Arrivals and Arrival Procedures

Updated APR 2026


IT'S THE PART ABOUT 60 TAKE-OFFS AND 54 LANDINGS THAT CONCERNS US
PILOT WANTED
RESUME

Arrivals and Arrival Procedures

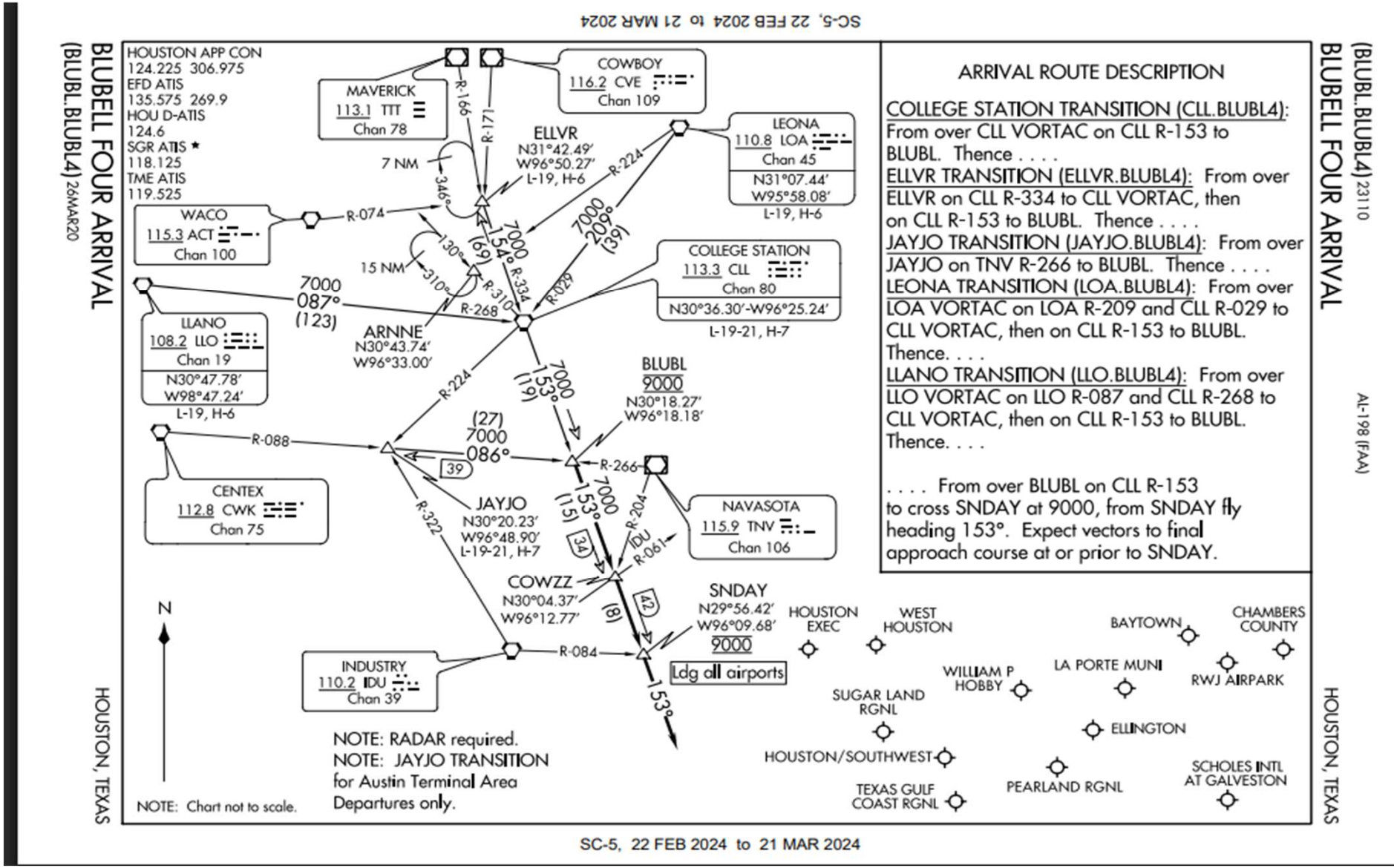
ARRIVAL CHARTS

- Standard Terminal Arrival Routes (STARs)
- Interpreting the STARs
- Vertical Navigation Planning

ARRIVAL PROCEDURES

- Preparing for the Arrival
- Reviewing the Approach
- Altitude
- Airspeed

Standard Terminal Arrival Routes



STAR

A **standard terminal arrival route or standard terminal arrival (STAR)** is a published procedure followed by aircraft on an IFR flight plan just before reaching a destination airport.

A STAR is an ATC-coded IFR **arrival route** established for application to arriving IFR aircraft destined for certain airports.

WHAT IS A STAR

A STAR is an IFR arrival route established by ATC to direct arriving IFR aircraft to an airport

- Graphical and textual presentation
- Very similar to a SID
  - SID and STAR difference is that the SID starts at the runway and connects to the enroute structure. STARs start at the enroute structure; they end at an approach gate, outer fix, instrument approach fix, or arrival waypoint where radar vectors commonly take over because STARs serve multiple airports
- Several airports in the same area may share a STAR

STARs are designed to

- facilitate transition between en route and instrument approaches
- simplify clearance delivery procedures

Flying the STAR

Pilots may be issued a clearance containing a STAR whenever ATC deems it appropriate

To use a STAR, a pilot must have at least the approved chart

RNAV STARs must be retrievable by the procedure name from the aircraft database and conform to charted procedure

- Can't just go "direct" point to point

Pilot can accept or refuse a STAR

- Pilots should notify ATC if they do not wish to use a STAR by placing "**NO STAR**" in the remarks section of the flight plan or by the less desirable method of verbally stating the same to ATC

STARs charts are published in the Terminal Procedures Publication (TERPS) and precede the instrument approach plates for an airport

STAR Speeds and Altitudes

STARs may have speeds and/or crossing altitudes published that are:

- **Mandatory**
- **Advisory** - planning information to inform pilots what clearances or restrictions to "expect." "Expect" altitudes/speeds are not considered STAR procedures crossing restrictions unless verbally issued by ATC.

Published speed restrictions are independent of altitude restrictions and are mandatory unless modified by ATC.

- You must cross waypoints with published speed restrictions, at the published speed, and should not exceed this speed past the associated waypoint unless authorized by ATC or a published note to do so

"Expect" or advisory speeds and altitudes are not clearances and cannot be used in the event of lost communications unless ATC has specifically advised the pilot to expect these altitudes/speeds as part of a further clearance.

TEJAS FIVE ARRIVAL (RNAV) Arrival Routes

(GMANN.TEJAS5) 05OCT23

GEORGE BUSH INTCNTL/HOUSTON (IAH)

HOUSTON, TEXAS

ARRIVAL ROUTE DESCRIPTION

From GMANN on track 058° to cross CITTE at or below 16000, then on track 059° to cross TEJAS between 12000 and 14000 and at 250K.

LANDING RUNWAY 26L: From TEJAS on track 059° to cross RIDLR at or below 10000, then on track 059° to cross BEEEP at or below 8000, then on track 059° to cross HOWLN at 6000 and at 240K, then on track 087° to SMOCR, then on track 087° to cross PRAYY at 6000 and at 210K, then on track 087°. Expect RADAR vectors to final approach course.

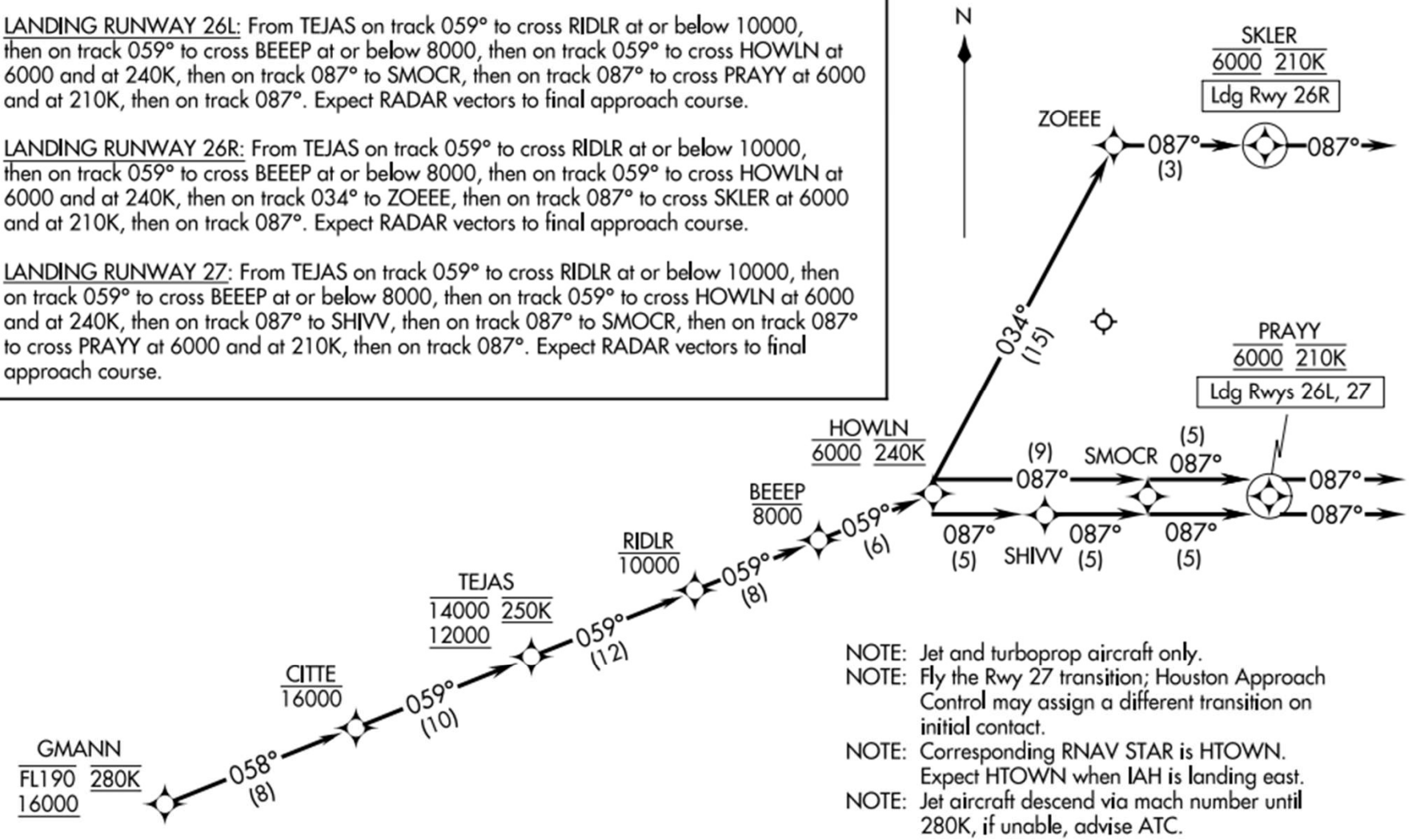
LANDING RUNWAY 26R: From TEJAS on track 059° to cross RIDLR at or below 10000, then on track 059° to cross BEEEP at or below 8000, then on track 059° to cross HOWLN at 6000 and at 240K, then on track 034° to ZOEEE, then on track 087° to cross SKLER at 6000 and at 210K, then on track 087°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 27: From TEJAS on track 059° to cross RIDLR at or below 10000, then on track 059° to cross BEEEP at or below 8000, then on track 059° to cross HOWLN at 6000 and at 240K, then on track 087° to SHIVV, then on track 087° to SMOCR, then on track 087° to cross PRAYY at 6000 and at 210K, then on track 087°. Expect RADAR vectors to final approach course.

RNAV 1 - DME/DME/IRU or GPS.

RADAR required.

HOUSTON APP CON
119.175 291.675
D-ATIS
124.05



NOTE: Jet and turboprop aircraft only.

NOTE: Fly the Rwy 27 transition; Houston Approach Control may assign a different transition on initial contact.

NOTE: Corresponding RNAV STAR is HTOWN. Expect HTOWN when IAH is landing east.

NOTE: Jet aircraft descend via mach number until 280K, if unable, advise ATC.

NOTE: Chart not to scale.

(GMANN.TEJAS5) 23278

GEORGE BUSH INTCNTL/HOUSTON (IAH)

HOUSTON, TEXAS

TEJAS FIVE ARRIVAL (RNAV) Arrival Routes

AL-5461 (FAA)

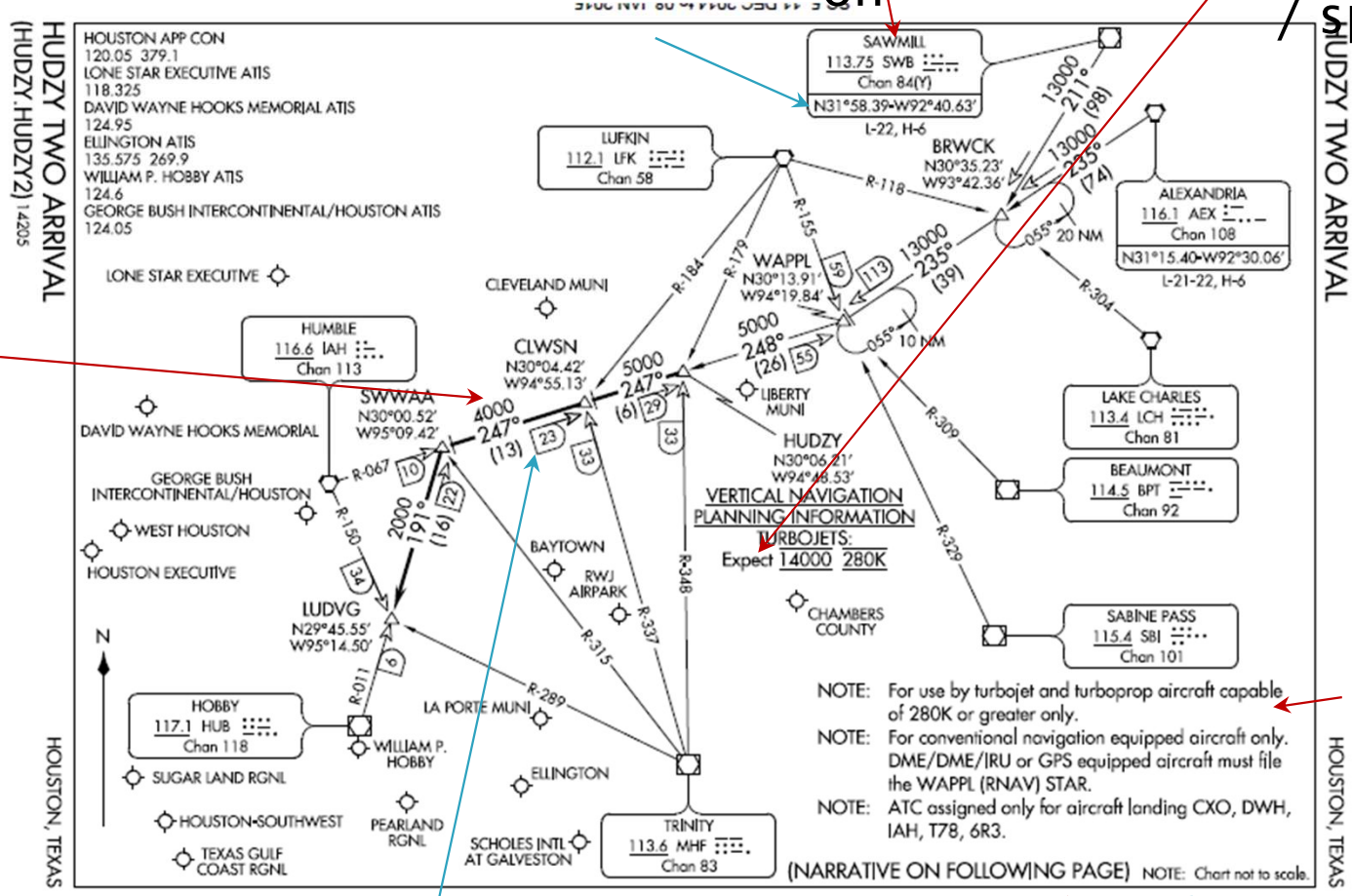
STAR Speeds and Altitudes

Published altitudes - Pilots navigating on a STAR must maintain last assigned altitude until receiving authorization to descend so as to comply with all published/issued restrictions. This authorization will often contain the phraseology “DESCEND VIA”

- A descend via clearance authorizes pilots to:
- Descend at pilot's discretion to meet published restrictions and laterally navigate on a STAR
- When cleared to a waypoint depicted on a STAR, to descend from a previously assigned altitude at pilot's discretion to the altitude depicted at that waypoint
- Once established on the depicted arrival, to descend and to meet all published or assigned altitude and/or speed restrictions

Minimum en route altitudes (MEA) are not considered restrictions; however, you must remain above all MEAs, unless ATC instructs you to descend below the MEA. Air traffic control will assign an altitude to cross a waypoint/ fix, if no altitude is depicted on a STAR.

STAR Altitudes and Speeds

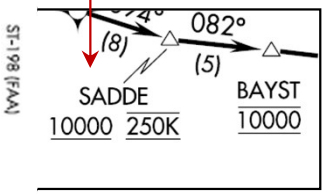


Transition

Expect altitude / speed

STAR Altitude

Speed/ altitude Restriction



Restrictions

Charts are not to scale!! Note distances

Text on second page

STAR Altitudes and Speeds

(HUDZY.HUDZY2) 14205 ST-198 (FAA)

HUDZY TWO ARRIVAL HOUSTON, TEXAS

ARRIVAL ROUTE DESCRIPTION

ALEXANDRIA TRANSITION (AEX.HUDZY2): From over AEX VORTAC on AEX R-235 to WAPPL INT, then on IAH R-067 to HUDZY INT. Thence . . . .

SAWMILL TRANSITION (SWB.HUDZY2): From over SWB VOR/DME on SWB R-211, then on AEX R-235 to WAPPL INT, then on IAH R-067 to HUDZY INT. Thence . . . .

. . . . From over HUDZY INT on IAH R-067 to CLWSN INT, then on IAH R-067 to SWAAA INT, on HUB R-011 to LUDVG INT. Expect vectors to final approach course at or prior to LUDVG INT.

2

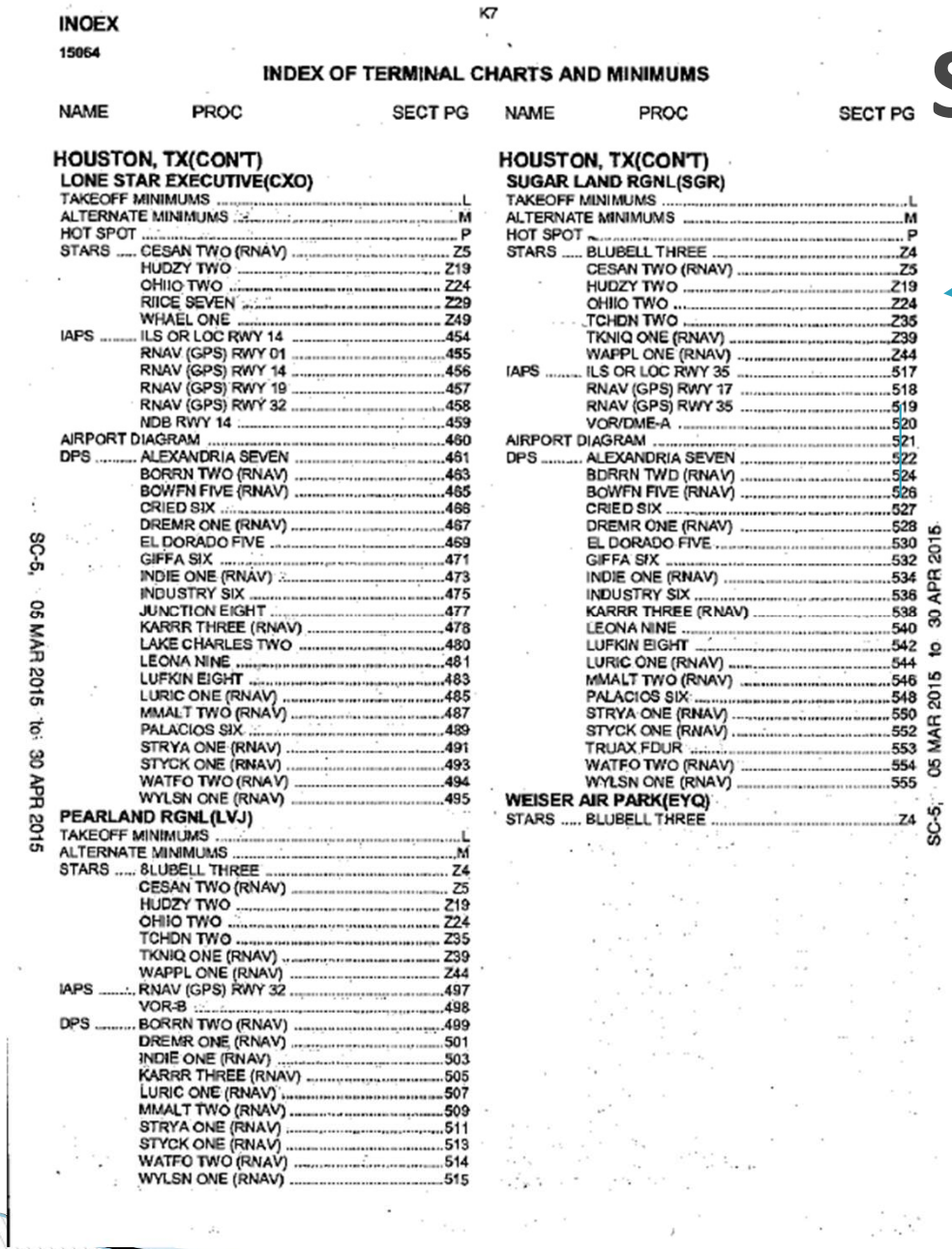
Textual description – page two

Speed Adjustments

Begin adjusting your speed at the minimum distance necessary prior to a published speed restriction that allows crossing the waypoint/fix at the published speed (not less than 150 knots)

Once at the published speed, maintain that speed until additional adjustment is required to comply with further published or ATC assigned speed restrictions or as required to ensure compliance with 14 CFR §91.117

SID / STAR Selection



INOEX K7

15064

INDEX OF TERMINAL CHARTS AND MINIMUMS

NAME	PROC	SECT PG
HOUSTON, TX(CON'T)		
LONE STAR EXECUTIVE(CXO)		
TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M
HOT SPOT		P
STARS	CESAN TWO (RNAV)	Z5
	HUDZY TWO	Z19
	OHIIO TWO	Z24
	RIICE SEVEN	Z29
	WHAEL ONE	Z49
IAPS	ILS OR LOC RWY 14	454
	RNAV (GPS) RWY 01	455
	RNAV (GPS) RWY 14	456
	RNAV (GPS) RWY 19	457
	RNAV (GPS) RWY 32	458
	NDB RWY 14	459
AIRPORT DIAGRAM		460
DPS	ALEXANDRIA SEVEN	461
	BORRN TWO (RNAV)	463
	BOWFN FIVE (RNAV)	465
	CRIED SIX	466
	DREMR ONE (RNAV)	467
	EL DORADO FIVE	469
	GIFFA SIX	471
	INDIE ONE (RNAV)	473
	INDUSTRY SIX	475
	JUNCTION EIGHT	477
	KARRR THREE (RNAV)	478
	LAKE CHARLES TWO	480
	LEONA NINE	481
	LUFKIN EIGHT	483
	LURIC ONE (RNAV)	485
	MMALT TWO (RNAV)	487
	PALACIOS SIX	489
	STRYA ONE (RNAV)	491
	STYCK ONE (RNAV)	493
	WATFO TWO (RNAV)	494
	WYLSN ONE (RNAV)	495
PEARLAND RGNL(LVJ)		
TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M
STARS	BLUBELL THREE	Z4
	CESAN TWO (RNAV)	Z5
	HUDZY TWO	Z19
	OHIIO TWO	Z24
	TCHDN TWO	Z35
	TKNIQ ONE (RNAV)	Z39
	WAPPL ONE (RNAV)	Z44
IAPS	RNAV (GPS) RWY 32	497
	VOR-B	498
DPS	BORRN TWO (RNAV)	499
	DREMR ONE (RNAV)	501
	INDIE ONE (RNAV)	503
	KARRR THREE (RNAV)	505
	LURIC ONE (RNAV)	507
	MMALT TWO (RNAV)	509
	STRYA ONE (RNAV)	511
	STYCK ONE (RNAV)	513
	WATFO TWO (RNAV)	514
	WYLSN ONE (RNAV)	515

NAME	PROC	SECT PG
HOUSTON, TX(CON'T)		
SUGAR LAND RGNL(SGR)		
TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M
HOT SPOT		P
STARS	BLUBELL THREE	Z4
	CESAN TWO (RNAV)	Z5
	HUDZY TWO	Z19
	OHIIO TWO	Z24
	TCHDN TWO	Z35
	TKNIQ ONE (RNAV)	Z39
	WAPPL ONE (RNAV)	Z44
IAPS	ILS OR LOC RWY 35	517
	RNAV (GPS) RWY 17	518
	RNAV (GPS) RWY 35	519
	VOR/DME-A	520
AIRPORT DIAGRAM		521
DPS	ALEXANDRIA SEVEN	522
	BORRN TWO (RNAV)	524
	BOWFN FIVE (RNAV)	526
	CRIED SIX	527
	DREMR ONE (RNAV)	528
	EL DORADO FIVE	530
	GIFFA SIX	532
	INDIE ONE (RNAV)	534
	INDUSTRY SIX	536
	KARRR THREE (RNAV)	538
	LEONA NINE	540
	LUFKIN EIGHT	542
	LURIC ONE (RNAV)	544
	MMALT TWO (RNAV)	546
	PALACIOS SIX	548
	STRYA ONE (RNAV)	550
	STYCK ONE (RNAV)	552
	TRUAX FOUR	553
	WATFO TWO (RNAV)	554
	WYLSN ONE (RNAV)	555
WEISER AIR PARK(EYQ)		
STARS	BLUBELL THREE	Z4

SC-5, 05 MAR 2015 to 30 APR 2015

SC-5, 05 MAR 2015 to 30 APR 2015

- Stars are listed in the TERPS directory for each airport before the approaches
- Star graphic presentations precede approaches for the airport in the TERPS
- Many airports will have several STARs to choose among
- Review the Stars and select the star that most closely aligns with your route of flight

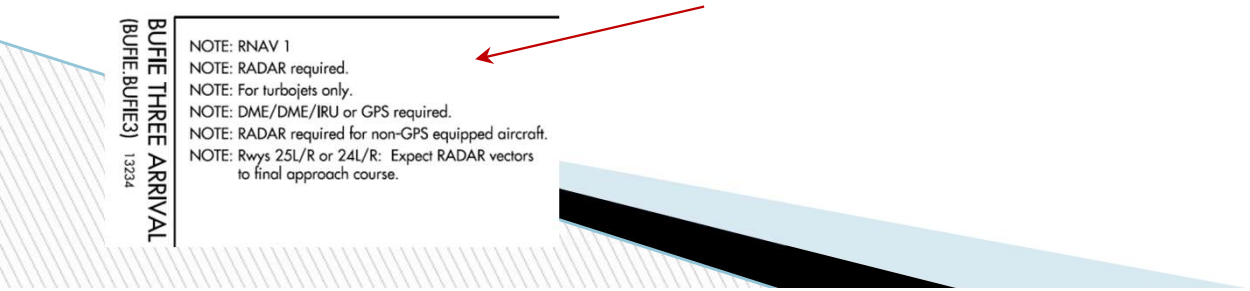
SID / STAR Selection

Be sure you can <u>meet the altitude, speed and equipment requirements</u> for a selected STAR

- Note some SIDS / STARS are turbojet, turboprop only. Some are RNAV only
  - RNAV1 / RNAV2 Notes – RNAV 1 STARS have higher equipment requirements and, often, tighter required navigation performance (RNP) tolerances than RNAV-2. For RNAV-1 STARS, pilots are required to use a course deviation indicator (CDI)/flight director, and/or autopilot in LNAV mode while operating on RNAV courses.

Your SID may have a common point with a STAR for your arrival airport – often that is the best combination

- In which case the flight plan consists of a departure airport, SID, STAR and arrival airport for the entire route



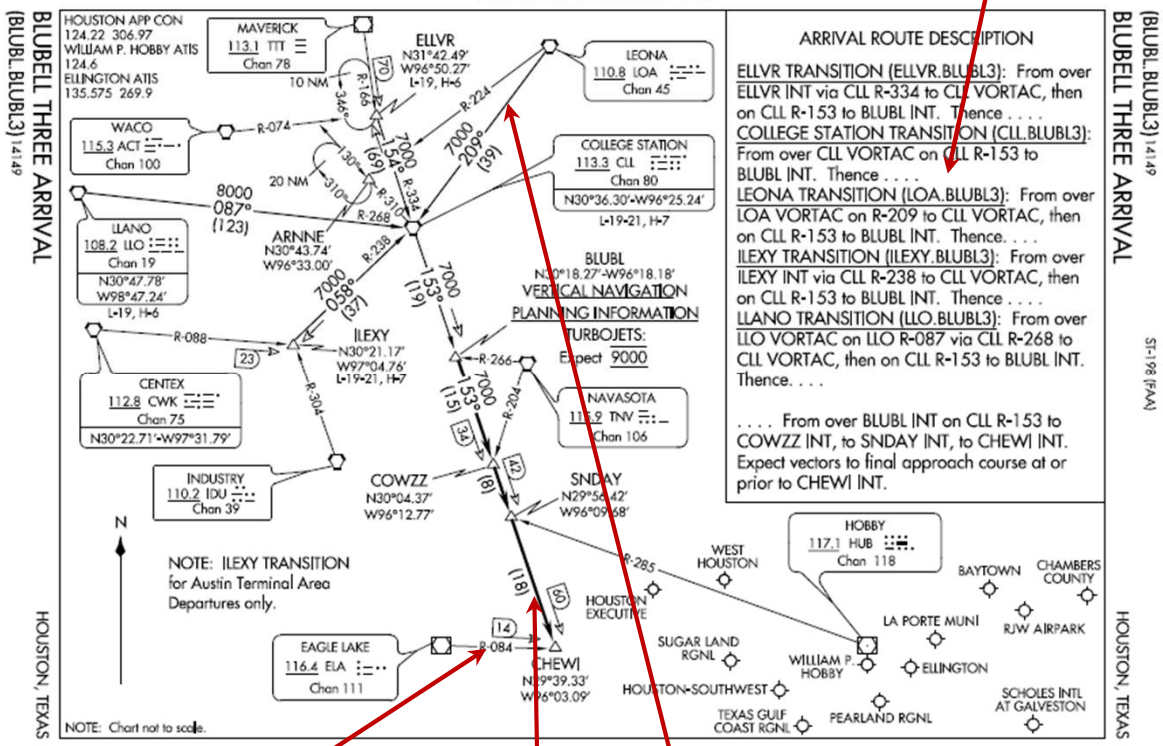
STAR Transitions

A STAR transition is a published segment used to connect one or more enroute airways, or RNAV routes to the basic STAR procedure

Several routes that bring traffic from different directions into one STAR may exist

STAR name is usually the same as the last fix on the enroute transitions where they come together to begin the basic STAR procedure.

How to file for the transition



Radial line and value

Arrival Route

Transition Route

STAR Clearances

"Descent via DREEM TWO Arrival"

- Comply with speed and altitude restrictions, but…
- Descent at your discretion as long as you meet those.

"Cleared DREEM TWO Arrival"

- No descent authorized
- Must comply with published speed restrictions

"Cleared DREEM TWO ARRIVAL, Descend At Pilot's Discretion, Maintain One Zero Thousand"

- Initiate descent at pilot's discretion to 10,000'
- All published altitude restrictions are canceled
- All published speed restrictions remain in effect

STAR Communication

Pilots cleared for vertical navigation using the phraseology “descend via” must inform ATC upon initial contact with a new frequency, of the altitude leaving, “descending via (procedure name),” the runway transition or landing direction if assigned, and any assigned restrictions not published on the procedure.

- Warrior N3021C is cleared to descend via the DREEM TWO arrival, runway 29 transition:
  - “Warrior N3021C leaving 5000, descending via the DREEM TWO arrival runway 29 transition.”

ATC STAR Modifications

ATC will issue an altitude to maintain and all appropriate altitude restrictions when a vector will take you off an assigned procedure that contains altitude instructions or the previously issued clearance included crossing restrictions

ATC will advise you what to expect when the vector is completed

- "Warrior N3021C fly heading zero nine zero, vector for spacing, descend and maintain 6000, expect to resume the DREEM TWO Arrival"

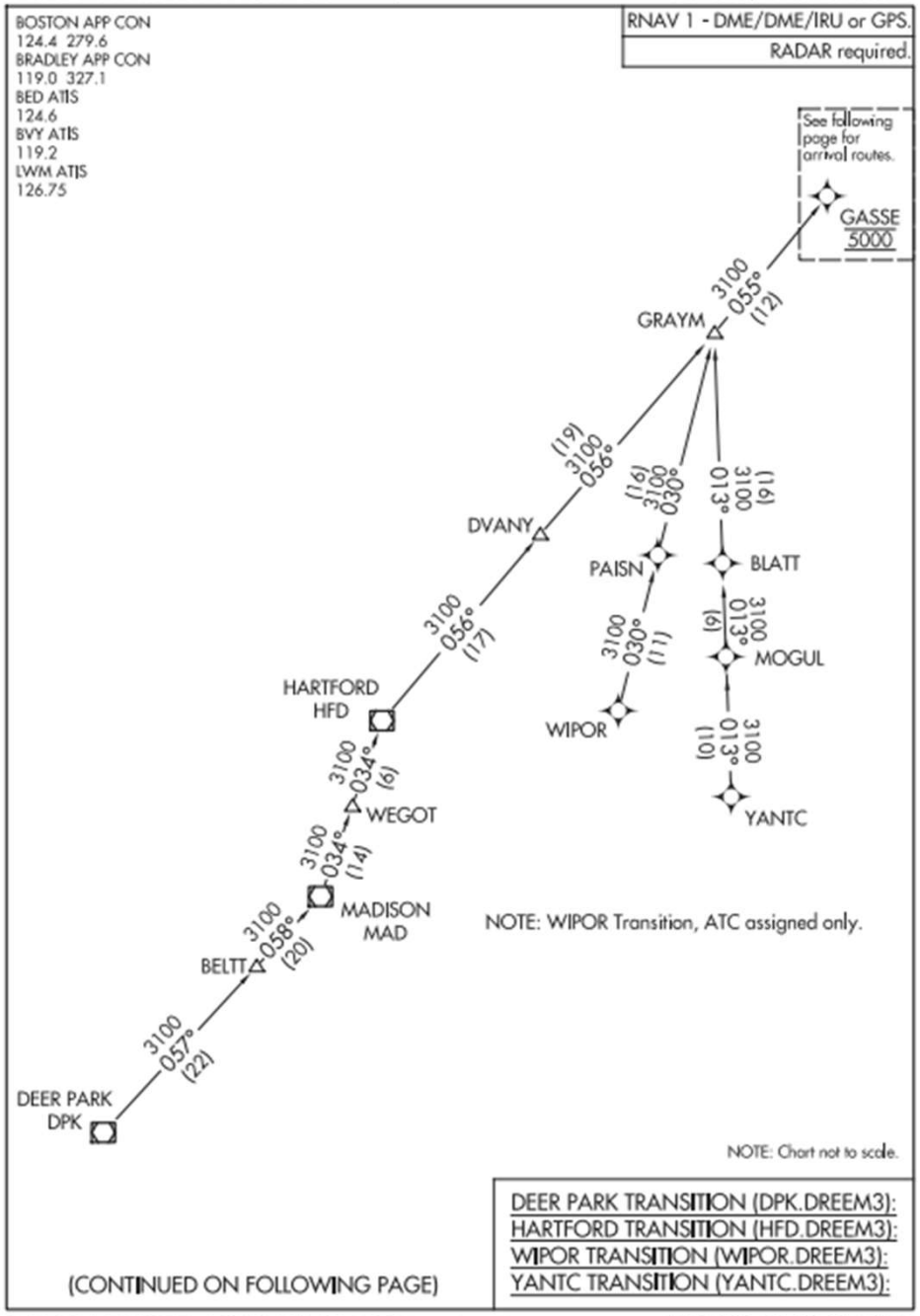
Air traffic will assign an altitude to cross a waypoint/fix, if no altitude is depicted at the waypoint/fix, for an aircraft on a direct routing to a STAR

Air traffic must ensure obstacle clearance when issuing a "Descend Via" instruction to the pilot

(GASSE.DREEM3) 26022 AL-626 (FAA)

DREEM THREE ARRIVAL (RNAV) Transition Routes

BEDFORD, MASSACHUSETTS



NE-1, 19 MAR 2026 to 14 MAY 2026

DREEM THREE ARRIVAL (RNAV) Transition Routes

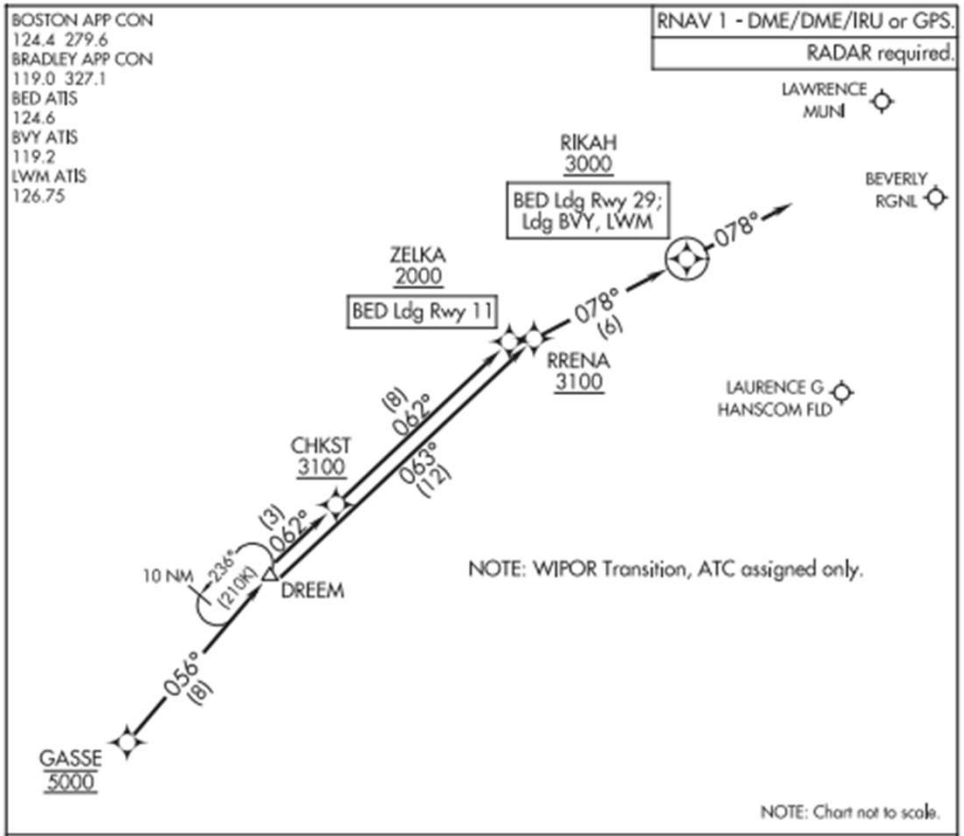
BEDFORD, MASSACHUSETTS

(GASSE.DREEM3) 27NOV25

(GASSE.DREEM3) 25331 AL-626 (FAA)

DREEM THREE ARRIVAL (RNAV) Arrival Routes

BEDFORD, MASSACHUSETTS



NE-1, 19 MAR 2026 to 14 MAY 2026

NE-1, 19 MAR 2026 to 14 MAY 2026

ARRIVAL ROUTE DESCRIPTION

BED: From GASSE on track 056° to DREEM.

LANDING BED RUNWAY 11: From DREEM on track 062° to cross CHKST at or above 3100, then on track 062° to cross ZELKA at or above 2000. Expect ILS or RNAV Rwy 11 approach.

LANDING BED RUNWAY 29: From DREEM on track 063° to cross RRENA at or above 3100, then on track 078° to cross RIKAH at or above 3000, then on track 078°. Expect RADAR vectors to final approach course.

LANDING LWM/BVY: From GASSE on track 056° to DREEM, then on track 063° to cross RRENA at or above 3100, then on track 078° to cross RIKAH at or above 3000, then on track 078°. Expect RADAR vectors to final approach course.

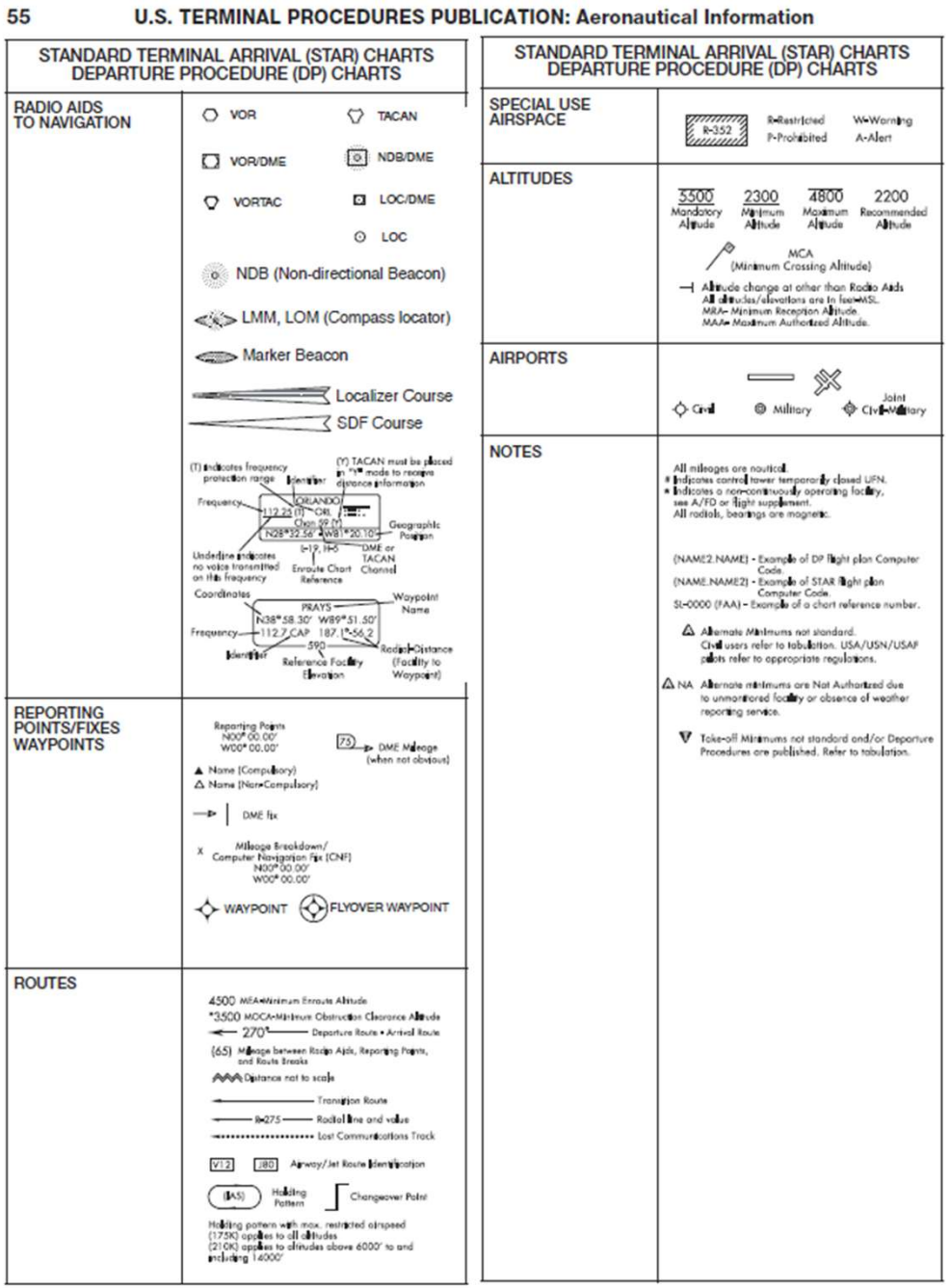
DREEM THREE ARRIVAL (RNAV) Arrival Routes

BEDFORD, MASSACHUSETTS

(GASSE.DREEM3) 27NOV25

Reading the STAR

You can decode the symbology on a STAR by referring to the legend at the beginning of the Terminal Procedures Publication.



55 U.S. TERMINAL PROCEDURES PUBLICATION: Aeronautical Information

STANDARD TERMINAL ARRIVAL (STAR) CHARTS
DEPARTURE PROCEDURE (DP) CHARTS

RADIO AIDS TO NAVIGATION

VOR
TACAN
VOR/DME
NDB/DME
VORTAC
LOC/DME
LOC
NDB (Non-directional Beacon)
LMM, LOM (Compass locator)
Marker Beacon
Localizer Course
SDF Course

(T) Indicates frequency protection range
Identifier
(Y) TACAN must be placed in "Y" mode to receive distance information
Frequency
ORLANDO
112.2 (T)
ORL
CH 59 (Y)
Geographic Position
N28°32.58' W81°20.10'
(H)-9, H-5
DME or TACAN Channel
Underline indicates no voice transmitted on this frequency
Enroute Chart Reference
Coordinates
PRAYS
Waypoint Name
N38°58.30' W89°51.50'
Frequency
112.7 CAP
187 (Y)-56.2
590
Radial-Distance (Facility to Waypoint)
Identifier
Reference Facility Elevation

REPORTING POINTS/FIXES WAYPOINTS

Reporting Points N00°00.00' W00°00.00'
75 DME Mileage (when not obvious)
▲ Name (Compulsory)
△ Name (Non-Compulsory)
DME fix
X Mileage Breakdown/ Computer Navigation fix (CNF) N00°00.00' W00°00.00'
WAYPOINT
FLYOVER WAYPOINT

ROUTES

4500 MEA-Minimum Enroute Altitude
*3500 MOCA-Minimum Obstruction Clearance Altitude
270° Departure Route • Arrival Route
(65) Mileage between Radio Aids, Reporting Points, and Route Breaks
Distance not to scale
Transition Route
R-275 Radial line and value
Lost Communications Track
V12 J80 Airway/Jet Route Identification
(BAS) Holding Pattern
Changeover Point
Holding pattern with max. restricted airspeed (175K) applies to all altitudes (210K) applies to altitudes above 6000' to and including 14000'

STANDARD TERMINAL ARRIVAL (STAR) CHARTS
DEPARTURE PROCEDURE (DP) CHARTS

SPECIAL USE AIRSPACE

R-352
R-Restricted W-Warning
P-Prohibited A-Alert

ALTITUDES

3500 Mandatory Altitude
2300 Minimum Altitude
4800 Maximum Altitude
2200 Recommended Altitude
MCA (Minimum Crossing Altitude)
Altitude change at other than Radio Aids
All altitudes/elevations are in feet-MSL.
MRA- Minimum Reception Altitude.
MAA- Maximum Authorized Altitude.

AIRPORTS

Civil
Military
Joint Civil-Military

NOTES

All mileages are nautical.
* Indicates control tower temporarily closed UFN.
* Indicates a non-continuously operating facility, see A/FD or flight supplement.
All radials, bearings are magnetic.

(NAME2.NAME) - Example of DP flight plan Computer Code.
(NAME.NAME2) - Example of STAR flight plan Computer Code.
SI-0000 (FAA) - Example of a chart reference number.

△ Alternate Minimums not standard. Civil users refer to tabulation. USA/USN/USAF pilots refer to appropriate regulations.

△ NA Alternate minimums are Not Authorized due to unmonitored facility or absence of weather reporting service.

▼ Take-off Minimums not standard and/or Departure Procedures are published. Refer to tabulation.

Questions

1. How would use indicate that you want to use the DREEM Three Arrival, Norwich Transition on an IFR flight plan?

1. True or False? ATC can include a STAR in your clearance even if you have not requested one?

1. Select the appropriate phrase to enter in the **Remarks** section of your flight plan if you do not wish to use a STAR during your flight.

    A. Use no STARs
    B. NO STAR
    C. No STAR approved

Arrivals Video Tutorials

Arrivals Videos and Tutorials

Arrival Procedures
https://www.youtube.com/watch?v=QcD-e9ML71Y

Departure and Arrival Procedures
https://www.youtube.com/watch?v=3TBAyEYSyRE

Disclaimer

Please note that information within this presentation comes from various sources which may or may not have been validated.

Always use official FAA materials and documents for current FARs and publications.

Refer to Certified Flight Instructors for clarification and questions, as needed.