

Summary of Changes

This handbook supersedes FAA-H-8083-16A, Instrument Procedures Handbook dated 2015, and contains several changes and updates. While this revision contains updated information, it retains the organization and the same order of presentation as earlier versions. Some updated graphics and editorial wording changes have been made for clarity or consistency. In multiple places, we corrected or updated terminology as follows: “instrument approach plates” to be “instrument approach charts”; “airplane” to “aircraft” where the context applies to all aircraft; Airport/Facility Directory (A/FD) to “Chart Supplement (CS)” or “Digital Chart Supplement (d-CS)” except where the context refers to the A/FD section of the CS or d-CS; and “Helicopter Emergency Medical Service (HEMS)” to “Helicopter Air Ambulance (HAA)”. We suggest that the content changes, which are listed below, be thoroughly reviewed.

Chapter 1

- Reworded paragraph “Alternate Minimums for Commercial Operators,” regarding requirements for Part 121 and 135 operators. Clarified a sentence indicating it pertains to alternate airports rather than all airports.
- Updated paragraph “Departures from Airports Without an Operating Control Tower” regarding obtaining information from a Flight Service Station (FSS). Changed references from “Automated Flight Service Station (AFSS)” to “Flight Service Station (FSS).” Added information about finding the phone number to use, when there is a direct line to the controlling Air Traffic Control (ATC) Facility, to obtain a clearance.

Chapter 2

- Added indication that area navigation (RNAV) specific information is sometimes depicted on Victor routes to paragraph “IFR En Route Low Altitude Chart.”
- Updated figure 2-30, which depicts a Joint Victor/RNAV airway route, to be more realistic by removing a Global Navigation Satellite System (GNSS) minimum en route IFR altitude (MEA) that was a higher altitude than the conventional MEA for the same fix pair. The GNSS MEA should only be depicted when it is lower than the altitude of the conventional MEA.

Chapter 3

- Changed paragraph “Standard Terminal Arrival Routes (STARs)” to the following:
 - Clarified that STARs end at a fix that allows radar vectors and, at some locations, also allows the option to connect to an approach.
 - Explained that the descent gradient on a STAR will have to vary to meet altitude restrictions, if any, along the particular route.
 - Updated the explanation of descent gradient on a STAR based on new guidance in FAA Order 8260.3, U.S. Standard for Terminal Instrument Procedures (TERPS), that was changed in March 2016.
- Changed paragraph “RNAV STARs or STAR Transitions” to the following:
 - Updated the explanation of design guidance for an RNAV STAR.
 - Updated the explanation of the types of clearances for a STAR.
- Changed paragraph “Interpreting the STAR” updating some of the terminology used for a STAR.

Chapter 4

- Updated paragraph “Weather Sources,” changing “Automated Flight Service Station (AFSS)” to be “Flight Service Station (FSS).” Changed access to Direct User Access Terminal System (DUATS) to be by any pilot rather than only those with a current medical certificate. Updated the internet address for DUATS. Updated references for “DUATS service” to “DUATS II service.” Added information about finding the phone number to use for the Telephone Information Briefing Service (TIBS).
- Changed a reference in paragraph, “Minimum Descent Altitude (MDA), Decision Altitude (DA), and Decision Height (DH)” for Enhanced Flight Vision System (EFVS) to be 14 CFR Part 91 § 91.176.
- Updated figures 4-10a, 4-10b, and 4-10c, which depict EFVS, showing the view during an approach and depicting the operation using EFVS.
- Updated paragraph “Enhanced Flight Vision Systems (EFVS) and Instrument Approaches” incorporating changes to 14 CFR Part 91 and describe the EFVS operation.
- Updated a discussion of RNAV (GPS) approach chart lines of approach minimums in paragraph “Advantages of WAAS Enabled LPV Approaches.”
- Changed reference in paragraph “Missed Approach” for EFVS to be 14 CFR Part 91 § 91.176.
- Deleted figure 4-23 due to outdated information. Renumbered subsequent figures and references.
- Updated paragraph “Maximum Acceptable Descent Rates” regarding descent after visual descent point (VDP).
- Reworded paragraph “Visual Approaches” regarding controller and pilot responsibilities.
- Updated paragraph “ILS Approaches” regarding simultaneous approach operations and moved some of the material to paragraph titled “Simultaneous Approaches to Parallel Runways.”
- Changed paragraph “Approaches to Parallel Runways” to “Simultaneous Approaches to Parallel Runways” and updated regarding the classifications of simultaneous approach operations and operational requirements.
- Changed paragraph “Parallel (Dependent) Approaches” to “Simultaneous Dependent Approaches” and updated regarding dependent approach operations, the minimum separation distances used by ATC, and examples of chart notes.
- Changed paragraph “Simultaneous Parallel Approaches” to “Simultaneous Independent Approaches” and updated regarding simultaneous independent approach operations, aircraft equipment requirements (such as FD or AP), minimum runway spacing, and the lines of minimums that may be used.
- Updated paragraph “Simultaneous Close Parallel Precision Runway Monitor Approaches” regarding Close Parallel simultaneous independent approach operations. An updated list is provided showing differences for precision runway monitor (PRM) approaches compared to other simultaneous approaches, minimum runway spacing has decreased, and (as shown in figure 4-48) RNAV approaches may now be used for simultaneous close parallel operations based on safety studies in the past few years.
- Updated paragraph “Simultaneous Offset Instrument Approaches (SOIAs)” regarding SOIA operations, the types of approaches that are authorized, and the type of surveillance equipment required.
- Updated figure 4-43 depiction of simultaneous approach operations.
- Revised titles for figures 4-43 through 4-49 to match the type of ATC operation and/or the approach name or type that is depicted.
- Updated explanatory note on figure 4-45 showing the range of different simultaneous operations that might apply.
- Revised titles for figures 4-46 and 4-47; updated figures to show examples of simultaneous operations.
- Revised title for figure 4-48 and updated example of a simultaneous close parallel approach and the associated Attention All Users Page.
- Revised title for figure 4-49 and updated example of a simultaneous offset Instrument approach and the associated Attention All Users Page.

Chapter 5

- Updated paragraph “Next Generation Air Transportation (NextGen) System” information about automatic dependent surveillance-broadcast (ADS-B).
- Updated paragraph “NextGen Existing Improvements” information about ADS-B.
- Updated description of ADS-B.
- Added a new paragraph, “Synthetic Vision Guidance System (SVGS).”
- Updated references in paragraph, “Enhanced Flight Vision System (EFVS)” to include AC 90 106, Enhanced Flight Vision Systems.
- Changed paragraph “Developing Combined Technology” to “Combined Vision System Technology” and discusses the concept of equivalent visual operations (EVO) where flight operations continue irrespective of the actual weather conditions.

Chapter 7

- Updated various paragraphs by changing “Helicopter Emergency Medical Service (HEMS)” to “Helicopter Air Ambulance (HAA).”
- Clarified in paragraph “Helicopter IFR Takeoff Minimums” regarding takeoff minimums and acceleration to minimum speed.
- Updated figure 7-7 regarding the visibility for “Class G 1200 feet or less above the surface” changing from “none” to “½ SM.”
- Updated paragraph “Approach to a PinS” regarding proceeding VFR in uncontrolled airspace. Deleted figure 7-14 and references to the figure are deleted; information is already covered elsewhere in the paragraph.
- Reworded paragraph “Approach to a Specific VFR Heliport” indicating that some of the requirements stated in the first sub-paragraph apply only to public procedures.

Appendix B

- Updated “A/FD—Airport/Facility Directory section of the Chart Supplement (CS).”
- Updated “AFMS—Aircraft Flight Manual Supplements.”
- Added “CS—Chart Supplement” and “D-CS—Digital Chart Supplement.” and,
- Added “SVGS – Synthetic Vision Guidance System.”

Glossary

- Updated “Airport/Facility Directory (A/FD).”
- Added “Chart Supplement (CS or d-CS for digital Chart Supplement).”
- Added “Closely Spaced Dependent Approaches.”
- Added “EFVS operation.”
- Added “Enhanced Flight Vision System (EFVS).”
- Updated “Positive Course Guidance (PCG).”
- Updated “Standard Terminal Arrival (STAR).”
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- Updated “Standard Terminal Arrival (STAR).”
- Added “Standard Terminal Arrival (STAR) Charts.”
- Added “Synthetic Vision Guidance System (SVGS.)”
- Updated “Synthetic Vision System (SVS).”