para 7–4–1, Visual Approach.* *FAA Order JO 7110.65, Para 7–4–2, Vectors for Visual Approach.* *FAA Order JO 7110.65, Para 7–4–4, Approaches to Multiple Runways.* ***FAA Order JO 7210.3, Para 4–3–2, Appropriate Subjects.*** ***FAA Order JO 7210.3, Para 10–3–9, Visual Separation.*** *P/CG Term–Visual Approach.* *P/CG Term–Visual Separation.*
Title through **a1(e)**	No Change
(f) Adjacent airports with operating ATCTs are not authorized to apply visual separation between their traffic and the other ATCT's traffic.	**(f) ATCTs at adjacent airports may be authorized to apply visual separation between their traffic and the other facility's traffic. All provisions of FAA Order JO 7110.65, Paragraph 7–2–1a1, still apply.**
Add	***NOTE–*** ***Additional requirements are listed in FAA Order JO 7210.3, Paragraph 10-3-9, Visual Separation.***

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1. PARAGRAPH NUMBER AND TITLE: 7–9–4. SEPARATION

2. BACKGROUND: Paragraph d, Note 2, describes aircraft weighing 19,000 pounds or less as "all aircraft in SRS Categories I and II" as well as seven additional aircraft type designators. Since this note was first written, several additional aircraft types weighing 19,000 pounds or less have been assigned unique aircraft type designators. To make identification of these aircraft more efficient, FAA Order JO 7360.1, Aircraft Type Designators, denotes the aircraft that meet this criteria without requiring a review of the aircraft's SRS Category.

3. CHANGE:

OLD	**NEW**
7–9–4. SEPARATION	**7–9–4. SEPARATION**
Title through **d**	No Change
NOTE– ***1****. Apply the provisions of Para 5–5–4, Minima, when wake turbulence separation is required.* ***2****. Aircraft weighing 19,000 pounds or less include all aircraft in SRS Categories I and II plus G73, STAR, S601, BE30, SW3, B190 and C212.*	***NOTE–*** ***1****. Apply the provisions of Para 5–5–4, Minima, when wake turbulence separation is required.* ***2****. Aircraft weighing 19,000 pounds or less* ***are listed in FAA Order JO 7360.1, Aircraft Type Designators****.*
Add	***REFERENCE–*** ***FAA Order JO 7360.1, Para 2–2, How Designators are Formulated***