Federal Aviation Administration

UNITED STATES GOVERNMENT SPECIFICATIONS

FLIGHT INFORMATION PUBLICATION GRAPHIC INSTRUMENT DEPARTURE PROCEDURE (DP) CHARTS

IAC 7
6 May 2025

Prepared by the Interagency Air Committee (IAC)

OK-10-1818

UNITED STATES GOVERNMENT SPECIFICATIONS
FOR THE
FLIGHT INFORMATION PUBLICATION
GRAPHIC INSTRUMENT DEPARTURE PROCEDURE (DP) CHARTS

6 May 2025

These specifications have been developed by the Interagency Air Committee (IAC), composed of representatives of the Department of Defense and the Federal Aviation Administration, for use in the preparation of the United States Government Flight Information Publication Graphic Instrument Departure Procedure (DP) Charts. These specifications shall be complied with, without deviation, until such time as they are amended by formal IAC action.

Changes to these specifications will be provided when necessitated by new requirements or through development action of the IAC.

Questions of interpretation that arise in the use of these specifications shall be referred to the Chair, Interagency Air Committee.

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CHANGES APPLIED TO CURRENT EDITION

REQUIREMENT DOCUMENTS

a. RD - 889 Airport Location Identifiers on Terminal Chart Products

EDITORIAL CHANGES

a. None applied this edition

CHANGES APPLIED 28 OCTOBER 2024

REQUIREMENT DOCUMENTS

a. None applied to this edition

EDITORIAL CHANGES

a. EC 24-11 – Takeoff Mins on Multipage DPs

CHANGES APPLIED TO 4 SEPTEMBER 2024

REQUIREMENT DOCUMENTS

a. None applied to this edition

EDITORIAL CHANGES

a. EC 24-05 – NAVAID Leaders on RNAV Charts

CHANGES APPLIED 13 FEBRUARY 2024

REQUIREMENT DOCUMENTS

a. None applied to this addition

EDITORIAL CHANGES

a. EC 24-02 Addition of DP with DME Arcs Appendix

CHANGES APPLIED 3 OCTOBER 2023

REQUIREMENT DOCUMENTS

a. RD 867 – Multipage DPs and STARs
b. RD 869 – Removal of AL Numbers on Military Charts

EDITORIAL CHANGES

a. None applied to this edition

CHANGES APPLIED 30 AUGUST 2023

REQUIREMENT DOCUMENTS

a. None applied to this edition

EDITORIAL CHANGES

a. EC 23-09 – RNAV Waypoint Clarification

CHANGES APPLIED 28 AUGUST 2023

REQUIREMENT DOCUMENTS

a. RD 861 – NAVAID Box Depiction in TPP

EDITORIAL CHANGES

a. EC 23-05 – Removal of Copter DP Appendices
b. EC 23-07 – Office of Responsibility for Terminal Procedures

CHANGES APPLIED 7 JULY 2023

REQUIREMENT DOCUMENTS

a. RD 859 – Removal of Enroute Designations and Geographic Coordinates on DPs and STARs

EDITORIAL CHANGES

a. None applied to this edition

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AMENDMENT OF SPECIFICATIONS

1. PROCEDURE

a. Recommendations for amendments to specifications from the Department of Defense shall be directed to:

National Geospatial-Intelligence Agency
7500 GEOINT Drive
Springfield, VA 22150-7500

b. Recommendations for amendments to specifications from the Federal Aviation Administration shall be directed to:

Federal Aviation Administration /
Aeronautical Information Services
SSMC-4 Sta # 4503
1305 East-West Highway
Silver Spring, MD 20910

2. AMENDMENT SYSTEM

a. Change to the specifications will be issued at the effective date of the latest Requirement Document (RD) and / or Editorial Change (EC).
b. The Specification will be dated, indicated along the upper margin of each page, to reflect the most current change.

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TABLE OF CONTENTS

CHAPTER 1
GENERAL

1.1 PURPOSE AND SCOPE

1.1.1 Purpose

The purpose of these specifications is to provide appropriate guidelines to effect uniformity and standardization of content and portrayal techniques in the preparation and production of charts for use by both civil and military pilots.

1.1.2 Scope

Instrument Departure Procedures (DP) are preplanned Instrument Flight Rule (IFR) procedures which provide obstruction clearance from the terminal area to the appropriate en route structure. There are two types of DPs: Obstacle Departure Procedures (ODPs), printed either textually or graphically and Standard Instrument Departures (SIDs), always printed graphically. SIDS are primarily designed for system enhancement and to reduce pilot/controller workload, and require ATC clearance. ODPs provide obstruction clearance via the least onerous route from the terminal area and may be flown without ATC clearance. All DPs provide the pilot with a safe departure from the airport and transition to the en route structure.

These specifications address Graphic DPs only and are intended as a guide in their preparation. For simplicity, the generic term "DP" shall be used within this document to indicate both SIDs and graphic ODPs.

1.2 REQUIREMENTS

1.2.1 General

DP charts shall be prepared, using one basic chart layout, for all civil, military, and civil/military airports for which DP procedures have been established and designated.

1.2.2 Quality and Accuracy

The highest standard of accuracy in plotting, reproduction, and currency of information contained therein, shall be maintained.

Although the digital chart files are compiled in accordance with these specifications, the final product may vary slightly in appearance due to differences in printing techniques/processes and/or digital display techniques.

1.2.3 Color

DP Charts and supplemental textual data, as required, regardless of format of presentation, shall be prepared for a one color presentation. All information, textual and graphics, shall be in solid color, unless otherwise specified.

1.2.4 Scale

Generally, DP charts shall be depicted "not to scale" due to the great distances involved on some procedures or route segments. The portrayal may be distorted but angular integrity should be maintained whenever possible. A "to scale" portrayal may be used if the layout permits and readability is assured.

1.2.5 Projection

Projection shall be Lambert Conformal, or Polyconic.

1.2.6 Horizontal Datum Reference

Charts referenced to horizontal datum other then North American Datum 1983 (NAD 83) will show a note, e.g., Horizontal Datum: WGS 72, indicating the datum used in 7 pt. type centered above the bottom neatline in the planview.

1.2.7 Symbolization

Symbolization shall be in accordance with the aeronautical information and chart symbols included in **Appendix 1**.

These symbols have been developed through the United States Government Interagency Air Committee (IAC) and its supporting technical groups for the purpose of standardization of the aeronautical symbols portrayed on charts and publications used by both military and civil aviation.

The symbols contained in these specifications have been developed for use in the preparation of U.S. Government Aeronautical Charts and Publications.

The configuration of the symbols contained herein shall be adhered to. The size and line weights, specified and/or indicated herein, should also be adhered to, but may be varied when absolutely necessary.

1.2.8 Type Styles

The use of capital letters is intended, unless otherwise stated as C/L (capital and lower case letters).

All type, unless otherwise specified, shall be Futura Medium, as indicated on the various appendices.

Type sizes specified herein shall be adhered to. However, and only in those areas of extreme congestion, or where a specified type size would create unnecessary congestion, the size of type may be reduced to the next smaller size.

1.3 SPECIFICATION APPENDICES

Specification Appendices are included within these specifications for use in layout, format and content. Appendices do not necessarily reflect all possible operational content.

CHAPTER 2
FORMAT AND LAYOUT

2.1 FORMAT

The DP procedure, including all textual or type data, shall be aligned normally with true north at the top of the page. Predominately extensive east-west procedures shall be depicted in a landscape format in which North shall be toward the left side of the page. In such cases, the text will be oriented consistent with the geographic procedure and a North arrow shall be shown. The arrow may be placed in any open space.

Figure 2.1 North Arrow

DP charts shall be arranged so that the planview of the procedure is shown in the upper portion of the chart with the remaining lower portion containing the textual description of the procedure. These sections will be separated by a 6 wt line, so that the textual description will be "boxed" as illustrated in **Appendix 5**. The box size can be adjusted to accommodate the size of the description.

2.2 LAYOUT

Size and dimensions shall be as annotated in **Appendix 2** and **Appendix 3**.

Information shall be presented in textual, tabulated and graphic form, normally printed to read parallel to the top edge of the publication.

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CHAPTER 3
CHART CONTENT

3.1 GENERAL

A DP is an air traffic control coded departure routing developed to simplify departures, the procedures and phraseology for issuing departure clearances and present pilots with a pre-planned departure clearance.

DP charts are designed to provide the pilot with all electronic aid information, together with procedural and other pertinent data required to execute the DP clearance.

The chart portrayal shall be limited to one procedure.

3.2 COMPILATION

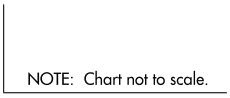
3.2.1 Centering

The DP procedure shall be plotted using, insofar as possible, the center of the graphic area for positioning of the first facility/fix after takeoff. However, it may not always be practicable to use the first facility/fix after takeoff as the chart center. Cartographic judgment must therefore be exercised in plotting the DP procedure, mindful of the intent of the DP program and the needs of the user. All turns, altitudes, NAVAIDs, including radio aids used in the formation of fixes, germane to the procedure, shall be positioned on the graphic in their relative geographic location.

3.2.2 Scale

Every effort should be made to chart to scale or in relative geographic position. A ‘to scale’ graphic may be possible but, due to distances involved on some route segments, such a depiction may be the exception rather than the rule. On charts so affected, a general statement as follows shall be shown along the bottom border line of the planeview, using 7 point type, “NOTE: Chart not to scale.”

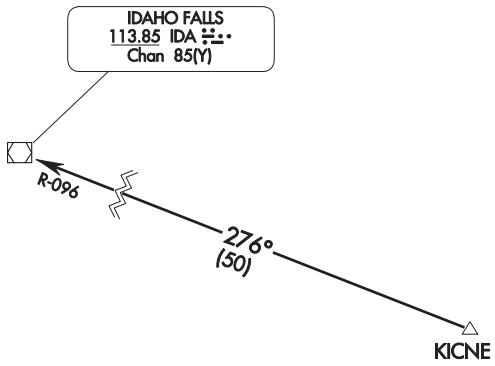
Figure 3.1 Chart Not to Scale Note



On charts that are able to be depicted to scale with the use of specific route segments, those segments may be broken by the Scale Break symbol.

Figure 3.2 Scale Break Symbol

Figure 3.3 Scale Break



3.2.3 Displacement

All information shall be plotted to indicate its true (or relative in not to scale presentations) geographic location. Should it become necessary to displace symbols because of their close proximity, preference shall be given to the airport, with full symbol representation, over the NAVAID.

3.2.4 Alignment

The DP procedure shall normally be aligned with true north at the top of the page. Exceptions to this shall be for predominately extensive east/west procedures which may be aligned with north to the left of the page. In such cases, the textual descriptions or type data shall read with the graphic procedure. East/West textual descriptions will be "boxed" wherever they are positioned in the planview. The box may be adjusted to accommodate the size of the description.

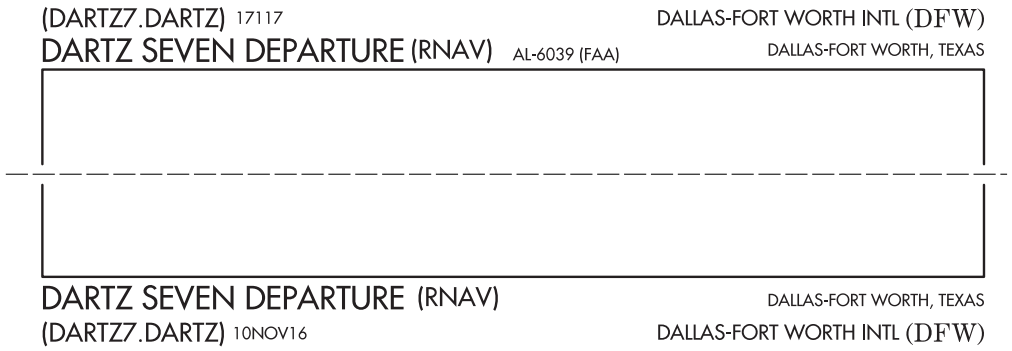
3.2.5 Placement of Identification and Notes

Identifications and data notes shall be positioned adjacent to or as near the symbol they pertain to as possible. When such placement would result in the obliteration of other detail, the information may be leadered.

3.3 MARGIN DATA

Margin Data is defined as that information required to be shown between the borderline of the DP chart and the trim. The margin data below is required to be shown positioned as illustrated.

Figure 3.4 Margin Data (Top and Bottom)



References:

Appendix 4 - Margin Data

3.3.1 Procedural Designation

The departure procedure name, number, type, and computer code assigned by the authority establishing the procedure, e.g., EAGLE SEVEN DEPARTURE (OBSTACLE) (RNAV) (EAGLE 7. EAGLE) shall be shown.

To distinguish between the number zero and the letter "O" within the computer code, a slash shall be shown through the zero.

3.3.1.1 Type

Type indicates OBSTACLE, COPTER, SID, SPECIAL, and RNAV.

If indicated, OBSTACLE, COPTER, and RNAV will be shown in the chart title in parentheses in the order they are listed on the form.

3.3.1.2 Multipage Graphics

If deemed appropriate to break a DP into a two page graphic, the DP name and type will be followed by a subtitle identifying the area being depicted, e.g., Departure Routes, Transition Routes. The subtitle will be 10 pt. C/L.

Each individual graphic page for a split graphic will be in the layout that best accommodates the routing, i.e., east-west landscape or north-south portrait, and each graphic page does not have to be in the same orientation.

References:

Appendix 15 - Multipage Graphic DP (2 pages)
Appendix 16 - Multipage Graphic DP (3 pages)

3.3.2 Airport Name and Identifier

The airport name, extracted verbatim from the authoritative database, immediately followed by the airport location identifier shown in parentheses, shall be shown at the top and bottom margins. Civil and joint-use airports will be shown with the FAA airport location identifier. Civil and joint-use airports outside the contiguous United States will be shown with the FAA airport location identifier followed by the ICAO location indicator. Military airports that are not joint-use will be shown with only the ICAO location indicator.

3.3.3 Location

The geographic location, consisting of the city and state name associated with the airport.

3.3.4 Julian Date

The Julian date, which reflects a chart revision of any type, will be placed above the top neatline, adjacent and to the right of the computer code. If no computer code exists, the Julian date will be left justified above the procedure name.

3.3.5 Procedure Effective Date

The AIRAC date of the last procedural revision will be placed below the bottom neatline, adjacent and to the right of the computer code. If no computer code exists, the procedure effective date will be left justified below the procedure name.

3.3.6 Chart Reference Number

The chart reference number shall be preceded by the series code “AL” and dash followed by the abbreviated name of the appropriate authority for the procedure, placed inside parenthesis; e.g., AL-000(FAA); AL-000(FAA-O). Military procedures do not show a chart reference number, but do show the appropriate authority for the procedure, e.g., (USN).

3.4 PLANVIEW

References:

Appendix 2 - Page Layout

Appendix 3 - East West Page Layout

3.4.1 General

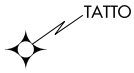
The chart shall encompass the area required to effectively show the departure routing, including transitions to the appropriate enroute structure.

One procedure shall be shown on each chart. Takeoff portrayals from more than one runway or from opposite ends of a runway are not to be treated as separate procedures.

All routes, turns, altitudes, NAVAIDs, facilities forming intersections and fixes, and those facilities terminating the departure route (where the procedure joins the altitude structure for which the departure was established), shall be shown in the graphic depiction.

In congested areas the lightning bolt type leader lines may be used to reference a fix/intersection/way-point to its correlating point.

Figure 3.5 Lightning Leader



Ideally, both the graphic and textual description will be depicted on a single page. However, when not feasible, the textual description can be published on an additional page(s) as shown on **Appendix 14**.

When the graphic cannot fit entirely on one page, the first page typically will show the Departure Routes up to and including the common point which commences the Transition Route segments. The transition routes will be shown on the following page.

When utilizing continuation pages, each preceding page will include the note "(CONTINUED ON FOLLOWING PAGE)" in 9pt type shown preferably at the bottom of the chart directing users to the next page.

References:

Appendix 14 - DP With Continued Page
Appendix 15 - Multipage Graphic DP (2 pages)
Appendix 16 - Multipage Graphic DP (3 pages)
Appendix 32 - RNAV DP with Continued Page

3.4.2 Communications

References:

Appendix 7 - DP With Frequency Sectorization

3.4.2.1 General

Communications information, when available, shall be shown in the upper left corner, as indicated on the appendices in such a manner so as not to interfere with significant items of the departure procedure. When necessary communications information may be shown in the upper right corner. Type size shall be 7 pt.

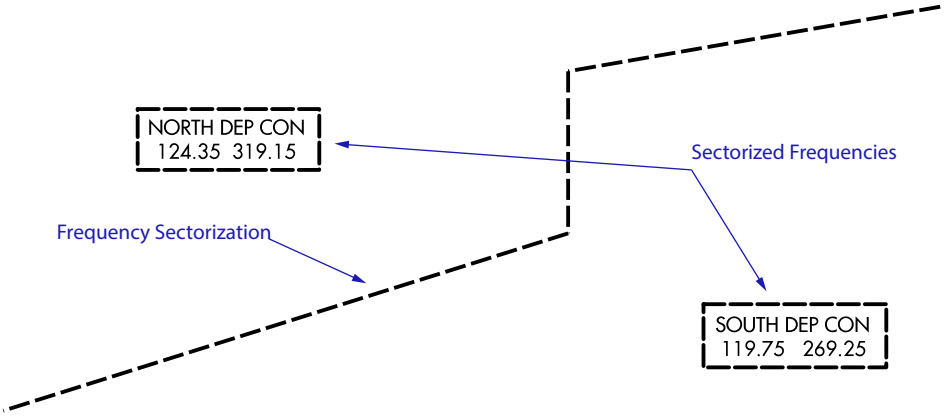
The typical format for communications is the name on the line followed by the frequency(ies) underneath it. All data shall be justified left or right as appropriate to the corner placement.

On a multipage graphic DP, all communications will be charted on every page that contains graphics.

3.4.2.2 Frequency Sectorization

Frequency sectorization, as defined by the formulating agency, shall be shown. Sector boundaries shall be defined by a 6 wt dashed line. The sectorized frequency and call shall be enclosed within a box using the same dashed line, positioned within the appropriate sector using 8 point type. Sectorization will normally involve more than one set of departure control frequencies.

Figure 3.6 Communications / Frequency Sectorization



3.4.2.3 Hours of Operation

Hours of operation shall not be shown. Part-time operations for ATIS or AFIS, DEP CON, and TOWER will be annotated with a star.

Figure 3.7 Part-time Operation Depiction

3.4.2.4 Communications

DEP CON is the only communications information that will be shown unless additional communications are specifically requested on the procedure source form and preceded with the command CHART.

DEP CON shall be shown by name and abbreviated; e.g., “SPOKANE DEP CON”. Multiple DEP CON frequencies may be charted when published in the source database, though additional communications (excepting DEP CON) shall not exceed one VHF and one UHF primary frequency.

3.4.2.5 Additional Communications

The following additional communications will only be shown when specifically requested on the procedure source form and preceded with the command CHART and will be listed in the sequence listed below. Additional communications, as identified, shall not exceed one VHF and one UHF primary frequency for each of the following:

- DEP CON
- CENTER (part-time DEP CON)
- ATIS (D-ATIS) (AFIS)
- AWOS/ASOS
- CLNC DEL
- CPDLC
- GND CON
- TOWER (CTAF)
- RADIO (FSS) (Only for airports located outside the contiguous U.S.)

3.4.2.5.1 Automated Terminal Information Service (ATIS)

Automated Terminal Information Service shall be shown by the letters "ATIS" followed by the specific frequency/s. If the service is digital and listed as D-ATIS in the authoritative source database, "D-ATIS" shall be shown followed by the specific frequency/s.

When the service is provided on one frequency for both arrival and departure information, the single frequency shall be shown; e.g., ATIS 111.8.

When the service is provided on more than one frequency for both arrival and departure information, both (or all) frequencies shall be shown; e.g., ATIS 113.9 124.2.

When the service provided is either arrival and/or departure on different frequencies, only the departure frequency shall be shown; e.g., ATIS DEP 112.7.

3.4.2.5.2 (AK) Automated Flight Information Service (AFIS)

Automated Flight Information Service shall be show by the letter "AFIS" followed by the specific frequency/s.

3.4.2.5.3 Automated Weather Systems (AWOS/ASOS)

Automated Weather Systems (AWOS/ASOS) shall be shown by the system type, followed by the level and the frequency; e.g., AWOS-3 124.65 or ASOS 118.975.

3.4.2.5.4 Remote Weather Frequencies

When a remote civil AWOS/ASOS is specified on the FAA Form 8260 for charting, the airport location identifier and frequencies will be charted. Civil airports located outside the Contiguous U.S. will also include the ICAO identifier, e.g. ORT/PAOR.

When a remote military ATIS is specified on the FAA Form 8260 for charting, only the ICAO identifier and frequencies will be charted.

Figure 3.8 Remote Weather

ANCHORAGE CENTER
125.2 372.0
AWOS-3P
120.0
BET/PABE ASOS
135.45
CTAF
122.9

3.4.2.5.5 Clearance Delivery (CLNC DEL)

When CLNC DEL frequency is requested for charting when the tower is closed, it will be depicted as follows:

Figure 3.9 CLNC DEL

CLNC DEL
121.8 (when twr closed)

3.4.2.5.6 Controller Pilot Data Link Communication (CPDLC)

The existence of Controller Pilot Data Link Communication shall be shown by the letters "CPDLC" with no associated frequency.

3.4.3 Fly-over Symbology

Enroute fixes/intersections, waypoints, and NAVAIDs that are designated as fly-over on RNAV DPs will be shown as indicated in **Appendix 1**. However, enroute fixes/intersections, waypoints, and NAVAIDs designated as a holding point will be charted as a fly-by, without the circle around the symbol. In the event the holding point is also designated in all other parts of the procedure unrelated to holding with a fly-over function, then the holding point will be charted as a fly-over point.

3.4.4 Compulsory Reporting Points

Fixes, reporting points, intersections, NAVAIDs, and waypoints designated as compulsory will be designated as indicated in **Appendix 1**.

3.4.5 Airports

The airport of departure shall be shown by a 1 wt open outline pattern depicting all runways that exist in the authoritative source database (including closed runways) to scale. The airport pattern may be resized in order to clearly depict the runways and departure routes/headings.

Secondary airports as designated by the approving authority shall be shown by the circular airport symbol and airport name, in 7 point type. Airport names will be extracted verbatim from the authoritative database. The symbol shall be civil, military, or civil/military as shown in **Appendix 1**. An open outline runway pattern may be used, but only in specific instances when necessary to depict unique procedure requirements such as frequency sectorization.

3.4.6 Radio Aids to Navigation (NAVAIDs)

3.4.6.1 General

NAVAIDs used in the procedure, including transitions and those shown only to establish fixes, intersections, etc., shall be shown, positioned in their relative geographical location with the following exceptions:

NAVAIDs that are located beyond the established limits of the chart area shall be brought or moved within the neatline of the planview, retaining its magnetic bearing and distance relationship. Mileage and bearing values, etc., shall, however, be accurate.

In congested areas, where a box depiction is not feasible, NAVAIDs that are located beyond the established limits of the chart area and used to establish fixes, intersections, etc., shall be identified by using a 2 weight (.005") radial line with the facility identifier, frequency and channel number positioned along and parallel to the radial line.

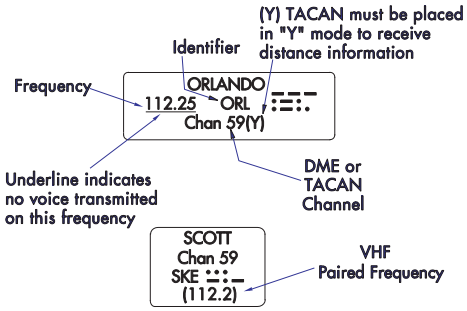
3.4.6.2 Frequencies Without Voice

Frequencies without voice capability, except TACAN and DME, shall be underlined using a 2 weight (.005") line, the length of the frequency numbers.

3.4.6.3 Symbolization and Identification of NAVAIDs

NAVAIDs shown shall be appropriately symbolized and identified in 7 point type. The following information as appropriate for the type of NAVAID in the order listed shall be enclosed within an identification box: name, frequency, identifier, morse code, channel number and paired VHF frequency.

Figure 3.10 NAVAID Symbolization



3.4.6.3.1 Leader Lines

The leader line shall extend from the data box to and without touching the appropriate radio aid to navigation symbol.

3.4.6.3.2 Line Weight

Line weight for boxes and leader lines shall be 3 weight (.006").

3.4.6.3.3 NAVAID Boxes

Boxes shall be of a size consistent with the informational data contained therein.

3.4.6.4 "Y" Mode NAVAIDs

NAVAIDs with a DME, when the DME operates in the "Y" mode, the "Y" will be enclosed in parenthesis and positioned immediately following the channel number, e.g., Chan 00(Y).

3.4.6.5 Instrument Landing System (ILS)

The Instrument Landing System (ILS) Localizer Course, either the front, back or both courses, shall be shown when identified and used in the procedure. The back course, when shown, shall be identified as "BACK COURSE" positioned along and parallel to the course using 7 point type.

Figure 3.11 ILS Depiction

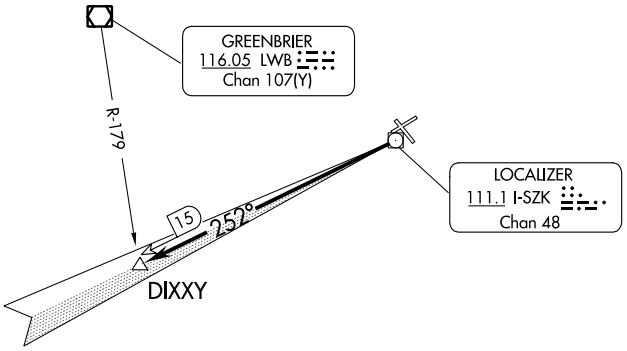
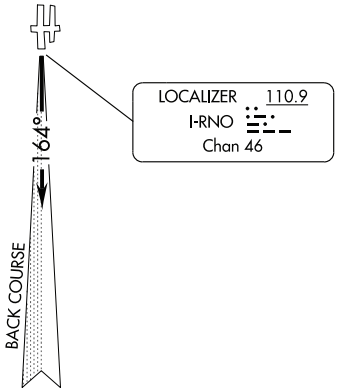


Figure 3.12 ILS Depiction - Back Course



3.4.7 RNAV DPs

3.4.7.1 NAVAIDs

NAVAIDs on RNAV DPs shall show only the applicable NAVAID symbol, with NAVAID name and 3-letter identifier in 8 point type. NAVAID data shall not be boxed. When necessary, the NAVAID name and ident may be leadered to the NAVAID symbol by a lightning type leader.

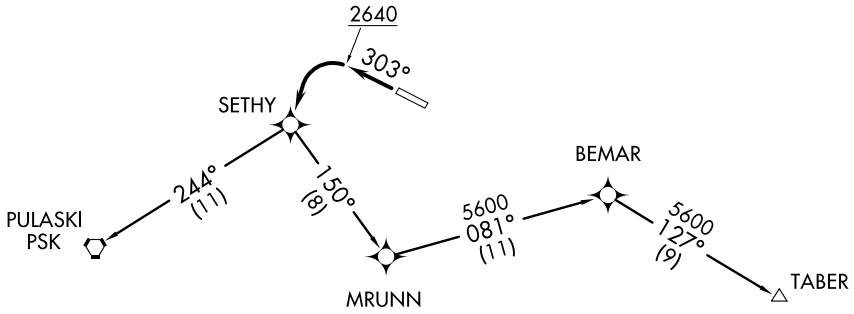
3.4.7.2 Legs

On RNAV DPs, leg type abbreviations VA = Heading to Altitude, VI = Heading to Intercept, FM = Fix to Manual Termination, VM = Heading to Manual Termination, DF = Direct to Fix, CF = Course to Fix, TF = Track to Fix, RF = (Constant) Radius to Fix, shown on the 8260-15C and -15B source documents, will be charted as follows:

Table 3.1 Leg Types

8260-15C	8260-15B	Charting
VA	Heading	No waypoints shown, heading shown (i.e. 092°), no mileage shown.
VI	Heading	No waypoints shown, heading shown (i.e. 092°), no mileage shown.
FM	Track	No waypoint at termination of leg and no mileage shown, track (i.e., 092°).
VM	Heading	No waypoint at termination of leg and no mileage shown, heading (i.e., 092°).
DF	Direct	Waypoint at termination of leg, no course shown, no mileage shown
CF	Course	Waypoint at termination of leg, course shown (i.e. 092°), mileage shown [(17)] only if first leg.
TF	Track	Waypoints at start and termination of leg, course shown (i.e. 092°), mileage shown[i.e., (45)].
RF	Turn Left/ Right	Waypoints shown at start and termination of leg, no course shown, mileage shown.[i.e., (45)].

Figure 3.13 Waypoint Depiction



3.4.8 Copter DPs

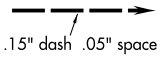
3.4.8.1 General

The Heliport of departure shall be shown by the circular heliport symbol as shown in **Appendix 1**.

3.4.8.2 Visual Segment

Copter DPs that have a visual flight path segment shall be shown by an 8 weight (.020”) dashed line symbol as illustrated below.

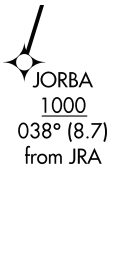
Figure 3.14 Visual Segment



3.4.8.3 VFR Segments

Copter DPs that have a VFR segment shall not be depicted with a line, but will include the reference bearing and distance, when provided on the procedure source document, at the end point of the VFR segment.

Figure 3.15 VFR Segment



3.4.9 Named DME Fixes, Unnamed DME Fixes, Intersections, Computer Navigation Fixes (CNF) and Waypoints

References:

Appendix 1 - DP Chart Legend

3.4.9.1 General

DME fixes, intersections, fixes, CNFs and waypoints described in the DP shall be shown and illustrated as described in **Appendix 1**. Identification shall be by name in 8 point type.

3.4.9.2 Named DME Fixes

Named DME fixes shall be identified by the placement of small open arrowheads (.12" in length) pointing to the fix from the VHF/UHF radio aid to navigation forming the fix. These open arrowheads shall be positioned adjacent to the fix, along and parallel to the route or radial.

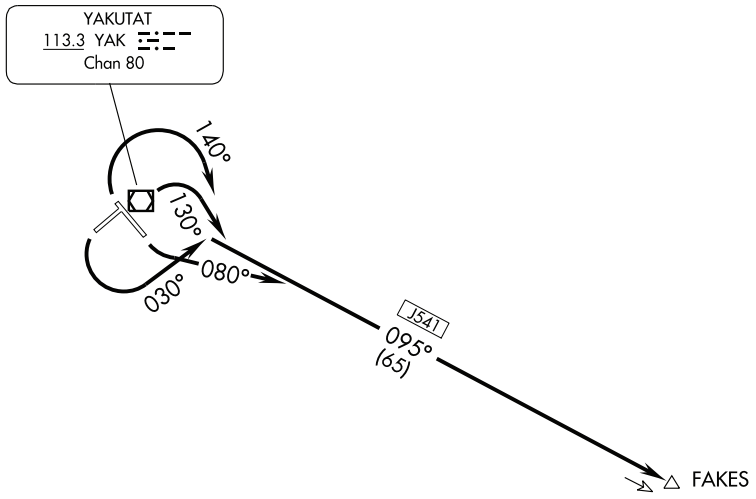
These open arrowheads will be supplemented with an open “D” attached to the shaft of the DME arrowhead, with the DME mileage centered therein when the mileage from the NAVAID is not obvious.

Fixes/Intersections with multiple DMEs will only depict DMEs from NAVAIDs that also form transition, departure or lost communication routes, unless others are requested by the procedure.

Fixes/Intersections requested for depiction on “VECTOR” type departures shall be shown without NAVAID makeup unless specifically requested on procedure.

Type size and style for the DME mileage shall be 7 point, expressed in whole miles except when less than one mile and when specified on a procedure.

Figure 3.16 Named DME Fix

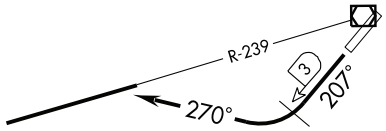


3.4.9.3 Unnamed DME Fixes

Unnamed DME fixes shall be shown by a 2 weight (.005") line, .2" long, centered across the appropriate radial or route line, supplemented by the open arrow and “D” symbol described above. The associated mileage figure for radar fixes shall be positioned adjacent to the line symbol and shall be identified in nautical miles.

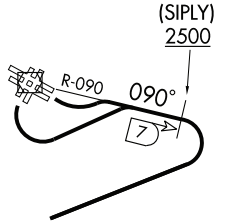
Type size and style for the DME mileage shall be 7 point, expressed in whole miles except when less than one mile and when specified on a procedure.

Figure 3.17 Unnamed DME Fix



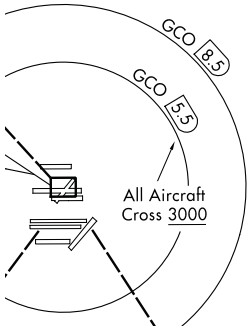
If a CNF is colocated with a DME fix the “x” symbol will not be shown.

Figure 3.18 Unnamed DME Fix with Colocated CNF



When a DME arc limit is used for takeoff, the DME mileage shall be expressed in tenths when specified to that degree on the procedure source document.

Figure 3.19 DME Arc Limit



3.4.9.4 Intersections

Intersections are points in space formed by two or more NAVAIDs.

Figure 3.20 Intersections

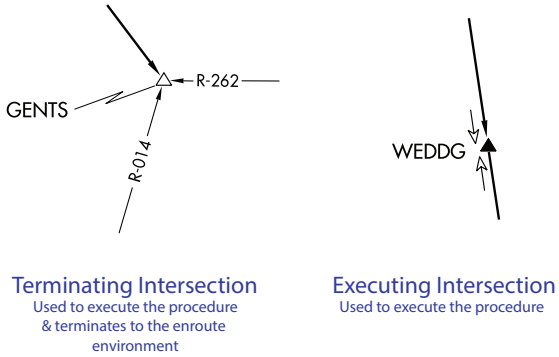
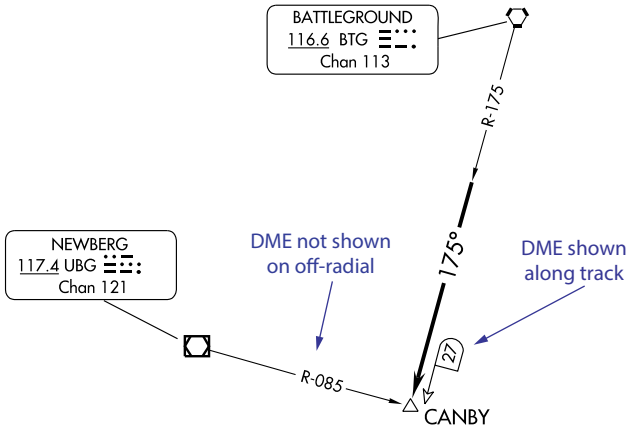


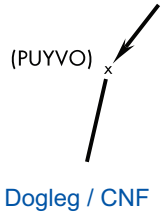
Figure 3.21 Off-Radial DME



3.4.9.5 Computer Navigation Fix (CNF)

A CNF shall be shown with the symbol “x” at a dog-leg of the route when defined as part of the procedures in the DP. The 5-character CNF name shall be show in parentheses.

Figure 3.22 Computer Navigation Fix (CNF)



3.4.9.6 Waypoints

Waypoints that are intended only for use by onboard database navigation systems, and have an ATC function, shall be charted. The assigned 5-letter waypoint name will be charted adjacent to the waypoint icon in 8 point type. When a waypoint is created at the same geolocation as an existing fix, NAVAID, or reporting point, then the waypoint symbol will not be charted. Only the fix, NAVAID, or reporting point and its associated data will be shown.

3.4.10 Routes

Departure, lost communications and transition routes shall be shown, broken for all symbols, and for the insertion of bearing values or RNAV track angles. Directional arrowheads shall be positioned on the routes, near, but not touching the symbol.

A departure route that terminates at one NAVAID shall show the departure route from the airport to the terminal facility.

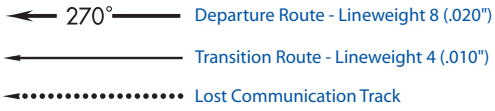
A departure route that terminates at two or more NAVAIDs shall show the departure route from the airport to the radio aid to navigation that is common to all the terminating facilities.

Transition routes are shown emanating from the common facility to all of the terminating facilities.

Depiction of departure and transition routes may be shown not to scale if it will depict the procedures more clearly. Such a depiction may be necessary due to distances involved on some route segments of the departure procedures. In such cases, either a scale break symbol or “NOTE: Chart not to scale” shall be shown in accordance with paragraph **3.2.2** of this chapter.

Departure routes with a course reversal (procedure turn) shall be shown by the barb symbol illustrated. The barb shall be a half arrowhead .010" long and .05" wide, positioned on the maneuvering side.

Figure 3.23 Route Symbology



3.4.11 Route Data

All route data information applies to both RNAV and Non-RNAV DPs unless otherwise stated.

References:

Appendix 1 - DP Chart Legend

3.4.11.1 Magnetic Headings/RNAV Track Angles

Magnetic headings or RNAV track angles shall be shown in three digits (to the nearest degree) positioned on and breaking the route or transition line. A degree sign shall be shown with all headings. Type size shall be 9 point. When a route or track line would be obliterated by placement of the heading value, it may be placed above or below the line, as space permits.

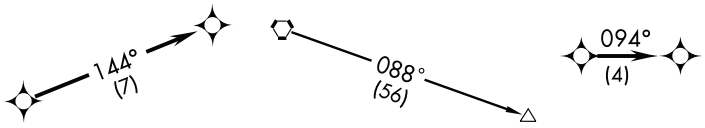
3.4.11.2 Mileages

Nautical mile distances (mileages) between primary NAVAIDS, intersections, fixes, waypoints and from the takeoff runway to the first significant point shall be shown, rounded to the nearest whole nautical mile, within parentheses, normally positioned below the route heading.

When the departure can be made from two or more runways, the distance is measured from the center of the takeoff area to the first significant point. This distance, as established by the formulating agency shall be identified by note, "Aprx dist fr T/off area," arrowed to the mileage value or referenced to the value using a reference symbol.

Type size shall be 8 point.

Figure 3.24 Bearing Values, Track Angles and Mileages



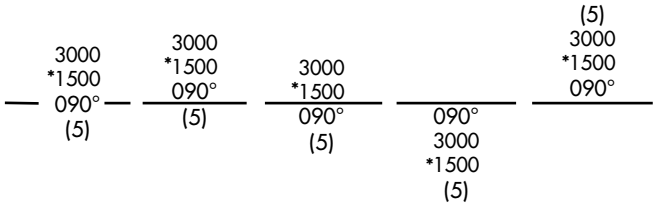
3.4.11.3 MEA, MOCA, etc.

MEA, MOCA, etc., as designated and specified in the procedure shall be shown, normally above the route heading, using 8 point type. MOCAs shall be preceded by a 9 pt asterisk. Altitude values shall not include commas. Altitudes of 18000 feet and above shall be expressed in thousands of feet or as a flight level (e.g. FL180), as provided on the procedure source form.

3.4.11.4 Route Data Stacking Order

Route data shall be stacked in the order of preference shown in **Figure 3.25**, depending on the space available.

Figure 3.25 Route Data Stacking Order

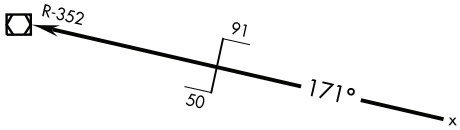


3.4.11.5 Changeover Points (COPs)

COPs shall be shown when specified in the procedure.

The heavy bar of the symbol shall be centered on and at a 90° angle to the route, when aligned with the route data, the symbol shall be positioned so that the short top line shall be parallel with the route and "point" to the right; the short bottom line shall also be parallel to the route and "point" to the left.

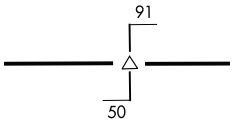
Figure 3.26 Changeover Points



3.4.11.5.1 Colocated Changeover Point & Fix

When a COP is located at a fix, except when colocated with a DME fix, the changeover point symbol shall be broken for the fix symbol. When colocated with a DME fix, the COP shall be offset from the fix. The COP symbol shall not touch the fix symbol.

Figure 3.27 Colocated COP & Fix



3.4.11.5.2 Mileages on COP

Mileage figures from the COP to the next and preceding VHF/UHF NAVAID shall be positioned .02" above or below the short "pointer lines" of the symbol, parallel with the route using 7 point type. However, in areas where this placement is not in the best interest of clarity, the mileage figures may be centered .02" from the ends of the short "pointer lines" of the symbol, parallel with the route.

When the COP is located at a reporting point or a DME fix, the changeover mileage figure shall be omitted, provided there is no intervening mileage breakdown point between the COP and the NAVAID.

3.4.11.6 Airways/Routes (Coincidental and Noncoincidental)

When the departure or transition route on a non-RNAV DP coincides with an airway/route the airway/route identification shall be shown using 7 point type, enclosed in a 2 weight (.005") box. When an airway/route is requested that is not coincident with a departure or transition route, it will be shown with a 2 weight (.005") line in the same way, except non-RNAV will provide a radial, RNAV will not.

Figure 3.28 Coincidental Routes

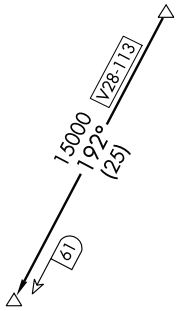
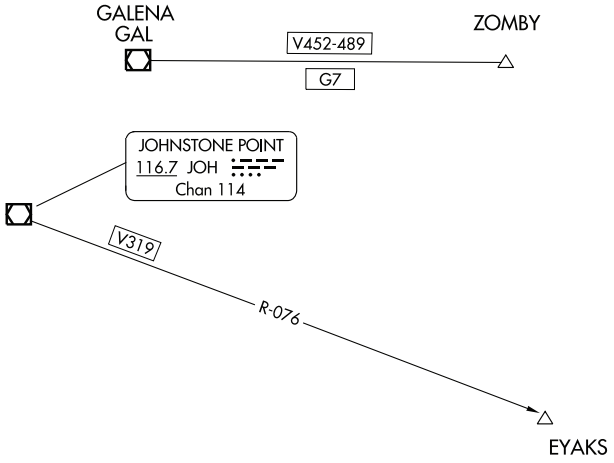


Figure 3.29 Non-Coincidental Routes



3.4.11.7 Restrictive Altitudes

Restrictive altitudes along the departure route shall be shown using 8 point type.

Altitude values shall not include commas (15000).

Minimum, Maximum and Mandatory Altitudes shall be shown and be clearly identified with the fix to which they apply. The use of an overscore (line above text) and underscore (line below text) on altitudes of the procedure shall be as appropriate to the wording of the procedure, as depicted in **Table 3.2** below.

Restrictive altitudes at NAVAIDs, fixes and waypoints along the departure/transition route shall be shown, when specified by appropriate authority, without annotation and adjacent to the point with which they are associated and in accordance with established minimum/maximum/mandatory altitude charting conventions.

Table 3.2 Restrictive Altitudes

Type	Description	Example
Minimum Altitude	Minimum altitudes shall be depicted as an underlined number. This is an MSL altitude, vertical to a geographic location below which an aircraft may not descend. Cross at or above 2300 will be shown as depicted. Expect clearance to cross at or above an altitude will be shown as "Expect 2300".	2300
Maximum Altitude	Maximum altitudes shall be depicted as a number with a line above it. This is an MSL altitude, vertical to a geographic location, above which an aircraft may not be flown. Cross at or below 4800 will be shown as depicted. Expect clearance to cross at or below an altitude will be shown as "Expect 4800".	4800
Mandatory Altitude	Mandatory altitudes shall be depicted as a number with a line above and below. This is an MSL altitude, vertical to a geographic location which an aircraft must maintain. Cross at an altitude will be shown as depicted. Expect clearance to cross at an altitude will be shown as "Expect 5500".	5500
Block Altitudes	Block altitudes shall be depicted as the combination of Minimum and Maximum altitudes as depicted. Expect clearance for a block altitude will be shown as "Expect 7500 5500".	7500 5500

3.4.11.8 Restrictive Airspeeds

Restrictive Airspeeds along the departure route shall be shown using 8 point type. The use of an overscore (line above text) and underscore (line below text) on airspeeds of the procedure shall be as appropriate to the wording of the procedure, as depicted in **Table 3.3** below.

Table 3.3 Restrictive Airspeeds

Type	Description	Example
Minimum Airspeed	Minimum airspeeds shall be depicted as an underlined number. Cross at or above 170K will be shown as depicted.	170K
Maximum Airspeed	Maximum airspeeds shall be depicted as a number with a line above it. Cross at or below 170K will be shown as depicted.	170K
Mandatory Airspeed	Mandatory airspeeds shall be depicted as a number with a line above and below. Cross at 170K will be shown as depicted.	170K

3.4.11.9 Paired Restrictive Altitudes and Airspeeds

Paired restrictive altitudes and airspeeds shall be depicted individually as above. They are positioned side-by-side when space allows.

3.4.11.10 Explanatory Notes

Appropriate explanatory notes may be shown, as required, positioned along the departure or transition route using 8 point C/L type and punctuations.

3.4.11.11 Minimum Safe Altitude (MSA)

MSAs will be charted on every graphic page for each airport served by the DP when requested on the procedure source document.

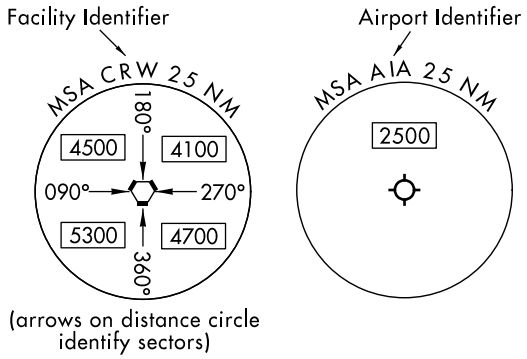
MSAs will be provided as a 3 weight (.006”) circular diagram positioned normally in the lower right corner of the planview. The appropriate symbol of the NAVAID/waypoint/airport on which the MSA is predicated is positioned at the center of the circle. When the MSA is predicated on an airport reference point, the symbol for the type airport, i.e., civil, military, joint-use, will be used.

- The magnetic courses forming the sectors are shown in their proper magnetic orientation within the circle as inbound magnetic bearings using a 1 weight (.005”) arrowed line.
- The magnetic bearing value will be shown centered on the bearing line.
- The MSA values will be shown enclosed in a 1 weight (.005”) box, centrally positioned within the sector.
- The MSA diagram shall be identified by the letters “MSA,” the NAVAID/waypoint/airport identifier, and the applicable mileage; e.g., MSA ABC 25 NM, positioned outside and along the upper portion of the circle. (When an airport identifier is required, airports within the contiguous U.S. will depict the FAA designated identifier, those outside the contiguous U.S. will depict the FAA designated identifier and the ICAO location indicator, separated by a slash.)
- MSAs with the same altitude value for each of the four sectors will be shown by the boxed altitude value applicable to all sectors centrally positioned within the circle and above the NAVAID/waypoint/airport symbol.

References:

Appendix 1 - DP Chart Legend

Figure 3.30 Minimum Safe Altitude (MSA)

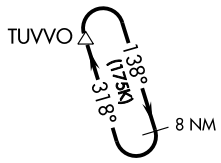


3.4.11.12 Holding Patterns

Holding patterns shall be shown using an 8 weight (.020") line broken for 8 pt headings with arrowheads indicating direction of turns.

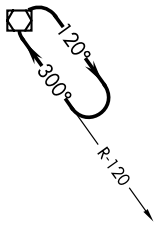
RNAV holding patterns shall be shown with appropriate leg length and type.

Figure 3.31 RNAV Holding Patterns



Non-RNAV holding patterns will include a holding radial when the pattern is not aligned on a departure or transition track.

Figure 3.32 Non-RNAV Holding Patterns



Holding patterns associated with lost communications shall be shown using the dotted line symbol.

Maximum restricted airspeeds when requested on source shall be depicted within the holding pattern symbol, with the restricted airspeed in parenthesis, as shown in **Appendix 1**. As restricted airspeeds, 210K applies to altitudes above 6000 feet to and including 14000 feet and 175K applies to all altitudes.

3.4.12 Radial Lines

Those radials that are associated with the departure route, intersections, and mileage fixes shall be shown and identified.

Radial lines shall be shown by a 2 weight (.005") arrowed line emanating from the facility with the value positioned on and breaking the arrowed line, preceded by the letter “R”. Radial values shall be in three digits; e.g., R-000. A degree sign shall not be shown with radial values. Type size shall be 7 point. Lead Radials, when identified and submitted with the procedure, shall be additionally identified with the letters “LR” preceding the numbered value; e.g., LR-053.

Radial lines shall stop just short of the applicable intersection or fix so as not to be in conflict or interfere with the route depiction.

In congested areas, radial values may be placed in a clear area and related to the radial by a 1 weight (.005") arrowed line.

When a radial line overlies a course/route/transition line going to a NAVAID, the radial value (i.e. R-322) shall be shown above the heavier weight line, adjacent to the NAVAID.

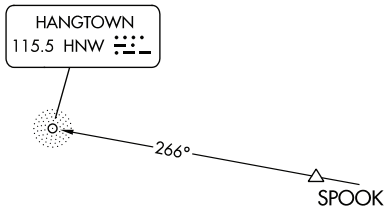
3.4.13 Bearing Lines

Those bearings associated with the departure route, intersections, and mileage fixes shall be shown and identified.

Bearing lines shall be shown by a 2 weight (.005") arrowed line from the fix to the radio aid to navigation, with the value positioned on and breaking the arrowed line. Bearing values shall be in three digits. A degree sign shall be shown with all bearing values. Type size shall be 7 point.

Bearing lines shall be shown through the applicable reporting point or fix and broken for symbol so as not to be in conflict or interfere with the route depiction.

Figure 3.33 Bearing Lines



In congested areas, values may be placed in a clear area and related to the bearing line by 1 weight (.005") arrowed line.

3.4.14 Special Use Airspace (SUA)

SUA shall be shown only when specifically requested by the formulating agency.

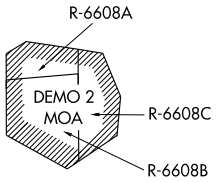
SUA shall be portrayed by a 2 weight (.005") diagonal line pattern, .10" in width, positioned so as to have the lines in a NE to SW direction. In no case will the portrayal of SUA obliterate the functional procedural data. Should an area be too small to portray the specified width, the width shall be proportionately reduced in size to adequately portray the area. In “not to scale” depictions, SUA may be resized but shall remain in its relative position to the rest of the portrayal.

SUA outer boundaries shall be depicted by a 3 weight (.006") line.

SUA internal boundaries shall be depicted by a 1 weight (.005") line to separate the individual SUA areas.

SUA shall be identified by the designated number and/or name of the area; e.g., P-1234, R-1235, YUKON 1 MOA, etc., using 7 pt type.

Figure 3.34 Special Use Airspace

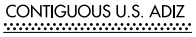


3.4.15 Air Defense Identification Zone (ADIZ)

When designated on the procedure source document, ADIZ boundaries that fall within the area of coverage of the departure procedure chart shall be shown.

ADIZ boundaries shall be portrayed by a 4 weight line (.010"). The diameter of the dots is .015". The width of the symbol is .05". Identification shall be placed within or along the boundary. In no case, will the portrayal of the ADIZ obliterate the functional procedure data.

Figure 3.35 Air Defense Identification Zone (ADIZ) Boundary



3.4.16 International Boundaries

International boundaries shall be shown by a dashed 6 weight (.012") line when requested by the approving authority.

Figure 3.36 International Boundary

International boundaries shall be identified with country name in 7 point type, positioned adjacent and parallel to the boundary, within the country area.

References:

Appendix 12 - DP with International Boundary

3.4.17 Notes

Operational notes, when requested by the formulating agency, shall be shown. Notes shall be prefaced with "NOTE:". Exception will be for specific note categories such as TAKEOFF MINIMUMS, CAUTION, etc. See **Appendix 13** for an example. On Obstacle Departure Procedures, TAKEOFF OBSTACLE NOTES shall also be shown. Type size shall be 8 pt C/L. Acronyms (DME, RADAR, VORTAC) shall be in all caps. The foot symbol (') will always be used to indicate "feet" or "ft" in notes, e.g., 500'.

When multiple runway ends are listed for the same line of information, they will be listed in numerical order from 1 to 36. When parallel runways are listed they will be listed in the order left, center, right, e.g., 1R, 16L/C/R, 19L.

The negative ▼ symbol shall be shown in the upper left corner of the Departure Route Description box on all Departure charts except graphic "(OBSTACLE)" Departure Procedures, when an entry is published in the TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES section, regardless of what that entry contains.

Combine and locate notes in a single area to the greatest extent possible. Preferred location shall be in the lower left corner of the planview, moving clockwise when the lower left is not feasible. Notes that pertain to a specific fix, NAVAID, waypoint or runway end shall be located adjacent to that point.

If an extensive note cannot be accommodated in the planview it may be moved to a continued page.

On a multipage graphic DP, all planview notes, except Takeoff Minimum notes, will be charted on every graphic page. Takeoff Minimum notes will only be charted on the Departure Routes Graphic page.

References:

Appendix 6 - DP With No Routing (“Vector” Type)

Appendix 14 - DP With Continued Page

3.4.17.1 Top Altitude Note

When requested on the procedure source document, a boxed top altitude(s) note shall be shown on the top right corner of the planview. When planview configuration does not allow this positioning, suitable, placement may vary to the top left corner, then along the top neatline, and finally to where space allows. Altitudes of 18000 feet and above shall be expressed in thousands of feet or as a flight level (e.g. FL180), as provided on the procedure source form. Type size shall be 9 point bold text enclosed in a 3 weight (.006") box. When more than one top altitude is specified on the source document, the altitudes will be stacked within the same box.

References:

Appendix 17 - Single Top Altitude

Appendix 18 - Runway Specific Top Altitudes

Appendix 19 - Aircraft Type Top Altitudes

Appendix 20 - Transition Specific Top Altitudes

Appendix 21 - ATC Assigned Top Altitude

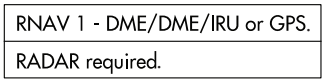
3.4.17.2 PBN/Equipment Requirements Note Box

When indicated on the procedure source document, an Equipment and/or PBN Requirements notes box shall be shown on the top right corner of the planview. When planview configuration does not allow this positioning, placement may vary to the top left corner, then along the top neatline, and finally to where space allows. Priority should be given first to the placement of the Top Altitude boxed note. Type size shall be 8 point text enclosed in a 3 weight (.006”) box. When more than one PBN Requirement Note is specified on the procedure source document, the notes will be stacked within the same box.

Figure 3.37 PBN Requirements Note Box

When the procedure source document indicates both a PBN requirement note and an equipment requirement note, two stacked boxes will be shown. PBN Requirements notes will be listed in the first box. Equipment Requirements will be listed in the second box.

Figure 3.38 PBN/Equipment Requirements Note Box



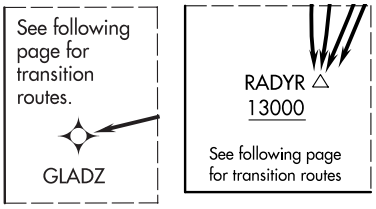
References:

Appendix 22 - PBN/Equipment Requirements Note Box

3.4.18 Continued Transition Routes

When a multiple page graphic is being used, the common point and all associated information such as altitudes, speeds and holding patterns, will be depicted in a 2 weight (.006") dashed box with the 7 point note “See following page for transition routes.” directing the user to the graphic on the following page as shown in **Figure 3.39**. Box size is not fixed but shall be of a size to encompass the standard note, terminating point, and any associated information.

Figure 3.39 Graphic Continuation Box



References:

Appendix 16 - Multipage Graphic DP (3 pages)

3.4.19 Minimum Climb Rate

When established by source, a minimum rate of climb table, as determined by the controlling obstacles, shall be placed in the top right corner of the planview. Placement of the table will move clockwise if the top right corner is not suitable.

Minimum climb rates shall be shown as vertical velocity (V/V) in feet per minute (fpm) in 60 knot increments, from 60 knots to 240 knots for Low Altitude DPs, 120 knots to 360 knots for High Altitude DPs, and 60 knots to 360 knots for High/Low DPs.

Where multiple runway departures are required, provision shall be made in the minimum climb rate table to show the vertical velocity information for all runways involved.

The distance to the controlling obstacle, upon which the minimum climb rate is predicated, shall be depicted by the use of a footnote in the lower right hand corner of the planview. Placement of the table will move clockwise if the lower right corner is not suitable. Mileage distances shall be shown as follow: 1 NM or more in tenths, e.g., 3.6NM or 4NM; less than 1 NM in feet, e.g., 1735’.

When the departure requires a minimum climb rate, it must indicate the altitude and /or fix at which the climb gradient is no longer required.

3.4.20 ATC Climb Rate

Climb gradients that are required for ATC purposes shall be displayed when they are higher than the minimum climb rate. When the climb rate is premised on an ATC requirement, the following note will be shown immediately above or below the Vertical Velocity box, i.e., "ATC Climb Rate". ATC Climb Rates must indicate the altitude and/or fix that the ATC Climb Rate applies to. ATC Climb Rate boxes shall be portrayed the same as minimum climb rate boxes.

3.4.21 Minimum and ATC Climb Rates

The minimum climb rate will be followed by the ATC climb rate for that runway. The asterisk will be used to footnote all minimum climb rates and the dagger will be used to footnote all ATC climb rates.

The asterisk and dagger symbols will not be used to footnote other types of data in these specifications.

Runways in climb tables will be listed in numerical order and with L (left), R (right), or C (center) if appropriate, e.g., if more than one climb table is required, all data for a runway will be within one climb table.

3.5 DEPARTURE ROUTE TEXTUAL DESCRIPTION

Figure 3.40 Departure Route Description

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb on heading 022° to 2607, then direct to MUSDE, then on depicted route to AKUMY, maintain 9000 or higher as assigned.

3.5.1 General

The heading "DEPARTURE ROUTE DESCRIPTION" and the departure route text shall be printed within the planview area. The preferred type size of the departure route text is 9 pt, C/L. If the allotted space does not accommodate the textual route description, 8 pt may be used. Takeoff, transition, and lost communication description headings shall be in capital letters and underscored.

When the description is of such length that the provisions of the above paragraph cannot be met, then a continuation page(s) may be added for the complete textual description. The continuation page(s) shall have the same marginal information as its associated departure chart. The heading "DEPARTURE ROUTE DESCRIPTION" shall be centered inside the upper border in 9 point type on the first page used. Any additional pages will be titled "(CONTINUED)" and shall be centered inside the upper border in 9 point type.

References:

Appendix 14 - DP With Continued Page

Appendix 24 - Three-Page DP

3.5.2 Text

References:

Appendix 8 - DP With Lost Communication Routing
Appendix 27 - RNAV DP with Departure Routing Only

3.5.2.1 Departure Text

A description of the departure procedure (Takeoff to first/common point) will be written verbatim as provided by the SID procedure. Exception will be holding instructions provided within parentheses (e.g. hold E, right turns, 270 degrees inbound). These will be considered graphic instructions and not included in the written description.

When Departure procedures are the same for parallel runways, they will be listed in the order left, center, right, e.g., 18L/C/R. When multiple runway ends are shown for the same departure procedure, they will be listed in numerical order from 1 to 36.

When departures exist from multiple runways, any common verbiage may be offset below the departures in the "thence...." format.

A description of the Visual Climb Over Airport (VCOA), if applicable, will follow the departure procedure description. See **Appendix 10**.

3.5.2.2 Lost Communication Text

Lost Communication procedure(s) will be written verbatim following the departure route description if provided by the procedure. When procedures are the same for parallel runways, they will be listed in the order left, center, right, e.g., 18L/C/R. When multiple runway ends are shown for the same procedure, they will be listed in numerical order from 1 to 36.

3.5.2.3 Transition Text (RNAV and non-RNAV)

For RNAV charts, transition text will consist of the transition name and associated computer code (caps/underscored). There shall be no following narrative.

Figure 3.41 RNAV Transition Text

FLASK TRANSITION (FIXET2.FLASK)
GREENSBORO TRANSITION (FIXET2.GSO)

For non-RNAV charts, transition text will begin with the name and computer codes as outlined above. A narrative, created by the charting proponent, will follow. The narrative will describe all turns, altitudes, radials, bearings and facilities/fixes needed to guide the user from the common departure point to the terminating facility fix.

Figure 3.42 Non-RNAV Transition Text

DRAKE TRANSITION (HOOVR3.DRK): From over COWBY INT via PGS R-301 to PGS VORTAC then PGS R-088 and DRK R-349 to DRK VORTAC.
PEACH SPRINGS TRANSITION (HOOVR3.PGS): From over COWBY INT via PGS R-301 to PGS VORTAC.

When multiple transitions exist, they shall be arranged alphabetically by transition name.

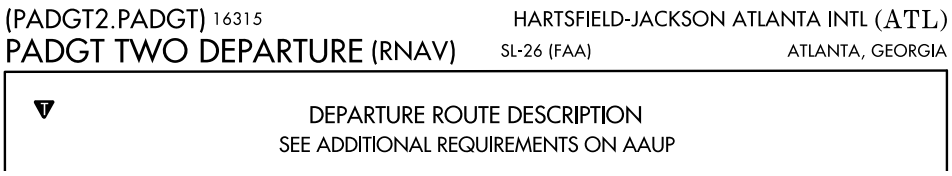
3.6 RNAV DEPARTURE ATTENTION ALL USERS PAGE (AAUP)

An RNAV Departure Attention All Users Page (AAUP) shall be published in accordance with the format in **Appendix 33** when published by appropriate authority.

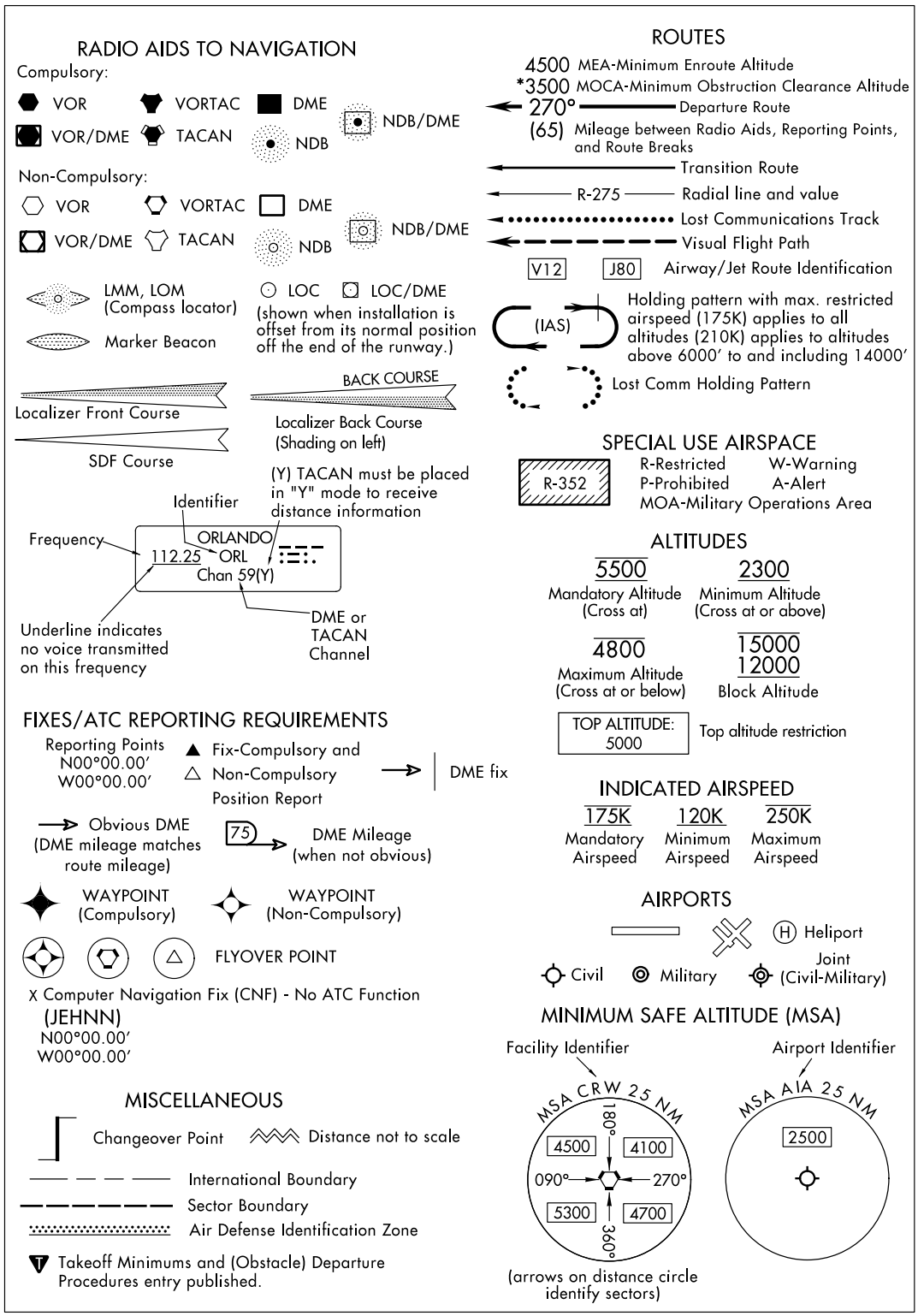
The AAUP will appear following the Airport Diagram and preceding the individual Departure Procedures for a given airport.

When the note "SEE ADDITONAL REQUIREMENTS ON AAUP" is requested on the procedure source document for RNAV DPs, the note will be placed directly beneath the Departure Route Description title in 8 point type.

Figure 3.43 AAUP Note

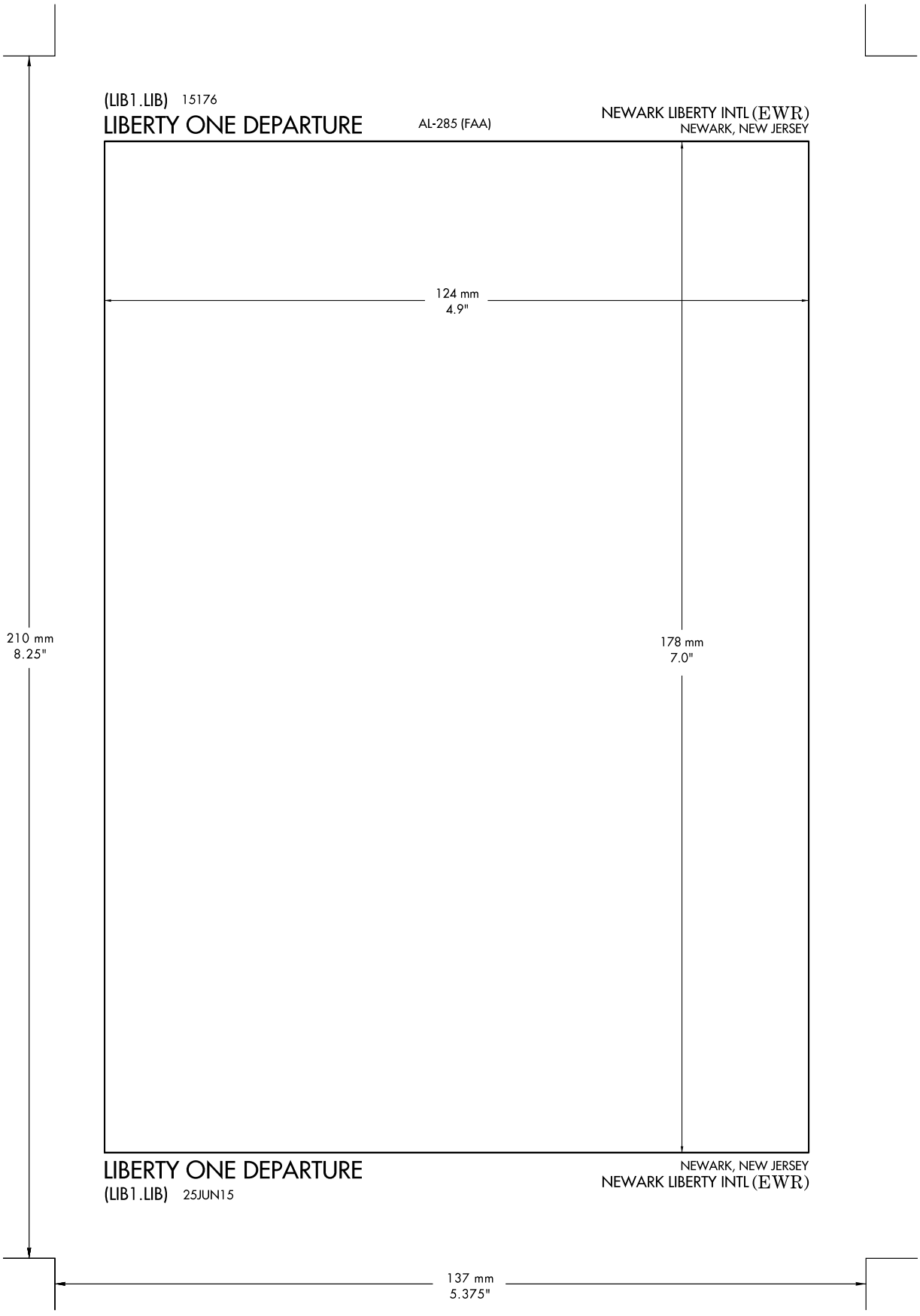


APPENDIX 1
DP CHART LEGEND

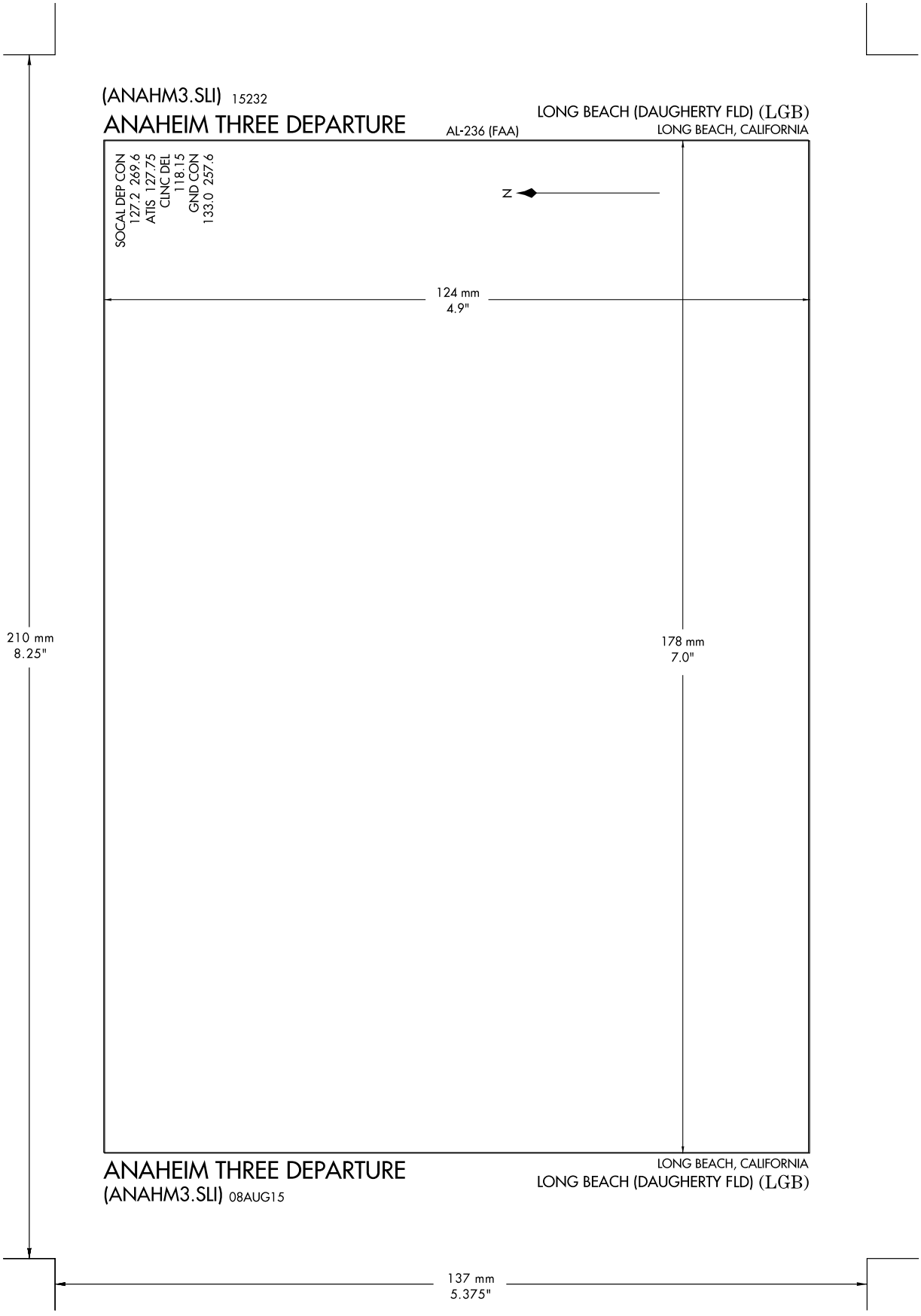


LEGEND 00000

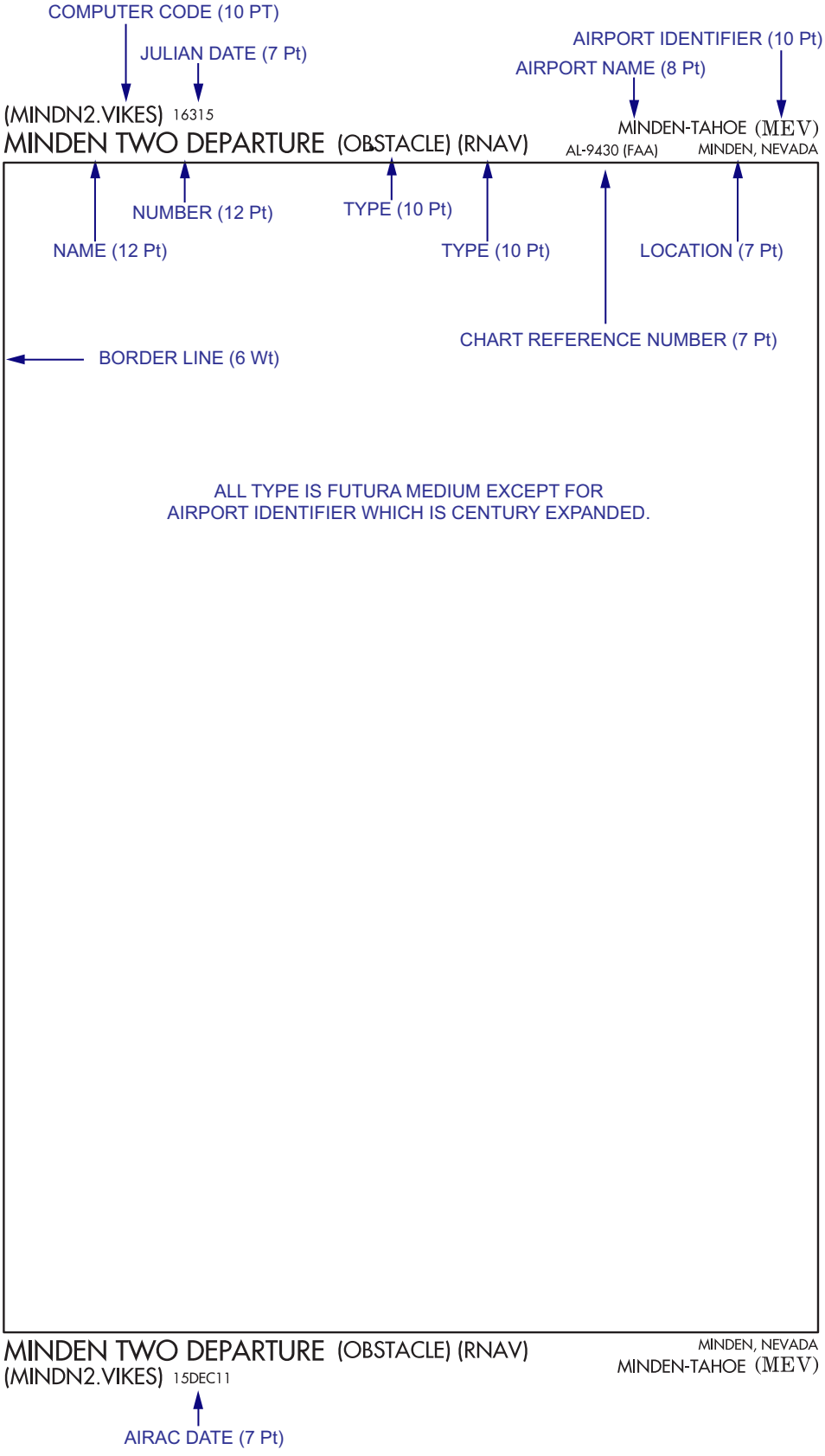
APPENDIX 2
PAGE LAYOUT



APPENDIX 3
EAST WEST PAGE LAYOUT



APPENDIX 4
MARGIN DATA



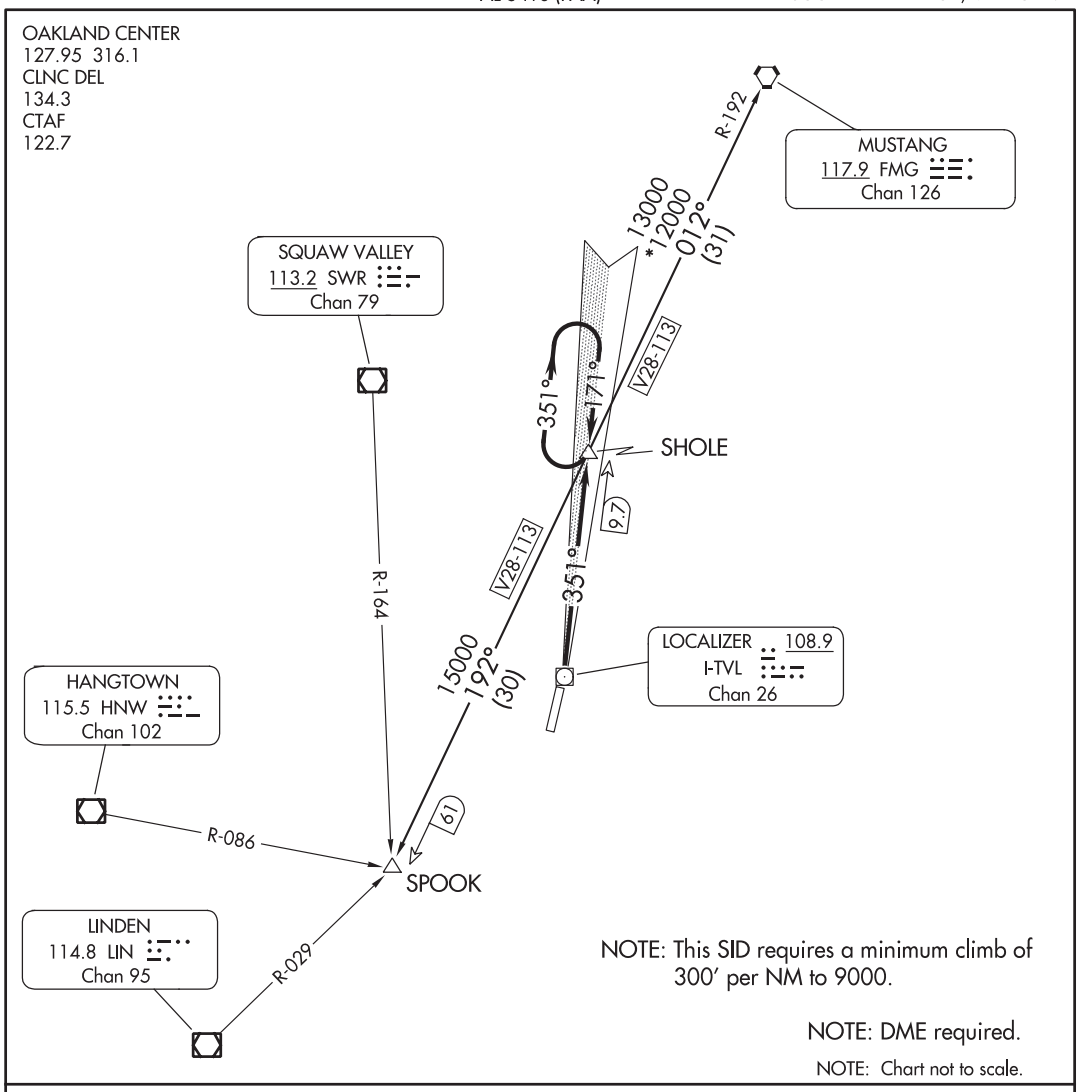
APPENDIX 5
DP WITH ROUTING

(SHOLE2.SHOLE) 16315

SHOLE TWO DEPARTURE

AL-5416 (FAA)

LAKE TAHOE (TVL)
SOUTH LAKE TAHOE, CALIFORNIA



T

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: NA.

TAKEOFF RUNWAY 36: Climb northbound via I-TVL localizer north course to SHOLE I-TVL 9.7 DME Fix. Continue climb in SHOLE 9.7 DME holding pattern until reaching 13000, thence via (transition) or (assigned route).

MUSTANG TRANSITION (SHOLE2.FMG): From over SHOLE DME on FMG R-192 to FMG VORTAC.

SPOOK TRANSITION (SHOLE2.SPOOK): From over SHOLE DME on FMG R-192 to SPOOK INT.

SHOLE TWO DEPARTURE
(SHOLE2.SHOLE) 10NOV16

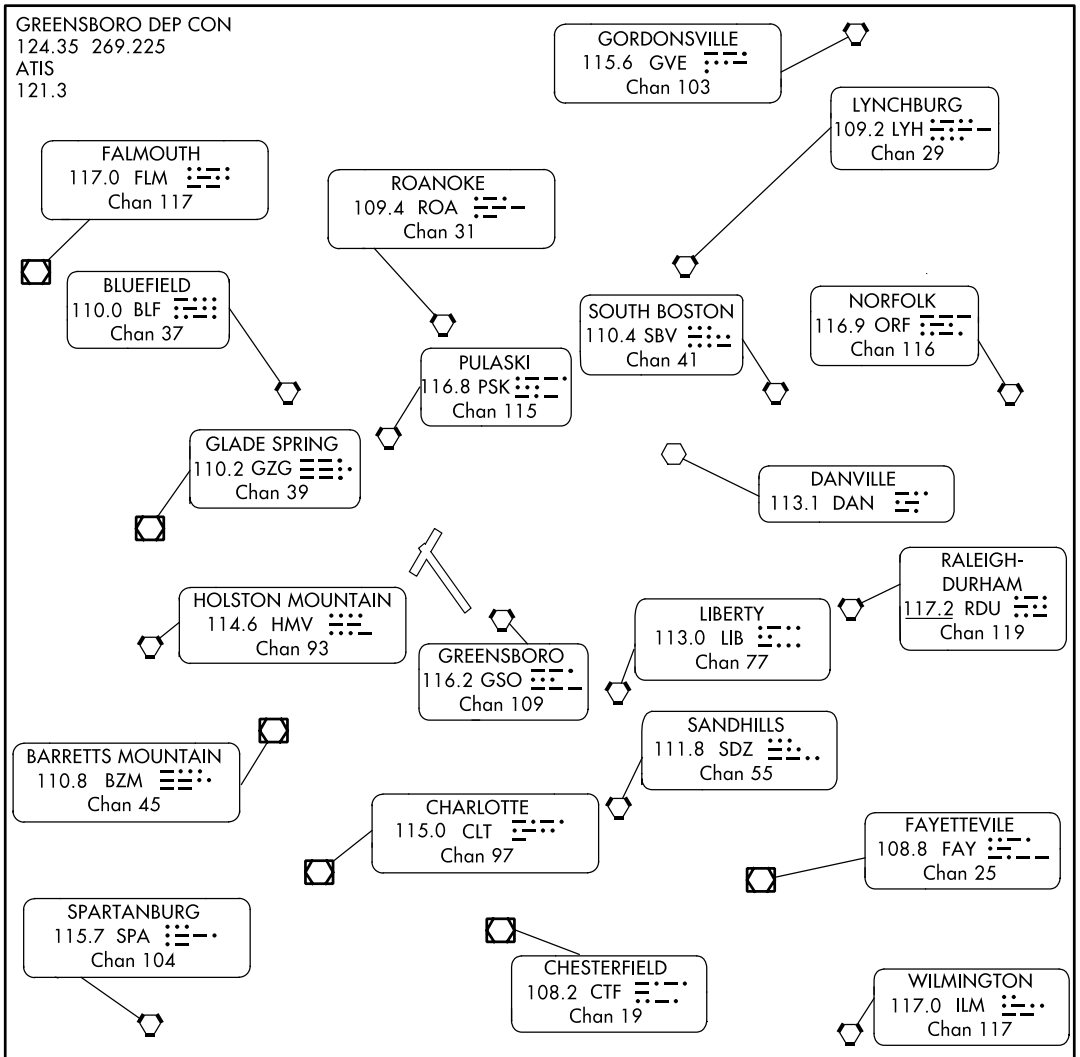
SOUTH LAKE TAHOE, CALIFORNIA
LAKE TAHOE (TVL)

APPENDIX 6
DP WITH NO ROUTING ("VECTOR" TYPE)

17117

WINSTON ONE DEPARTURE AL-463 (FAA)

SMITH REYNOLDS (INT)
WINSTON-SALEM, NORTH CAROLINA



NOTE: Chart not to scale.

▼

DEPARTURE ROUTE DESCRIPTION

All aircraft cleared as filed.
TURBOJETS: Fly runway heading or heading assigned by tower, maintain 5000 or assigned altitude. Thence. . . .
PROPELLER AIRCRAFT: Fly runway heading or heading assigned by tower, maintain assigned altitude. Thence. . . .

. . . .Expect vectors to join filed route. Expect filed altitude 10 minutes after departure.

WINSTON ONE DEPARTURE

08MAR90

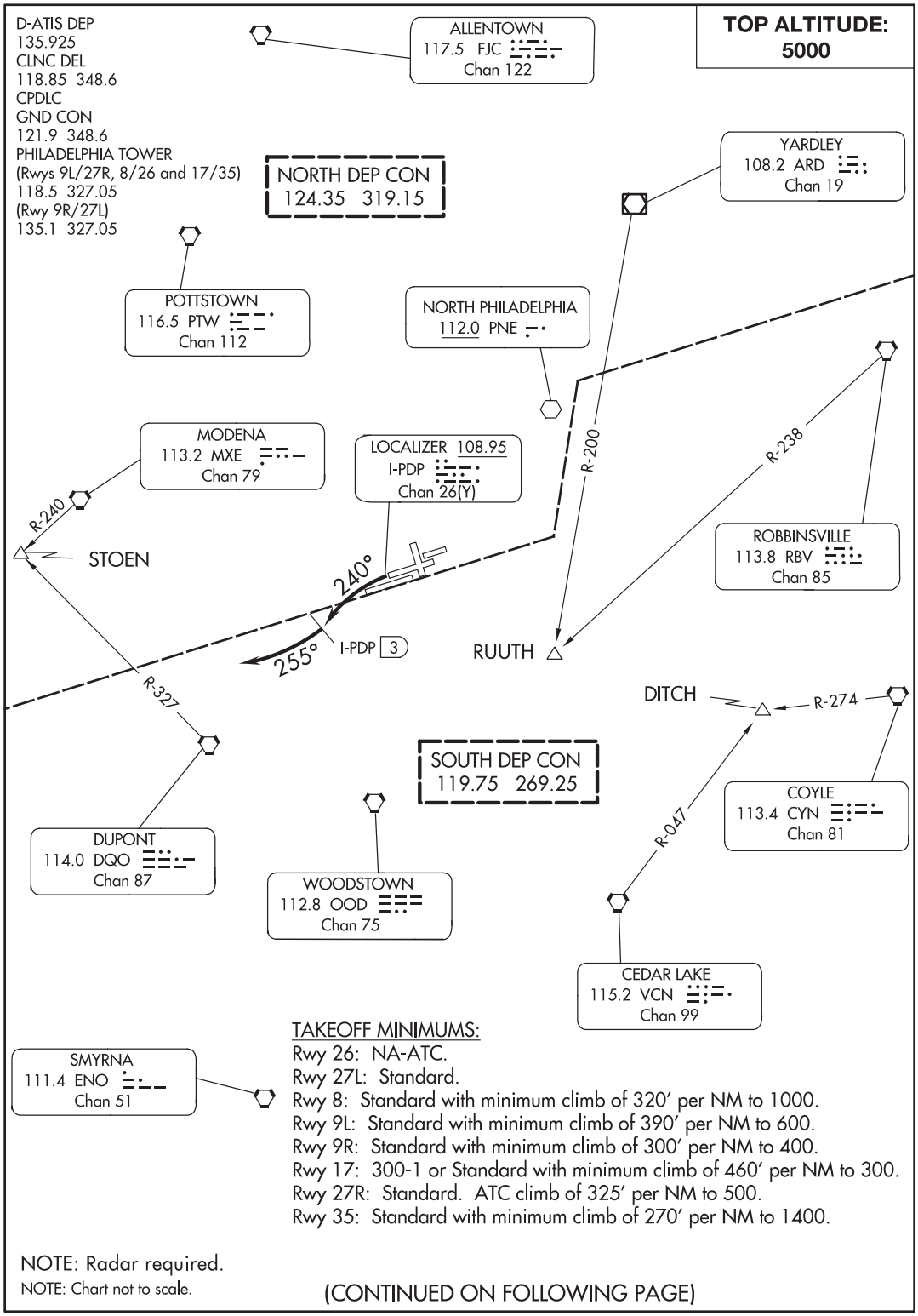
WINSTON-SALEM, NORTH CAROLINA
SMITH REYNOLDS (INT)

APPENDIX 7
DP WITH FREQUENCY SECTORIZATION

(PHL1.PHL) 17117

PHILADELPHIA ONE DEPARTURE AL-320 (FAA)

PHILADELPHIA INTL (PHL)
PHILADELPHIA, PENNSYLVANIA



TAKEOFF MINIMUMS:
Rwy 26: NA-ATC.
Rwy 27L: Standard.
Rwy 8: Standard with minimum climb of 320′ per NM to 1000.
Rwy 9L: Standard with minimum climb of 390′ per NM to 600.
Rwy 9R: Standard with minimum climb of 300′ per NM to 400.
Rwy 17: 300-1 or Standard with minimum climb of 460′ per NM to 300.
Rwy 27R: Standard. ATC climb of 325′ per NM to 500.
Rwy 35: Standard with minimum climb of 270′ per NM to 1400.

NOTE: Radar required.
NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

PHILADELPHIA ONE DEPARTURE
PHILADELPHIA, PENNSYLVANIA
PHILADELPHIA INTL (PHL)

(PHL1.PHL) 04FEB16

APPENDIX 8
DP WITH LOST COMMUNICATION ROUTING

(PRCH2.LAX) 17117

PERCH TWO DEPARTURE

AL-237 (FAA)

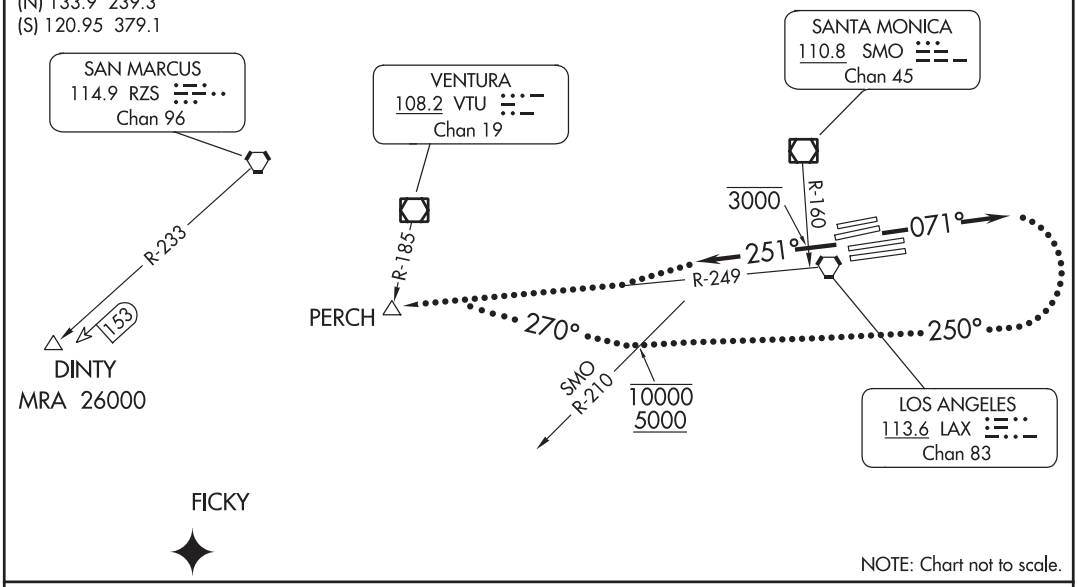
LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA

SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)
D-ATIS DEP
135.65
CLNC DEL
120.35 327.0
CPDLC
GND CON
(N) 121.65 327.0
(S) 121.75 327.0
(W) 121.4 327.0
LOS ANGELES TOWER
(N) 133.9 239.3
(S) 120.95 379.1

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS
Rwys 6L/R, 7L/R, 24L/R, 25L/R: Standard.

NOTE: RADAR and DME required.
NOTE: Route depicted is a Lost Communication Procedure only.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6L/R, 7L/R: Climb on heading 071° for RADAR vectors to DINTY or FICKY, thence. . . .

TAKEOFF RUNWAYS 24L/R, 25L/R: Climb on heading 251° to cross SMO R-160 at or below 3000, then on RADAR vectors to DINTY or FICKY, thence. . . .

. . . .on (assigned route). All aircraft expect further clearance to filed altitude five minutes after departure.

LOST COMMUNICATIONS:

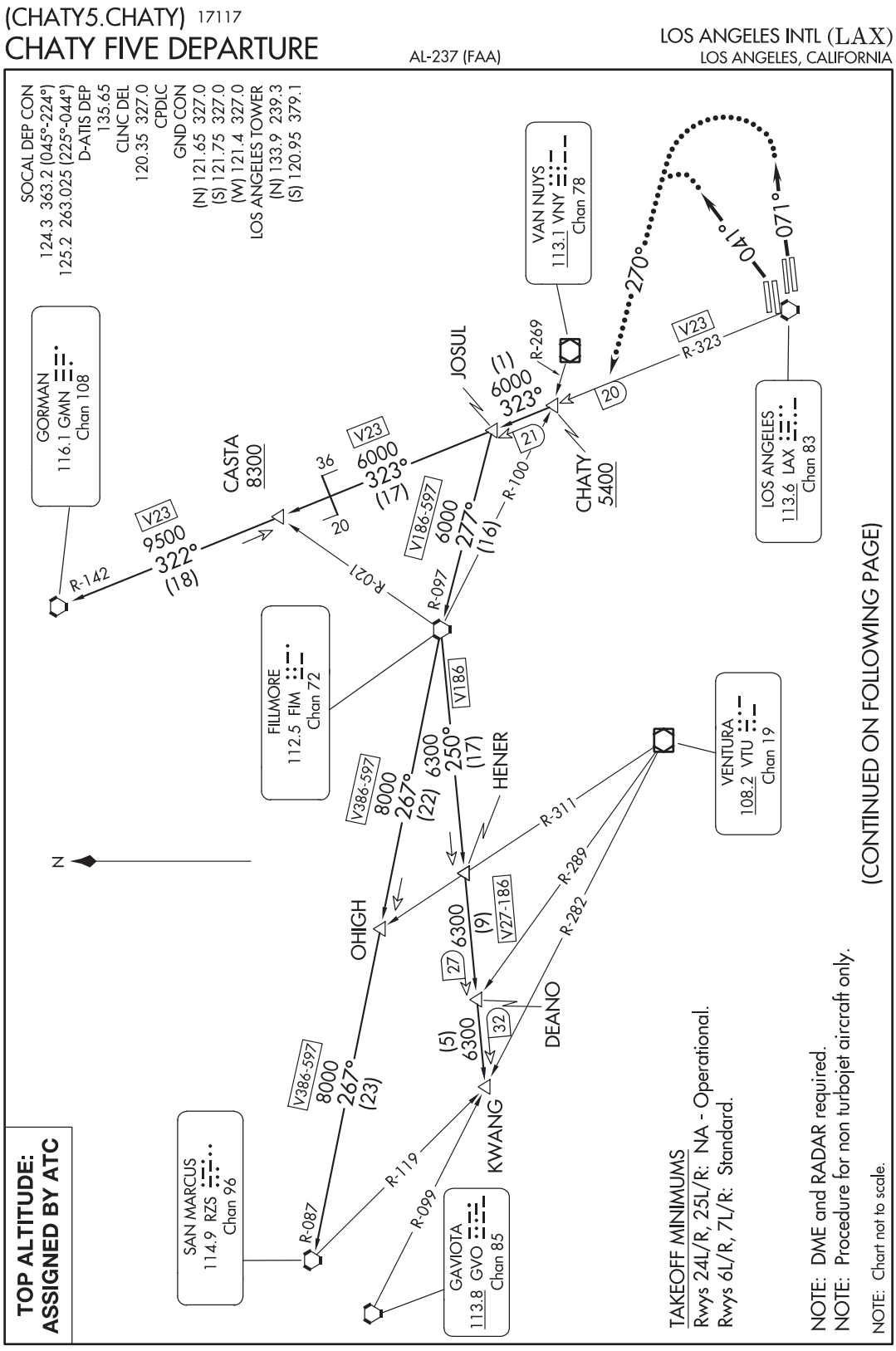
TAKEOFF RUNWAYS 6L/R, 7L/R: If not in contact with Departure Control within three minutes after departure, turn right heading 250°, cross SMO R-210 at or above 5000 and at or below 10000. After leaving 10000, turn right heading 270° to intercept and proceed via LAX R-249 to PERCH INT. Climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above, climb to filed altitude ten minutes after departure.

TAKEOFF RUNWAYS 24L/R, 25L/R: If not in contact with Departure Control within five minutes after departure, proceed to PERCH INT on LAX R-249. Climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after depature.

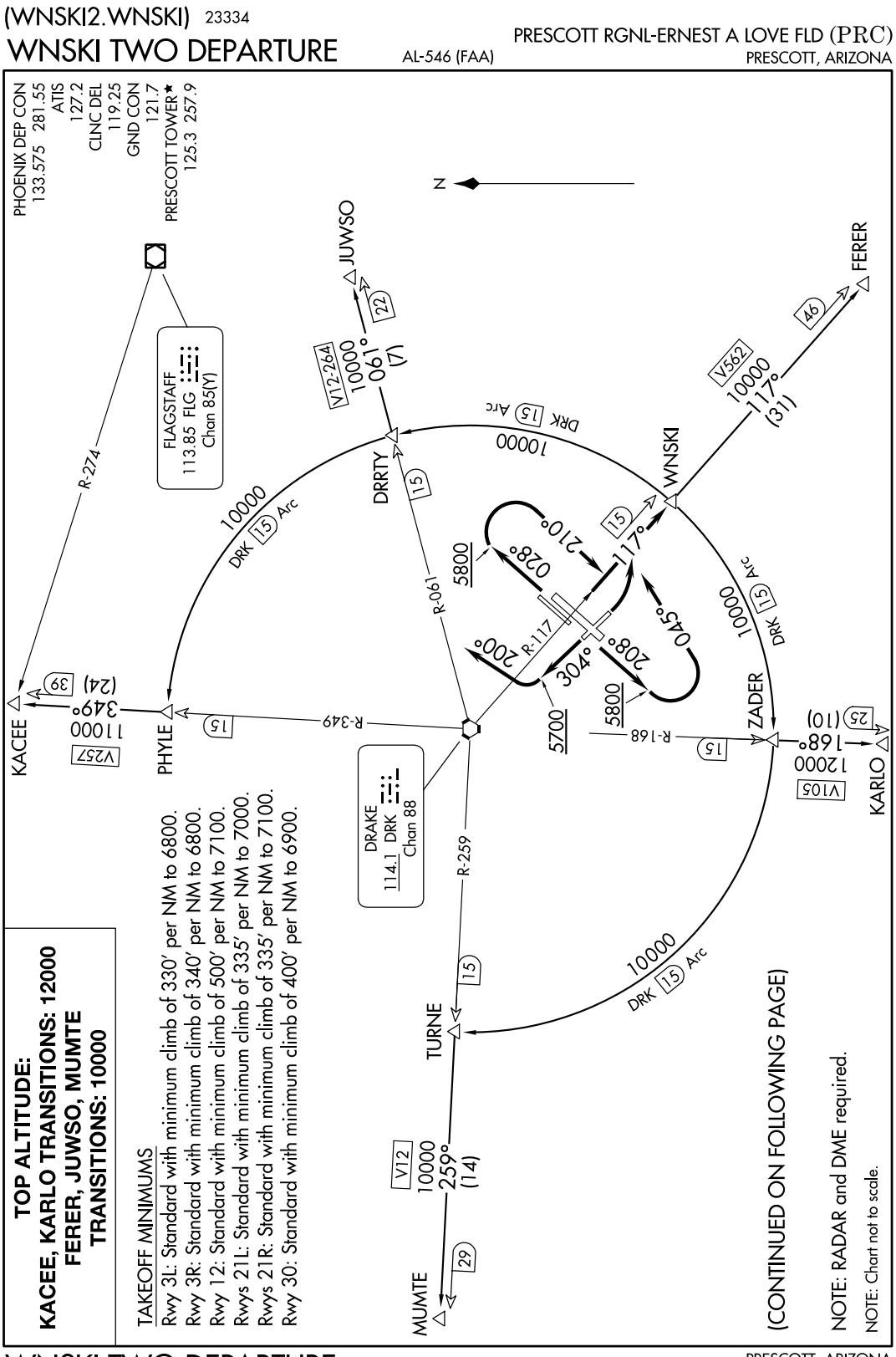
PERCH TWO DEPARTURE
(PRCH2.LAX) 10NOV16

LOS ANGELES, CALIFORNIA
LOS ANGELES INTL (LAX)

APPENDIX 9
DP WITH EAST-WEST ORIENTATION



APPENDIX 10
DP WITH DME ARCS



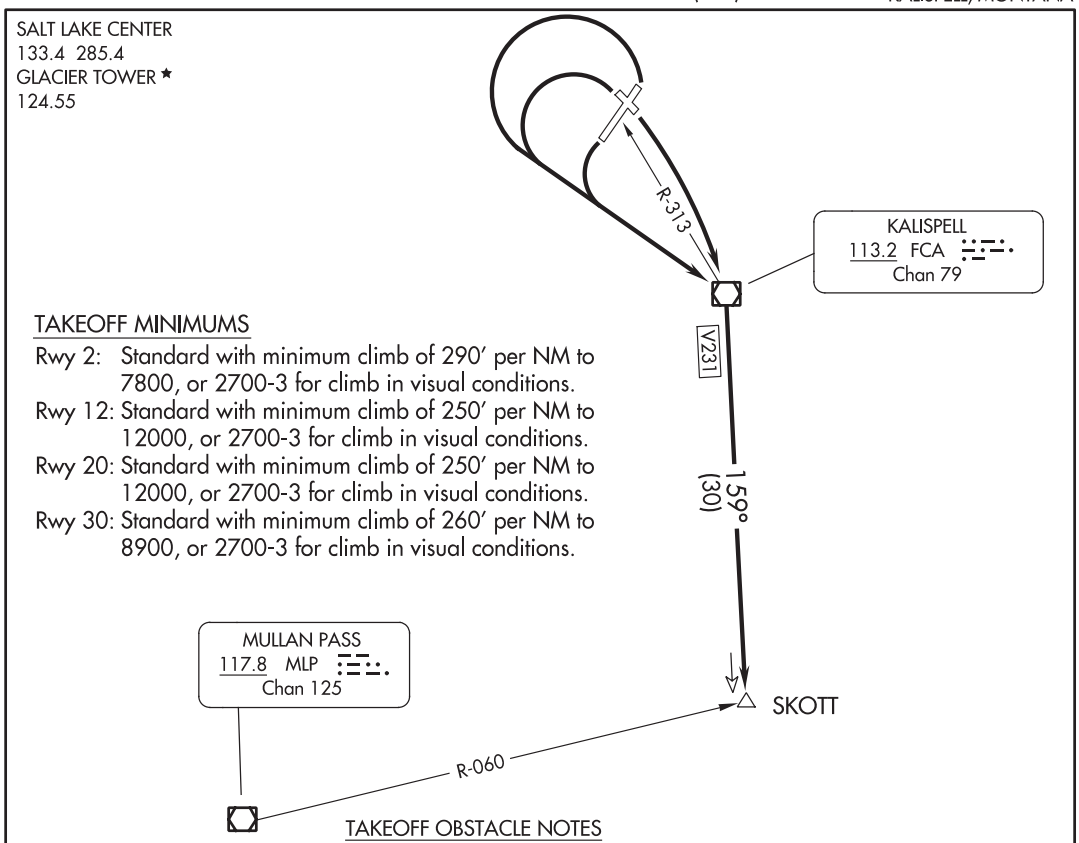
APPENDIX 11
OBSTACLE DP

(SKOTT2.SKOTT) 16147

SKOTT TWO DEPARTURE (OBSTACLE)

AL-887 (FAA)

GLACIER PARK INTL (GPI)
KALISPELL, MONTANA



TAKEOFF MINIMUMS

Rwy 2: Standard with minimum climb of 290′ per NM to 7800, or 2700-3 for climb in visual conditions.
Rwy 12: Standard with minimum climb of 250′ per NM to 12000, or 2700-3 for climb in visual conditions.
Rwy 20: Standard with minimum climb of 250′ per NM to 12000, or 2700-3 for climb in visual conditions.
Rwy 30: Standard with minimum climb of 260′ per NM to 8900, or 2700-3 for climb in visual conditions.

TAKEOFF OBSTACLE NOTES

Rwy 2: Trees 1469′ from DER, 675′ right of centerline, 100′ AGL/3065′ MSL.
Rwy 12: Multiple vehicles on roadway, train on track, trees and a pole beginning 542′ from DER, on centerline extending left and right of centerline, up to 129′ AGL/3087′ MSL.
Trees 2325′ from DER, 226′ left of centerline, 94′ AGL/3063′ MSL.
Trees 3114′ from DER, 420′ right of centerline, 117′ AGL/3082′ MSL.
Rwy 20: Trees 2320′ from DER, 1055′ left of centerline, 107′ AGL/3057′ MSL.
Trees 1.1 NM from DER, 1679′ right of centerline, 107′ AGL/3154′ MSL.
Rwy 30: Trees 721′ from DER, 60′ right of centerline, 104′ AGL/3136′ MSL.
Trees 873′ from DER, 86′ left of centerline, 104′ AGL/3149′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climbing left turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

TAKEOFF RUNWAY 12: Climbing right turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

TAKEOFF RUNWAY 20: Climbing left turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

TAKEOFF RUNWAY 30: Climbing left turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

. . . .continue climb to 12000 via FCA R-159 to SKOTT INT.

SKOTT TWO DEPARTURE (OBSTACLE)

(SKOTT2.SKOTT) 13JAN11

KALISPELL, MONTANA
GLACIER PARK INTL (GPI)

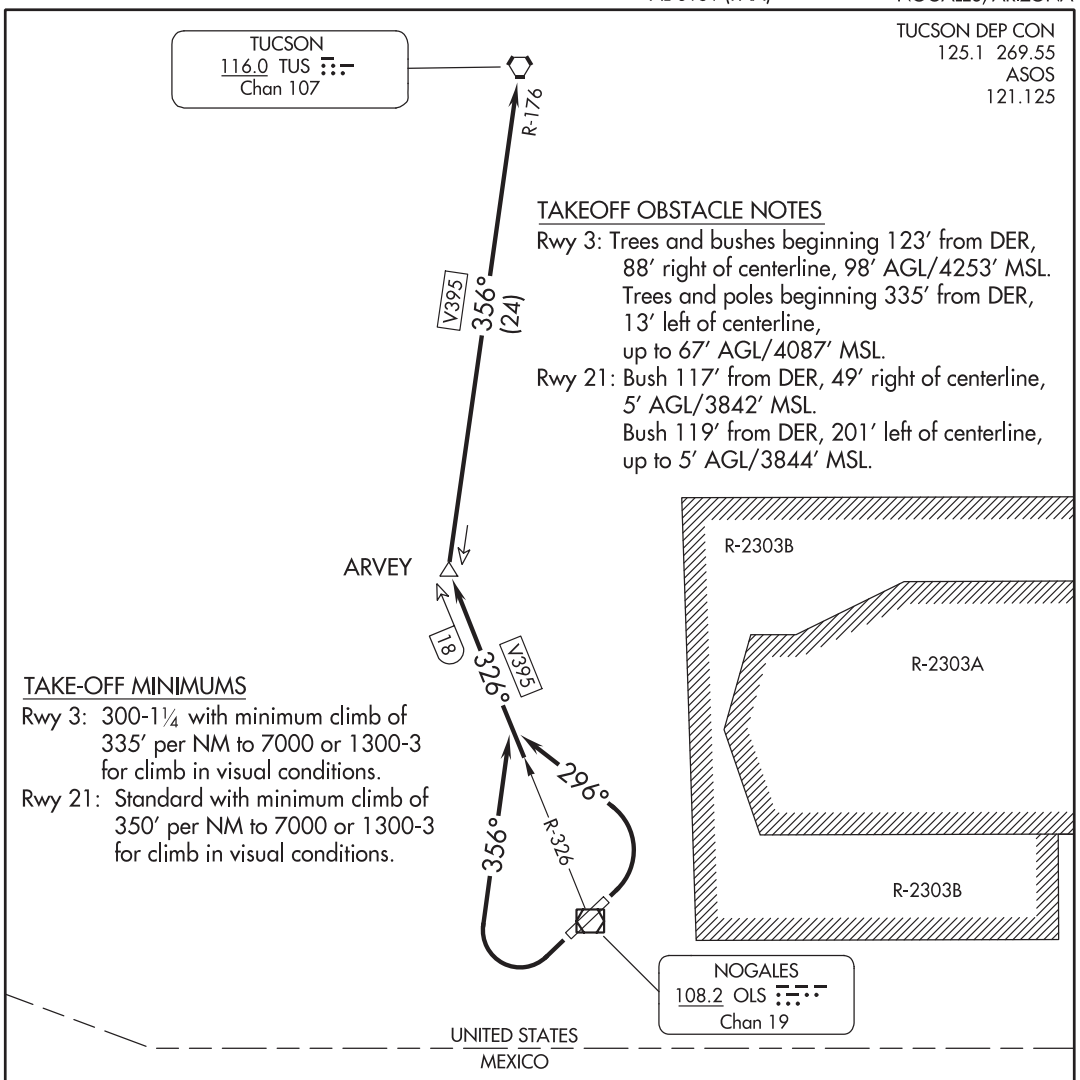
APPENDIX 12
DP WITH INTERNATIONAL BOUNDARY

(OLS1.OLS) 16315

NOGALES ONE DEPARTURE (OBSTACLE)

AL-6151 (FAA)

NOGALES INTL (OLS)
NOGALES, ARIZONA



DEPARTURE ROUTE DESCRIPTION

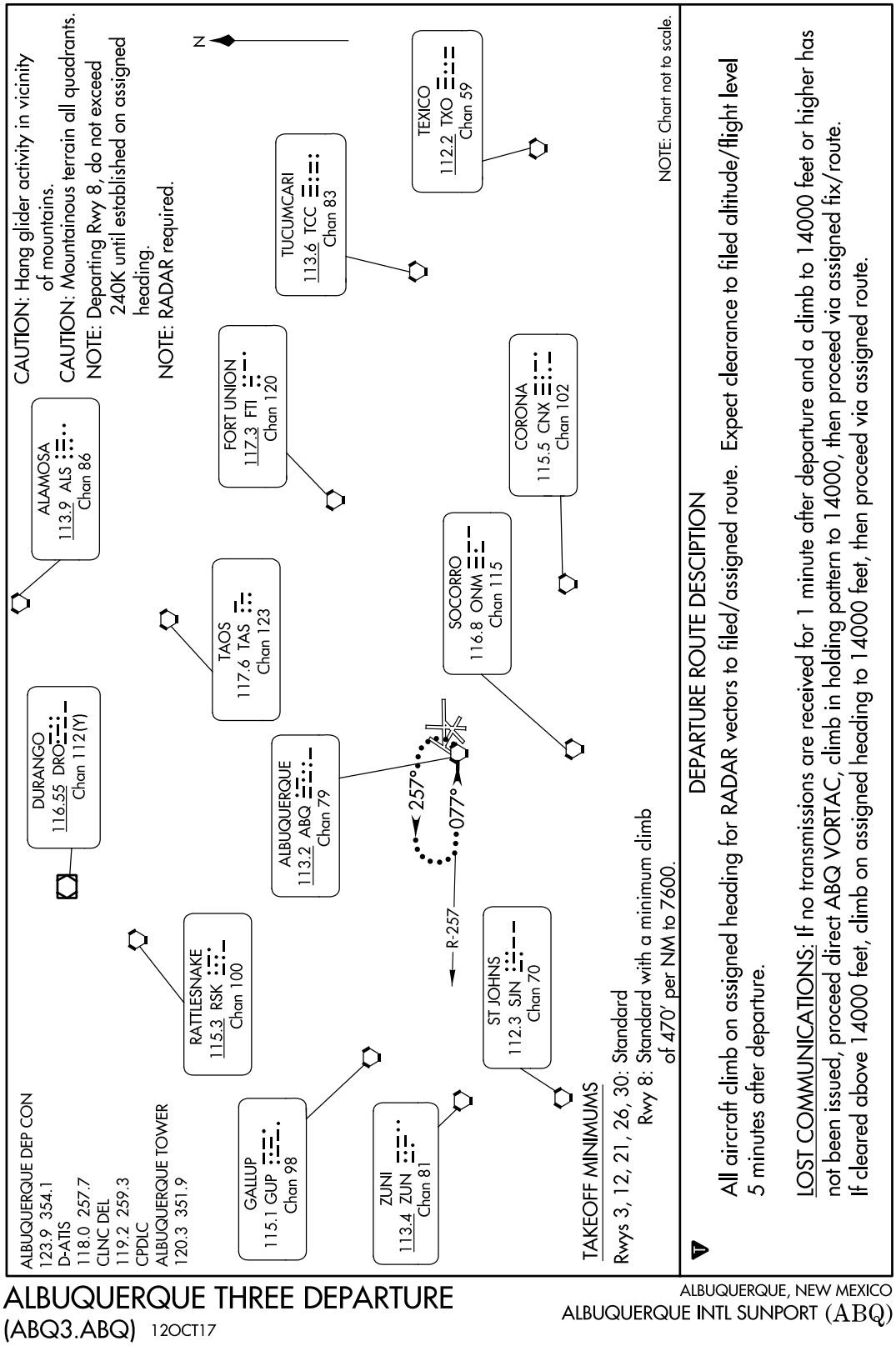
TAKEOFF RUNWAY 3: Climbing left turn heading 296° to intercept OLS VOR/DME R-326 to ARVEY INT/OLS 18 DME, or for climb in visual conditions cross Nogales Intl airport at or above 5100′ then climb via OLS R-326 to ARVEY, thence. . . .

TAKEOFF RUNWAY 21: Climbing right turn heading 356° to intercept OLS VOR/DME R-326 to ARVEY INT/OLS 18 DME, or for climb in visual conditions cross Nogales Intl airport above 5100′ then climb via OLS R-326 to ARVEY, thence. . . .

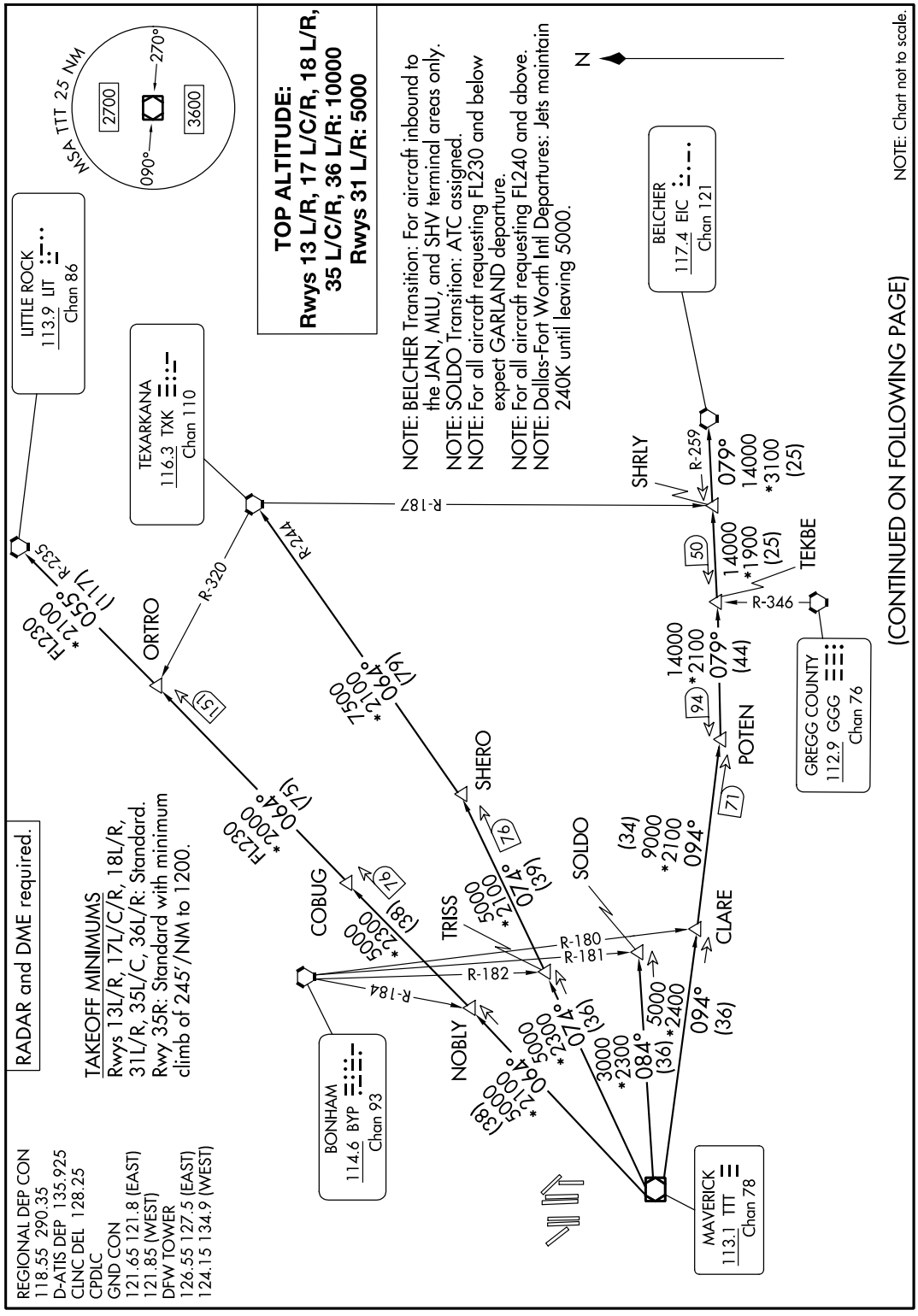
. . . .via TUS VORTAC R-176 to cross TUS VORTAC at or above MEA/MCA for assigned route of flight.

NOGALES ONE DEPARTURE (OBSTACLE)
NOGALES, ARIZONA
NOGALES INTL (OLS)
(OLS1.OLS) 17DEC09

APPENDIX 13
DP WITH CAUTION NOTES



APPENDIX 14
DP WITH CONTINUED PAGE



APPENDIX 14
DP WITH CONTINUED PAGE (CONTINUED)

(DALL3.TTT) 24025 AL-6039 (FAA) DALLAS-FORT WORTH INTL (DFW)

DALLAS THREE DEPARTURE DALLAS-FORT WORTH, TEXAS

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 31L/R: Climb on assigned heading, maintain 5000, thence. . . .

TAKEOFF RUNWAYS 13L/R, 17L/C/R, 18L/R, 35L/C/R, 36L/R: Climb on assigned heading, maintain 10000, thence. . . .

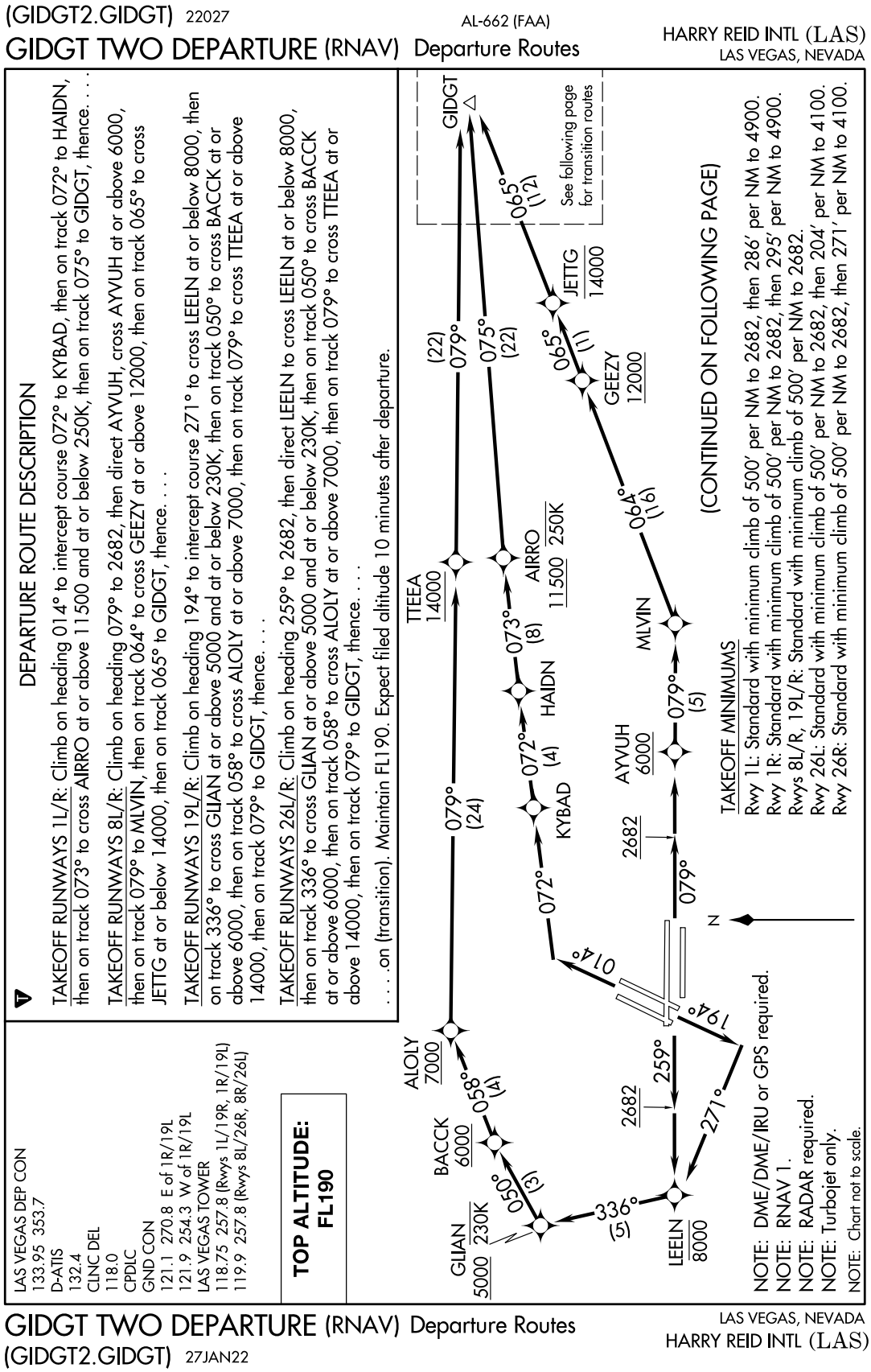
. . . .for RADAR vectors to appropriate route and expect filed altitude 10 minutes after departure.

BELCHER TRANSITION (DALL3.EIC): From over TTT VOR/DME on TTT R-094 to POTEN, then on EIC R-259 to EIC VORTAC.
LITTLE ROCK TRANSITION (DALL3.LIT): From over TTT VOR/DME on TTT R-064 to ORTRO, then on LIT R-235 to LIT VORTAC.
SOLDO TRANSITION (DALL3.SOLDO): From over TTT VOR/DME on TTT R-084 to SOLDO.
TEXARKANA TRANSITION (DALL3.TXK): From over TTT VOR/DME on TTT R-074 to SHERO, then on TXK R-244 to TXK VORTAC.

DALLAS THREE DEPARTURE DALLAS-FORT WORTH, TEXAS

(DALL3.TTT) 25JAN24 DALLAS-FORT WORTH INTL (DFW)

APPENDIX 15
MULTIPAGE GRAPHIC DP (2 PAGES)



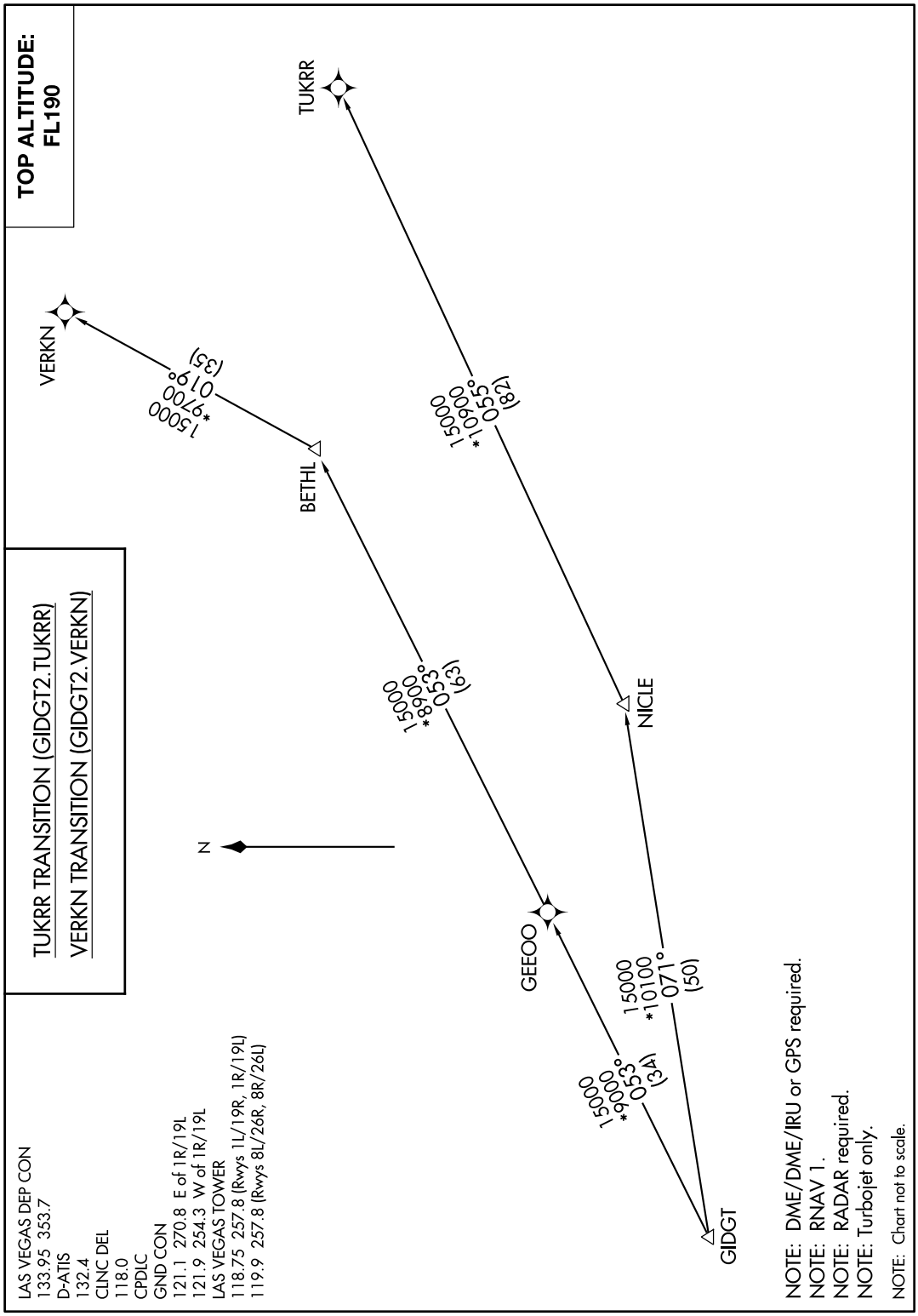
APPENDIX 15
MULTIPAGE GRAPHIC DP (2 PAGES) (CONTINUED)

(GIDGT2.GIDGT) 22027

AL-662 (FAA)

GIDGT TWO DEPARTURE (RNAV) Transition Routes

HARRY REID INTL (LAS)
LAS VEGAS, NEVADA

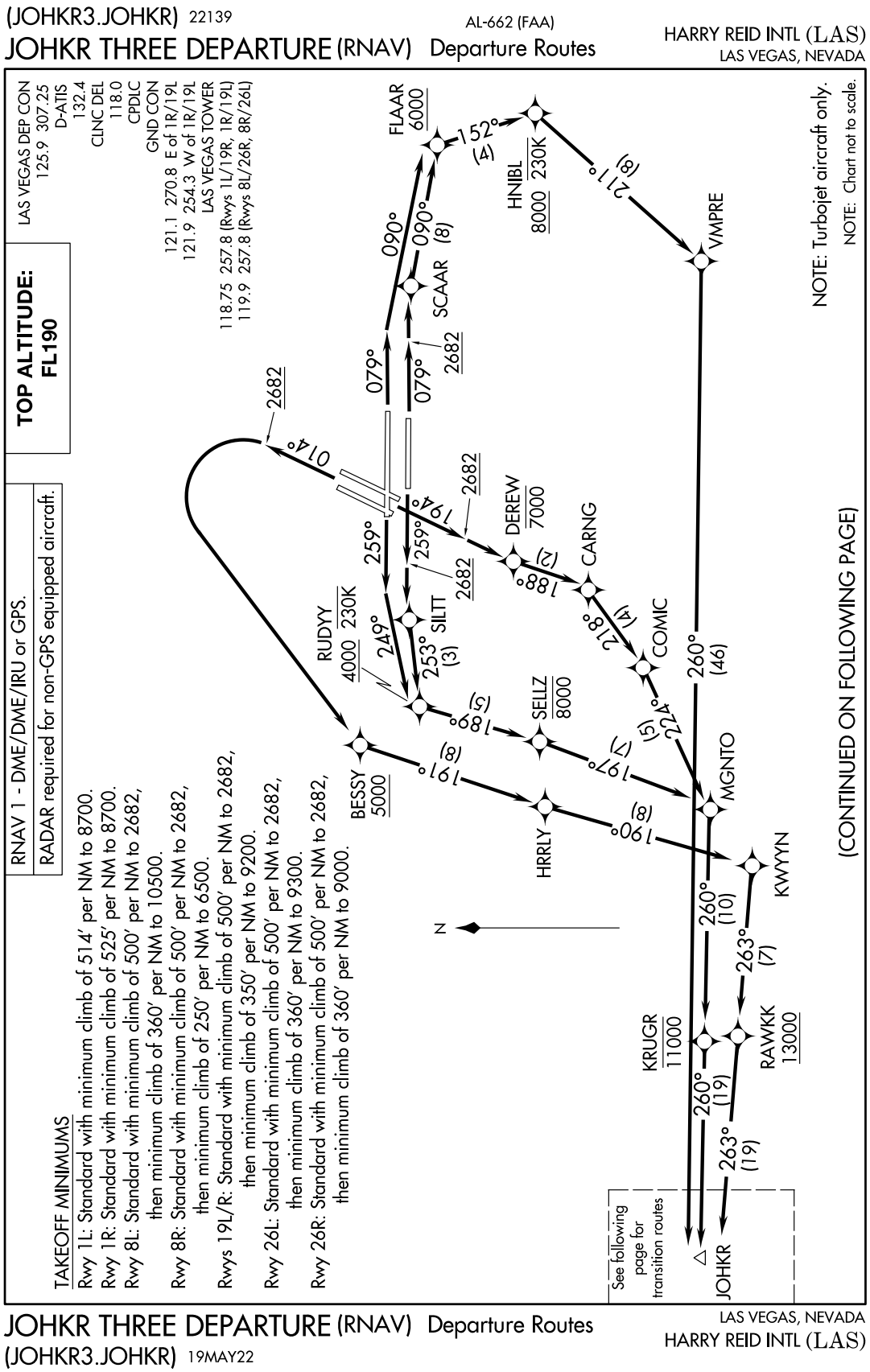


GIDGT TWO DEPARTURE (RNAV) Transition Routes

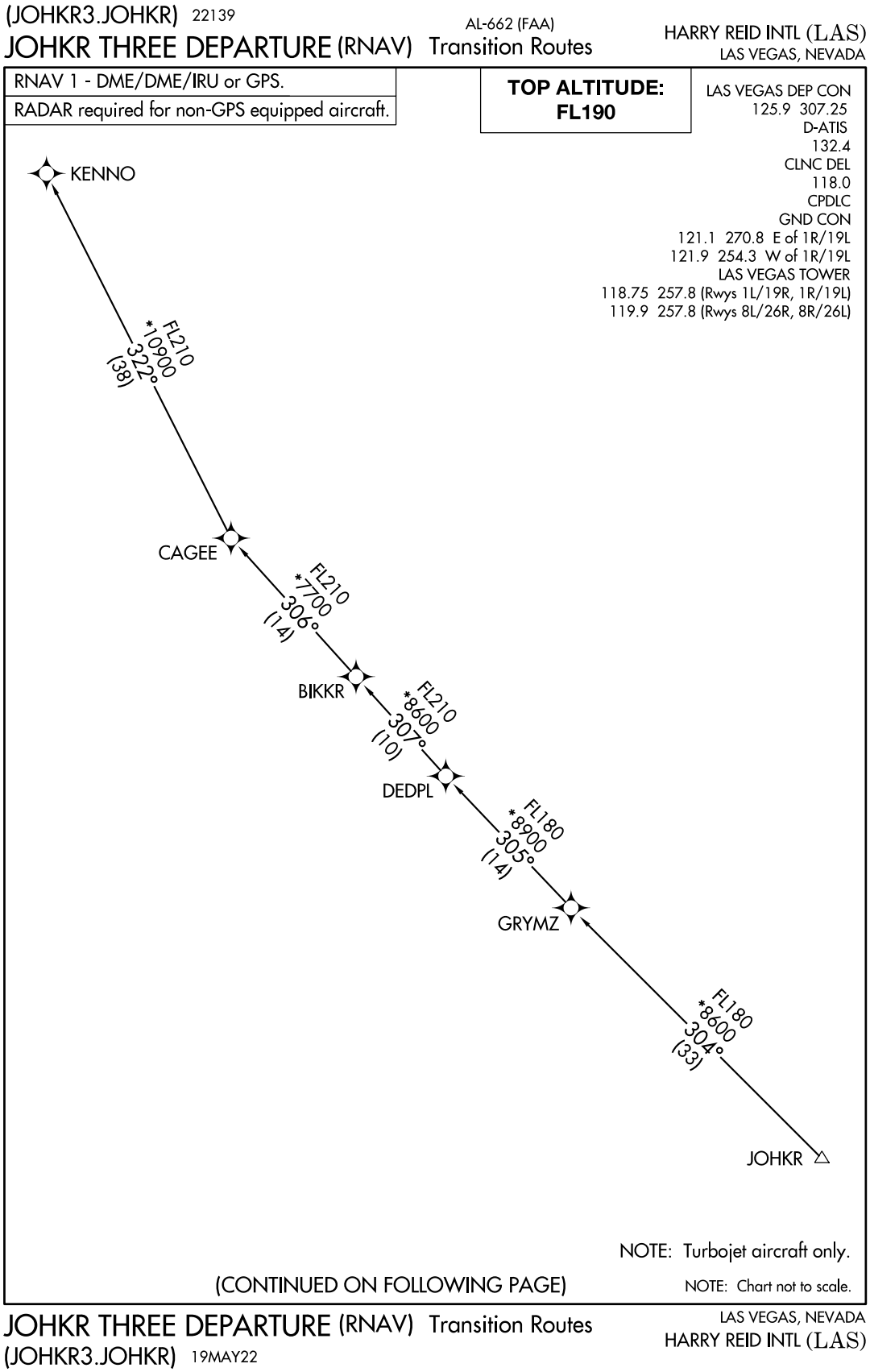
LAS VEGAS, NEVADA
HARRY REID INTL (LAS)

(GIDGT2.GIDGT) 27JAN22

APPENDIX 16
MULTIPAGE GRAPHIC DP (3 PAGES)



APPENDIX 16
MULTIPAGE GRAPHIC DP (3 PAGES) (CONTINUED)



APPENDIX 16
MULTIPAGE GRAPHIC DP (3 PAGES) (CONTINUED)

(JOHKR3.JOHKR) 22139
JOHKR THREE DEPARTURE (RNAV) AL-662 (FAA)
HARRY REID INTL (LAS)
LAS VEGAS, NEVADA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climb on heading 014° to 2682, then left turn direct BESSY at or above 5000, then on track 191° to HRRLY, then on track 190° to KWYYN, then on track 263° to cross RAWKK at or above 13000, then on track 263° to JOHKR, thence . . . .

TAKEOFF RUNWAY 8L: Climb on heading 079° to intercept course 090° to cross FLAAR at or above 6000, then on track 152° to cross HNIBL at or above 8000 and at or below 230K, then on track 211° to VMPRE, then on track 260° to JOHKR, thence . . . .

TAKEOFF RUNWAY 8R: Climb on heading 079° to 2682, then direct SCAAR, then on track 090° to cross FLAAR at or above 6000, then on track 152° to cross HNIBL at or above 8000 and at or below 230K, then on track 211° to VMPRE, then on track 260° to JOHKR, thence . . . .

TAKEOFF RUNWAYS 19L/R: Climb on heading 194° to 2682, then direct DEREW at or below 7000, then on track 188° to CARNG, then on track 218° to COMIC , then on track 224° to MGNTO, then on track 260° to cross KRUGR at or below 11000, then on track 260° to JOHKR, thence . . . .

TAKEOFF RUNWAY 26L: Climb on heading 259° to 2682, then direct SILTT, then on track 253° to cross RUDYY at or above 4000 and at or below 230K, then on track 189° to cross SELLZ at or below 8000, then on track 197° to MGNTO, then on track 260° to cross KRUGR at or below 11000, then on track 260° to JOHKR, thence . . . .

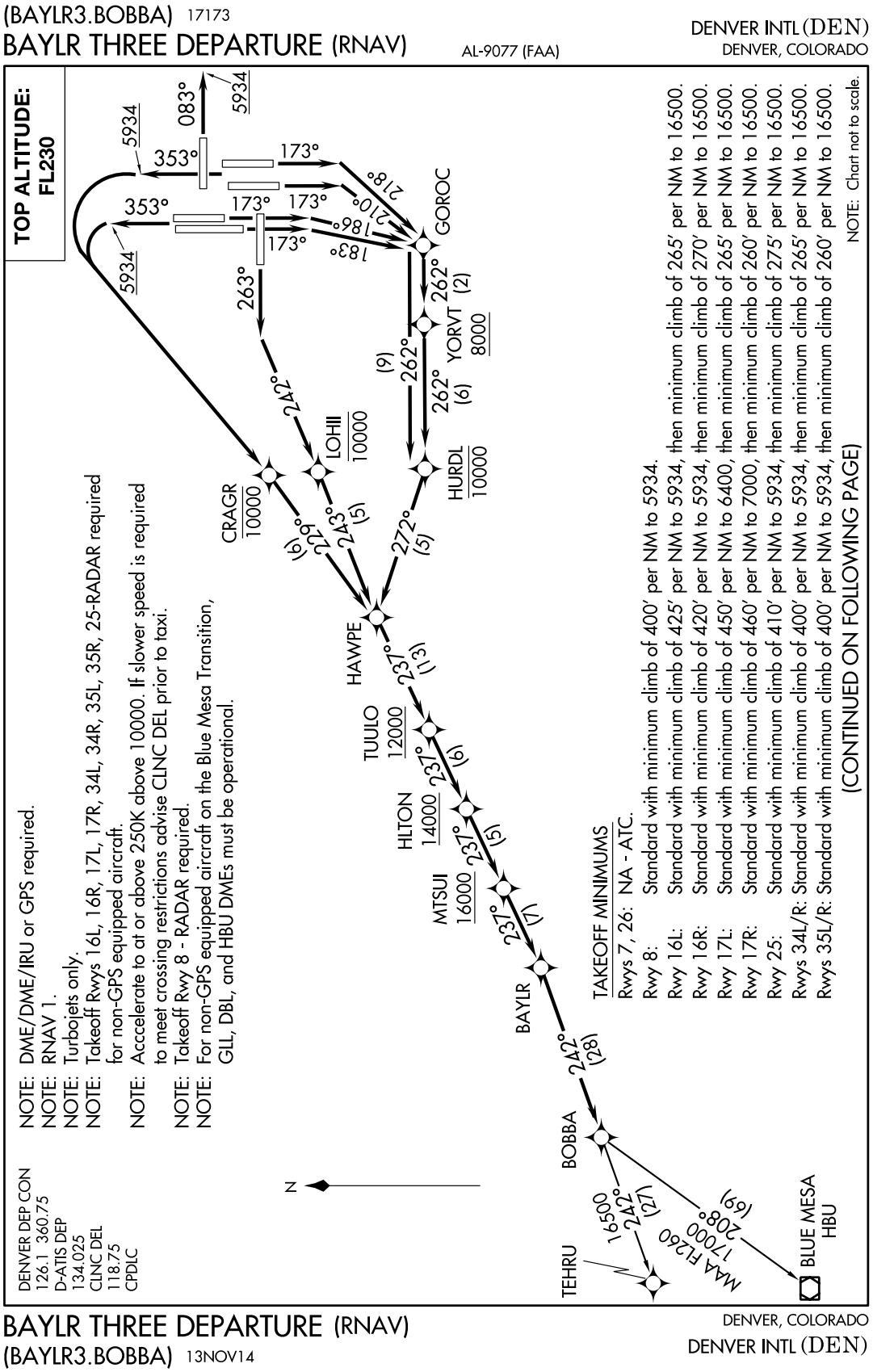
TAKEOFF RUNWAY 26R: Climb on heading 259° to intercept course 249° to cross RUDYY at or above 4000 and at or below 230K, then on track 189° to cross SELLZ at or below 8000, then on track 197° to MGNTO, then on track 260° to cross KRUGR at or below 11000, then on track 260° to JOHKR, thence . . . .

. . . . on (transition). Maintain FL190. Expect filed altitude 10 minutes after departure.

KENNO TRANSITION (JOHKR3.KENNO)

JOHKR THREE DEPARTURE (RNAV)
(JOHKR3.JOHKR) 19MAY22
LAS VEGAS, NEVADA
HARRY REID INTL (LAS)

APPENDIX 17
SINGLE TOP ALTITUDE



BAYLR THREE DEPARTURE (RNAV)
(BAYLR3.BOBBA) 13NOV14

DENVER, COLORADO
DENVER INTL (DEN)

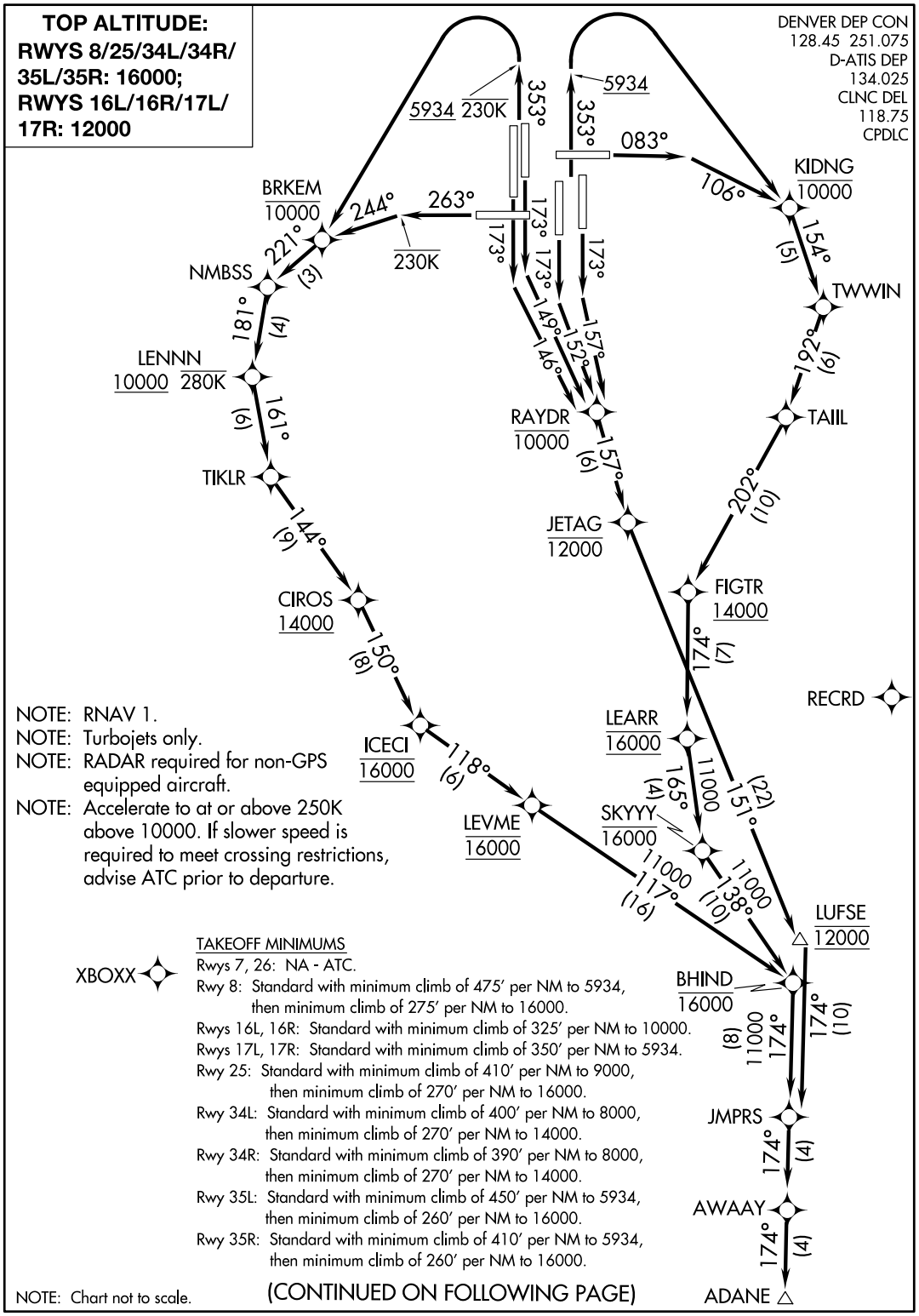
APPENDIX 18
RUNWAY SPECIFIC TOP ALTITUDES

(JMPRS2.ADANE) 17173

JMPRS TWO DEPARTURE (RNAV)

AL-9077 (FAA)

DENVER INTL (DEN)
DENVER, COLORADO



TAKEOFF MINIMUMS

Rwys 7, 26: NA - ATC.

Rwy 8: Standard with minimum climb of 475′ per NM to 5934, then minimum climb of 275′ per NM to 16000.

Rwys 16L, 16R: Standard with minimum climb of 325′ per NM to 10000.

Rwys 17L, 17R: Standard with minimum climb of 350′ per NM to 5934.

Rwy 25: Standard with minimum climb of 410′ per NM to 9000, then minimum climb of 270′ per NM to 16000.

Rwy 34L: Standard with minimum climb of 400′ per NM to 8000, then minimum climb of 270′ per NM to 14000.

Rwy 34R: Standard with minimum climb of 390′ per NM to 8000, then minimum climb of 270′ per NM to 14000.

Rwy 35L: Standard with minimum climb of 450′ per NM to 5934, then minimum climb of 260′ per NM to 16000.

Rwy 35R: Standard with minimum climb of 410′ per NM to 5934, then minimum climb of 260′ per NM to 16000.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

JMPRS TWO DEPARTURE (RNAV)

(JMPRS2.ADANE) 13NOV14

DENVER, COLORADO
DENVER INTL (DEN)

APPENDIX 19
AIRCRAFT TYPE TOP ALTITUDES

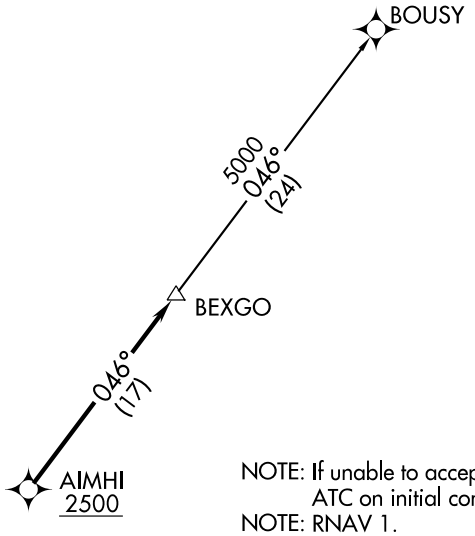
(BEXGO5.BEXGO) 21336 AL-516 (FAA)

BEXGO FIVE DEPARTURE (RNAV)

RALEIGH-DURHAM INTL (RDU)
RALEIGH/DURHAM, NORTH CAROLINA

D-ATIS
123.8
CLNC DEL
120.1
CPDLC
GND CON
121.9 348.6 (EAST)
(Rwys 5R-23L, 14-32)
121.7 348.6 (WEST)
(Rwy 5L-23R)
RALEIGH TOWER
127.45 257.8 (EAST)
(Rwys 5R-23L, 14-32)
119.3 257.8 (WEST)
(Rwy 5L-23R)
RALEIGH DEP CON
132.35 256.9

TOP ALTITUDE:
(JETS) 6000
(PROPS) ASSIGNED BY ATC



NOTE: If unable to accept climb rate, advise ATC on initial contact.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwys 5L/R: Standard.
Rwy 14: Standard with minimum climb of 310′ per NM to 1000.
Rwy 23L: Standard with minimum climb of 250′ per NM to 2300.
Rwy 23R: Standard with minimum climb of 240′ per NM to 2100.
Rwy 32: 300-1.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 5L/R, 14, 23L/R, 32: Climb on assigned heading for RADAR vectors to cross AIMHI at or above 2500, thence. . . .

. . . .on track 046° to BEXGO. Turbojets maintain 6000, propellers maintain altitude assigned by ATC. Expect clearance to filed altitude within ten minutes after departure.

BOUSY TRANSITION (BEXGO5.BOUSY)

BEXGO FIVE DEPARTURE (RNAV)
(BEXGO5.BEXGO) 02DEC21

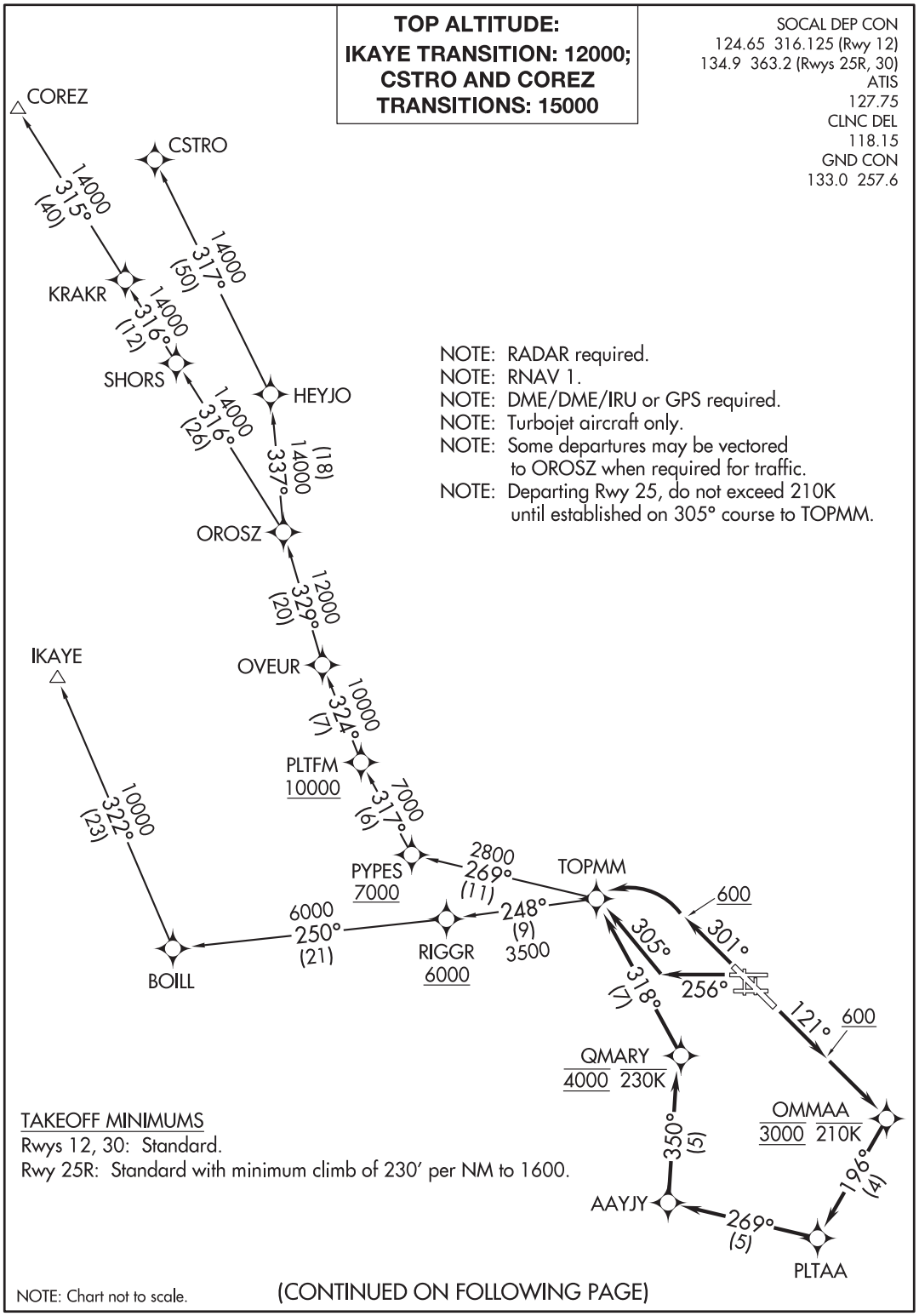
RALEIGH/DURHAM, NORTH CAROLINA
RALEIGH-DURHAM INTL (RDU)

APPENDIX 20
TRANSITION SPECIFIC TOP ALTITUDES

(TOPMM1.TOPMM) 17117

TOPMM ONE DEPARTURE (RNAV)

LONG BEACH/DAUGHERTY FLD (LGB)
AL-236 (FAA) LONG BEACH, CALIFORNIA



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TOPMM ONE DEPARTURE (RNAV)

LONG BEACH, CALIFORNIA
LONG BEACH/DAUGHERTY FLD (LGB)

(TOPMM1.TOPMM) 27APR17

APPENDIX 21
ATC ASSIGNED TOP ALTITUDE

(TATES4.TATES) 17173

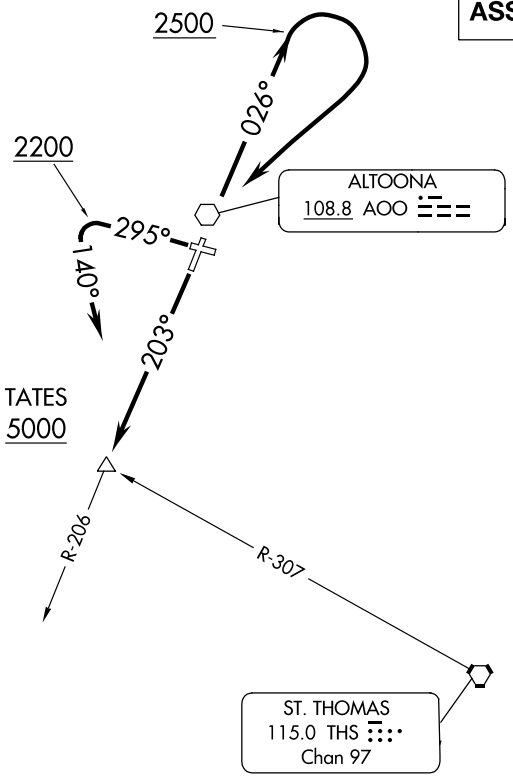
TATES FOUR DEPARTURE

AL-100 (FAA)

ALTOONA-BLAIR COUNTY (AOO)
ALTOONA, PENNSYLVANIA

JOHNSTOWN DEP CON★
121.2 299.2
ASOS
127.125
CTAF
123.6

TOP ALTITUDE:
ASSIGNED BY ATC



TAKEOFF MINIMUMS:
Rwy 12: NA - Obstacles.
Rwy 3: Standard.
Rwy 21: Standard with minimum climb of 350′ per NM to 5000.
Rwy 30: Standard with the following minimum climb requirements: Obstacle climb of 210′ per NM to 2500; ATC climb of 250′ per NM to 5000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb direct AOO VOR, then via AOO R-026 to 2500, then climbing right turn direct AOO VOR, then via AOO R-206 to TATES INT. . . .
TAKEOFF RUNWAY 21: Climb via heading 203° and AOO R-206 to TATES INT. . . .
TAKEOFF RUNWAY 30: Climb via heading 295° to 2200, then climbing left turn heading 140° to intercept AOO R-206 to TATES INT. . . .

. . . .Cross TATES INT at or above 5000. Then via (assigned route).

TATES FOUR DEPARTURE
(TATES4.TATES) 21JUL16

ALTOONA, PENNSYLVANIA
ALTOONA-BLAIR COUNTY (AOO)

APPENDIX 22
PBN/EQUIPMENT REQUIREMENTS NOTE BOX

(JDUBB2.JDUBB) 00000

EASTERN WEST VIRGINIA RGNL/SHEPHERD FIELD (MRB)

JDUBB TWO DEPARTURE (RNAV)

AL-249 (FAA)

MARTINSBURG, WEST VIRGINIA

POTOMAC DEP CON
126.825 239.025
ASOS 119.925
CLNC DEL
121.8 257.65
132.075 269.075 (when twr closed)
GND CON
121.8 257.65
MARTINSBURG TOWER ★
124.3 (CTAF) 233.7

RNAV 1 - DME/DME/IRU or GPS.

RADAR required.

TOP ALTITUDE: 3000

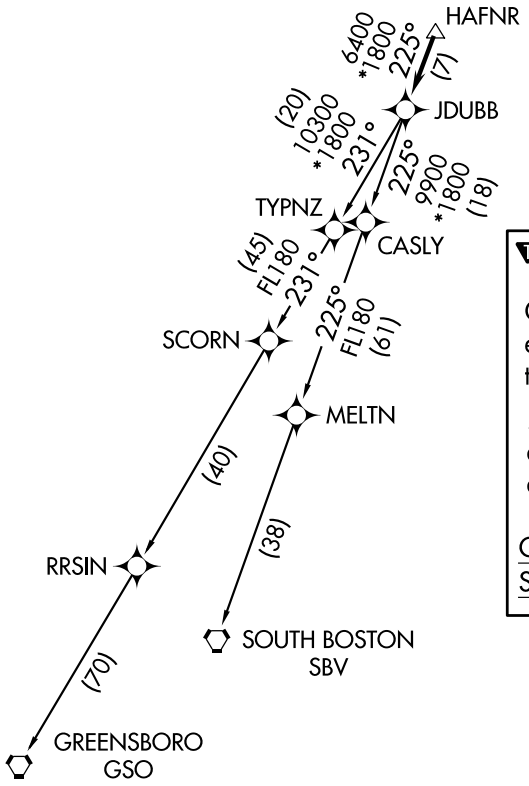
TAKEOFF MINIMUMS
Rwy 8: Standard.
Rwy 26: Standard with a minimum climb of 225′ per NM to 2100.

P-56B

P-56A

NOTE: Takeoff Rwy 8: If issued an ATC heading that requires a westbound turn, climb heading 081° to 1200 prior to turning for obstacle avoidance.

NOTE: Takeoff Rwy 26: If issued an ATC heading that requires a right turn, climb heading 261° to 2400 prior to turning for obstacle avoidance.



DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to HAFNR, then on track 225° to JDUBB, thence. . . .

. . . . on assigned transition, maintain altitude assigned by ATC, expect clearance to filed altitude within ten (10) minutes after departure.

GREENSBORO TRANSITION (JDUBB2.GSO)
SOUTH BOSTON TRANSITION (JDUBB2.SBV)

NOTE: Chart not to scale.

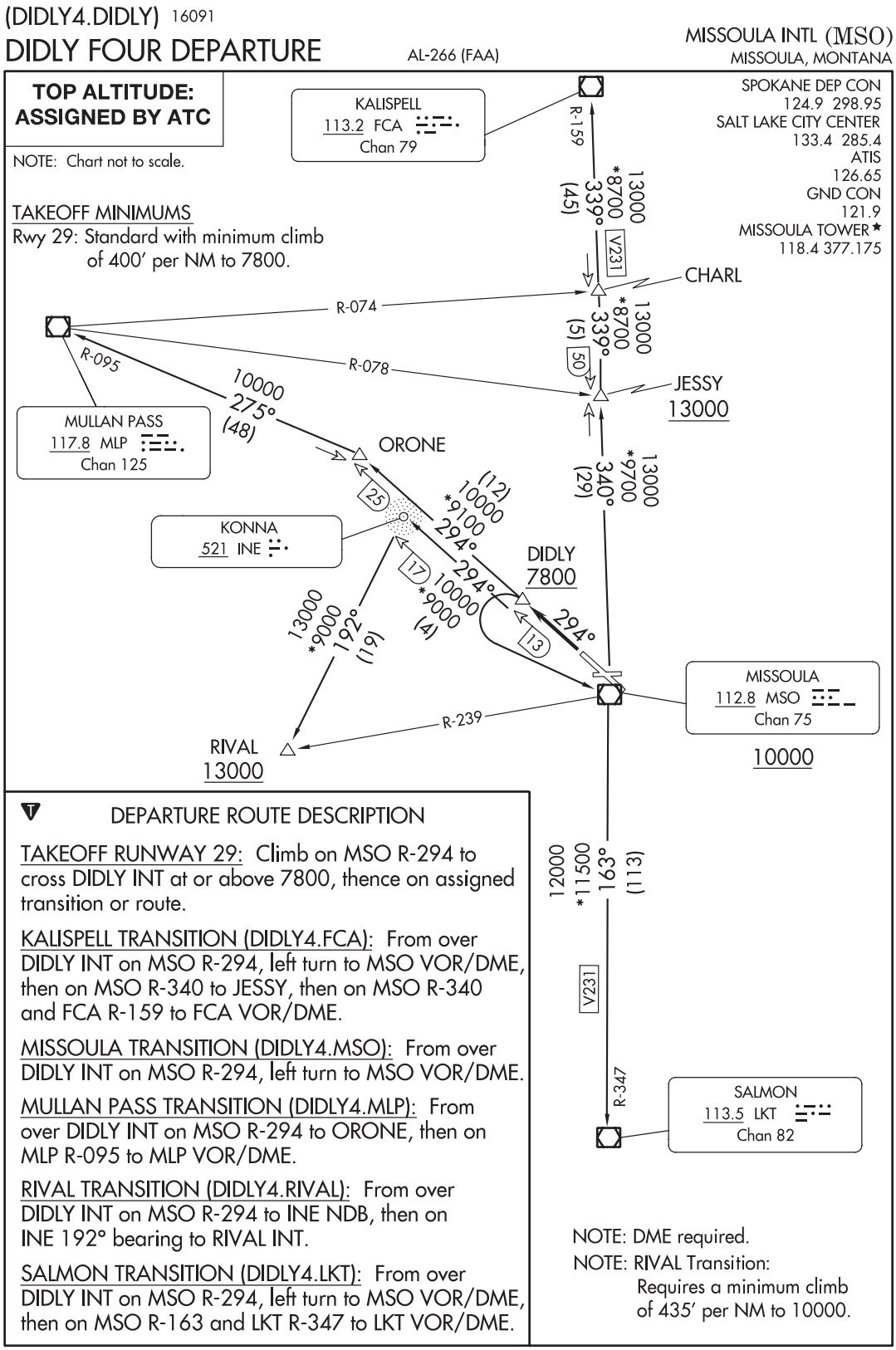
JDUBB TWO DEPARTURE (RNAV)

MARTINSBURG, WEST VIRGINIA

(JDUBB2.JDUBB) 00XXX00

EASTERN WEST VIRGINIA RGNL/SHEPHERD FIELD (MRB)

APPENDIX 23
DP WITH OFFSET TEXT BOX

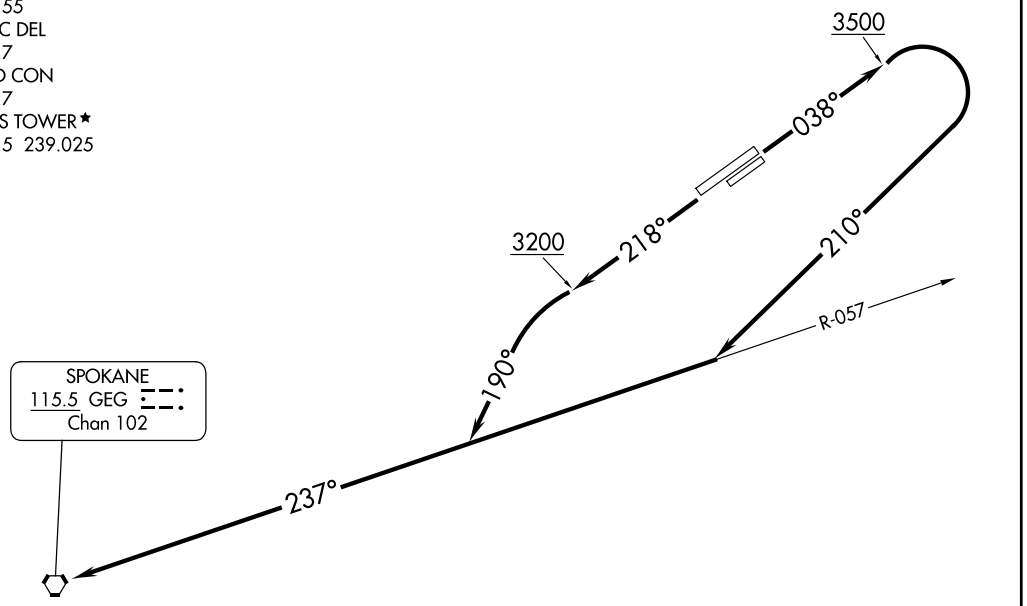


APPENDIX 24
THREE-PAGE DP

(MNITO1.GEG) 23166
MANITO ONE DEPARTURE (OBSTACLE)
AL-402 (FAA)

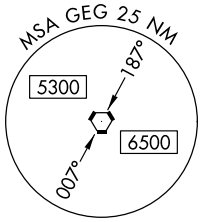
FELTS FLD (SFF)
SPOKANE, WASHINGTON

SPOKANE DEP CON
133.35 263.0
ATIS
120.55
CLNC DEL
121.7
GND CON
121.7
FELTS TOWER ★
132.5 239.025



TAKEOFF MINIMUMS

Rwy 4L: Standard with minimum climb of 495' per NM to 6000, or 2800-3 for VCOA.
Rwy 4R: Standard with minimum climb of 485' per NM to 6000, or 2800-3 for VCOA.
Rwy 22L: Standard with minimum climb of 230' per NM to 2800, or 2800-3 for VCOA.
Rwy 22R: Standard with minimum climb of 250' per NM to 2800, or 2800-3 for VCOA.



(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4L/R: Climb on heading 038° to 3500, then climbing right turn to heading 210° to intercept GEG VORTAC R-057 to GEG VORTAC, thence. . . .

TAKEOFF RUNWAYS 22L/R: Climb on heading 218° to 3200, then climbing left turn to heading 190° to intercept GEG VORTAC R-057 to GEG VORTAC, thence. . . .

VCOA ALL RUNWAYS: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Felts Fld at or above 4600, then on GEG R-057 to GEG VORTAC, thence...

. . . .cross GEG VORTAC at or above MCA/MEA for assigned route of flight.

MANITO ONE DEPARTURE (OBSTACLE)
(MNITO1.GEG) 15JUN23

SPOKANE, WASHINGTON
FELTS FLD (SFF)

APPENDIX 24
THREE-PAGE DP (CONTINUED)

(MNITO1.GEG) 23166
MANITO ONE DEPARTURE (OBSTACLE)
AL-402 (FAA)

FELTS FLD (SFF)
SPOKANE, WASHINGTON

TAKEOFF OBSTACLE NOTES

Rwy 4L: Light poles beginning 10′ from DER, 77′ right of centerline, up to 2′ AGL/1959′ MSL.
Sign 33′ from DER, 168′ left of centerline, 5′ AGL/1962′ MSL.
Building 1152′ from DER, 757′ right of centerline, 33′ AGL/1987′ MSL.
Tree 1568′ from DER, 902′ right of centerline, 62′ AGL/2016′ MSL.
Tree 1732′ from DER, 862′ right of centerline, 72′ AGL/2026′ MSL.
Trees beginning 1844′ from DER, 586′ right of centerline, up to 91′ AGL/2045′ MSL.
Trees beginning 2290′ from DER, 373′ right of centerline, up to 113′ AGL/2064′ MSL.
Tree 3763′ from DER, 1368′ left of centerline, 92′ AGL/2061′ MSL.
Trees beginning 4128′ from DER, 1137′ left of centerline, up to 106′ AGL/2108′ MSL.
Tree 4726′ from DER, 1558′ left of centerline, 136′ AGL/2133′ MSL.
Trees beginning 4728′ from DER, 384′ left of centerline, up to 129′ AGL/2143′ MSL.
Trees beginning 5282′ from DER, 607′ left of centerline, up to 117′ AGL/2171′ MSL.
Tree, building, vehicles on road beginning 5631′ from DER, 765′ left of centerline, up to 113′ AGL/2174′ MSL.
Trees beginning 1 NM from DER, 1177′ left of centerline, up to 65′ AGL/2193′ MSL.
Trees, building beginning 1.1 NM from DER, 970′ left of centerline, up to 94′ AGL/2292′ MSL.
Trees beginning 1.2 NM from DER, 899′ left of centerline, up to 116′ AGL/2336′ MSL.
Trees beginning 1.3 NM from DER, 927′ left of centerline, up to 120′ AGL/2346′ MSL.
Trees beginning 1.4 NM from DER, 869′ left of centerline, up to 96′ AGL/2353′ MSL.
Trees, building, terrain beginning 1.5 NM from DER, 508′ left of centerline, up to 85′ AGL/2390′ MSL.
Buildings, trees beginning 1.6 NM from DER, 851′ left of centerline, up to 40′ AGL/2461′ MSL.
Trees, building, terrain beginning 1.7 NM from DER, 706′ left of centerline, up to 59′ AGL/2509′ MSL.
Trees, buildings, transmission lines, poles, terrain beginning 2 NM from DER, 14′ left of centerline, up to 77′ AGL/2522′ MSL.
Trees beginning 2.3 NM from DER, 37′ right of centerline, up to 2344′ MSL.
Trees beginning 2.4 NM from DER, 12′ right of centerline, up to 102′ AGL/2432′ MSL.
Trees, transmission lines, poles, terrain beginning 2.5 NM from DER, 83′ right of centerline, up to 125′ AGL/2494′ MSL.

Rwy 4R: Light poles beginning 20′ from DER, 389′ left of centerline, up to 2′ AGL/1959′ MSL.
Buildings, utility building beginning 85′ from DER, 341′ right of centerline, up to 19′ AGL/1971′ MSL.
Buildings beginning 203′ from DER, 284′ right of centerline, up to 21′ AGL/1974′ MSL.
Buildings beginning 303′ from DER, 274′ right of centerline, up to 22′ AGL/1975′ MSL.
Buildings beginning 622′ from DER, 276′ right of centerline, up to 27′ AGL/1981′ MSL.
Navaid, building beginning 920′ from DER, 270′ right of centerline, up to 33′ AGL/1987′ MSL.
Trees, buildings, pole beginning 931′ from DER, 257′ right of centerline, up to 82′ AGL/2036′ MSL.
Trees beginning 1854′ from DER, 169′ right of centerline, up to 91′ AGL/2045′ MSL.
Trees beginning 1941′ from DER, 86′ right of centerline, up to 105′ AGL/2059′ MSL.
Trees beginning 2300′ from DER, 253′ right of centerline, up to 113′ AGL/2064′ MSL.
Trees beginning 2827′ from DER, 584′ right of centerline, up to 115′ AGL/2065′ MSL.
Tree 3621′ from DER, 127′ left of centerline, 105′ AGL/2053′ MSL.
Tree 4580′ from DER, 1638′ left of centerline, 112′ AGL/2076′ MSL.
Trees beginning 4730′ from DER, 843′ left of centerline, up to 92′ AGL/2087′ MSL.
Tree 4883′ from DER, 946′ left of centerline, 2089′ MSL.
Trees beginning 4900′ from DER, 885′ left of centerline, up to 105′ AGL/2099′ MSL.
Trees beginning 5012′ from DER, 870′ left of centerline, up to 92′ AGL/2109′ MSL.
Trees beginning 5292′ from DER, 1108′ left of centerline, up to 112′ AGL/2121′ MSL.
Trees beginning 5401′ from DER, 1268′ left of centerline, up to 125′ AGL/2134′ MSL.
Trees beginning 5500′ from DER, 1720′ left of centerline, up to 125′ AGL/2139′ MSL.
Trees beginning 5620′ from DER, 1266′ left of centerline, up to 112′ AGL/2146′ MSL.
Trees beginning 5987′ from DER, 1868′ left of centerline, up to 125′ AGL/2154′ MSL.
Trees beginning 1.1 NM from DER, 1471′ left of centerline, up to 94′ AGL/2292′ MSL.
Trees beginning 1.2 NM from DER, 1401′ left of centerline, up to 106′ AGL/2321′ MSL.
Trees, building beginning 1.3 NM from DER, 1010′ left of centerline, up to 111′ AGL/2327′ MSL.
Trees, buildings, terrain beginning 1.5 NM from DER, 1019′ left of centerline, up to 101′ AGL/2332′ MSL.
Trees, buildings beginning 1.6 NM from DER, 1646′ left of centerline, up to 73′ AGL/2372′ MSL.
Buildings, trees beginning 1.7 NM from DER, 1694′ left of centerline, up to 27′ AGL/2377′ MSL.
Trees, buildings, terrain beginning 1.8 NM from DER, 2010′ left of centerline, up to 57′ AGL/2451′ MSL.
Buildings, trees, terrain beginning 1.9 NM from DER, 2005′ left of centerline, up to 55′ AGL/2470′ MSL.
Trees, buildings, transmission lines, poles, terrain, vegetation beginning 2 NM from DER, 34′ left of centerline, up to 94′ AGL/2522′ MSL.
Trees 2.4 NM from DER, 13′ right of centerline, 102′ AGL/2432′ MSL.
Trees, transmission lines, poles, terrain beginning 2.5 NM from DER, 103′ right of centerline, up to 125′ AGL/2494′ MSL.

(CONTINUED ON FOLLOWING PAGE)

APPENDIX 24
THREE-PAGE DP (CONTINUED)

(MNITO1.GEG) 23166
MANITO ONE DEPARTURE (OBSTACLE) AL-402 (FAA)
FELTS FLD (SFF)
SPOKANE, WASHINGTON

(CONTINUED)

TAKEOFF OBSTACLE NOTES

Rwy 22L: Signs beginning 41′ from DER 75′ left of centerline up to 3′ AGL/1954′ MSL.
Sign 96′ from DER, 73′ right of centerline, 3′ AGL/1953′ MSL.
Sign 114′ from DER, 236′ left of centerline, 3′ AGL/1955′ MSL.
Pole, building beginning 123′ from DER, 473′ left of centerline, up to 27′ AGL/1979′ MSL.
Buildings beginning 450′ from DER, 458′ left of centerline, up to 43′ AGL/1996′ MSL.
Building 539′ from DER, 432′ left of centerline, 44′ AGL/1997′ MSL.
Building 605′ from DER, 433′ left of centerline, 45′ AGL/1998′ MSL.
Trees, buildings, vehicles on the road, light poles, poles beginning 658′ from DER, 291′ left of centerline, up to 2008′ MSL.
Trees beginning 1126′ from DER, 488′ left of centerline, up to 59′ AGL/2012′ MSL.
Trees, poles, transmission line, building beginning 1215′ from DER, 172′ left of centerline, up to 71′ AGL/2024′ MSL.
Trees, pole beginning 2078′ from DER, 206′ left of centerline, up to 92′ AGL/2043′ MSL.
Building, elevators beginning 4482′ from DER, 574′ left of centerline, up to 134′ AGL/2084′ MSL.
Rwy 22R: Fence, vehicles on road, navaid beginning 1′ from DER, 121′ right of centerline, up to 6′ AGL/1949′ MSL.
Signs, navaid beginning 36′ from DER, 117′ left of centerline, up to 3′ AGL/1953′ MSL.
Vehicles on road 187′ from DER, 446′ right of centerline, 1954′ MSL.
Trees beginning 191′ from DER, 500′ right of centerline, up to 1975′ MSL.
Building 202′ from DER, 496′ left of centerline, 18′ AGL/1969′ MSL.
Building 210′ from DER, 501′ left of centerline, 22′ AGL/1973′ MSL.
Buildings beginning 267′ from DER, 507′ left of centerline, up to 23′ AGL/1974′ MSL.
Trees, transmission lines, poles beginning 500′ from DER, 64′ right of centerline, up to 63′ AGL/1995′ MSL.
Pole, vehicles on road, buildings beginning 651′ from DER, 229′ left of centerline, up to 38′ AGL/1987′ MSL.
Tree, vehicles on road beginning 1020′ from DER, 471′ left of centerline, up to 40′ AGL/1989′ MSL.
Tower 1178′ from DER, 439′ left of centerline, 40′ AGL/1997′ MSL.
Tree, poles, transmission line beginning 1260′ from DER, 3′ left of centerline, up to 51′ AGL/2000′ MSL.
Trees, poles, transmission line beginning 1493′ from DER, 191′ left of centerline, up to 70′ AGL/2018′ MSL.
Building, elevators, tower beginning 2643′ from DER, 1072′ left of centerline, up to 134′ AGL/2084′ MSL.

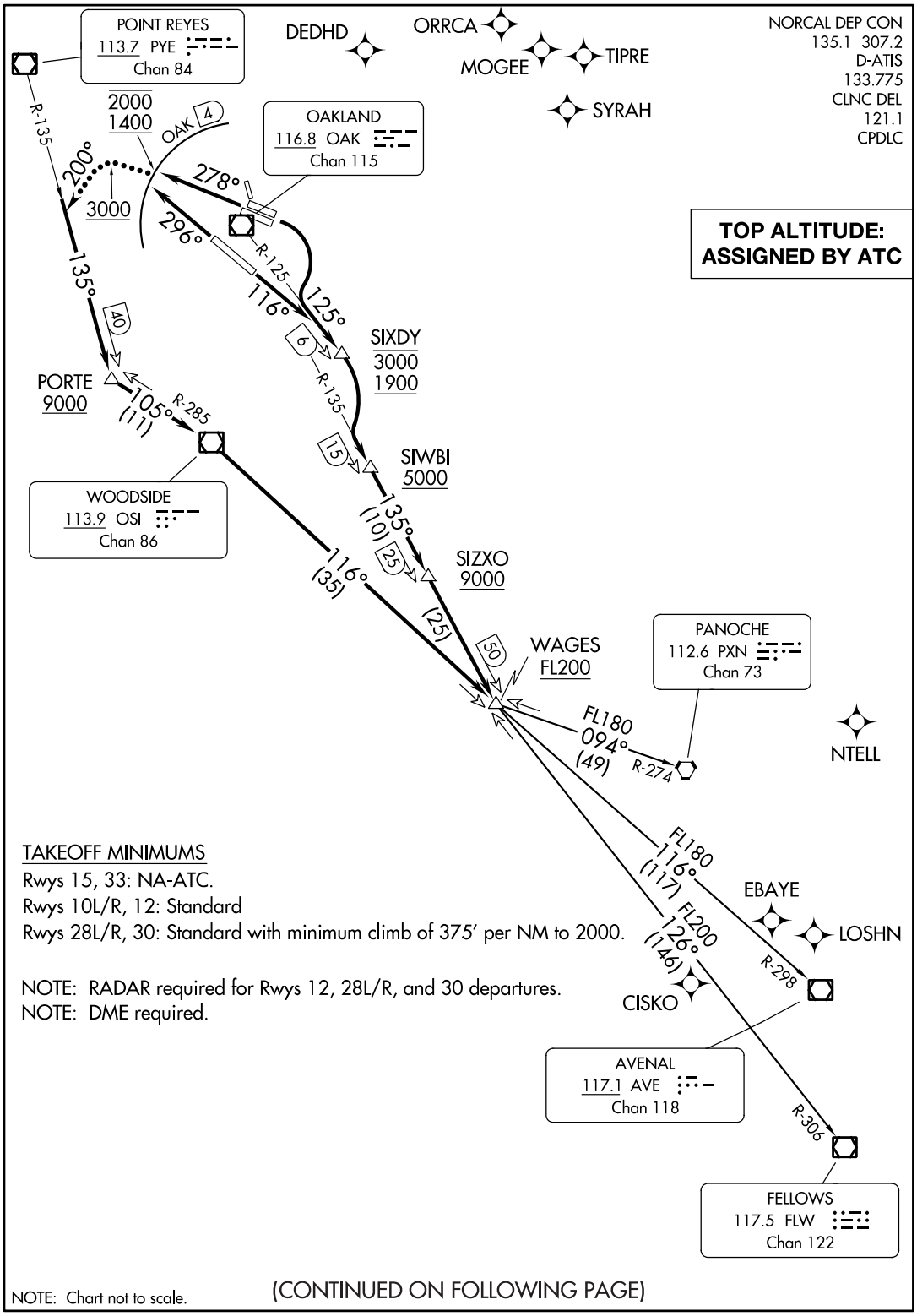
MANITO ONE DEPARTURE (OBSTACLE)
(MNITO1.GEG) 15JUN23
SPOKANE, WASHINGTON
FELTS FLD (SFF)

APPENDIX 25
CONVENTIONAL DP WITH RNAV WAYPOINTS

(SKYL1.WAGES) 19227

SKYLINE ONE DEPARTURE

METRO OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA



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SKYLINE ONE DEPARTURE
(SKYL1.WAGES) 15AUG19

OAKLAND, CALIFORNIA
METRO OAKLAND INTL (OAK)

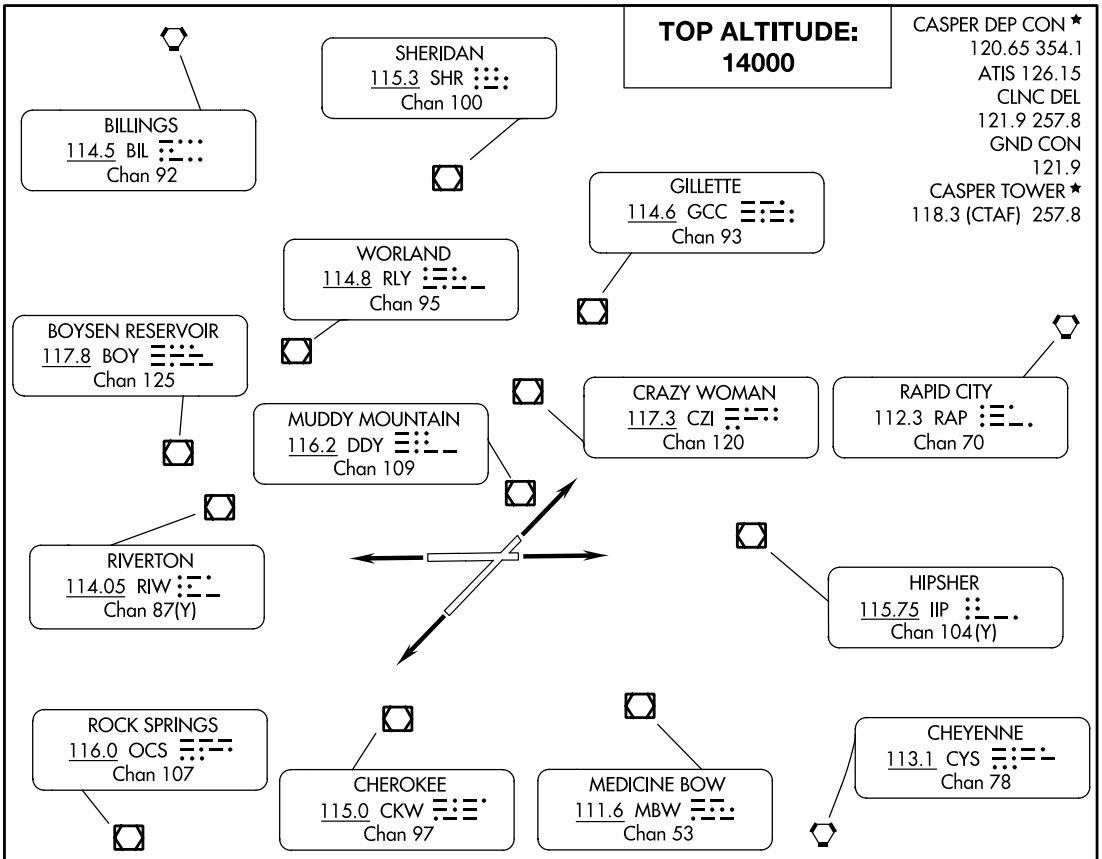
APPENDIX 26
DP ROUTE WITH RANGE OF BEARINGS

(CPR3.CPR) 21056

CASPER THREE DEPARTURE

AL-72 (FAA)

CASPER/NATRONA COUNTY INTL (CPR)
CASPER, WYOMING



TAKEOFF MINIMUMS
Rwys 12, 17, 30, 35, NA- Environmental.
Rwys 3, 8, 26, Standard.
Rwy 21, Standard with a minimum climb of 235 feet per NM to 6700.

NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on a heading between 212° CW 094° from DER as assigned by ATC thence. . . .

TAKEOFF RUNWAY 8: Climb on a heading between 257° CW 094° from DER as assigned by ATC thence. . . .

TAKEOFF RUNWAY 21: Climb on a heading between 195° CW 032° from DER as assigned by ATC thence. . . .

TAKEOFF RUNWAY 26: Climb on a heading between 190° CW 077° from DER as assigned by ATC thence. . . .

. . . .Maintain 14000' or assigned lower altitude. Expect RADAR vectors to filed/assigned fix/route. Expect further clearance to filed altitude ten minutes after departure.

LOST COMMUNICATIONS

If no transmissions are received for one minute after departure, maintain assigned heading until 7,000 feet, then climb to filed altitude via direct DDY VOR/DME, then via assigned route. Runways 3 and 8 turn left to DDY VOR/DME, runways 21 and 26 turn right to DDY VOR/DME.

CASPER THREE DEPARTURE

(CPR3.CPR) 21JUL16

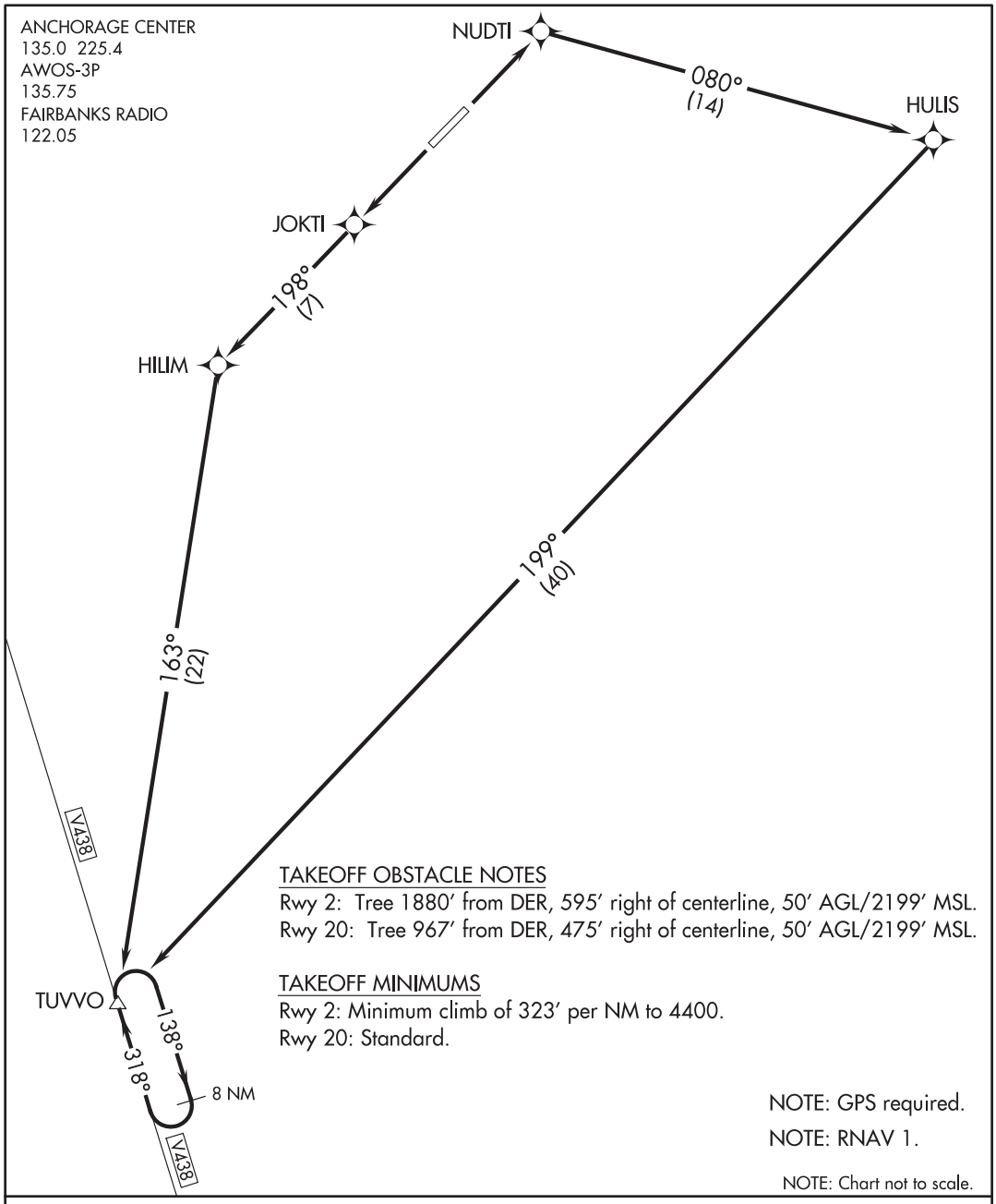
CASPER, WYOMING
CASPER/NATRONA COUNTY INTL (CPR)

APPENDIX 27
RNAV DP WITH DEPARTURE ROUTING ONLY

(TUVVO1.TUVVO) 17005

TUVVO ONE DEPARTURE (OBSTACLE) (RNAV)

ARCTIC VILLAGE (ARC)(PARC)
AL-10232 (FAA) ARCTIC VILLAGE, ALASKA



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb to 10000 direct NUDTI, and via 080° track to HULIS, and right turn via 199° track to TUVVO, thence. . . .

TAKEOFF RUNWAY 20: Climb to 10000 direct JOKTI, then via depicted route to TUVVO, thence. . . .

. . . . climb in holding (if required) at TUVVO before proceeding via assigned route and altitude.

TUVVO ONE DEPARTURE (OBSTACLE) (RNAV)
(TUVVO1.TUVVO) 16FEB06

ARCTIC VILLAGE, ALASKA
ARCTIC VILLAGE (ARC)(PARC)

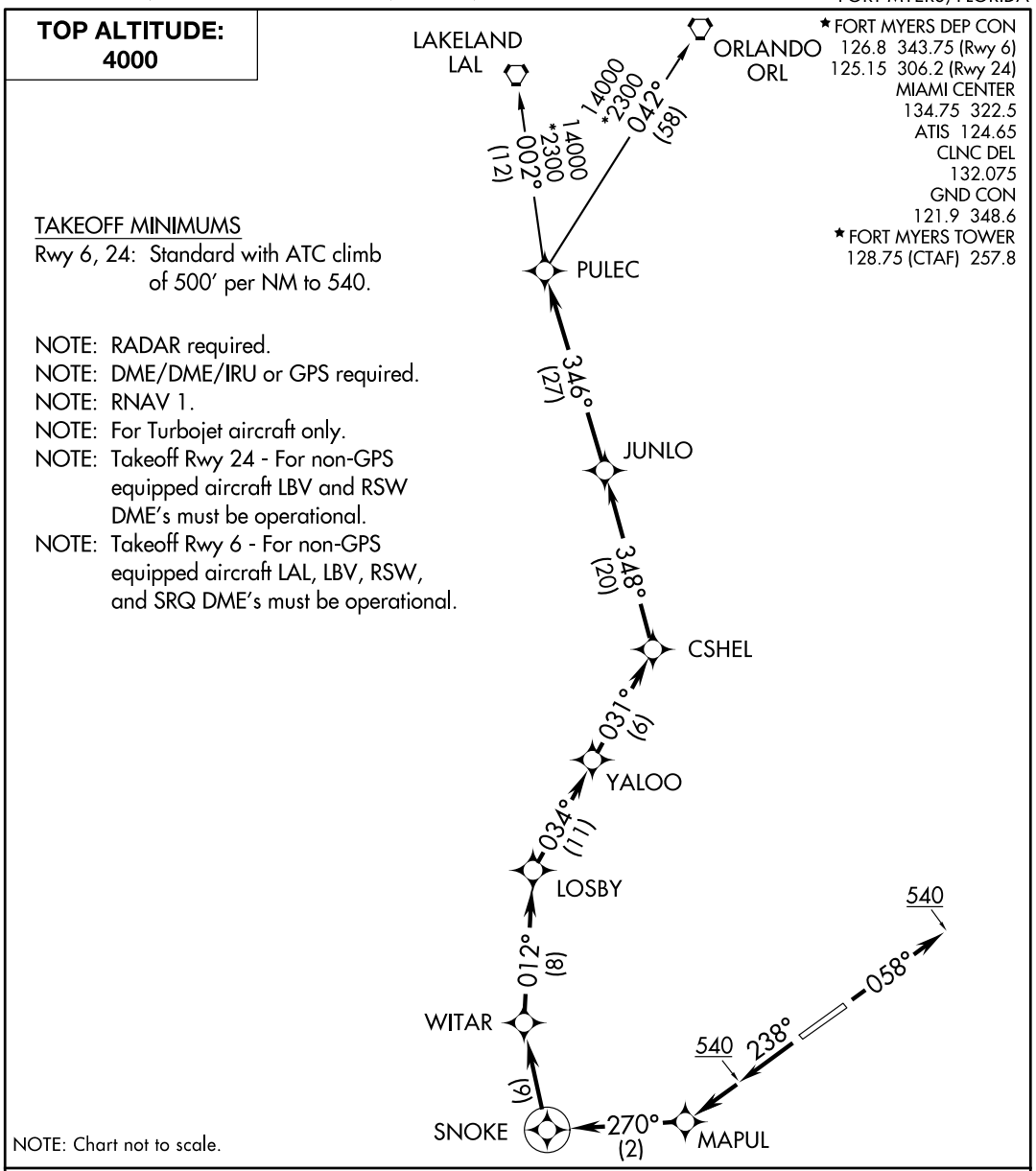
APPENDIX 28
RNAV DP WITH DEPARTURE AND TRANSITION ROUTING

(CSHEL5.CSHEL) 15232

CSHEL FIVE DEPARTURE (RNAV)

AL-6757 (FAA)

SOUTHWEST FLORIDA INTL (RSW)
FORT MYERS, FLORIDA



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb heading 058° or as assigned by ATC, to 540. Expect vectors to CSHEL, then via depicted route to PULEC, thence....

TAKEOFF RUNWAY 24: Climb heading 238° to 540, then direct MAPUL, then climb via 270° track to SNOKE, then right turn direct WITAR, then via depicted route to PULEC, thence....

....via (transition). Maintain 4000 or as assigned by ATC, expect filed altitude/flight level 10 minutes after departure.

LAKELAND TRANSITION (CSHEL5.LAL)
ORLANDO TRANSITION (CSHEL5.ORL)

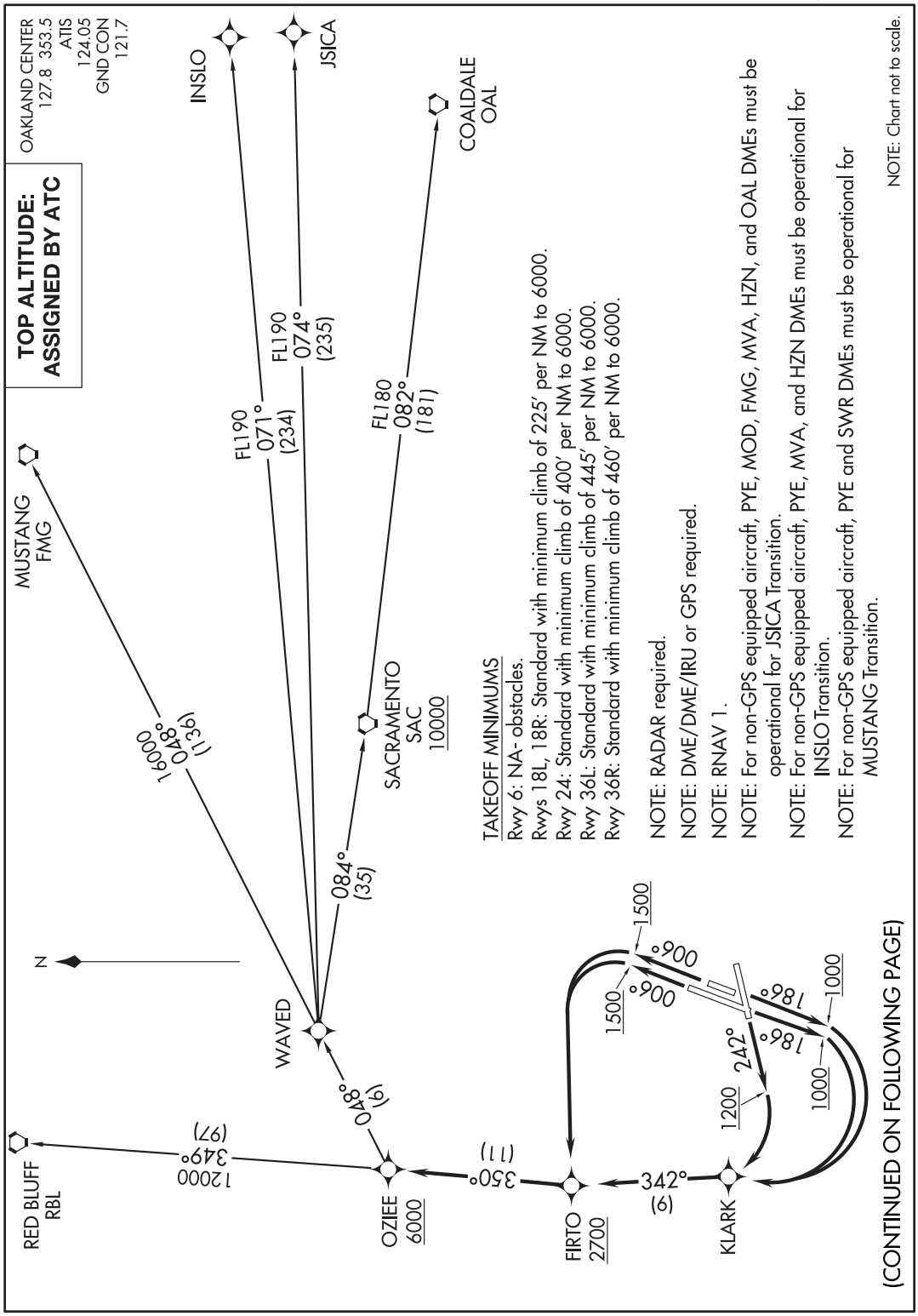
CSHEL FIVE DEPARTURE (RNAV)
(CSHEL5.CSHEL) 15232
FORT MYERS, FLORIDA
SOUTHWEST FLORIDA INTL (RSW)

APPENDIX 29
RNAV DP WITH EAST-WEST ORIENTATION

(OZIEE3.OZIEE) 17173

OZIEE THREE DEPARTURE (RNAV) AL-281 (FAA)

NAPA COUNTY (APC)
NAPA, CALIFORNIA



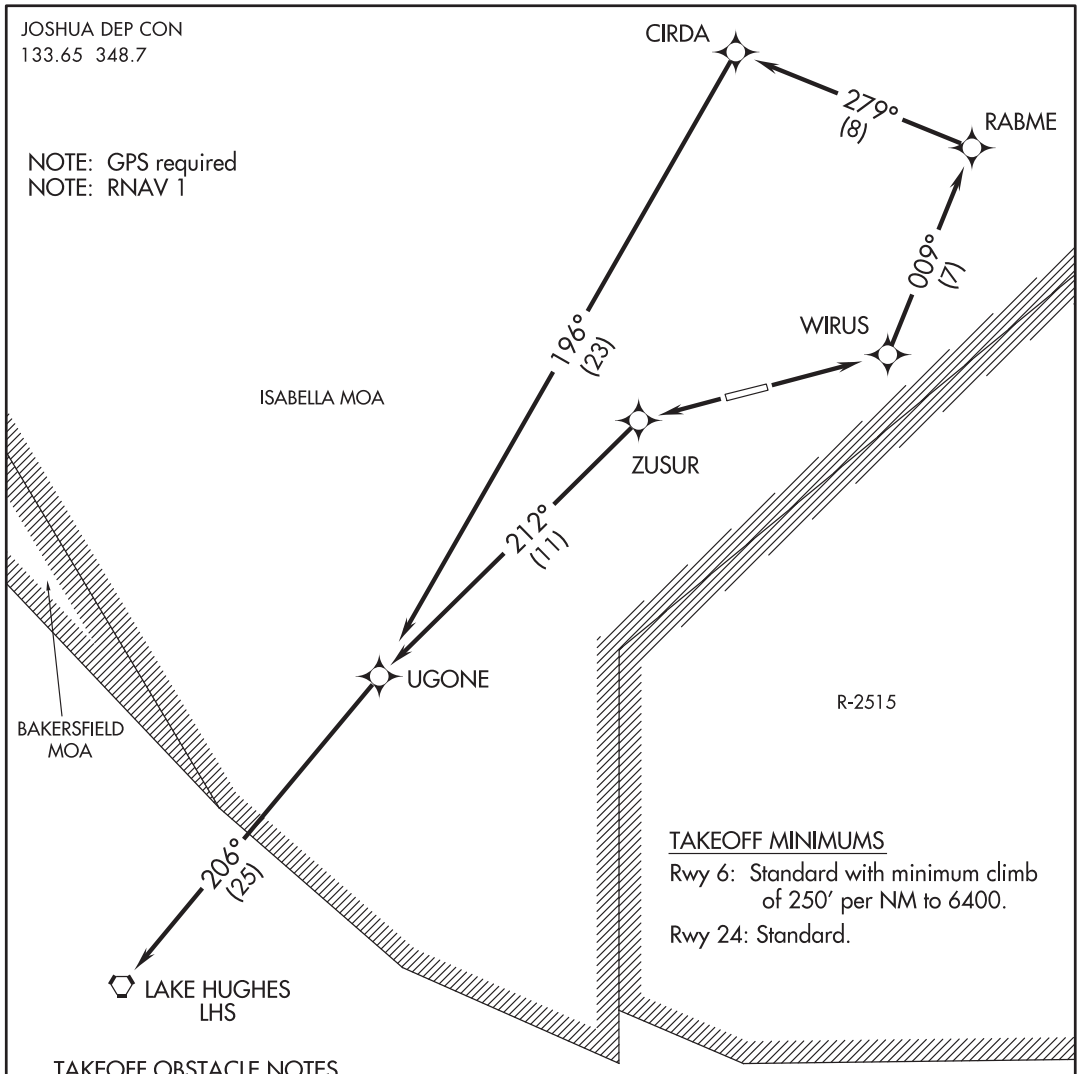
OZIEE THREE DEPARTURE (RNAV)
(OZIEE3.OZIEE) 22JUN17

NAPA, CALIFORNIA
NAPA COUNTY (APC)

APPENDIX 30
OBSTACLE RNAV DP

(L711.LHS) 16091 AL-9440 (FAA) CALIFORNIA CITY MUNI (L71)

CALIFORNIA CITY ONE DEPARTURE (OBSTACLE) (RNAV) CALIFORNIA CITY, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb direct WIRUS, then via depicted route to LHS VORTAC. Maintain 9000.

TAKEOFF RUNWAY 24: Climb direct ZUSUR, then via depicted route to LHS VORTAC. Maintain 9000.

CALIFORNIA CITY ONE DEPARTURE (OBSTACLE) (RNAV) CALIFORNIA CITY, CALIFORNIA

(L711.LHS) 17MAR05 CALIFORNIA CITY MUNI (L71)

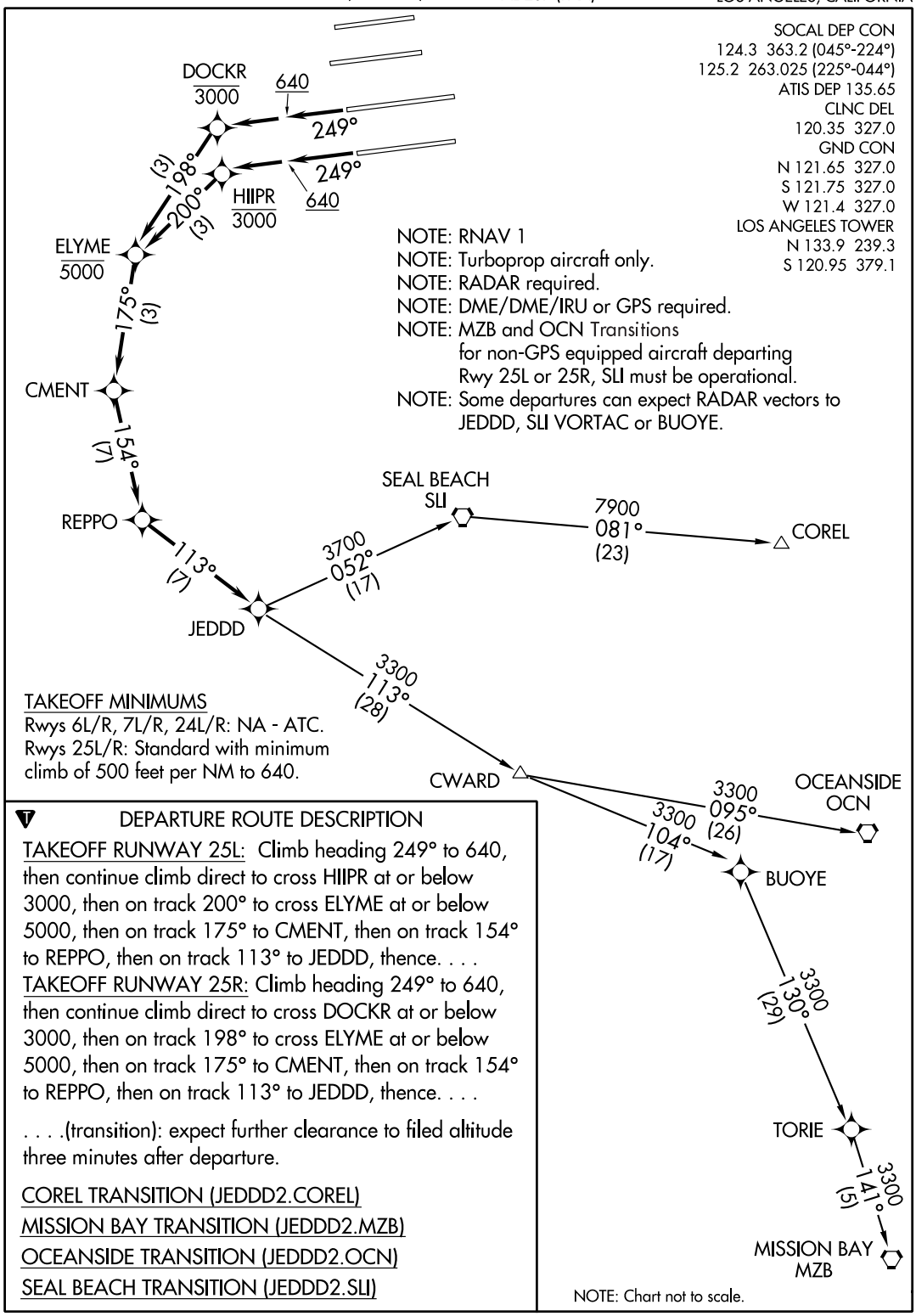
APPENDIX 31
RNAV DP WITH OFFSET TEXT BOX

(JEDDD2.JEDDD) 14317

JEDDD TWO DEPARTURE (RNAV)

AL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



JEDDD TWO DEPARTURE (RNAV)

(JEDDD2.JEDDD) 13NOV14

LOS ANGELES, CALIFORNIA
LOS ANGELES INTL (LAX)

APPENDIX 32
RNAV DP WITH CONTINUED PAGE

(WEVIC5.WEVIC) 17173

WEVIC FIVE DEPARTURE (RNAV)

SALT LAKE CITY INTL (SLC)
SALT LAKE CITY, UTAH

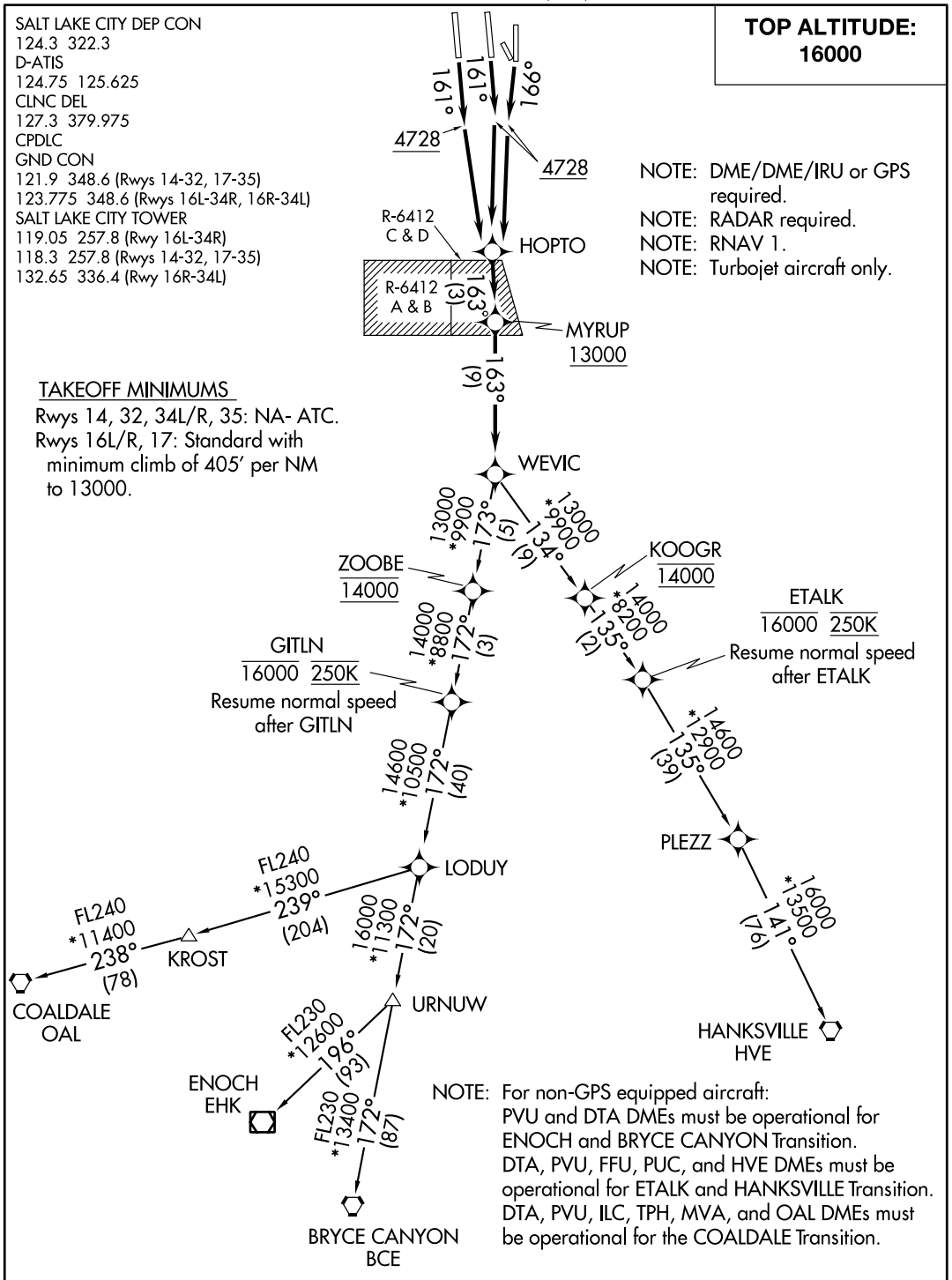
AL-365 (FAA)

SALT LAKE CITY DEP CON
124.3 322.3
D-ATIS
124.75 125.625
CLNC DEL
127.3 379.975
CPDLC
GND CON
121.9 348.6 (Rwys 14-32, 17-35)
123.775 348.6 (Rwys 16L-34R, 16R-34L)
SALT LAKE CITY TOWER
119.05 257.8 (Rwy 16L-34R)
118.3 257.8 (Rwys 14-32, 17-35)
132.65 336.4 (Rwy 16R-34L)

TOP ALTITUDE: 16000

NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Turbojet aircraft only.

TAKEOFF MINIMUMS
Rwys 14, 32, 34L/R, 35: NA- ATC.
Rwys 16L/R, 17: Standard with minimum climb of 405' per NM to 13000.



NOTE: For non-GPS equipped aircraft:
PVU and DTA DMEs must be operational for ENOCH and BRYCE CANYON Transition.
DTA, PVU, FFU, PUC, and HVE DMEs must be operational for ETALK and HANKSVILLE Transition.
DTA, PVU, ILC, TPH, MVA, and OAL DMEs must be operational for the COALDALE Transition.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

WEVIC FIVE DEPARTURE (RNAV)
(WEVIC5.WEVIC) 05JAN17
SALT LAKE CITY, UTAH
SALT LAKE CITY INTL (SLC)

APPENDIX 32
RNAV DP WITH CONTINUED PAGE (CONTINUED)

(WEVIC5.WEVIC) 17173
WEVIC FIVE DEPARTURE (RNAV) AL-365 (FAA)
SALT LAKE CITY INTL (SLC)
SALT LAKE CITY, UTAH

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16R: Climb heading 161° to 4728, then left turn direct HOPTO, then on depicted route to WEVIC, thence. . . .
TAKEOFF RUNWAY 16L: Climb heading 161° to 4728, then right turn direct HOPTO, then on depicted route to WEVIC, thence. . . .
TAKEOFF RUNWAY 17: Climb heading 166° to 4728, then left turn direct HOPTO, then on depicted route to WEVIC, thence. . . .

. . . .(transition) maintain 16000 or lower filed altitude. Expect filed altitude 10 minutes after departure.

LOST COMMUNICATIONS: Continue on SID, comply with published altitude restrictions.

BRYCE CANYON TRANSITION (WEVIC5.BCE)
COALDALE TRANSITION (WEVIC5.OAL)
ETALK TRANSITION (WEVIC5.ETALK)
HANKSVILLE TRANSITION (WEVIC5.HVE)
ENOCH TRANSITION (WEVIC5.EHK)

WEVIC FIVE DEPARTURE (RNAV)
(WEVIC5.WEVIC) 05JAN17
SALT LAKE CITY, UTAH
SALT LAKE CITY INTL (SLC)

APPENDIX 33
RNAV DEPARTURE ATTENTION ALL USERS PAGE (AAUP)

17173 HARTSFIELD-JACKSON ATLANTA INTL (ATL)

RNAV DEPARTURE AAUP AL-26 (FAA) ATLANTA, GEORGIA

ATTENTION ALL USERS PAGE (AAUP)

1. **PREFLIGHT:** All aircraft capable of conducting terminal RNAV procedures should expect an RNAV SID clearance. If unable to accept the RNAV SID clearance, notify Clearance Delivery. Upon receipt of your Air Traffic Control (ATC) clearance, crosscheck the assigned RNAV SID, Departure Runway, and En Route Transition, as loaded into and depicted by your navigation system, against your clearance. Ensure that the sequence of waypoints loaded in the FMS match the waypoints on the appropriate chart(s). Do not modify or manually construct RNAV procedures. Ensure all transitions are loaded correctly.

2. **BEFORE TAKEOFF:** Ensure that the Departure Runway assigned on taxi, RNAV SID, and En Route Transition are depicted by your navigation system. Pay particular attention if you have received a runway change or a revised ATC clearance. Pilots of aircraft equipped with electronic navigation map displays, must verify that the aircraft symbol relative to the runway symbol and lateral track, and depicted route, agrees with your clearance. You should ensure the waypoints sequence depicted by your navigation system matches the route depicted on the appropriate chart(s) and the altitude set in the altitude window matches the TOP ALTITUDE of the SID, unless amended by ATC. For navigation systems with ROUTE and LEGS pages, the LEGS page should be used to verify routing. If unable to comply with the RNAV SID, contact ATC prior to takeoff and request an amended clearance.

3. **LINE UP/TAKEOFF:** Pilots can expect a takeoff clearance from ATC that will provide instructions to depart the runway either via an RNAV path or via an assigned heading. If assigned a heading instead of an RNAV path, ATC must also issue an altitude to maintain. An RNAV path takeoff clearance will direct aircraft to fly the required RNAV path to the initial waypoint on the SID in the ATC clearance. A typical takeoff clearance will state, for example, "Delta 123, RNAV to MPASS, Runway 26L, Cleared for Takeoff". After verifying that the correct runway and departure are loaded and that the correct lateral navigation mode is available and ready for use after takeoff, the expected pilot response is, "Delta 123, RNAV to MPASS, Runway 26L, Cleared for Takeoff". If the takeoff clearance does not match the planned/loaded procedure, either request an initial heading from tower or refuse the takeoff clearance until the discrepancy is resolved.

4. **AFTER TAKEOFF:** Unless instructed to fly a heading by ATC, engage lateral navigation flight guidance as soon as practical and fly the departure precisely. Strict compliance with the lateral and vertical tracks and charted speed restrictions is imperative. Parallel RNAV departures must not encroach on the airspace between parallel runway centerlines without specific ATC clearance. Manually intervene if necessary to stay on track to avoid transgressing in the direction of a parallel track. If unable to comply with the SID profile, immediately notify ATC.

5. **SPECIFIC INFORMATION:** Atlanta will utilize RNAV departures in both dual and triple runway operations between 0700 - 2300 local. All properly equipped aircraft should expect to fly an ATLANTA RNAV DEPARTURE. Headings may be issued in lieu of an RNAV off the ground take off clearance. If so, an altitude to maintain must also be issued. Pilots may anticipate a runway assignment based upon the information provided below, however actual runway assignments will be issued on initial contact with Ground Control.

(CONTINUED ON FOLLOWING PAGE)

RNAV DEPARTURE AAUP 33°38'N-84°26'W ATLANTA, GEORGIA

10NOV16 HARTSFIELD-JACKSON ATLANTA INTL (ATL)

APPENDIX 33
RNAV DEPARTURE ATTENTION ALL USERS PAGE (AAUP) (CONTINUED)

17173 HARTSFIELD-JACKSON ATLANTA INTL (ATL)

RNAV DEPARTURE AAUP AL-26 (FAA) ATLANTA, GEORGIA

ATTENTION ALL USERS PAGE (AAUP)

CONTINUED FROM PREVIOUS PAGE

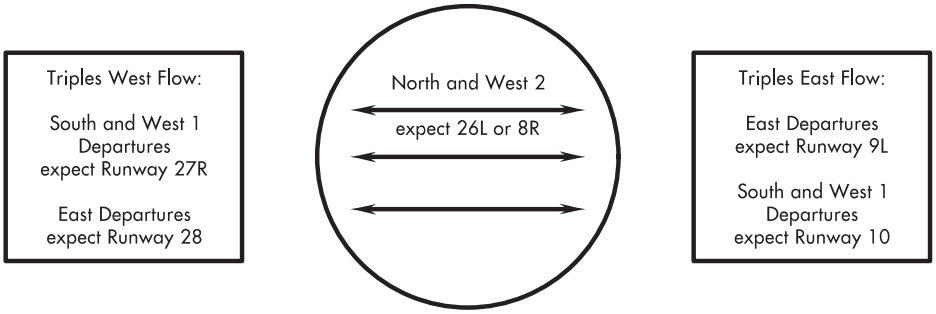
Atlanta RNAV SIDs Directions:

North	West	South	East
PADGT	CUTTN (WEST 2)	BANNG	GAIRY
PENCL	KAJIN (WEST 1)	HAALO	JACCC
SMKEY	NASSA (WEST 2)	SMLTZ	PHIIL
VARNM	POUNC (WEST 1)	VRSTY	PLMMR

Expected Runway Assignment for Dual or Triple Departure Operations

Dual Departures

Triple Departures



RNAV DEPARTURE AAUP 33°38′N-84°26′W ATLANTA, GEORGIA

10NOV16 HARTSFIELD-JACKSON ATLANTA INTL (ATL)