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Airport Information For KIAH

Terminal Charts For KIAH

Revision Letter For Cycle 01-2015

Change Notices

Notebook

General Information

Location: Houston TX USA
IATA Code: IAH
Lat/Long: N29° 59.1' W095° 20.5'
Elevation: 96 ft

Airport Use: Public
Magnetic Variation: 2.7°E
Sectional Chart: Houston

Fuel Types: 100 Octane (LL), Jet A
Oxygen Types: Low Pressure
Repair Types: Major Airframe, Major Engine
Customs: Upon Prior Request
Airport Type: IFR
Landing Fee: No
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: Yes
Beacon: Yes

Sunrise: 1318 Z
Sunset: 2336 Z,

Runway Information

Runway: 08L
Length x Width: 9000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 95 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 08R
Length x Width: 9402 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 96 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 09
Length x Width: 10000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 91 ft
Lighting: Edge, ALS, Centerline

Runway: 15L
Length x Width: 12001 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 95 ft
Lighting: Edge, Centerline

Runway: 15R
Length x Width: 10000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 96 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 26L
Length x Width: 9402 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 95 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 26R
Length x Width: 9000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 96 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 27
Length x Width: 10000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 87 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 33L
Length x Width: 10000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 90 ft
Lighting: Edge, Centerline, TDZ

Runway: 33R
Length x Width: 12001 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 89 ft
Lighting: Edge, ALS, Centerline

Communication Information

ATIS 124.05
Houston Tower 127.3
Houston Tower 135.15
Houston Tower 125.35
Houston Tower 120.725
Houston Ground Control 121.7
Houston Ground Control 118.575
Houston Ground Control 119.95 Secondary
Houston Ramp/Taxi Control 121.625
Houston Ramp/Taxi Control 130.825
Houston Ramp/Taxi Control 131.275
Houston Clearance Delivery 128.1

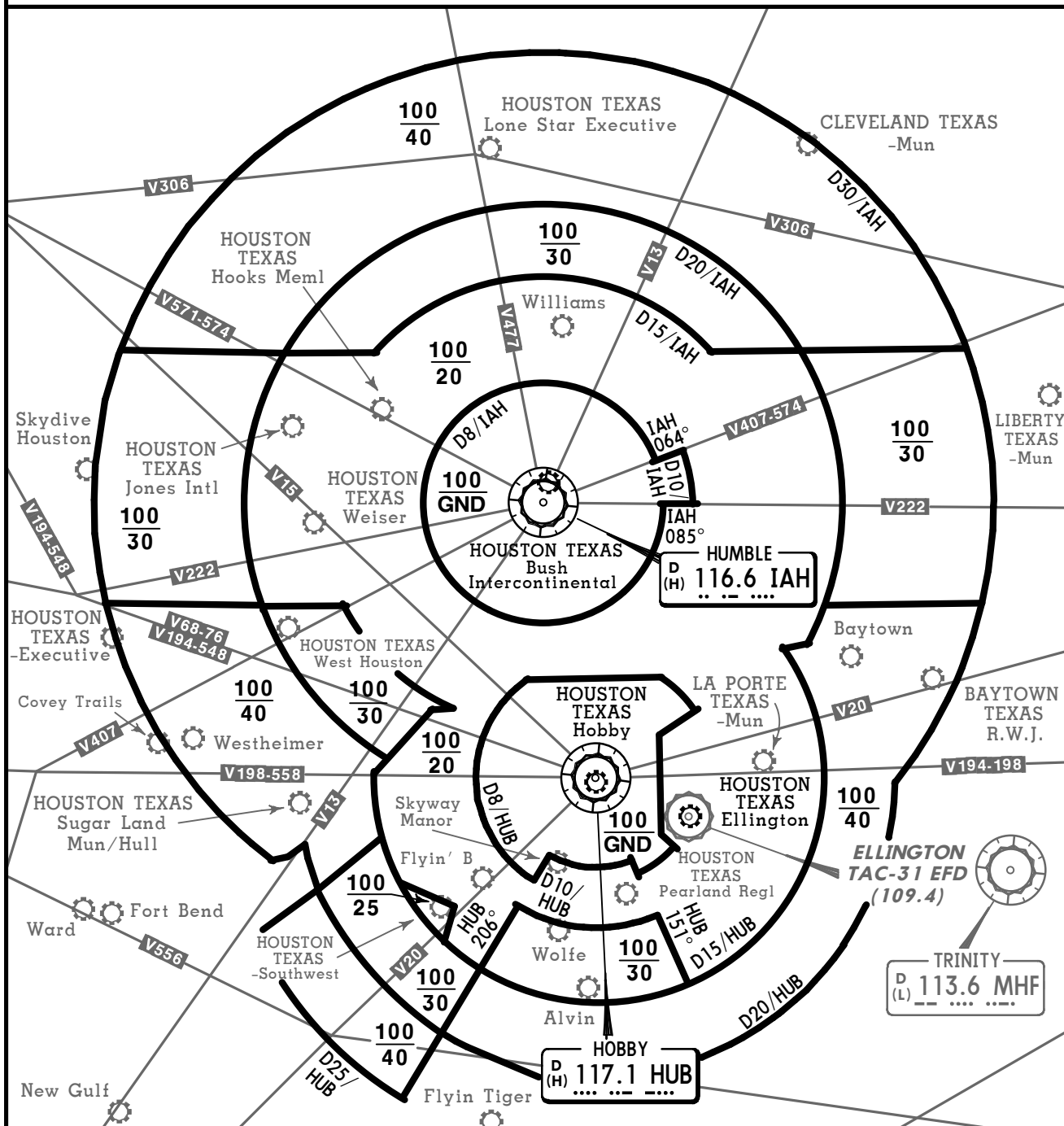
Houston Approach Control 124.35 (181°-360°) Initial Contact
Houston Approach Control 120.05 (1°-180°) Initial Contact
Houston Approach Control 119.625 Arrival Service
Houston Approach Control 119.175 Arrival Service
Houston Departure Control 123.8 (181°-315°)
Houston Departure Control 119.7 (316°-45°)
Houston Departure Control 133.6 (46°-180°)
Houston Departure Control 132.25 Departure Service
Houston Departure Control 127.125 Departure Service
Houston Departure Control 126.675 Departure Service
Houston Unicom 122.95
Montgomery Co Radio 122.4 RCO

HOUSTON CLASS B AIRSPACE

CLASS B AIRSPACE VFR COMMUNICATIONS

N Houston App 119.7
E Houston App 133.6

S Houston App 134.45
W Houston App 123.8



FOR OPERATING RULES AND PILOT AND EQUIPMENT REQUIREMENTS
SEE FAR 91.131, 91.117 AND 91.215

FLIGHT PROCEDURES

IFR Flights. Aircraft within Class B airspace are required to operate in accordance with current IFR procedures.

VFR Flights-

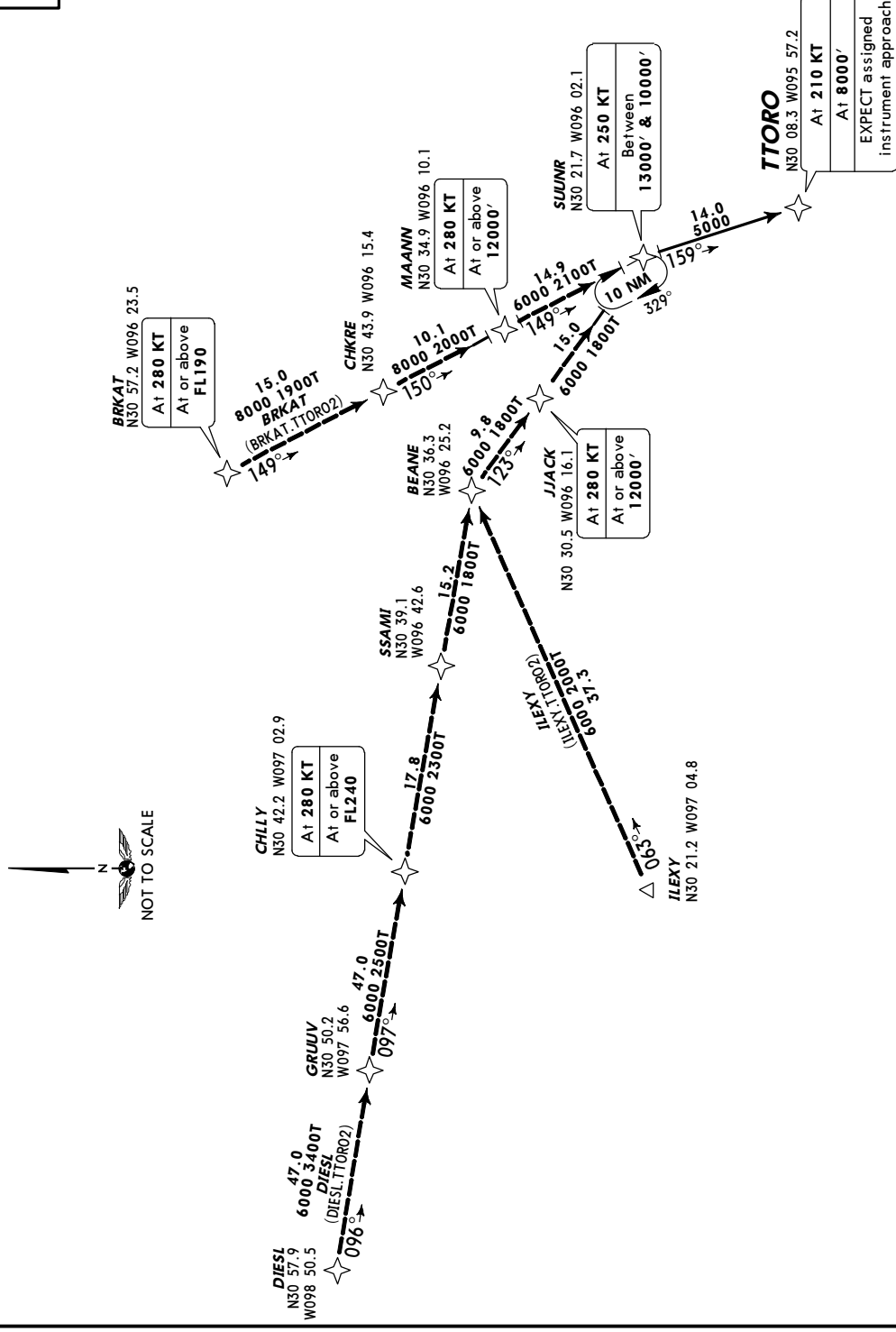
- Arriving aircraft should contact Houston Approach Control on the specified frequencies. Although arriving aircraft may be operating beneath the floor of Class B airspace on initial contact, communications should be established with Approach Control for sequencing and spacing purposes.
- Aircraft departing the primary airport are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart Class B airspace. Aircraft departing from other than Houston Intercontinental Airport whose route of flight would penetrate Class B airspace should give this information to ATC on appropriate frequencies.
- Aircraft desiring to transit Class B airspace must obtain an ATC clearance and will be handled on an ATC workload permitting basis.

TTORO TWO RNAV ARRIVAL
(SUUNR.TTORO2)

SPEED RESTRICTION

Turbojet aircraft descend via mach number until intercepting 280 KT. MAINTAIN 280 KT until slowed by ST

Direct distance to George Bush
Intercontinental/Houston from:
TTORO 33 NM



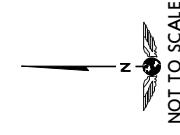
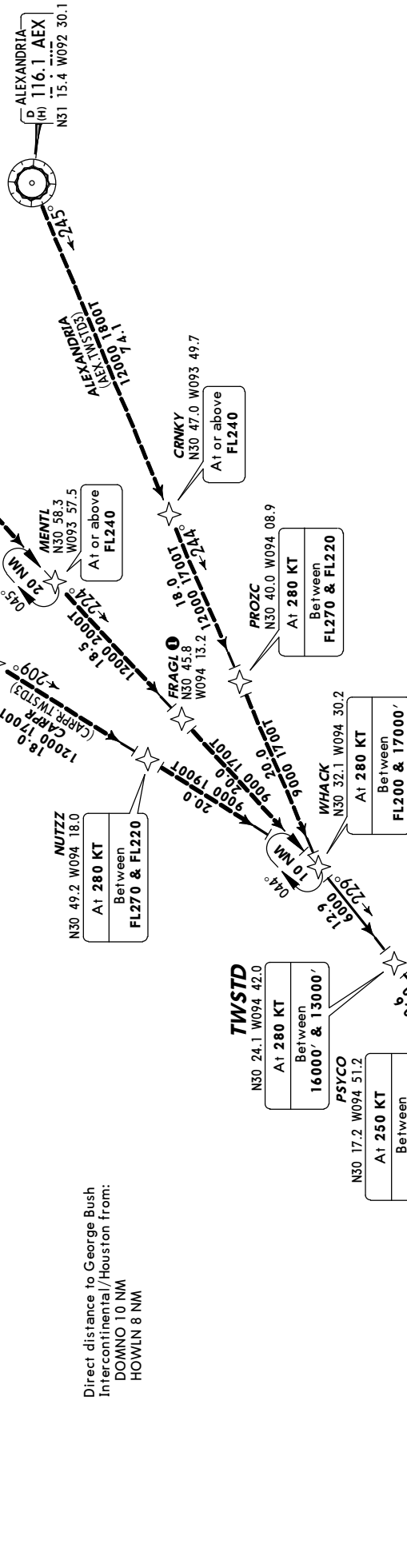
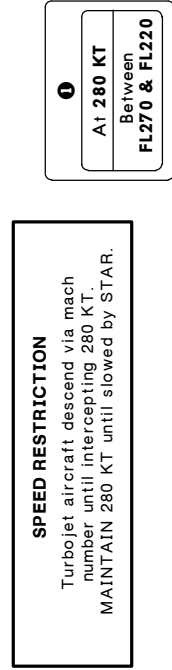
ROUTING

From SUUNR on track 159° to TTORO. EXPECT assigned instrument approach.

CHANGES: None.

D-ATIS 124.05	<i>Apt Elev</i> 96'	Alt Set: INCHES Trans level: FL180 Trans alt: 18000'	5. EXPECT runway assignment from Houston TRACON upon initial contact. 6. Corresponding RNAV STAR is WHACK. EXPECT WHACK when George Bush Intercontinental/Houston is landing WEST. 7. EXCEPT for aircraft departing Shreveport Regl, PLANB Transition is for ATC assigned only; do not file.
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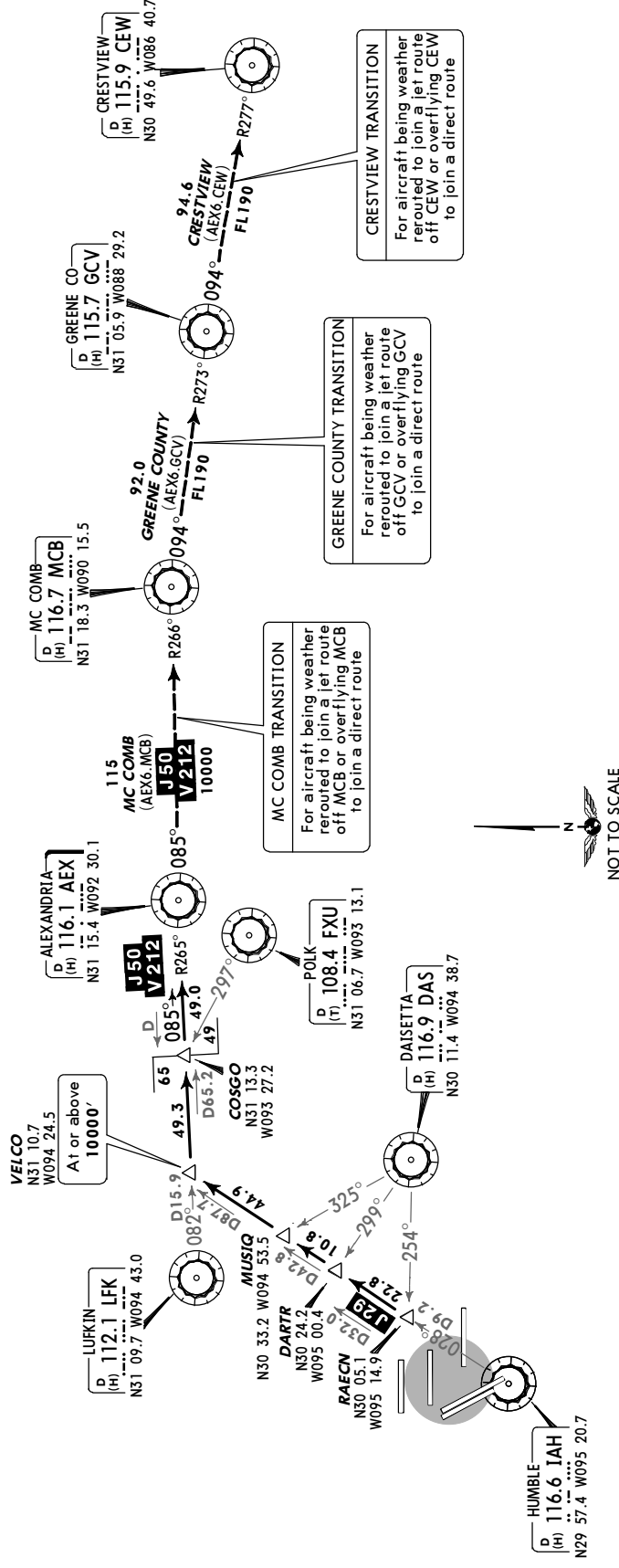
TWSTD THREE RNAV ARRIVAL
(WHACK.TWSTD3)



ROUTING	
From WHACK on track 229° to TWSTD.	
RWY	LANDING
8L/R	From TWSTD on track 226° to PSYCO, then on track 227° to KNGWD, then on track 257° to ZOEEE, then on track 267° to GOVVV, then on track 267° to DOMNO, then on track 267°. EXPECT vectors to final approach course.
9	From TWSTD on track 226° to PSYCO, then on track 227° to KNGWD, then on track 225° to EDEEE, then on track 225° to REAPR, then on track 225° to SHIVV, then on track 267° to HOWLN, then on track 267°. EXPECT vectors to final approach course.

HOUSTON Departure (R) 132.25	<i>Apt Elev</i> 96'	Trans level: EL180 Trans alt: 18000'	1. RADAR required. 2. CRESTVIEW, GREENE COUNTY and MC COMB Transitions are ATC assigned only, do not file.
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**ALEXANDRIA SIX DEPARTURE
(AEX6.AEX)**



OBSTACLE
For TAKEOFF OBSTACLE NOTES see 70-30B

Direct distance from George Bush
Intercontinental/Houston to:
RAECN 8 NM

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized).

INITIAL CLIMB

Climb on assigned heading for RADAR vectors to RAEEN. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At RAEEN on IAH R-028 to VELCO, then RIGHT turn on LFK R-082 and AEX R-265 to AEX.

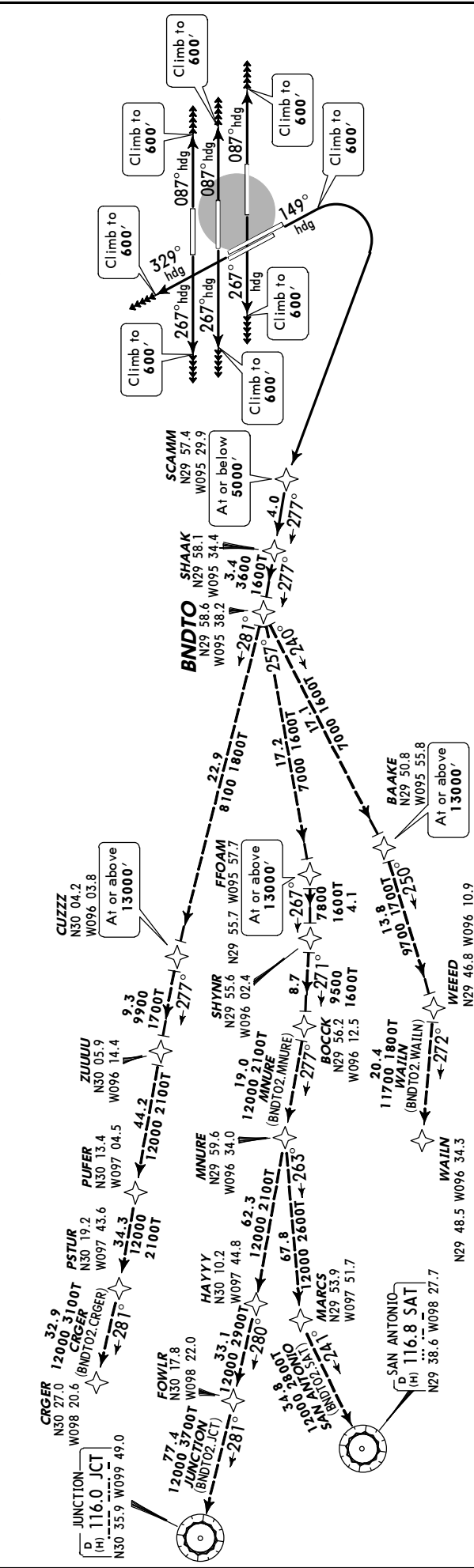
HOUSTON
Departure (R)
126.675

Trans level: FL180 Trans alt: 18000'

Ap^t Elev
96'

5. Notify ATC if unable to comply with crossing restrictions.
6. JUNCTION Transition ATC assigned only for George Bush Intercontinental/Houston departures.
7. For use during WEST flow at George Bush Intercontinental/Houston, for EAST flow file the PITZZ Departure.

BNDTO TWO RNAV DEPARTURE
(BNDTO2.BNDTO)



OBSTACLE
For TAKEOFF OBSTACLE NOTES see 70-30B.

Direct distance from George Bush Intercontinental/Houston (Rwys 8L/R, 9, 26L/R, 27, 33L/R) to: SHAAK 12 NM

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 1200'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

RWY	INITIAL CLIMB
8L/R, 9	Climb heading 087° to 600', EXPECT RADAR vectors to SHAAK.
15L/R	Climb heading 149° to 600', then RIGHT turn direct to cross SCAMM at or below 5000', then on track 277° to SHAAK.
26L/R, 27	Climb heading 267° to 600', EXPECT RADAR vectors to SHAAK.
33L/R	Climb heading 329° to 600', EXPECT RADAR vectors to SHAAK.
ROUTING	
From SHAAK on track 277° to BNDTO, then on transition. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure.	

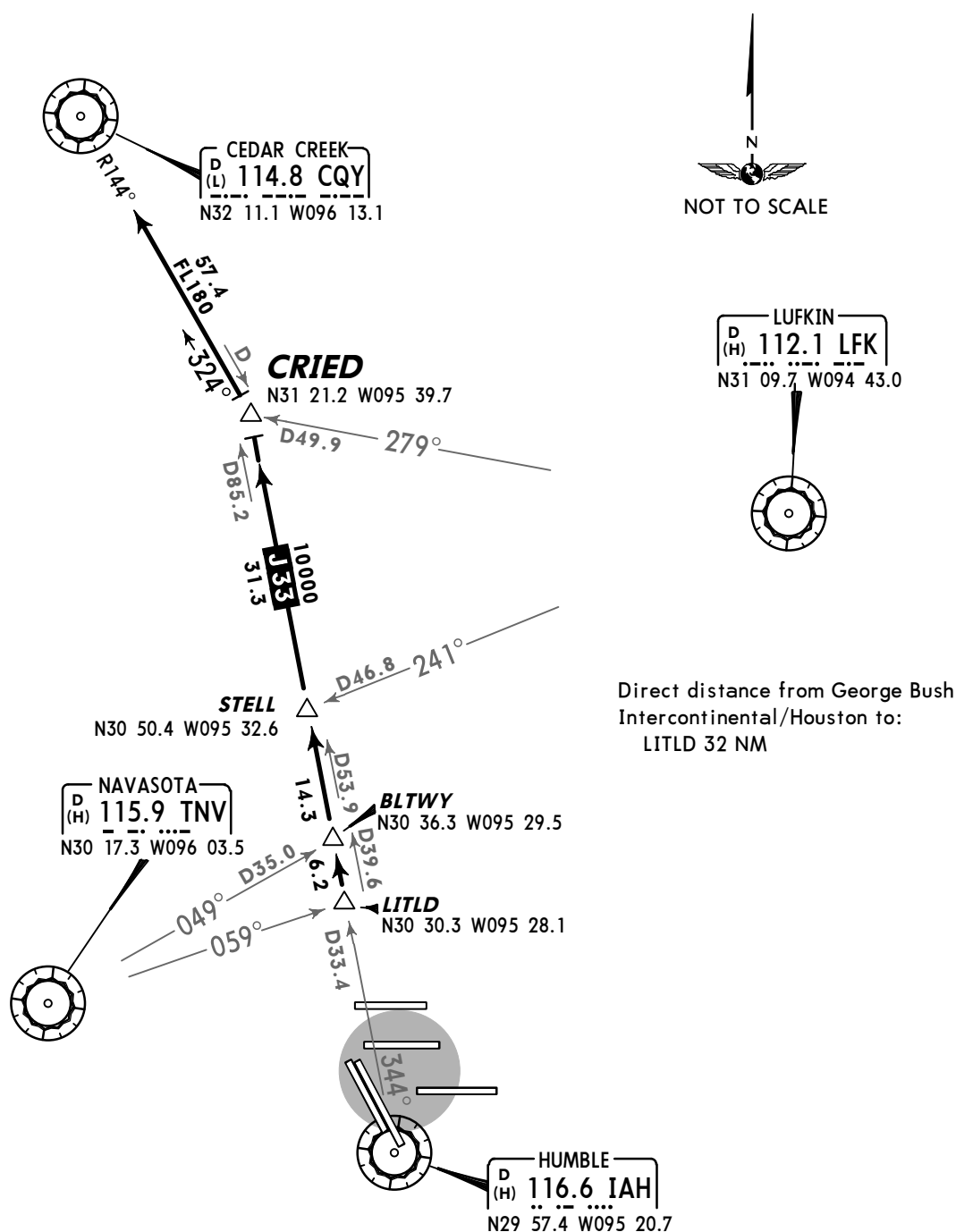
CHANGES: Procedure notes, renumbered.

HOUSTON
Departure (R)
132.25

Apt Elev
96'

Trans level: FL180 Trans alt: 18000'
RADAR required.

CRIED FIVE DEPARTURE (CRIED5.CRIED)



Direct distance from George Bush
Intercontinental/Houston to:
LITLD 32 NM

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized).

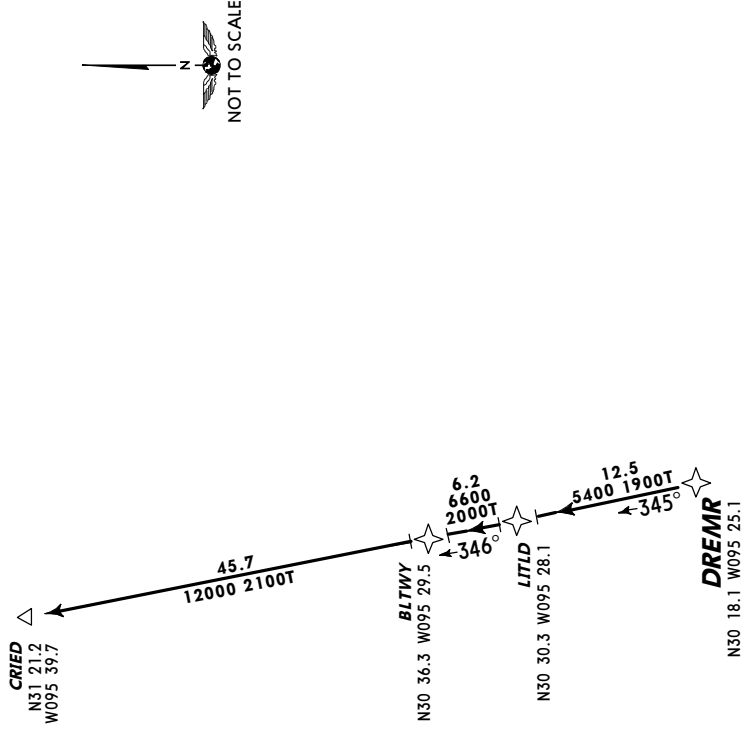
OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 70-3OB.

INITIAL CLIMB

Climb on assigned heading for RADAR vectors to LITLD. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At LITLD, on IAH R-344 to STELL, then on IAH R-344 to CRIED, then LEFT turn on CQY R-144 to CQY.

1. RADAR required.
2. DME/DME/IRU or GPS required.
3. RNAV 1.

**DREMR ONE RNAV DEPARTURE
(DREMR1.DREMR)**



Direct distance from George Bush
Intercontinental/Houston to:
DREMR 19 NM

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized) with
minimum climb of 500' per NM to 600'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 70-30B.

INITIAL CLIMB	
RWY	
8L/R, 9	Climb heading 087° to 600°, EXPECT RADAR vectors to DREMR.
15L/R	Climb heading 149° to 600°, EXPECT RADAR vectors to DREMR.
26L/R, 27	Climb heading 267° to 600°, EXPECT RADAR vectors to DREMR.
33L/R	Climb heading 329° to 600°, EXPECT RADAR vectors to DREMR.

From DREMR on track 345° to LITLD, then on track 346° to BLTWY, then on track 346° to CRIED, MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.

HOUSTON
Departure (R)
132.25

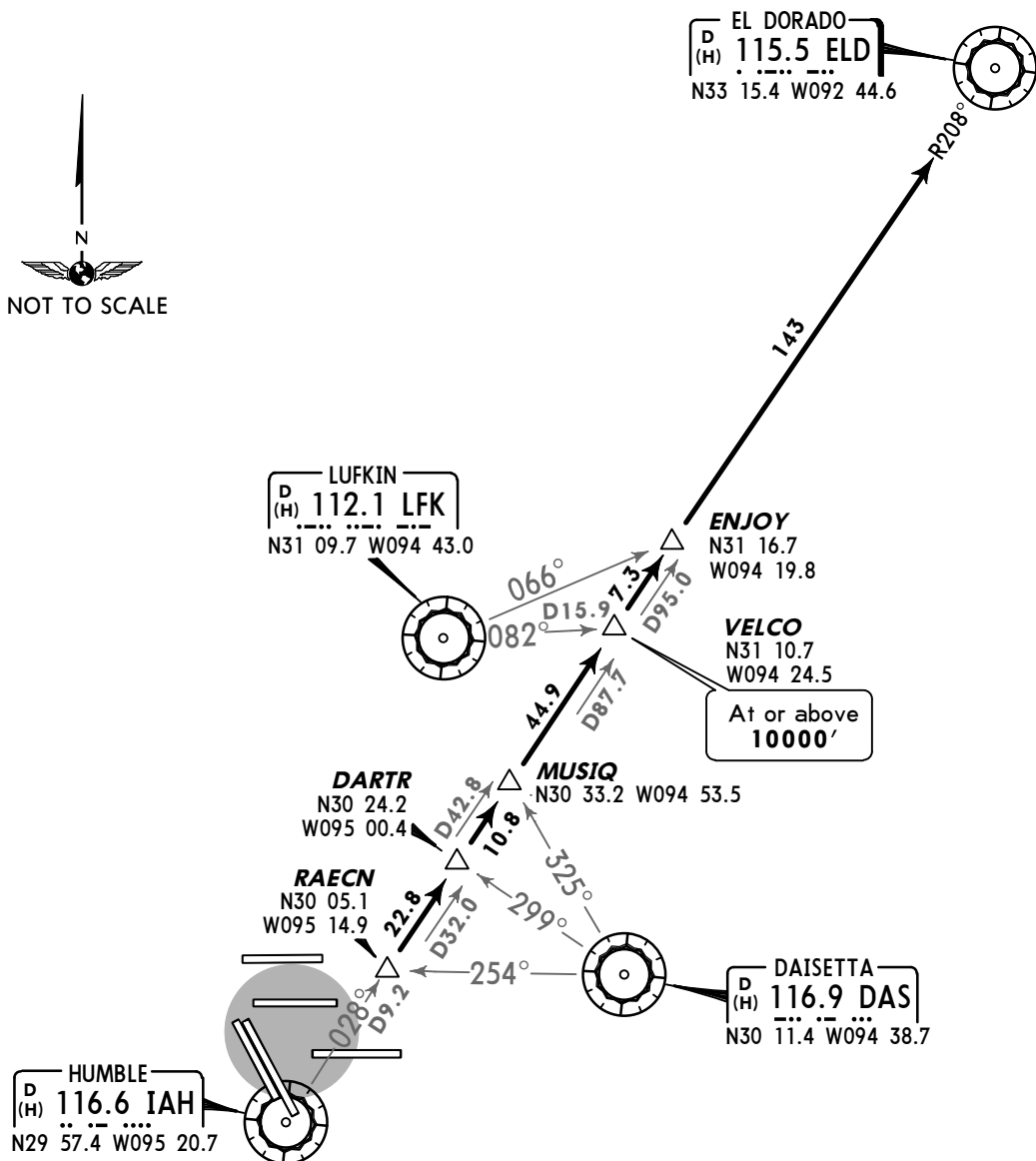
Apt Elev
96'

Trans level: FL180 Trans alt: 18000'

1. **RADAR required.**

2. For aircraft destined Memphis Intl, or filed via Q-32 or J-42.

EL DORADO FOUR DEPARTURE (ELD4.ELD)



Direct distance from George Bush
Intercontinental/Houston to:
RAECN 8 NM

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard (or lower than standard, if authorized).

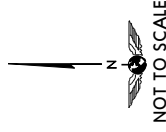
OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 70-3OB.

INITIAL CLIMB

Climb on assigned heading for RADAR vectors to RAECN. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At RAECN on IAH R-028 and the ELD R-208 to ELD.

**FLYZA ONE RNAV DEPARTURE
(FLYZA1.FLYZA)**

ired. 3. RNAV 1.
op aircraft only.
with crossing restrictions.



This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized) with
minimum climb of 500' per NM to 800'.

INITIAL CLIMB	
RWY	
8L/R, 9	Climb heading 087° to 600', EXPECT RADAR vectors to cross BOTLL at or below 5000'.
15L/R	Climb heading 149° to 600', then LEFT turn direct to cross TTAPS at or below 4000', then on track 123° to cross BOTLL at or below 5000'.
26L/R, 27	Climb heading 267° to 600', EXPECT RADAR vectors to cross BOTLL at or below 5000'.
33L/R	Climb heading 329° to 600', EXPECT RADAR vectors to cross BOTLL at or below 5000'.
ROUTING	
From BOTLL on track 139° to FLYZA, then on transition. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure.	

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- HOUSTON
Departure (R)
132.25

Apt Elev
96'

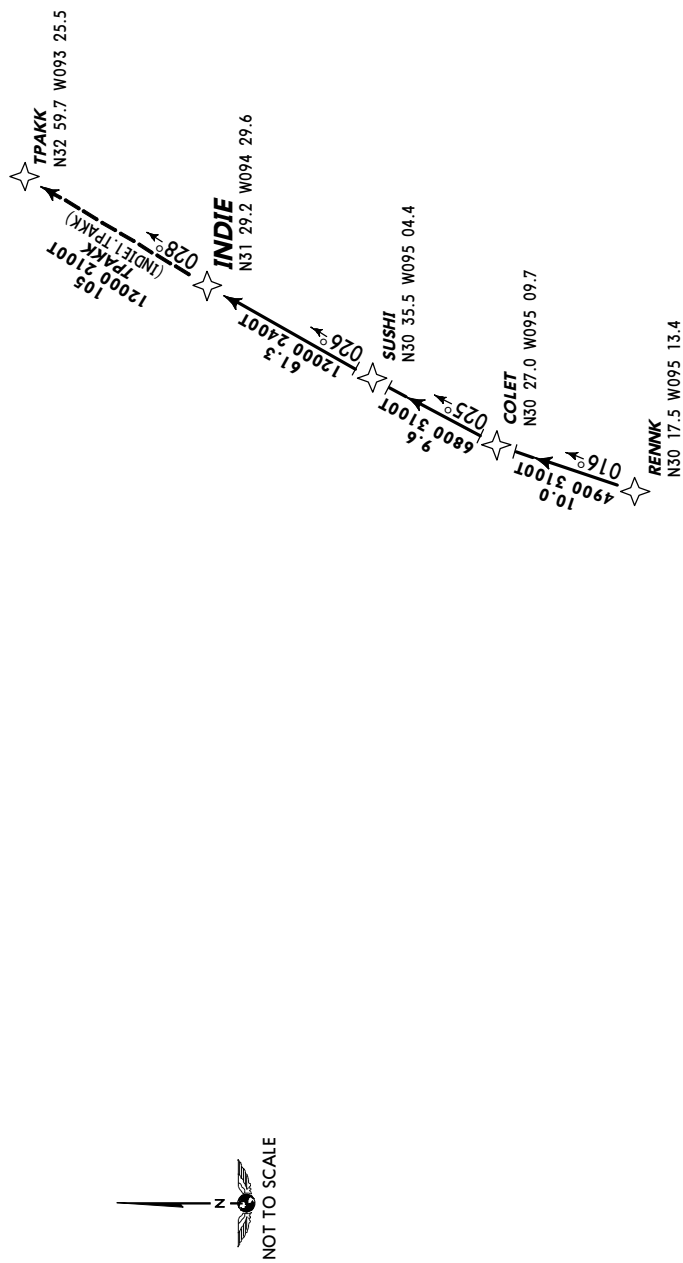
Trans level: FL180 Trans alt: 18000'
1. RADAR required.

2. DME/DME/IRU or GPS required.

3. RNAV 1.

4. TPAKK Transition: For non-GPS equipped aircraft TNV DME must be operational.

INDIE ONE RNAV DEPARTURE
(INDIE1.INDIE)

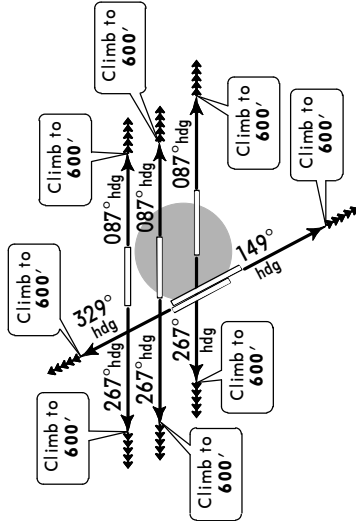


Direct distance from George Bush
Intercontinental/Houston to:
RENNK 19 NM

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized) with
minimum climb of 500' per NM to 600'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 70-30B.

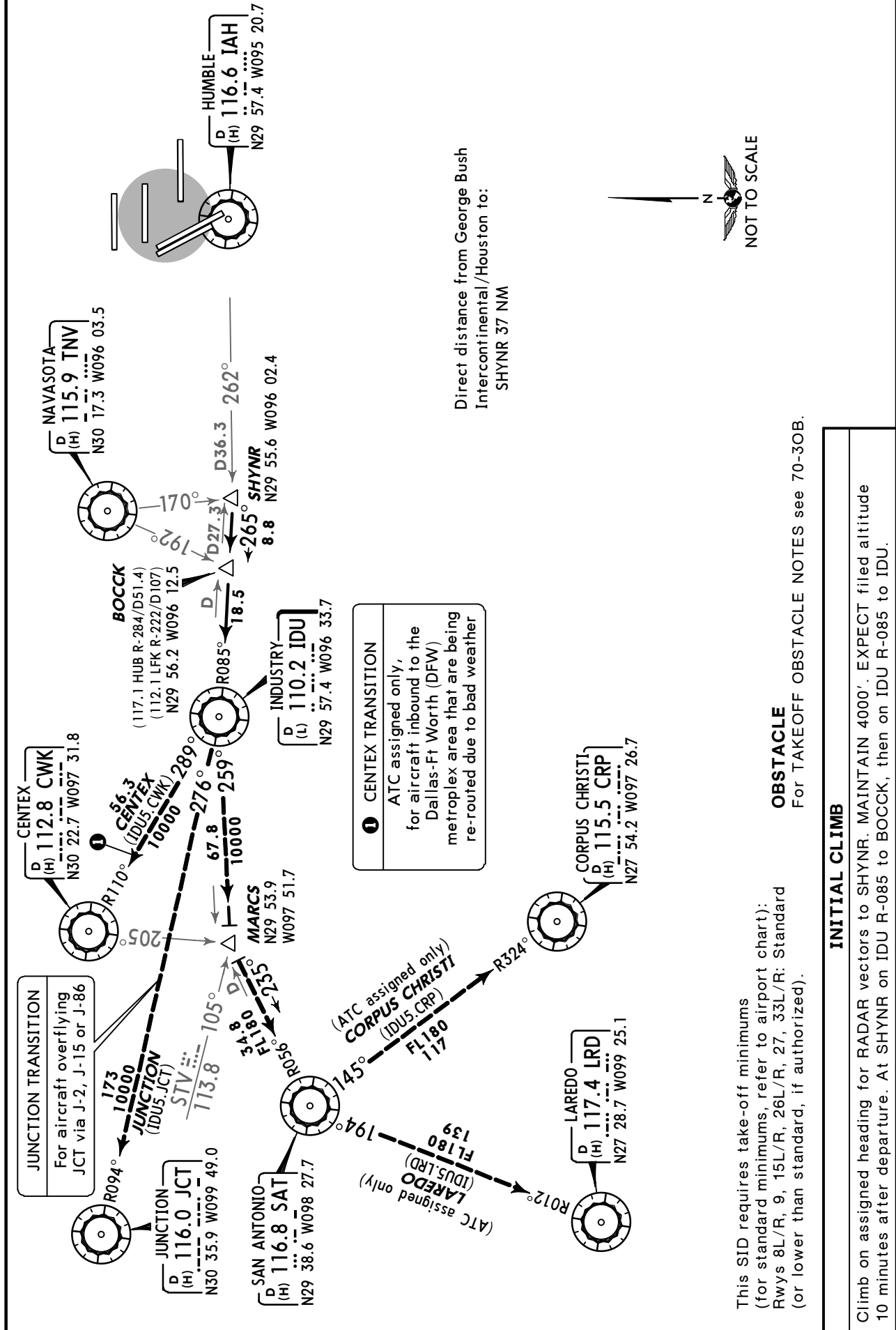


INITIAL CLIMB	
RWY	
8L/R, 9	Climb heading 087° to 600', EXPECT RADAR vectors to RENNK.
15L/R	Climb heading 149° to 600', EXPECT RADAR vectors to RENNK.
26L/R, 27	Climb heading 267° to 600', EXPECT RADAR vectors to RENNK.
33L/R	Climb heading 329° to 600', EXPECT RADAR vectors to RENNK.
ROUTING	
From RENNK on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to INDIE, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.	

CHANGES: None.

HOUSTON Departure (R) 126.675	Apt Elev 96'	Trans level: FL180 Trans alt: 18000' RADAR required.
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INDUSTRY FIVE DEPARTURE (IDU5.IDU)

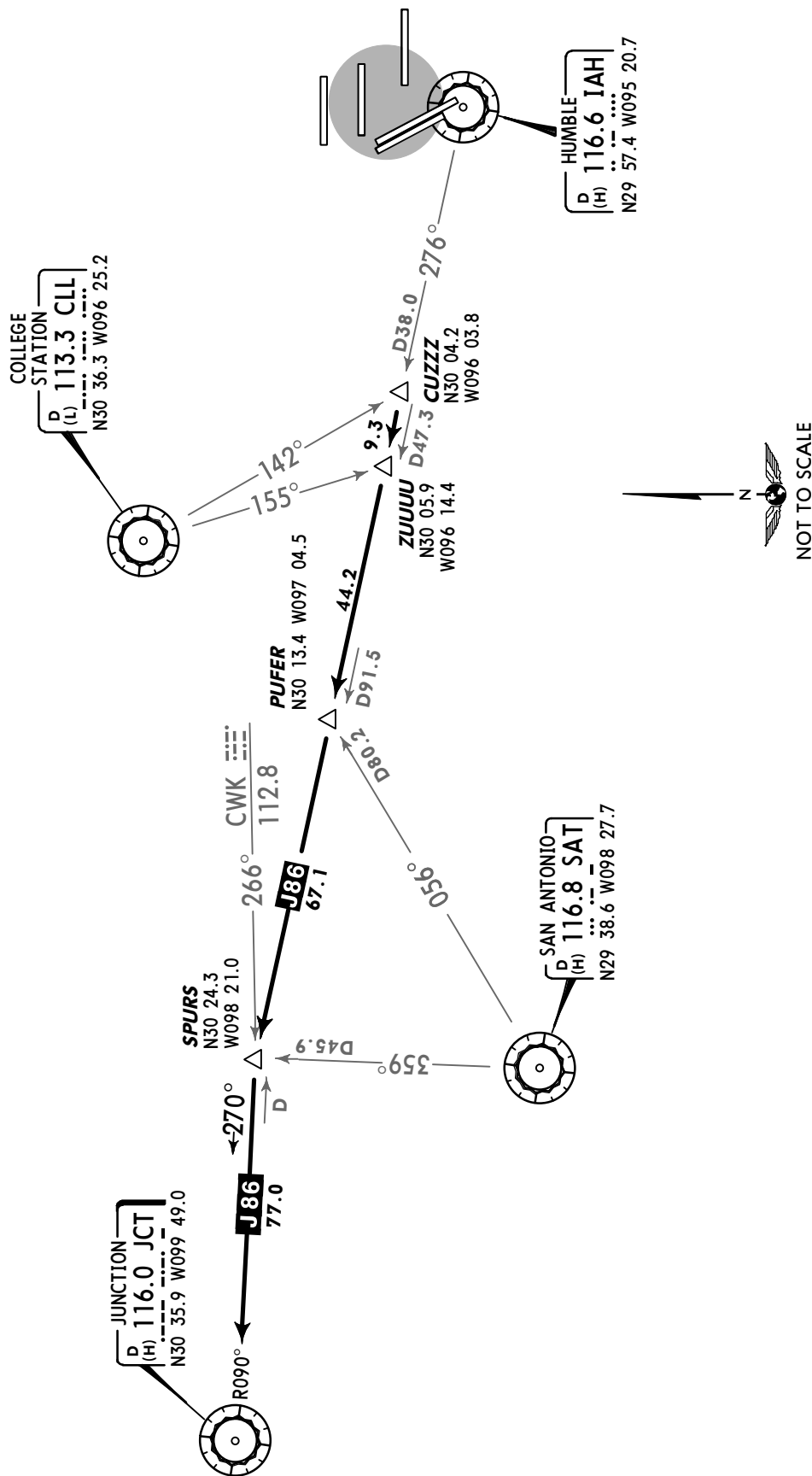


HOUSTON
Departure (R)
126.675

Apt Elev
96'

Trans level: FL180 Trans alt: 18000'
1. RADAR required.
2. For aircraft overflying JCT via J-86
filing FL240 or above.

JUNCTION SEVEN DEPARTURE (JCT7.JCT)



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized).

OBSTACLES
For TAKEOFF OBSTACLE
NOTES see 70-30B.

INITIAL CLIMB

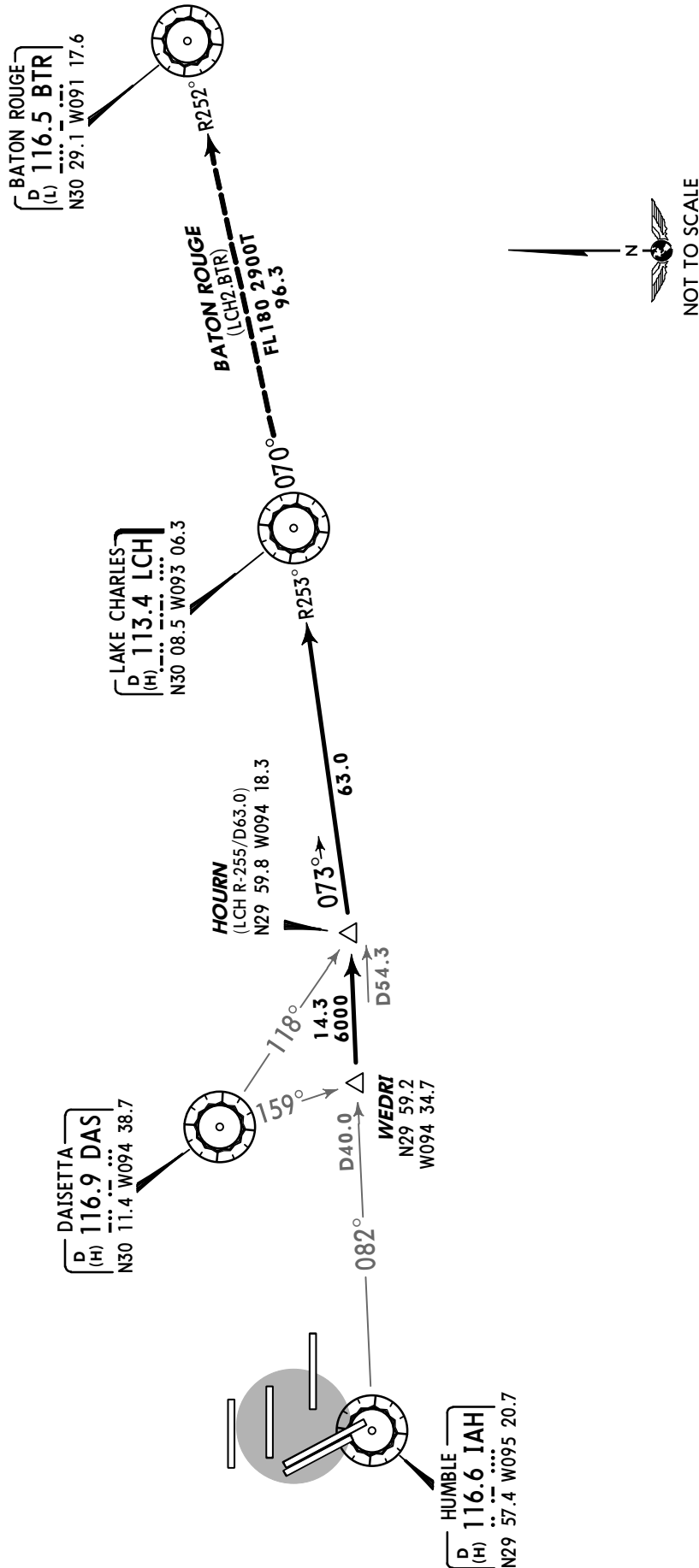
Climb on assigned heading for RADAR vectors to CUZZZ. MAINTAIN 4000'. EXPECT
filed altitude 10 minutes after departure. Then via IAH R-276 and JCT R-090 to JCT.

HOUSTON
Departure (R)
127.125

Apt Elev
96'

Trans level: FL180 Trans alt: 18000'
RADAR required.

LAKE CHARLES TWO DEPARTURE (LCH2.LCH)



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized).

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 70-30B.

INITIAL CLIMB

Climb on assigned heading for RADAR vectors to WEDRI. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. Then via IAH R-082 to HOUN, then via LCH R-253 to LCH.

HOUSTON
Departure (R)
132.25

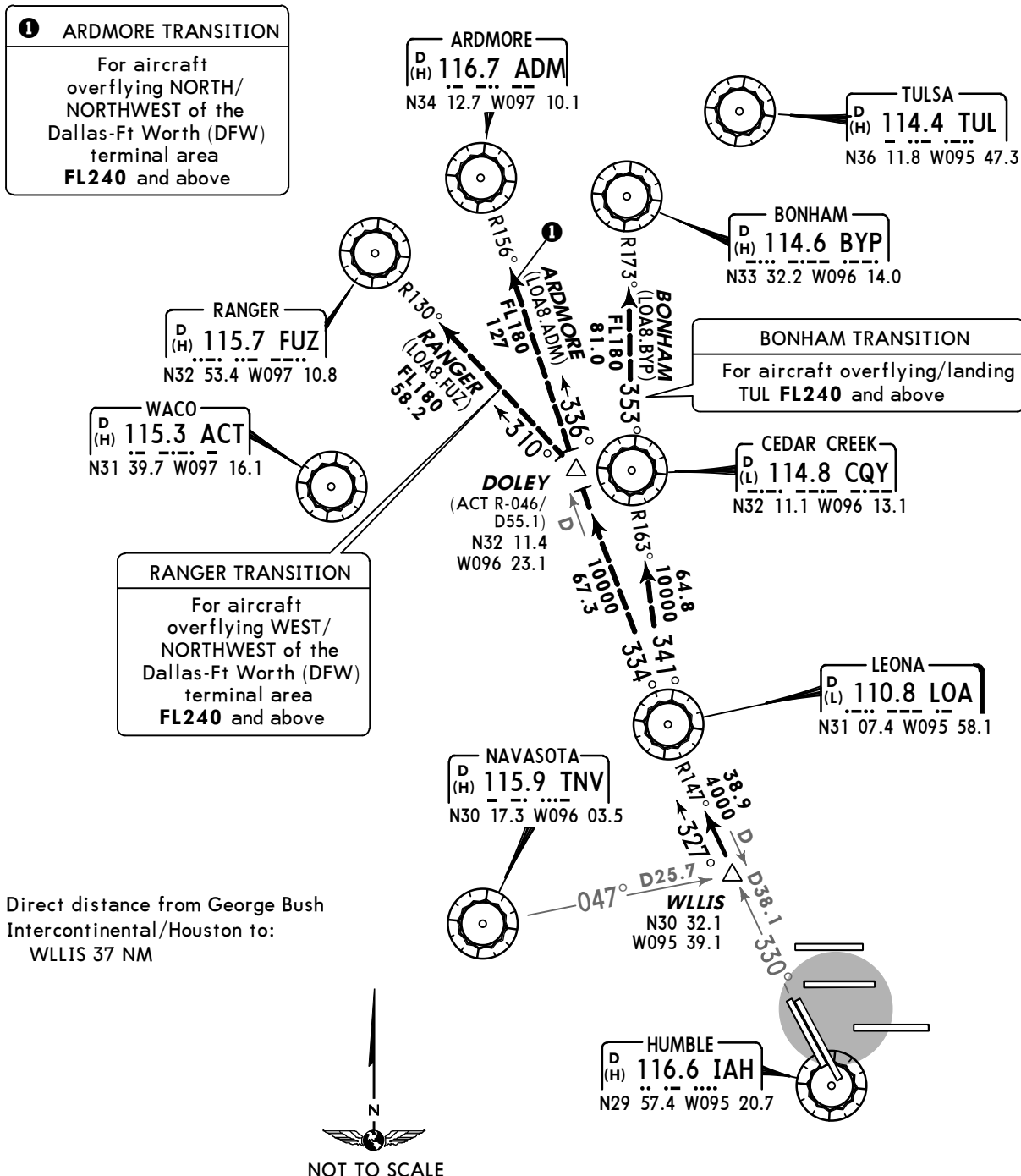
Apt Elev
96'

Trans level: FL180 Trans alt: 18000'

1. RADAR required.

2. Except for aircraft destined Waco (ATC) or the Dallas Ft Worth (DFW) terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ, ADM or BYP.

LEONA EIGHT DEPARTURE (LOA8.LOA)



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard (or lower than standard, if authorized).

OBSTACLE

For TAKEOFF OBSTACLE NOTES
see 70-3OB.

INITIAL CLIMB

Climb on assigned heading for RADAR vectors to WLLIS. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. From WLLIS on LOA R-147 to LOA.

TAKEOFF OBSTACLE NOTES

◦ RWY 8L:

TREE 2866' FROM DER, 921' LEFT OF CENTERLINE, 107' AGL/201' MSL. MULTIPLE TREES BEGINNING 2750' FROM DER, 106' RIGHT OF CENTERLINE, UP TO 80' AGL/174' MSL.

◦ RWY 15L:

MULTIPLE TREES BEGINNING 2638' FROM DER, 758' RIGHT OF CENTERLINE, UP TO 76' AGL/160' MSL.

◦ RWY 15R:

TOWER 1431' FROM DER, 591' LEFT OF CENTERLINE, 48' AGL/133' MSL. ANTENNA ON GLIDESLOPE 1469' FROM DER, 621' LEFT OF CENTERLINE, 49' AGL/133' MSL.

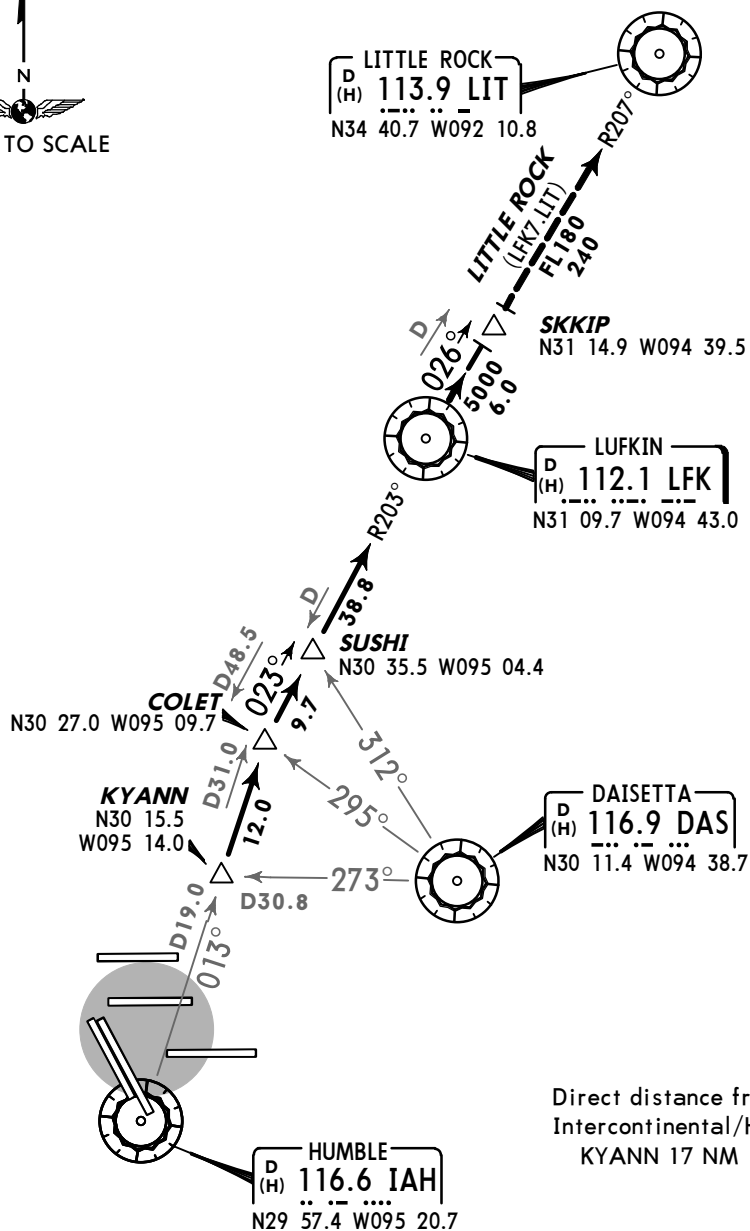
◦ RWY 26R:

POLE 950' FROM DER, 660' RIGHT OF CENTERLINE, 40' AGL/129' MSL.

◦ RWY 33R:

TREE 2868' FROM DER, 1027' RIGHT OF CENTERLINE, 73' AGL/172' MSL.

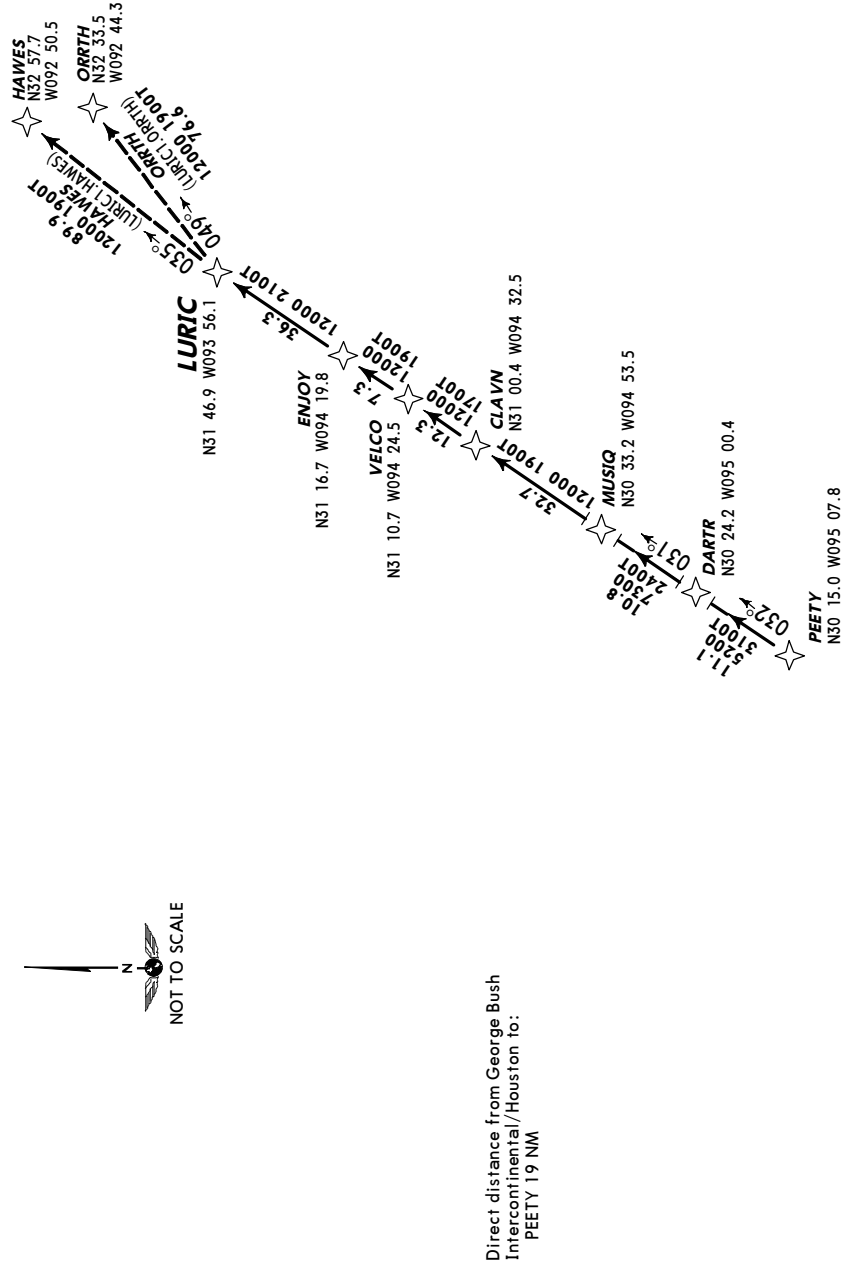
2. For aircraft destined LIT, or overflying LIT or PXV.



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HOUSTON Departure (R) 132.25	<i>Apt Elev</i> 96'	Trans level: FL180 Trans alt: 18000'
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**LURIC ONE RNAV DEPARTURE
(LURIC1.LURIC)**



This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwy's 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 600'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

RWY	INITIAL CLIMB
8L/R, 9	Climb heading 087° to 600°, EXPECT RADAR vectors to PEETY.
15L/R	Climb heading 149° to 600°, EXPECT RADAR vectors to PEETY.
26L/R, 27	Climb heading 267° to 600°, EXPECT RADAR vectors to PEETY.
33L/R	Climb heading 329° to 600°, EXPECT RADAR vectors to PEETY.

ROUTING

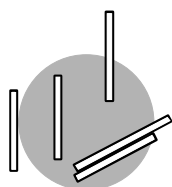
From PEETY on track 032° to DARTR, then on track 031° to MUSIQ, CLAVN, VELCO, ENJOY, LURIC, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.

HOUSTON
Departure (R)
127.125

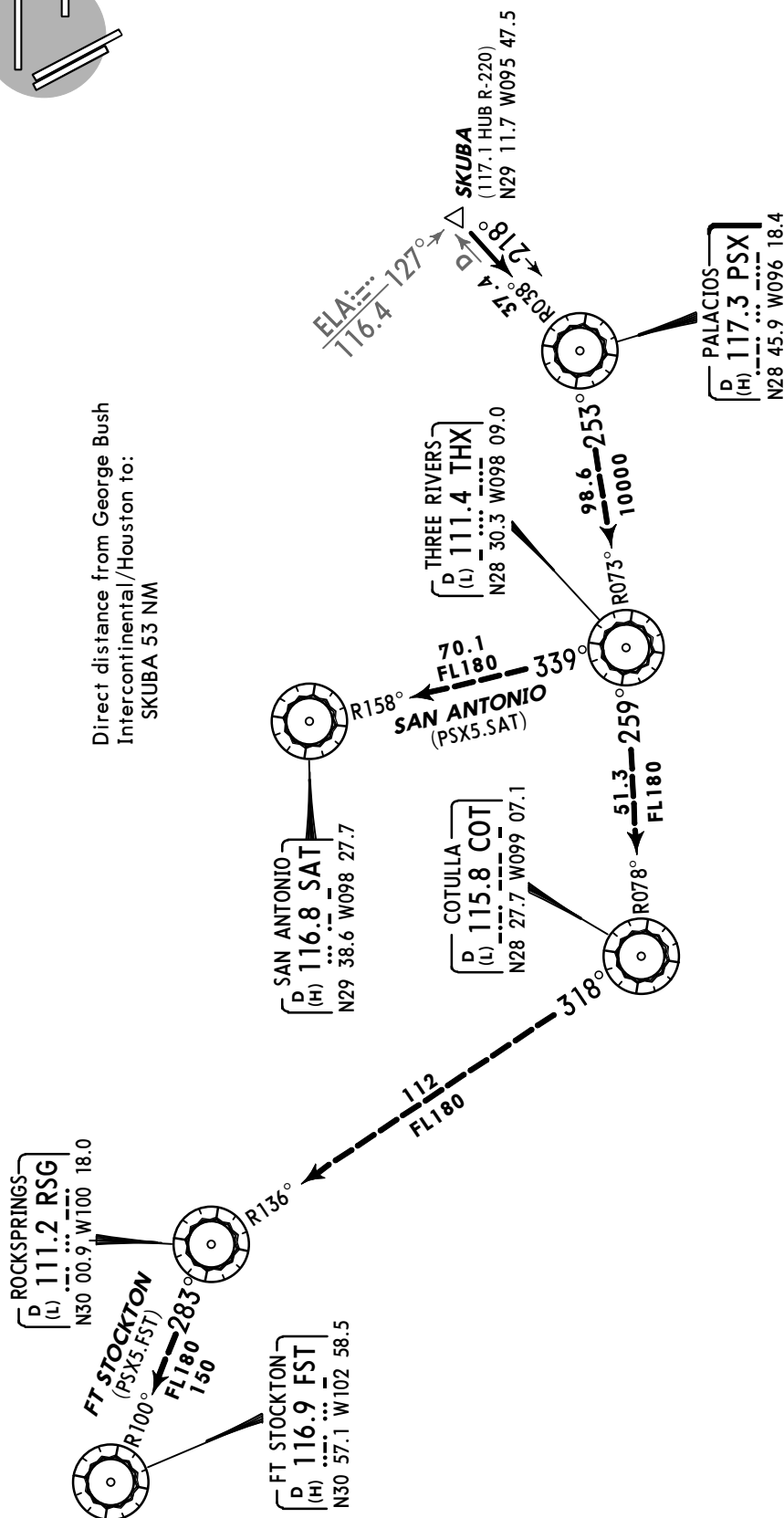
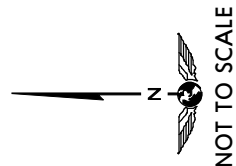
Apt Elev
96'

Trans level: FL180 Trans alt: 18000'
RADAR required.

PALACIOS FIVE DEPARTURE (PSX5.PSX)



Direct distance from George Bush
Intercontinental/Houston to:
SKUBA 53 NM



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R:
Standard (or lower than standard, if authorized).

OBSTACLE
For TAKEOFF OBSTACLE NOTES
see 70-30B.

INITIAL CLIMB

Climb on assigned heading for RADAR vectors to SKUBA. MAINTAIN 4000'. EXPECT
filed altitude 10 minutes after departure. At SKUBA on PSX R-038 to PSX.

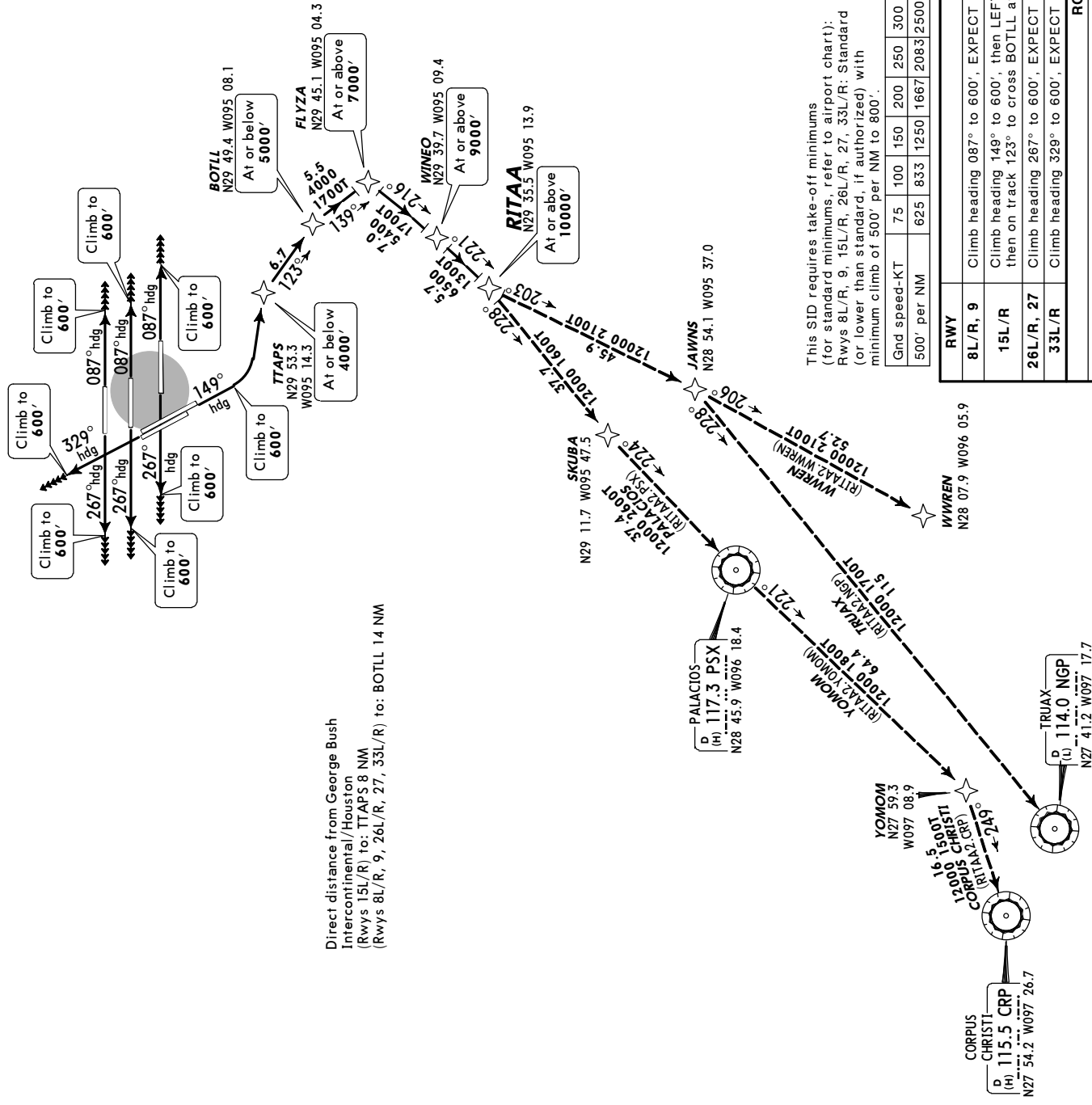
1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.

4. For use by turbojet and turboprop aircraft only.

5. Notify ATC if unable to comply with crossing restrictions.

HOUSTON Departure (R) 127.125	Apt Elev 96'	Trans level: FL180 Trans alt: 18000'
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**RITAA TWO RNAV DEPARTURE
(RITAA2.RITAA)**



This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized) with
minimum climb of 500' per NM to 800'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

OBSTACLES

For TAKEOFF OBSTACLE NOTES see 70-30B.

RWY	INITIAL CLIMB
8L/R, 9	Climb heading 087° to 600', EXPECT RADAR vectors to
15L/R	Climb heading 149° to 600', then LEFT turn direct to or then on track 123° to cross BOTLL at or below 5000'.
26L/R, 27	Climb heading 267° to 600', EXPECT RADAR vectors to
33L/R	Climb heading 329° to 600', EXPECT RADAR vectors to

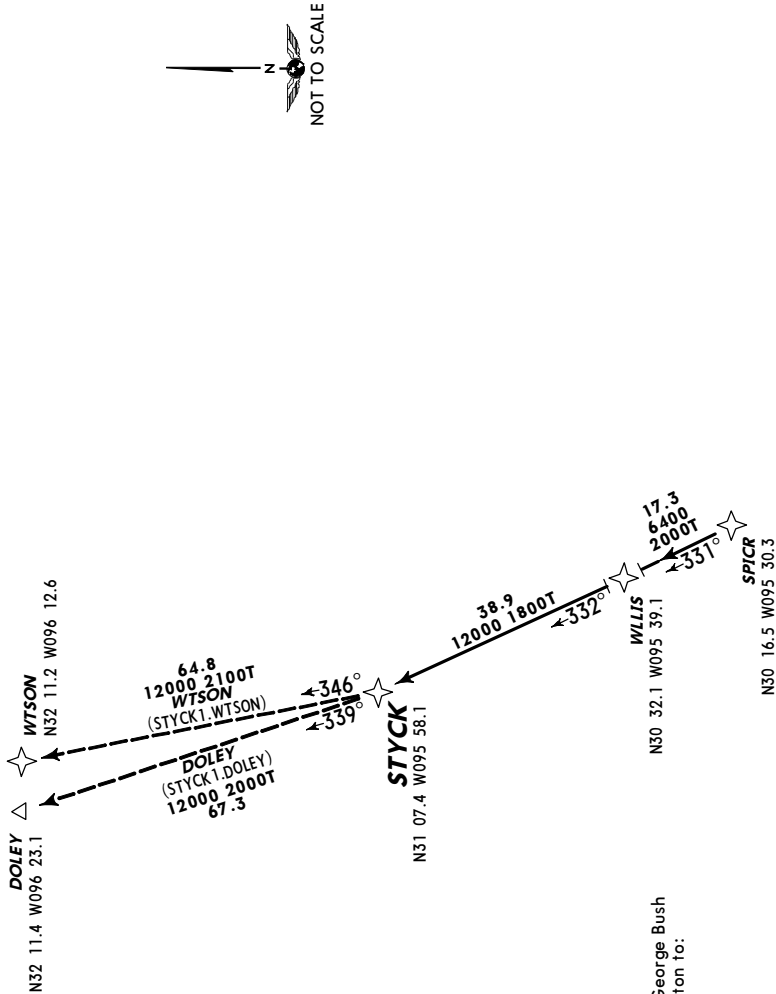
ROUTING

From BOTLL on track 139° to FLYZA, then on track 216° to WINEO, then on track 221° to RITAA, then on transition. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure.

1. RADAR required.
2. DME/DME/IRU or GPS required.
3. RNAV 1.

HOUSTON Departure (R) 132.25	Apt Elev 96'	Trans level: FL180	Trans alt: 18000'
------------------------------------	-----------------	--------------------	-------------------

STYCK ONE RNAV DEPARTURE
(STYCK1.STYCK)

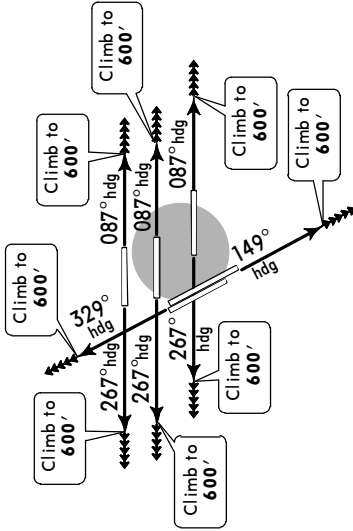


Direct distance from George Bush
Intercontinental/Houston to:
SPICR 19 NM

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized) with
minimum climb of 500' per NM to 600'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 70-30B.



INITIAL CLIMB	
8L/R, 9	Climb heading 087° to 600', EXPECT RADAR vectors to SPICR.
15L/R	Climb heading 149° to 600', EXPECT RADAR vectors to SPICR.
26L/R, 27	Climb heading 267° to 600', EXPECT RADAR vectors to SPICR.
33L/R	Climb heading 329° to 600', EXPECT RADAR vectors to SPICR.
ROUTING	
From SPICR on track 331° to WLLIS, then on track 332° to STYCK, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.	

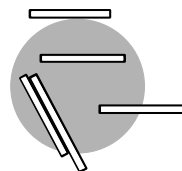
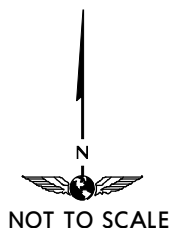
CHANGES: Communications.

HOUSTON
Departure (R)
127.125

Apt Elev
96'

Trans level: FL180 Trans alt: 18000'
1. RADAR required. 2. For aircraft filed FL180 and above to Rio Grande Valley area or for aircraft filed FL180 and above overflying NGP to international destinations.

TRUAX THREE DEPARTURE (NGP3.NGP)



SCHOLES
D (L) 113.0 VUH
N29 16.2 W094 52.1



Direct distance from George Bush
Intercontinental/Houston to:
YAWNS 70 NM

TRUAX
D (L) 114.0 NGP
N27 41.2 W097 17.7



OBSTACLE

For TAKEOFF OBSTACLE NOTES see 70-30B.

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized).

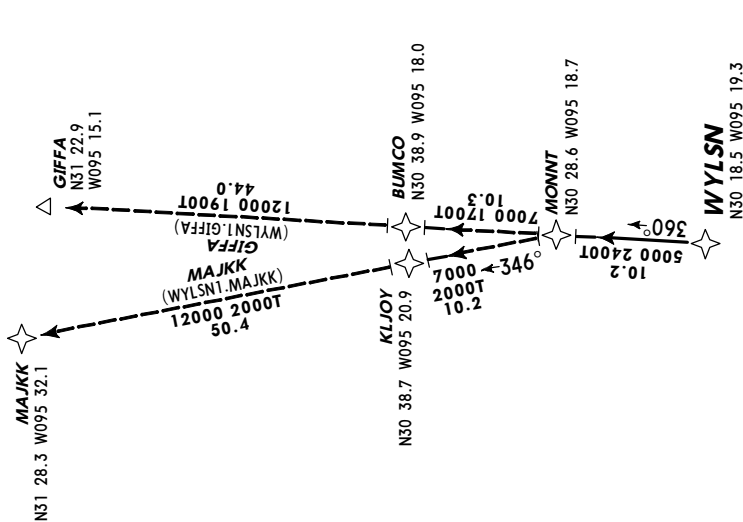
INITIAL CLIMB

Climb on assigned heading for RADAR vectors to YAWNS. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. Then on VUH R-228 and NGP R-047 to NGP.

HOUSTON Departure (R) 132.25	Apt Elev 96	Trans level: FL180	Trans alt: 18000'	1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1. 4. MAJKK Transition ATC assigned only.
------------------------------------	----------------	--------------------	-------------------	--

WYLSN ONE RNAV DEPARTURE
(WYLSN1.WYLSN)

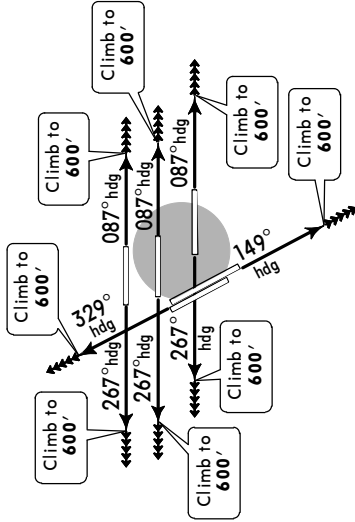
Direct distance from George Bush
Intercontinental/Houston to:
WYLSN 19 NM



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 8L/R, 9, 15L/R, 26L/R, 27, 33L/R: Standard
(or lower than standard, if authorized) with
minimum climb of 500' per NM to 600'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 70-30B.



INITIAL CLIMB	
8L/R, 9	Climb heading 087° to 600', EXPECT RADAR vectors to WYLSN.
15L/R	Climb heading 149° to 600', EXPECT RADAR vectors to WYLSN.
26L/R, 27	Climb heading 267° to 600', EXPECT RADAR vectors to WYLSN.
33L/R	Climb heading 329° to 600', EXPECT RADAR vectors to WYLSN.
ROUTING	
From WYLSN on track 360° to MONNT, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.	

GENERAL

CAUTION: Bright lights 1 NM from threshold and 900' south of centerline Rwy 26L.

Birds in vicinity of airport.

Terminal Doppler Weather Radar.

ASDE-X surveillance system in use. Pilots should operate transponders with Mode C on all taxiways and runways.

Runway Status Lights are in operation.

ADDITIONAL RUNWAY INFORMATION

RWY				USABLE LENGTHS		LAHSO Distance	TAKE-OFF	WIDTH
				Threshold	Glide Slope			
8L ① 26R	HIRL CL ALSF-II TDZ	RVR			7861'2396m 7860'2396m			150' 46m
8R ① 26L	HIRL CL MALSR TDZ PAPI-L (angle 3.0°) RVR				8362'2549m	Twy NP 9019'2749m		150' 46m
	HIRL CL ALSF-II TDZ PAPI-R (angle 3.0°) RVR				8360'2548m	Twy NE 9010'2746m		
9 ① 27	HIRL CL MALSR PAPI-R (angle 3.0°) RVR				8936'2724m			150' 46m
	HIRL CL ALSF-II TDZ PAPI-L (angle 3.0°) RVR				8965'2733m			
15L ① 33R	HIRL CL PAPI-R (angle 3.0°) RVR							150' 46m
	HIRL CL MALSR RVR				10,971'3344m			
15R ① 33L	HIRL CL MALSR TDZ PAPI-L (angle 3.0°) RVR				8874'2705m			150' 46m
	HIRL CL TDZ PAPI-R (angle 3.0°) RVR							

① Grooved.

TAKE-OFF**All Rwys**

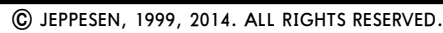
2 operating RVRs are required All operating RVRs are controlling		Adequate Vis Ref	STD	
CL & HIRL	CL, or RCLM & HIRL		3 & 4 Eng	1 & 2 Eng
TDZ RVR 5	TDZ RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1
Mid RVR 5	Mid RVR 10			
Rollout RVR 5	Rollout RVR 10			

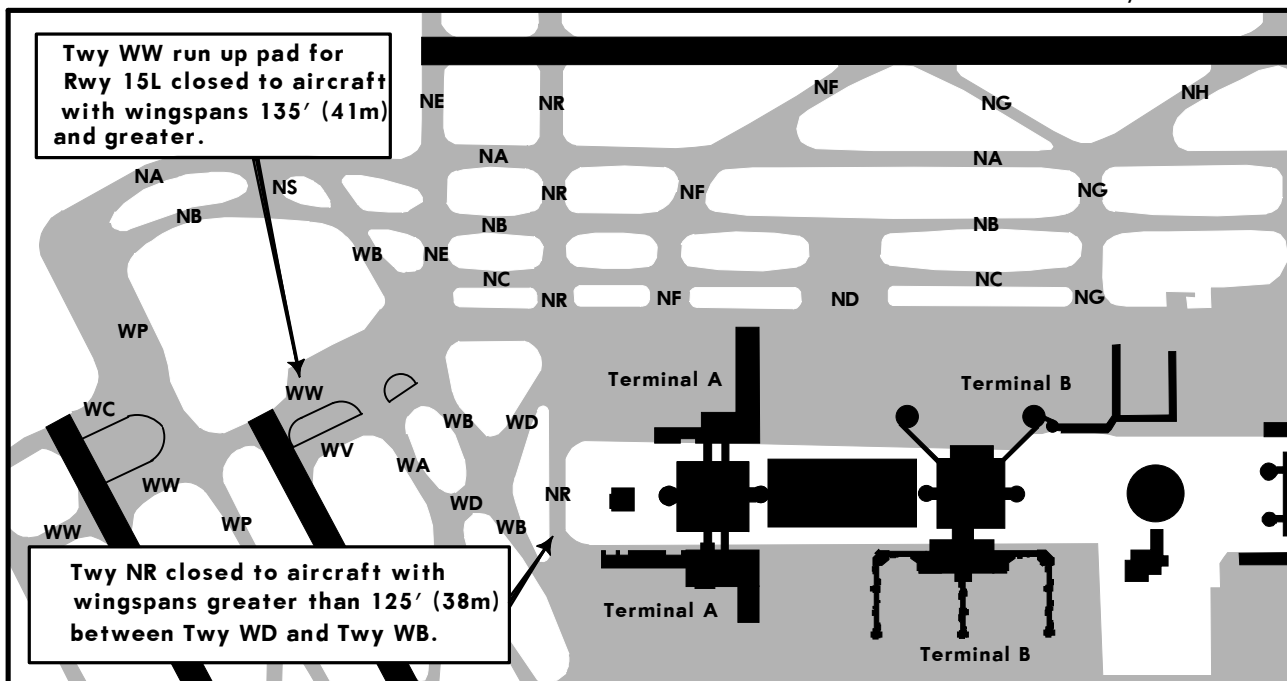
FOR FILING AS ALTERNATE

ILS Rwy 8L ILS Rwy 9 ILS Rwy 15R ILS Rwy 26R ILS Rwy 27 ILS Rwy 33R	LOC Rwy 8L LOC Rwy 9 LOC Rwy 15R LOC Rwy 26R LOC Rwy 27 LOC Rwy 33R RNAV (GPS) Z Rwy 8L RNAV (GPS) Z Rwy 8R RNAV (GPS) Z Rwy 9 RNAV (GPS) Rwy 15R	RNAV (GPS) Z Rwy 26L RNAV (GPS) Z Rwy 26R RNAV (GPS) Z Rwy 27 RNAV (GPS) Rwy 33R RNAV (RNP) Y Rwy 8L RNAV (RNP) Y Rwy 8R RNAV (RNP) Y Rwy 9 RNAV (RNP) Y Rwy 26L RNAV (RNP) Y Rwy 26R RNAV (RNP) Y Rwy 27	ILS Rwy 26L LOC Rwy 26L	ILS Rwy 8R LOC Rwy 8R	GLS Rwy 8L GLS Rwy 8R GLS Rwy 9 GLS Rwy 26L GLS Rwy 26R GLS Rwy 27
A	600-2	800-2	800-2	900-2	NA
B					
C			800-2 1/2	900-2 1/2	
D					

CHANGES: None.

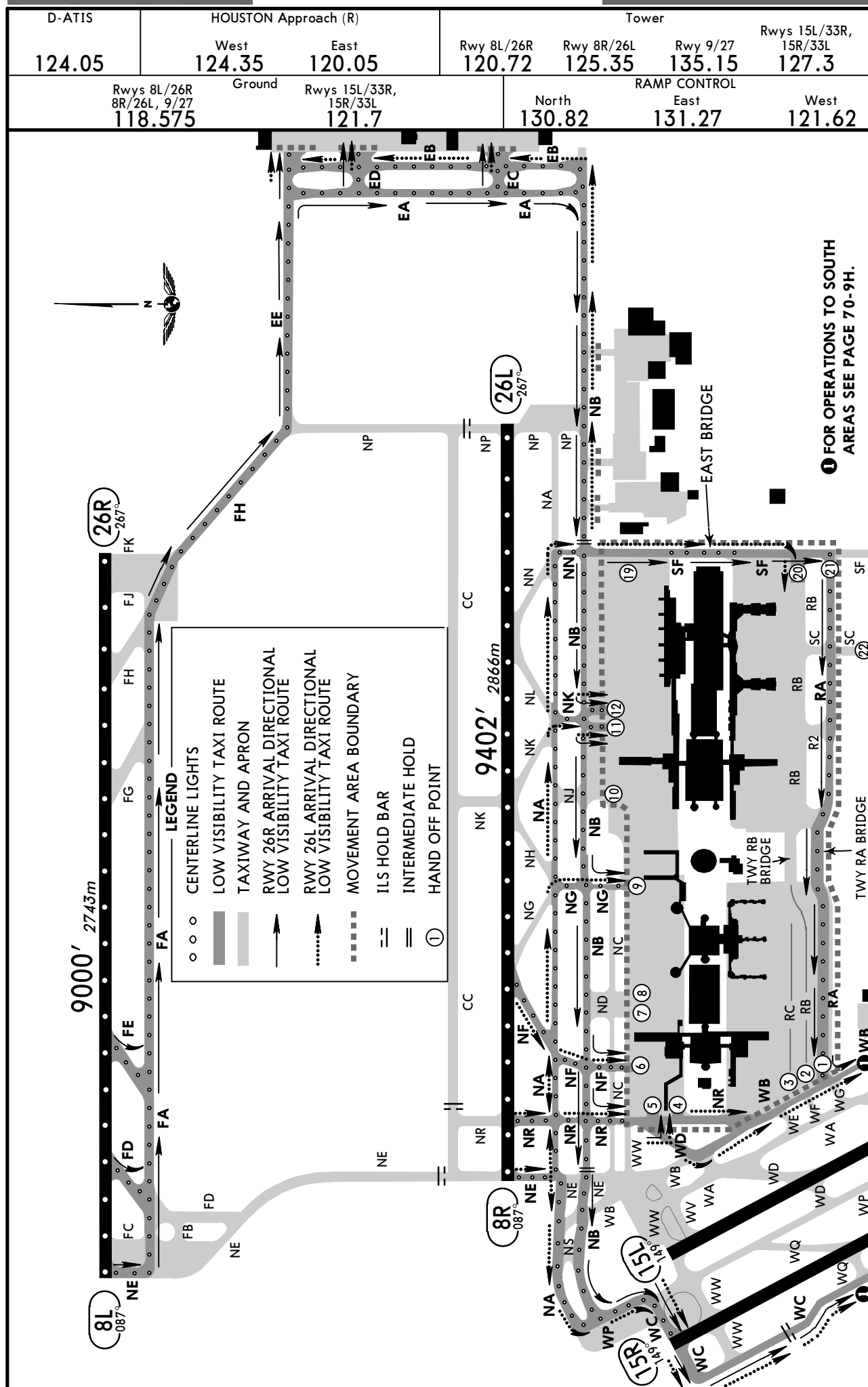
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PARKING GATE COORDINATES

GATE	COORDINATES	GATE	COORDINATES
TERMINAL A		TERMINAL D (INTERNATIONAL)	
1	N29 59.3 W095 21.0	1	N29 59.3 W095 20.3
2	N29 59.3 W095 21.1	2 thru 4	N29 59.3 W095 20.2
7 thru 12, 14, 15	N29 59.3 W095 21.0	5, 6	N29 59.3 W095 20.1
17 thru 19, 24, 25	N29 59.1 W095 21.0	7 thru 9	N29 59.3 W095 20.0
26, 27, 29, 30	N29 59.1 W095 21.1	10 thru 12, 12A	N29 59.3 W095 19.9
TERMINAL B		TERMINAL D HARDSTANDS	
1 thru 6	N29 59.1 W095 20.6	1, 2	N29 59.4 W095 19.9
7 thru 12	N29 59.1 W095 20.7	3, 4	N29 59.4 W095 20.0
14 thru 20	N29 59.1 W095 20.7	5, 6	N29 59.4 W095 20.1
21 thru 31	N29 59.1 W095 20.8	TERMINAL E	
76	N29 59.2 W095 20.8	1, 2 A/B, 3	N29 59.1 W095 20.2
76A, 77A	N29 59.3 W095 20.8	4 A/B	N29 59.0 W095 20.2
79, 79A	N29 59.3 W095 20.8	5 A/B, 6, 7 A/B	N29 59.0 W095 20.1
80, 81, 81A, 83	N29 59.3 W095 20.8	8, 9, 10 A/B, 11	N29 59.1 W095 20.1
83A	N29 59.2 W095 20.8	12, 14, 15 A/B, 16	N29 59.1 W095 20.0
85, 85A	N29 59.3 W095 20.6	17, 18 A/B	N29 59.0 W095 20.0
86, 86A, 87, 88	N29 59.3 W095 20.7	19, 20 A/B	N29 59.0 W095 19.9
84A thru 84H	N29 59.3 W095 20.6	21 thru 24	N29 59.1 W095 19.9
84J, 84K	N29 59.3 W095 20.6		
84L thru 84N	N29 59.3 W095 20.5		
84P, 84Q	N29 59.3 W095 20.5		
TERMINAL C			
14, 15	N29 59.3 W095 20.3		
16 thru 21	N29 59.4 W095 20.3		
22, 23	N29 59.3 W095 20.3		
24 thru 26	N29 59.3 W095 20.4		
29 thru 31	N29 59.1 W095 20.5		
32, 33	N29 59.1 W095 20.4		
34 thru 36	N29 59.1 W095 20.3		
37, 39, 40	N29 59.0 W095 20.3		
41 thru 43	N29 59.1 W095 20.3		
44, 45	N29 59.1 W095 20.2		

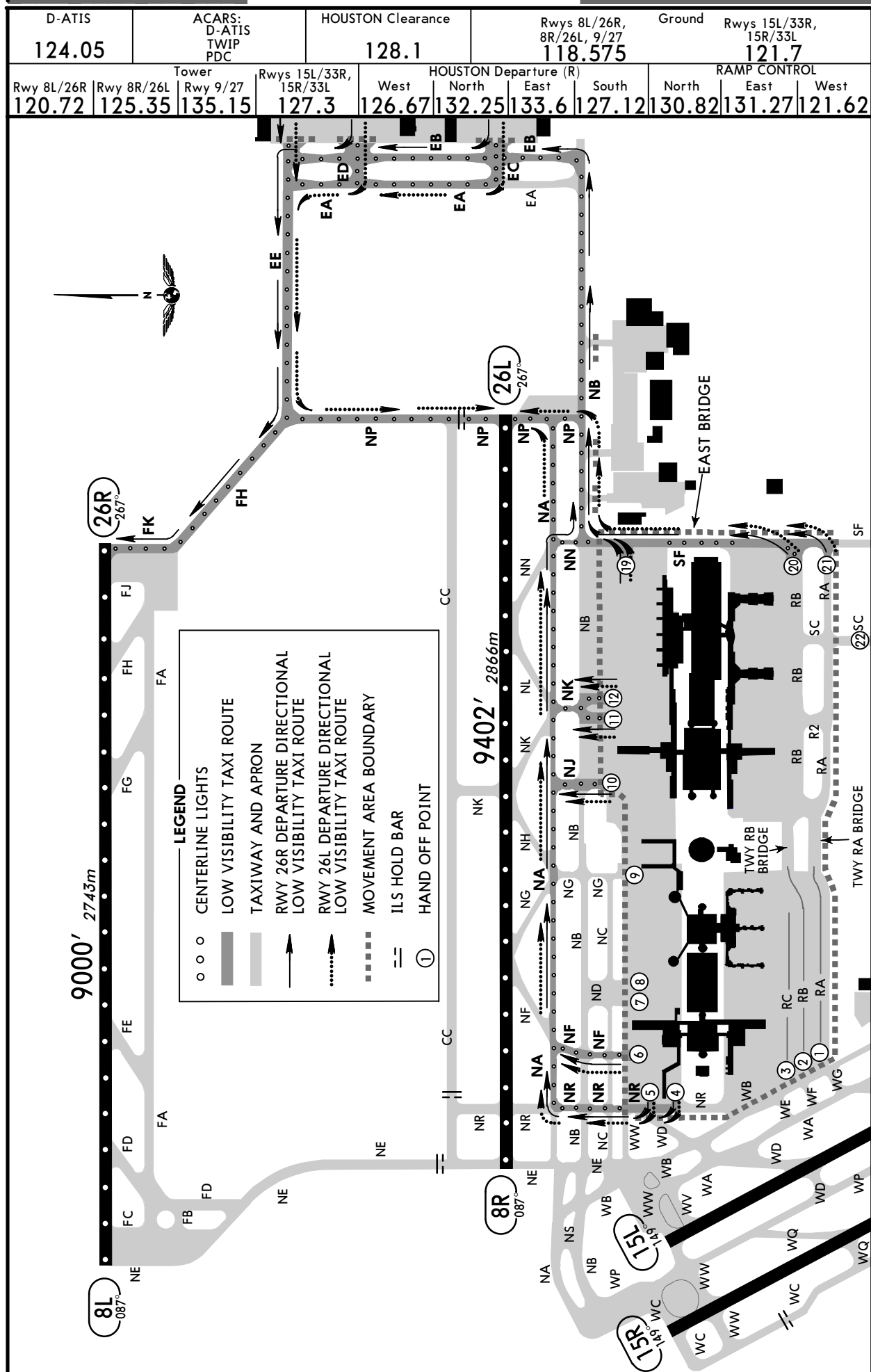


KIAH/IAH

JEPPESSEN
7 NOV 14 (70-9G)

Eff 13 Nov

SMGCS

GEORGE BUSH
INTERCONTINENTAL/HOUSTON
RVR 1200 TO 600HOUSTON, TEXAS
LOW VISIBILITY TAXI ROUTES
RWY 26L & 26R DEPARTURE

CHANGES: Taxiway NS ident added.

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GEORGE BUSH
INTERCONTINENTAL/HOUSTON

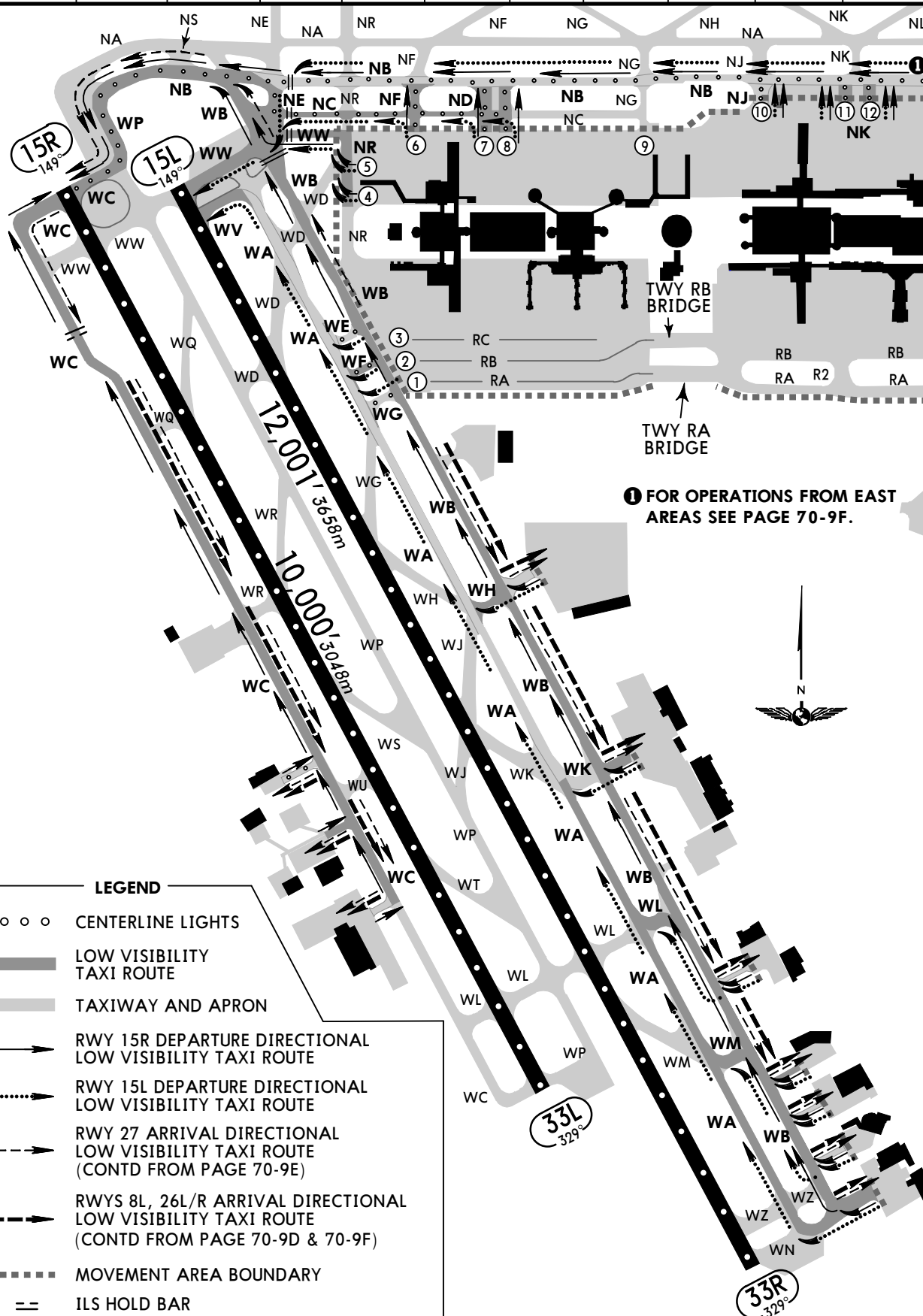
HOUSTON, TEXAS

LOW VISIBILITY TAXI ROUTES

RVR 1200 TO 600

ARRIVALS AND DEPARTURES (SEE LEGEND BELOW)

D-ATIS 124.05		ACARS: D-ATIS TWIP PDC		HOUSTON Clearance 128.1		Rwys 15L/33R, 15R/33L 121.7		Ground Rwys 8L/26R, 8R/26L, 9/27 118.575		
Rwys 15L/33R, 15R/33L		Tower		HOUSTON Departure (R)				RAMP CONTROL		
Rwy 8L/26R	Rwy 8R/26L	Rwy 9/27	West	North	East	South	North	East	West	
120.72	125.35	135.15	126.67	132.25	133.6	127.12	130.82	131.27	121.62	



1 FOR OPERATIONS FROM EAST AREAS SEE PAGE 70-9F.

LEGEND

- Diagram illustrating various runway and taxiway symbols and their meanings:

 - CENTERLINE LIGHTS**: Represented by three small circles.
 - LOW VISIBILITY TAXI ROUTE**: Represented by a thick solid black line.
 - TAXIWAY AND APRON**: Represented by a thick solid grey line.
 - RWY 15R DEPARTURE DIRECTIONAL LOW VISIBILITY TAXI ROUTE**: Represented by a solid black arrow pointing right.
 - RWY 15L DEPARTURE DIRECTIONAL LOW VISIBILITY TAXI ROUTE**: Represented by a dotted black arrow pointing right.
 - RWY 27 ARRIVAL DIRECTIONAL LOW VISIBILITY TAXI ROUTE (CONTD FROM PAGE 70-9E)**: Represented by a dashed black arrow pointing right.
 - RWYS 8L, 26L/R ARRIVAL DIRECTIONAL LOW VISIBILITY TAXI ROUTE (CONTD FROM PAGE 70-9D & 70-9F)**: Represented by a long dashed black arrow pointing right.
 - MOVEMENT AREA BOUNDARY**: Represented by four small squares in a row.
 - ILS HOLD BAR**: Represented by two short parallel horizontal lines.
 - INTERMEDIATE HOLD**: Represented by two long parallel horizontal lines.
 - HAND OFF POINT**: Represented by a circle with the number 1 inside.

An inset diagram shows a perspective view of a runway and taxiway intersection, with a black rectangle indicating a low visibility taxi route and a grey rectangle indicating a taxiway or apron.

KIAH/IAH

GEORGE BUSH

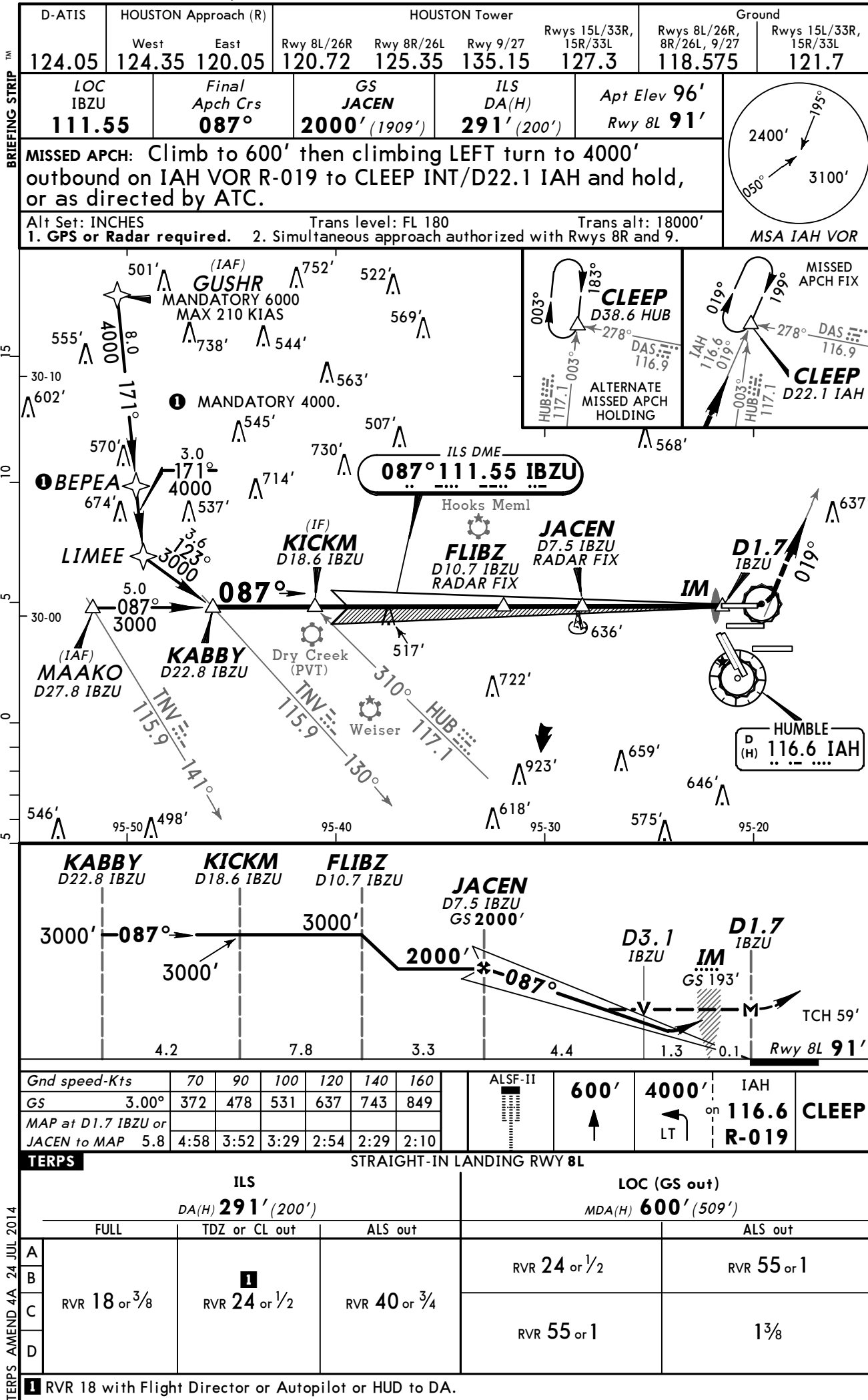
INTERCONTINENTAL/HOUSTON

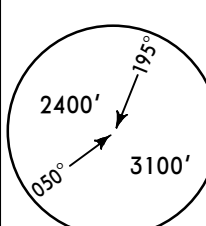
18 JUL 14

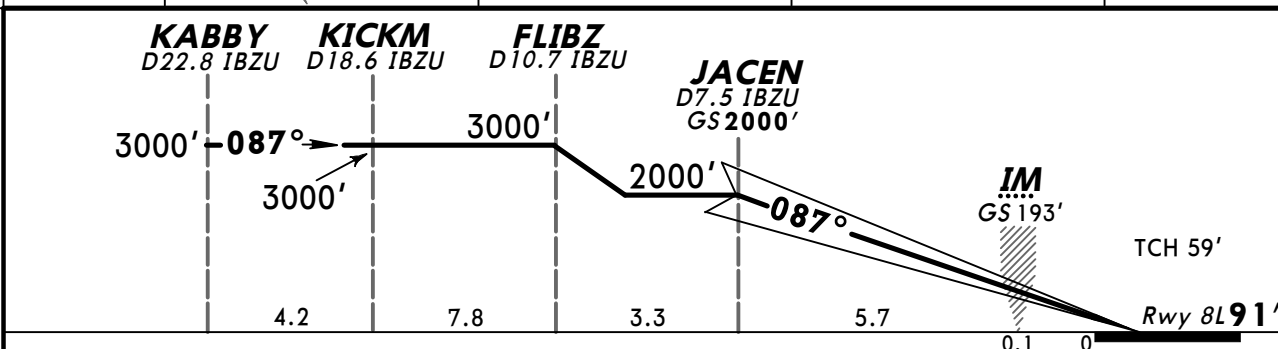
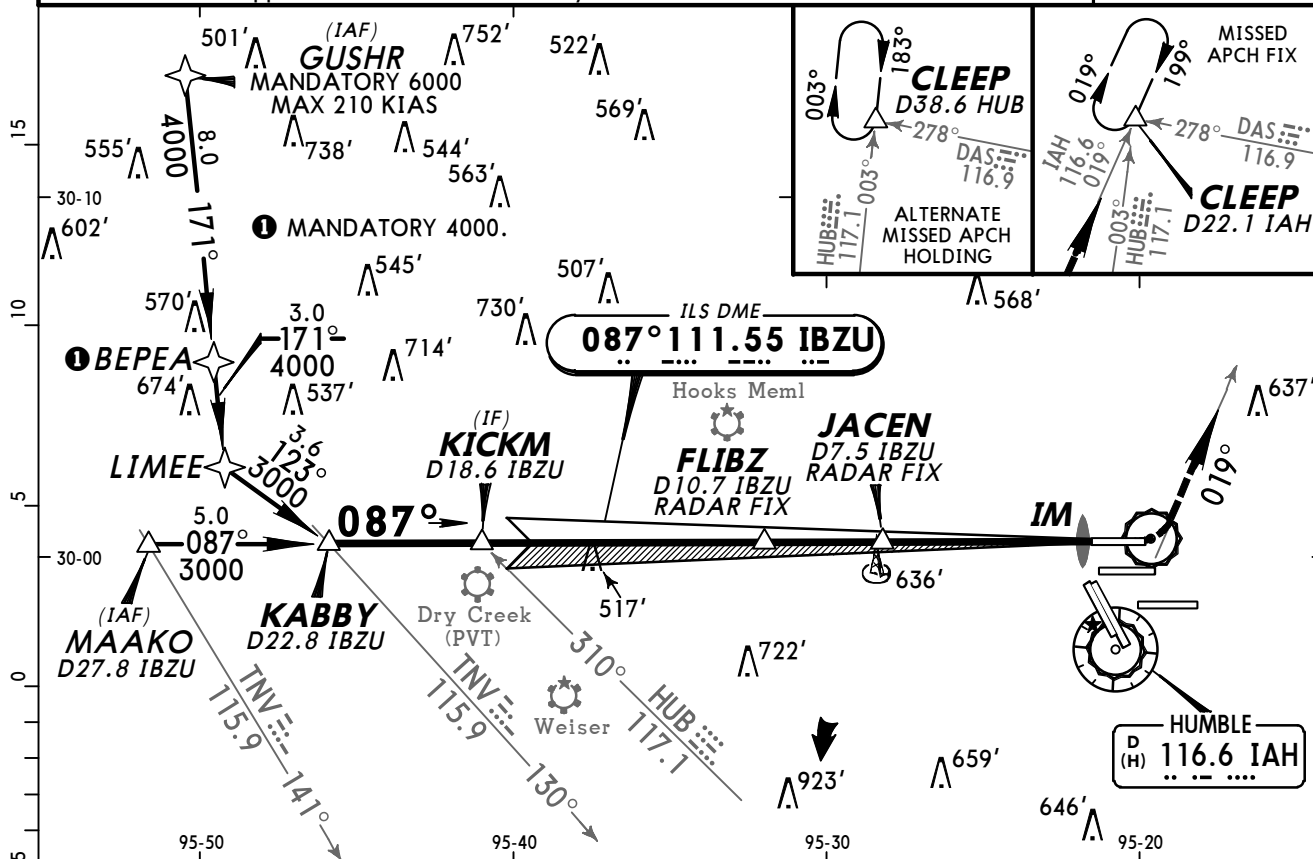
71-1

HOUSTON, TEXAS

ILS or LOC Rwy 8L



BRIEFING STRIP™	D-ATIS	HOUSTON Approach (R)			HOUSTON Tower				Ground	
		West	East		Rwy 8L/26R	Rwy 8R/26L	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8L/26R, 8R/26L, 9/27	Rwys 15L/33R, 15R/33L
	124.05	124.35	120.05	120.72	125.35	135.15	127.3	118.575	121.7	
	LOC IBZU	Final Apch Crs	GS JACEN 2000' (1909')	CAT IIIC NA	CAT IIIB	CAT IIIA	CAT II ILS RA 104' DA(H) 191'(100')	Apt Elev 96' Rwy 8L 91'	 MSA IAH VOR	
	111.55	087°			Refer to Minimums					
MISSED APCH: Climb to 600' then climbing LEFT turn to 4000' outbound on IAH VOR R-019 to CLEEP INT/D22.1 IAH and hold, or as directed by ATC.										
Alt Set: INCHES										



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	600'	4000'	IAH	CLEEP
GS	3.00°	372	478	531	637	743	849		LT	116.6 R-019	

TERPS				STRAIGHT-IN LANDING RWY8L	
CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 104' DA(H) 191'(100')		
NA	RVR 6	RVR 7	RVR 12		

1 RVR 10 authorized with specific OPSPEC, MSPEC, or LOA Approval and use of Autoland or HUD to touchdown.

KIAH/IAH

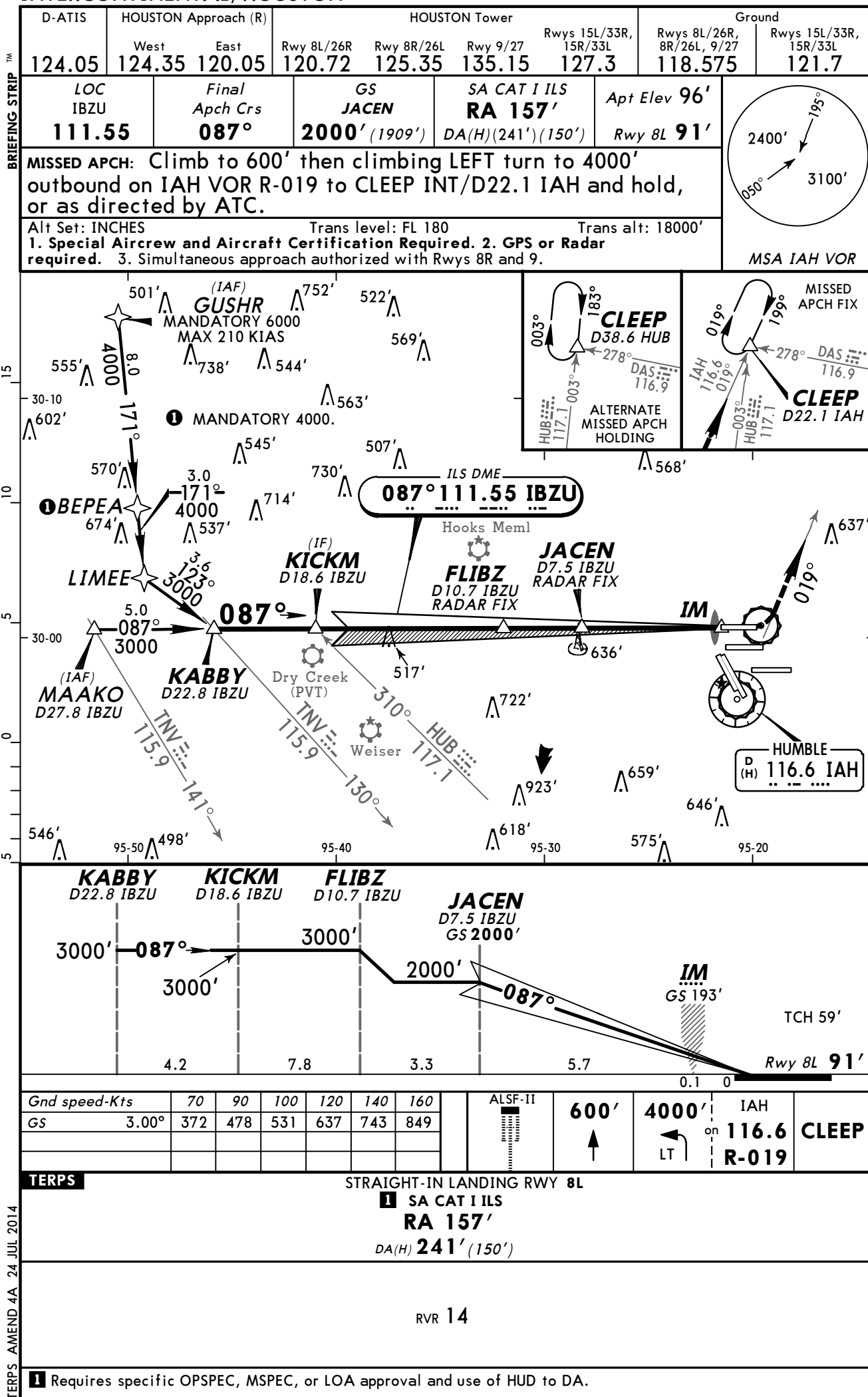
GEORGE BUSH

INTERCONTINENTAL/HOUSTON

18 JUL 14

71-1B

HOUSTON, TEXAS
ILS Rwy 8L SA CAT I



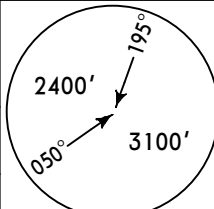
TERPS AMEND 4A 24 JUL 2014

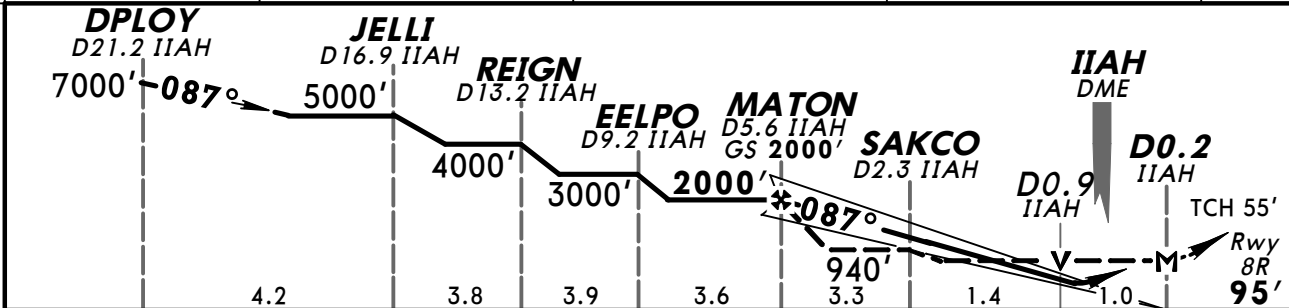
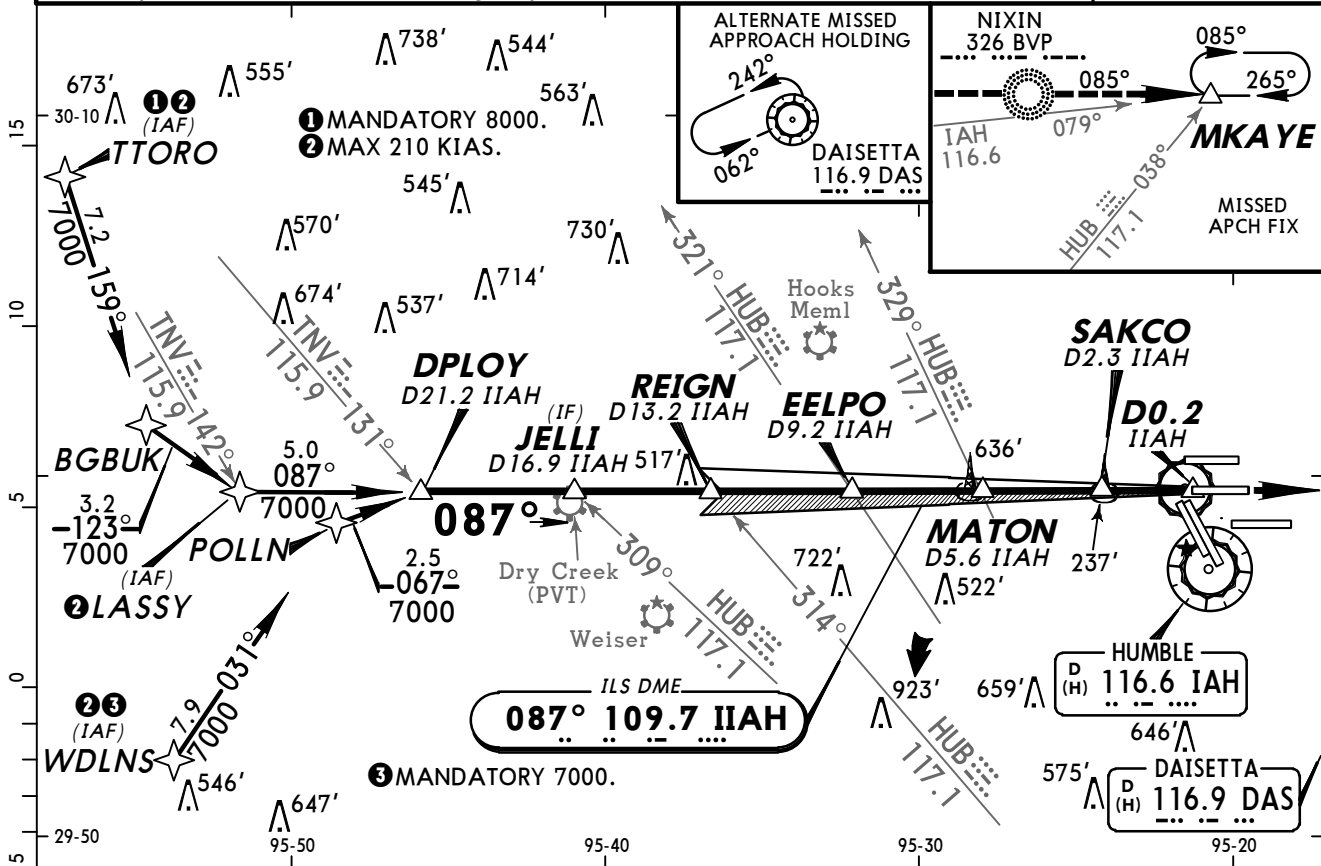
KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

JEPPESSEN
18 JUL 14 (71-2)

HOUSTON, TEXAS
ILS or LOC Rwy 8R

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)			HOUSTON Tower				Ground	
	West	East	Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8R/26L, 8L/26R, 9/27	Rwys 15L/33R, 15R/33L	
124.05	124.35	120.05	125.35	120.72	135.15	127.3	118.575	121.7	
LOC IIAH 109.7	Final Apch Crs 087°		GS MATON 2000' (1905')		ILS DA(H) 295' (200')		Apt Elev 96' Rwy 8R 95'		
MISSED APCH: Climb to 3000' on BVP NDB bearing 085° to MKAYE INT and hold, or as directed by ATC.									
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'									
1. ADF required. 2. GPS or Radar required. 3. Simultaneous approach authorized with Rwys 8L and 9. 4. VGSI and ILS glidepath not coincident.									
								MSA IAH VOR	



Gnd speed-Kts	70	90	100	120	140	160	MALSR		3000'		BVP	MKAYE
GS	3.00°	372	478	531	637	743					326	
MAP at D0.2 IIAH or MATON to MAP	5.8	4:58	3:52	3:29	2:54	2:29					085°	

TERPS			STRAIGHT-IN LANDING RWY 8R					
ILS			LOC (GS out)					
DA(H) 295' (200')			MDA(H) 500' (405')			MDA(H) 940' (845')		
			2 With SAKCO			Without SAKCO		
FULL	TDZ or CL out	RAIL or ALS out	RAIL out	ALS out		RAIL out	ALS out	
A			RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1	RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1
B	RVR 18 or 3/8	RVR 24 or 1/2				RVR 40 or 3/4	RVR 55 or 1	RVR 60 or 1 1/4
C			RVR 40 or 3/4	RVR 50 or 1	RVR 60 or 1 1/8	1 7/8	2	2 1/2
D								

1 RVR 18 with Flight Director or Autopilot or HUD to DA.
2 DME required.

CHANGES: WDLNS altitude restriction added.

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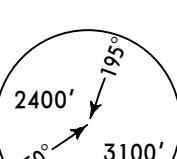
TERPS AMEND 25A 24 JUL 2014

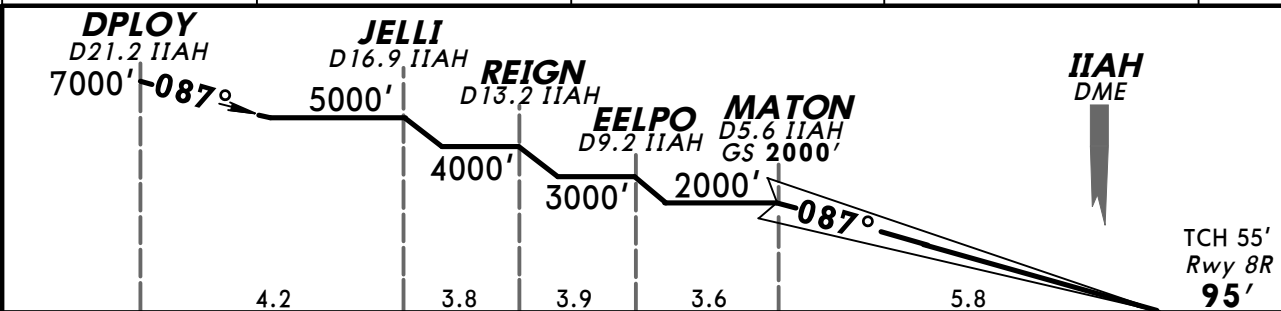
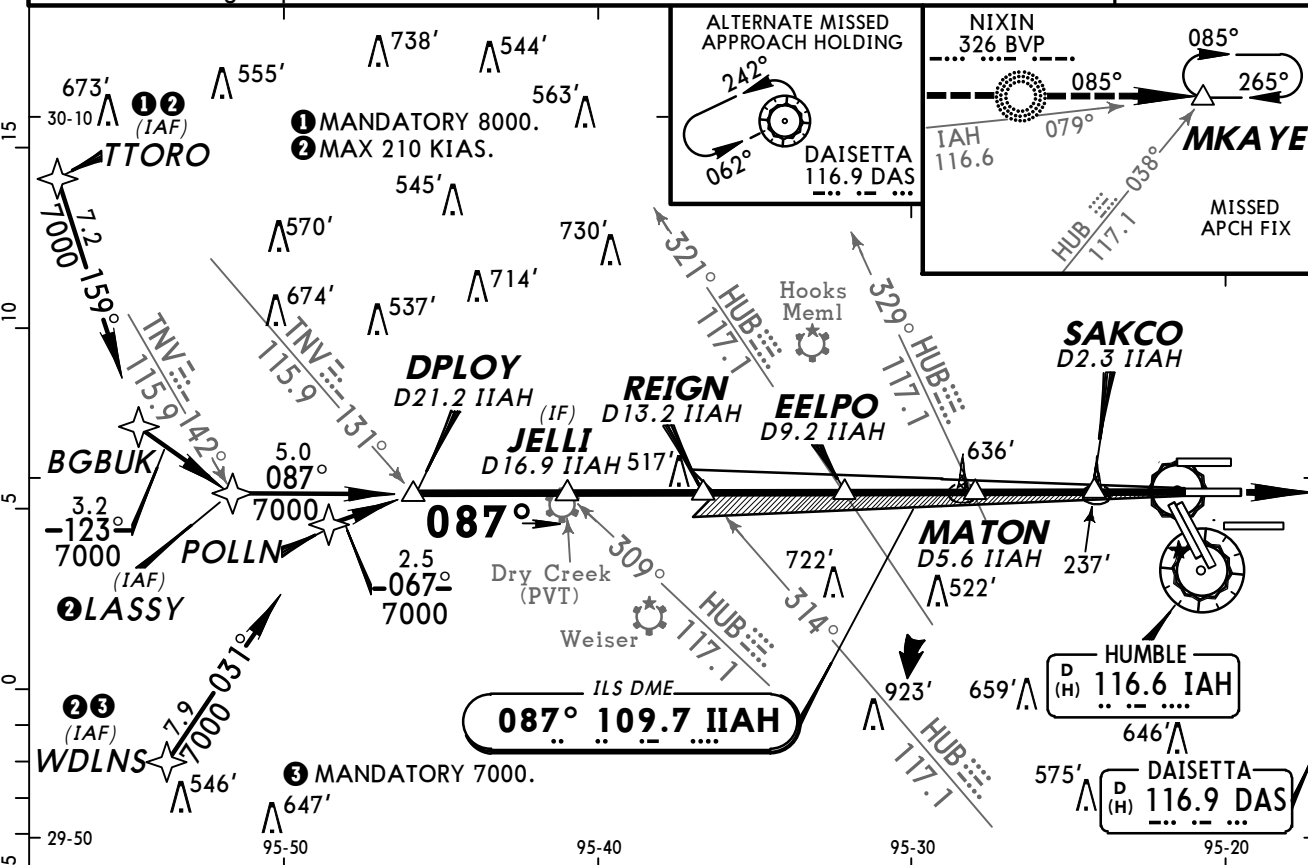
KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

18 JUL 14

71-2A

HOUSTON, TEXAS
ILS Rwy 8R SA CAT I

BRIEFING STRIP™	D-ATIS	HOUSTON Approach (R)			HOUSTON Tower				Ground	
		West	East		Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8R/26L, 8L/26R, 9/27	Rwys 15L/33R, 15R/33L
	124.05	124.35	120.05		125.35	120.72	135.15	127.3	118.575	121.7
	LOC IIAH 109.7	Final Apch Crs 087°		GS MATON 2000' (1905')		SA CAT I ILS RA 152' DA(H)245' (150')		Apt Elev 96' Rwy 8R 95'		
	MISSED APCH: Climb to 3000' on BVP NDB bearing 085° to MKAYE INT and hold, or as directed by ATC.									
	Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'									
1. Special Aircrew and Aircraft Certification Required. 2. ADF required. 3. GPS or Radar Required. 4. Simultaneous approach authorized with Rwys 8L and 9. 5. VGSI and ILS glidepath not coincident.										



Gnd speed-Kts	70	90	100	120	140	160	MALSR		BVP		MKAYE
GS	3.00°	372	478	531	637	743	849	3000'		326	
								on		085°	

TERPS STRAIGHT-IN LANDING RWY 8R

1 SA CAT I ILS
RA 152'
 DA(H) 245' (150')

RVR 14

1 Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

CHANGES: WDLNS altitude restriction added.

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TERPS AMEND 25A 24 JUL 2014

KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

18 JUL 14

71-2B

HOUSTON, TEXAS
ILS Rwy 8R SA CAT II

TM

BRIEFING STRIP

D-ATIS	HOUSTON Approach (R)			HOUSTON Tower				Ground	
	West	East		Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8R/26L, 8L/26R, 9/27	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05		125.35	120.72	135.15	127.3	118.575	121.7
LOC IIAH 109.7	Final Apch Crs 087°			GS MATON 2000' (1905')		SA CAT II ILS RA 102' DA(H)195' (100')		Apt Elev 96' Rwy 8R 95'	
MISSED APCH: Climb to 3000' on BVP NDB bearing 085° to MKAYE INT and hold, or as directed by ATC.									
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'									
1. Special Aircrew and Aircraft Certification Required. 2. ADF required. 3. GPS or Radar required. 4. Simultaneous approach authorized with Rwys 8L and 9. 5. VGSI and ILS glidepath no coincident.									

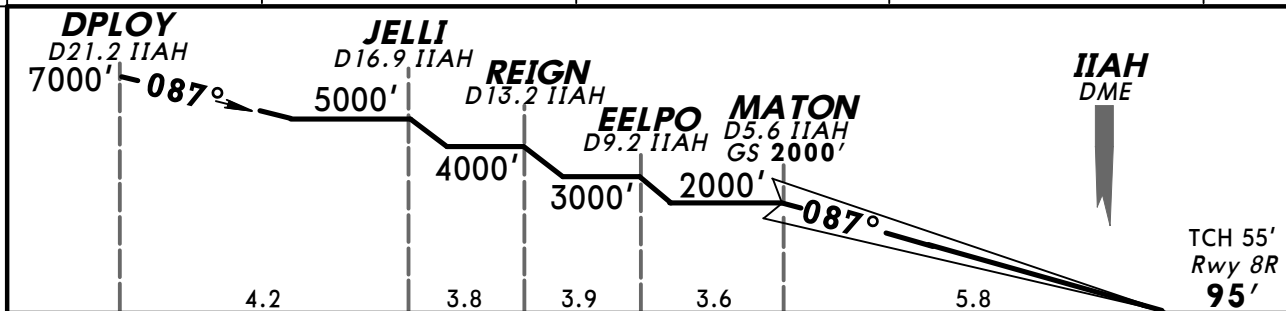
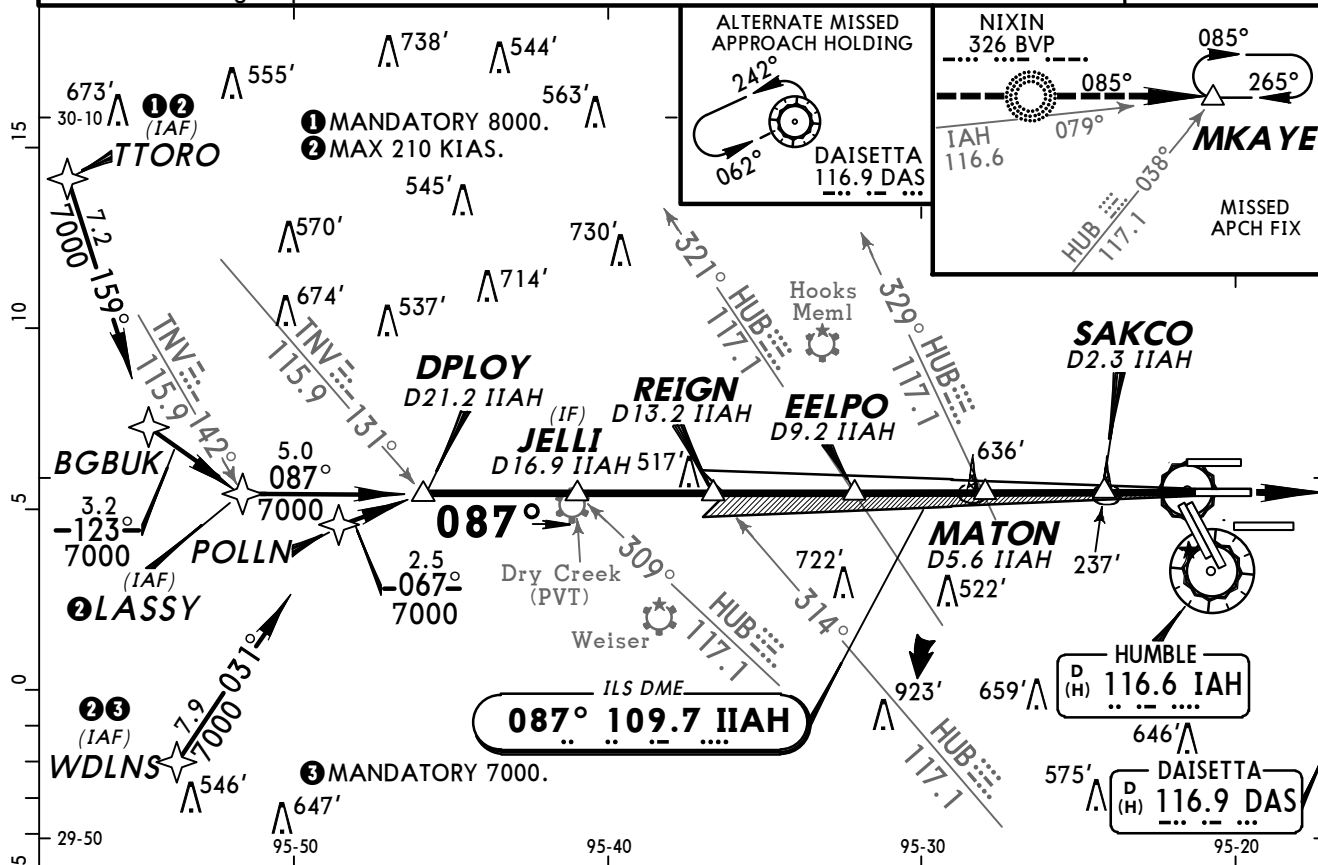
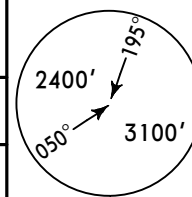
2400'

050°

195°

3100'

MSA IAH VOR



Gnd speed-Kts	70	90	100	120	140	160	MALSR		BVP		MKAYE
GS	3.00°	372	478	531	637	743	849		3000'	326	
									↑	085°	

TERPS STRAIGHT-IN LANDING RWY 8R
1 SA CAT II ILS
RA 102'
 DA(H) 195'(100')

RVR 12

1 Reduced lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of AUTOLAND or HUD to touchdown.

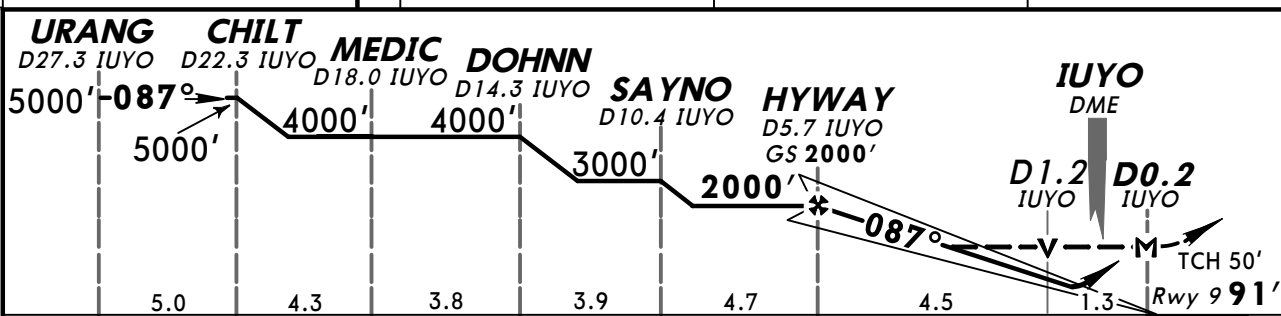
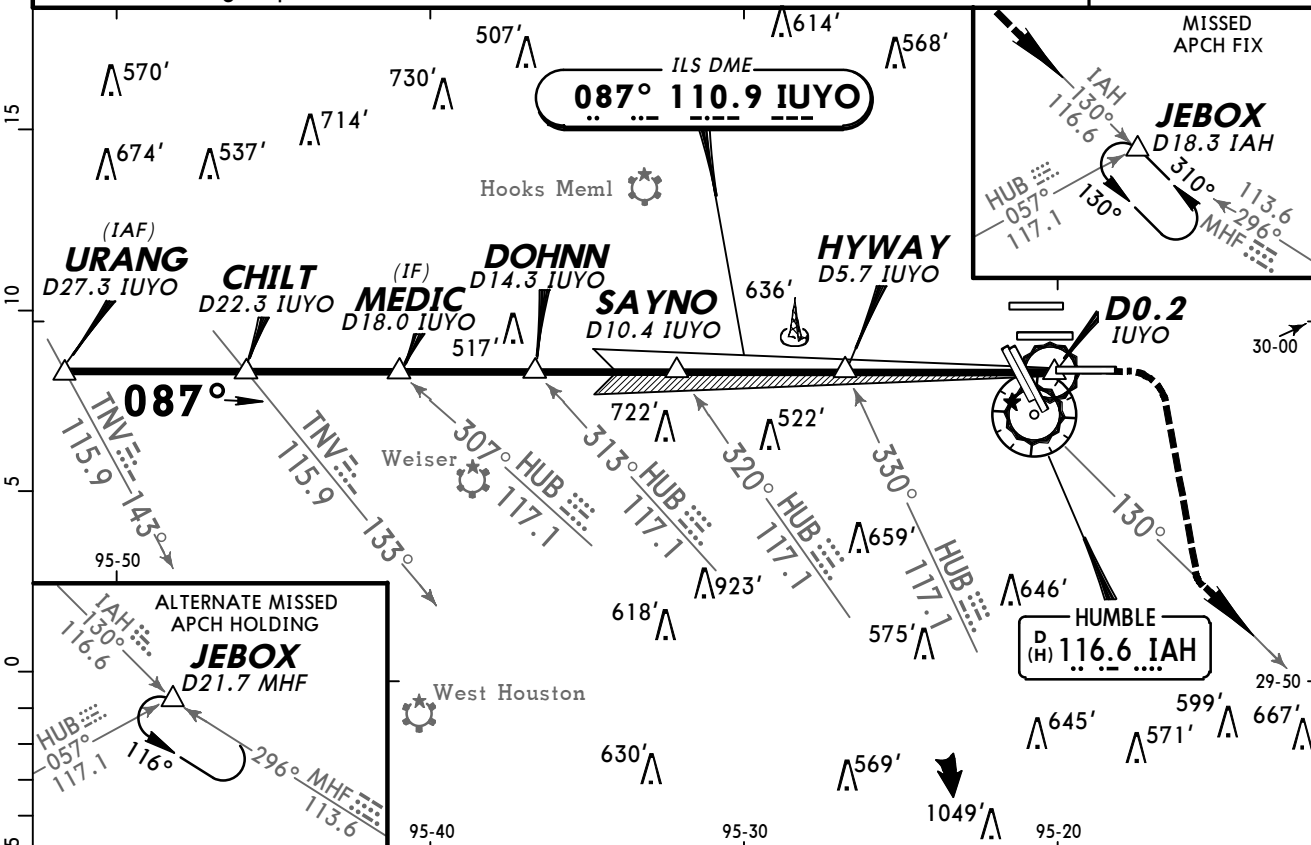
CHANGES: WDLNS altitude restriction added.

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TERPS AMEND 25A 24 JUL 2014

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 9/27	Rwy 8L/26R	Rwy 8R/26L	Rwys 15L/33R, 15R/33L	Rwys 9/27, 8L/26R, 8R/26L	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	135.15	120.72	125.35	127.3	118.575	121.7
LOC IUYO 110.9	Final Apch Crs 087°		GS HYWAY 2000' (1909')	ILS DA(H) 291' (200')		Apt Elev 96' Rwy 9 91'		
MISSED APCH: Climb to 580' then climbing RIGHT turn to 3000' outbound on IAH VOR R-130 to JEBOX INT/D18.3 IAH and hold, or as directed by ATC.								
Alt Set: INCHES								



Gnd speed-Kts	70	90	100	120	140	160	MALSR	580'	3000'	IAH	JEBOX
GS	3.00°	372	478	531	637	743	PAPI	↑	RT	116.6	R-130
MAP at D0.2 IUYO or HYWAY to MAP 5.8	4:58	3:52	3:29	2:54	2:29	2:10					

TERPS					STRAIGHT-IN LANDING RWY 9				
ILS			LOC (GS out)						
DA(H) 291' (200')			MDA(H) 580' (489')						
FULL			RAIL or ALS out		RAIL out		ALS out		
A					RVR 24 or 1/2		RVR 40 or 3/4		
B									
C	RVR 24 or 1/2		RVR 40 or 3/4		RVR 50 or 1		RVR 60 or 1 1/8		
D							1 3/8		

1 RVR 18 with Flight Director or Autopilot or HUD to DA.

KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

23 MAY 14

71-3A

Eff 29 May

HOUSTON, TEXAS
ILS Rwy 9 SA CAT I

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 9/27	Rwy 8L/26R	Rwy 8R/26L	Rwys 15L/33R, 15R/33L	Rwys 9/27, 8L/26R, 8R/26L	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	135.15	120.72	125.35	127.3	118.575	121.7
LOC IUYO 110.9	Final Apch Crs 087°		GS HYWAY 2000' (1909')	SA CAT I ILS RA 149' DA(H) 241' (150')		Apt Elev 96' Rwy 9 91'		
MISSED APCH: Climb to 580' then climbing RIGHT turn to 3000' outbound on IAH VOR R-130 to JEBOX INT/D18.3 IAH and hold, or as directed by ATC.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special aircrew and aircraft certification required. 2. Radar required. 3. Simultaneous approach authorized with Rwys 8L/8R. 4. VGSI and ILS glidepath not coincident.								

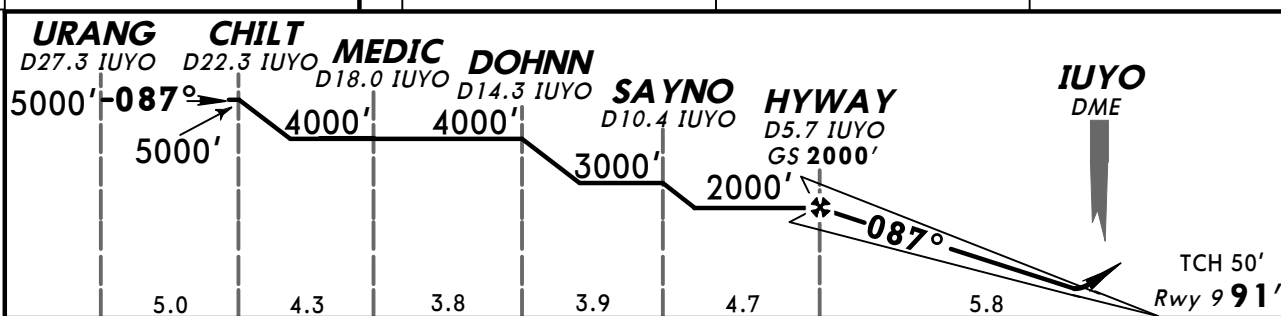
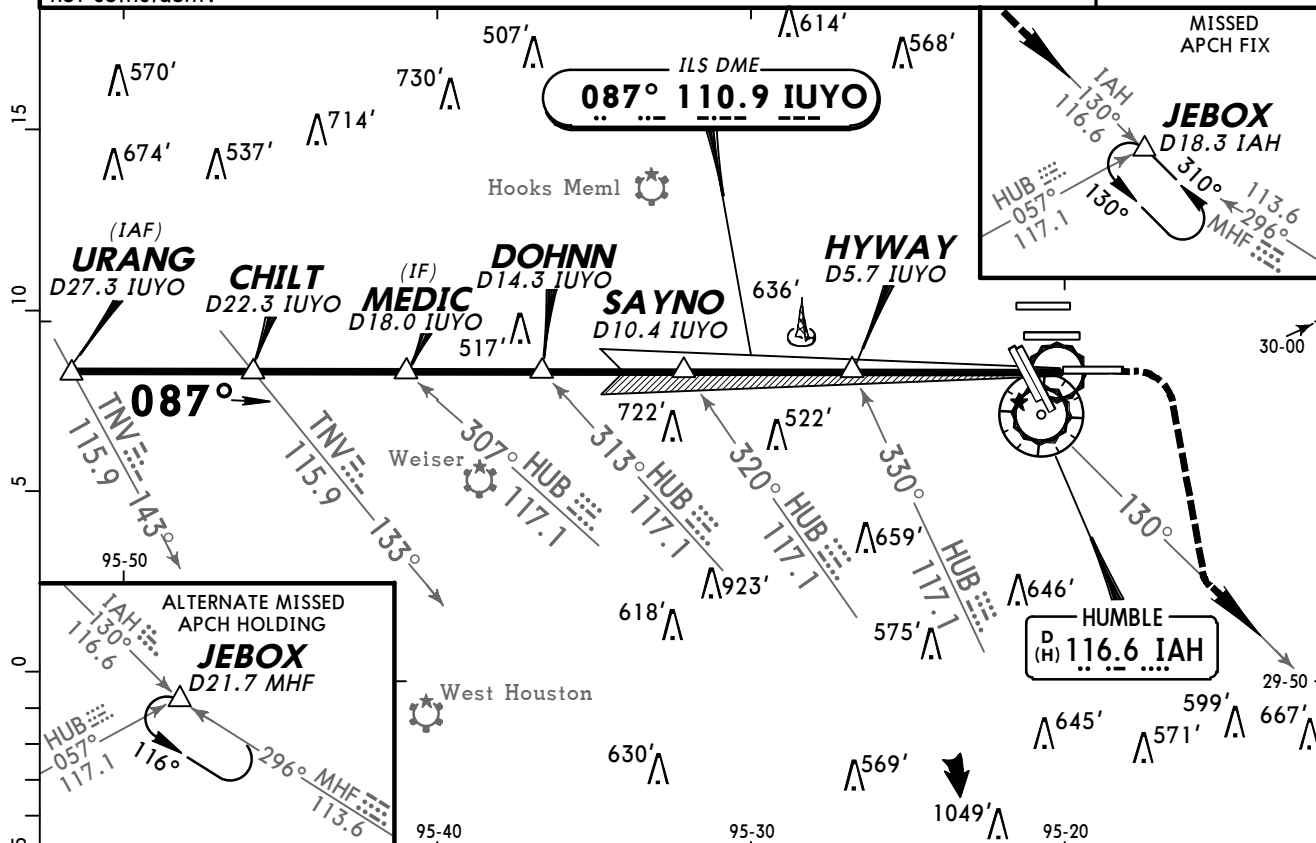
2400'

050°

195°

3100'

MSA IAH VOR



Gnd speed-Kts	70	90	100	120	140	160	MALSR	580'	3000'	IAH	JEBOX
GS	3.00°	372	478	531	637	743	PAPI	↑	RT	116.6	R-130

TERPS

STRAIGHT-IN LANDING RWY9

1 SA CAT I ILS

RA 149'

DA(H) **241'** (150')

RVR 14

1 Requires specific OPSEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

CHANGES: New procedure.

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TERPS AMEND 10 29 MAY 2014

KIAH/IAH

GEORGE BUSH

INTERCONTINENTAL/HOUSTON

23 MAY 14

71-3B

Eff 29 May

HOUSTON, TEXAS

ILS Rwy 9 SA CAT II

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 9/27	Rwy 8L/26R	Rwy 8R/26L	Rwys 15L/33R, 15R/33L	Rwys 9/27, 8L/26R, 8R/26L	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	135.15	120.72	125.35	127.3	118.575	121.7
LOC IUYO 110.9	Final Apch Crs 087°		GS HYWAY 2000' (1909')	SA CAT II ILS RA 99' DA(H) 191' (100')		Apt Elev 96' Rwy 9 91'		
MISSED APCH: Climb to 580' then climbing RIGHT turn to 3000' outbound on IAH VOR R-130 to JEBOX INT/D18.3 IAH and hold, or as directed by ATC.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special aircrew and aircraft certification required. 2. Radar required. 3. Simultaneous approach authorized with Rwys 8L & 8R. 4. VGSI and ILS glidepath not coincident.								

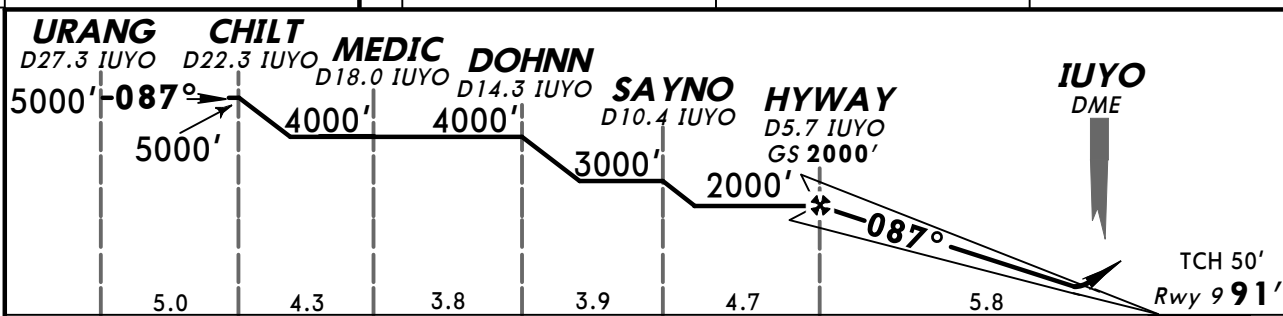
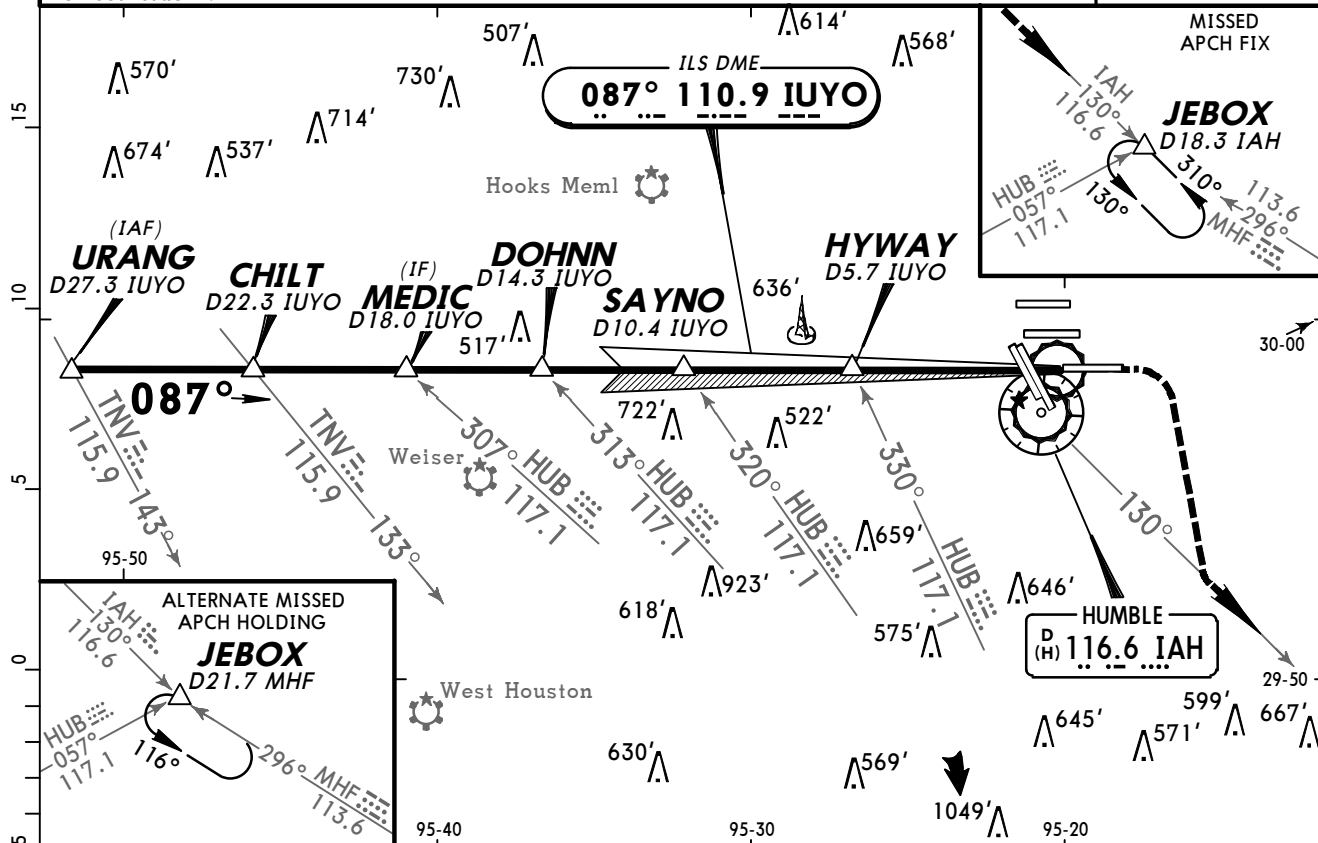
2400'

050°

195°

3100'

MSA IAH VOR



Gnd speed-Kts	70	90	100	120	140	160	MALSR	580'	3000'	IAH	JEBOX
GS	3.00°	372	478	531	637	743	PAPI	↑	RT	116.6	R-130

TERPS	STRAIGHT-IN LANDING RWY9	
	1 SA CAT II ILS	
	RA 99'	
	DA(H) 191' (100')	
	RVR 12	
1 Reduced Lighting: Requires specific OPSEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.		

TERPS AMEND 10 29 MAY 2014

CHANGES: Procedure.

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KIAH/IAH

GEORGE BUSH

INTERCONTINENTAL/HOUSTON

23 MAY 14

71-4

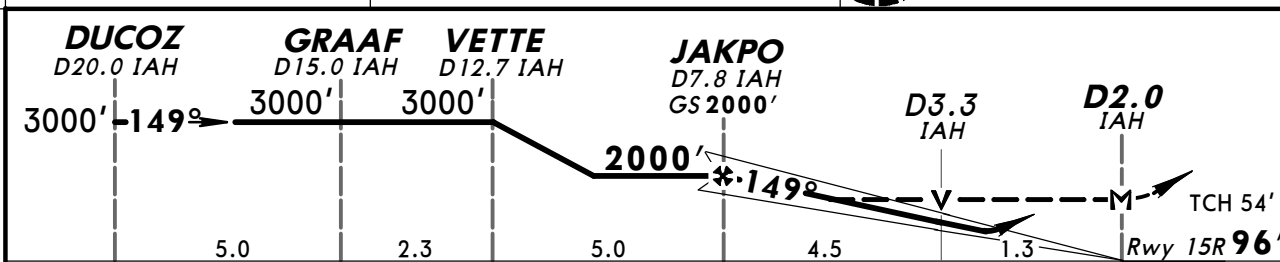
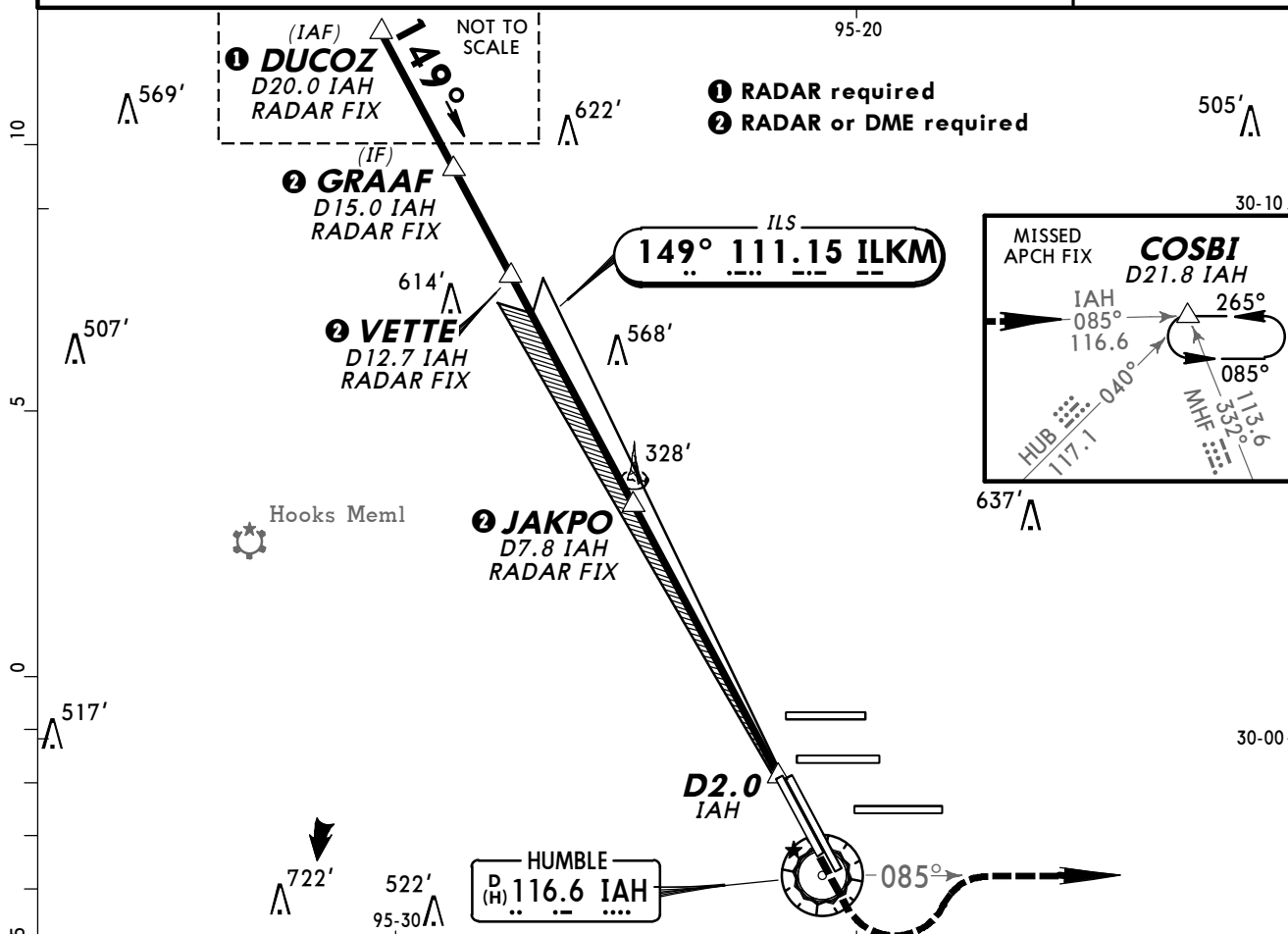
Eff 29 May

HOUSTON, TEXAS

ILS or LOC Rwy 15R

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwys 15R/33L, 15L/33R	Rwy 8L/26R	Rwy 8R/26L	Rwy 9/27	Rwys 15R/33L, 15L/33R	Rwys 8L/26R, 8R/26L, 9/27
124.05	124.35	120.05	127.3	120.72	125.35	135.15	121.7	118.575
LOC ILKM 111.15		Final Apch Crs 149°		GS JAKPO 2000' (1904')		ILS DA(H) 296' (200')		Apt Elev 96' Rwy 15R 96'
MISSED APCH: Climb to 1000' then climbing LEFT turn to 2000' outbound on IAH VOR R-085 to COSBI INT/D21.8 IAH and hold.								
Alt Set: INCHES								



Gnd speed-Kts	70	90	100	120	140	160	MALSR		1000'	2000'	IAH	COSBI
GS	3.00°	372	478	531	637	743	PAPI		↑	↩	116.6	
MAP at D2.0 IAH or JAKPO to MAP 5.8	4:58	3:52	3:29	2:54	2:29	2:10					R-085	

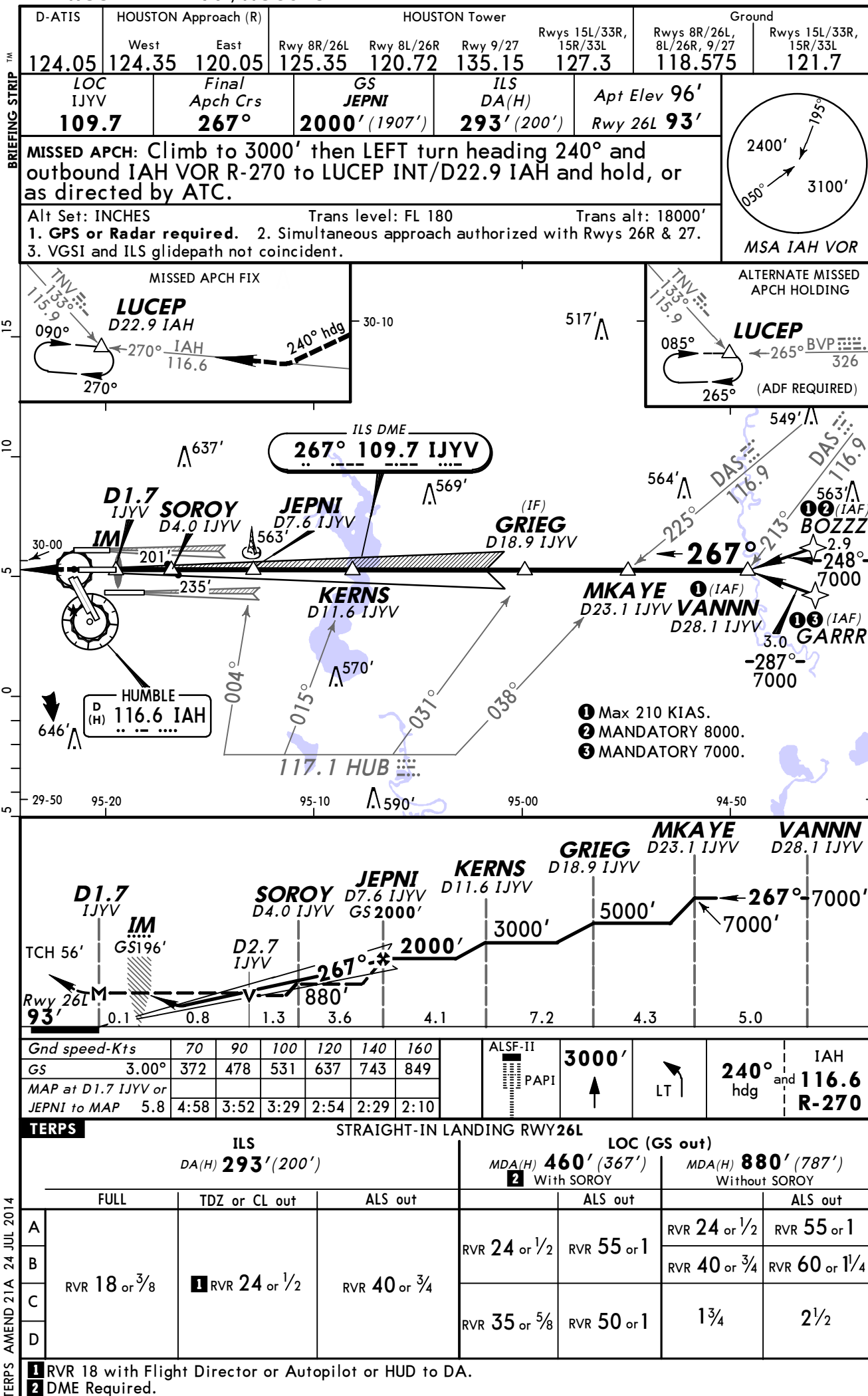
TERPS						STRAIGHT-IN LANDING RWY 15R		
ILS			LOC (GS out)					
DA(H) 296' (200')			MDA(H) 580' (484')					
FULL	TDZ or CL out	RAIL or ALS out	RAIL out	ALS out				
A			RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1			
B								
C	RVR 18 or 3/8	RVR 24 or 1/2	RVR 40 or 3/4					
D			RVR 50 or 1	RVR 60 or 1/8	1 3/8			

1 RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: Procedure modified.

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TERPS AMEND 2 29 MAY 2014



KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

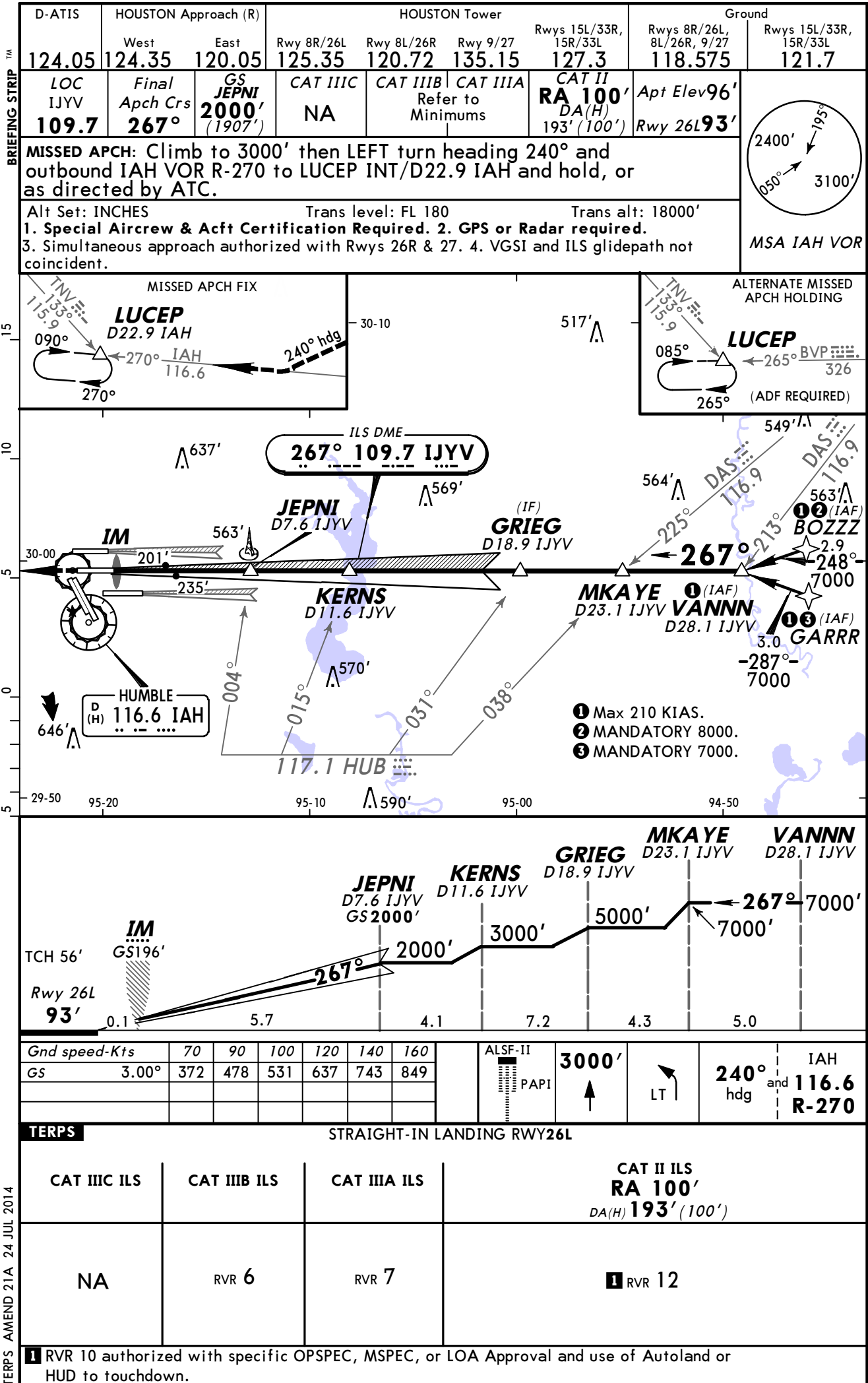
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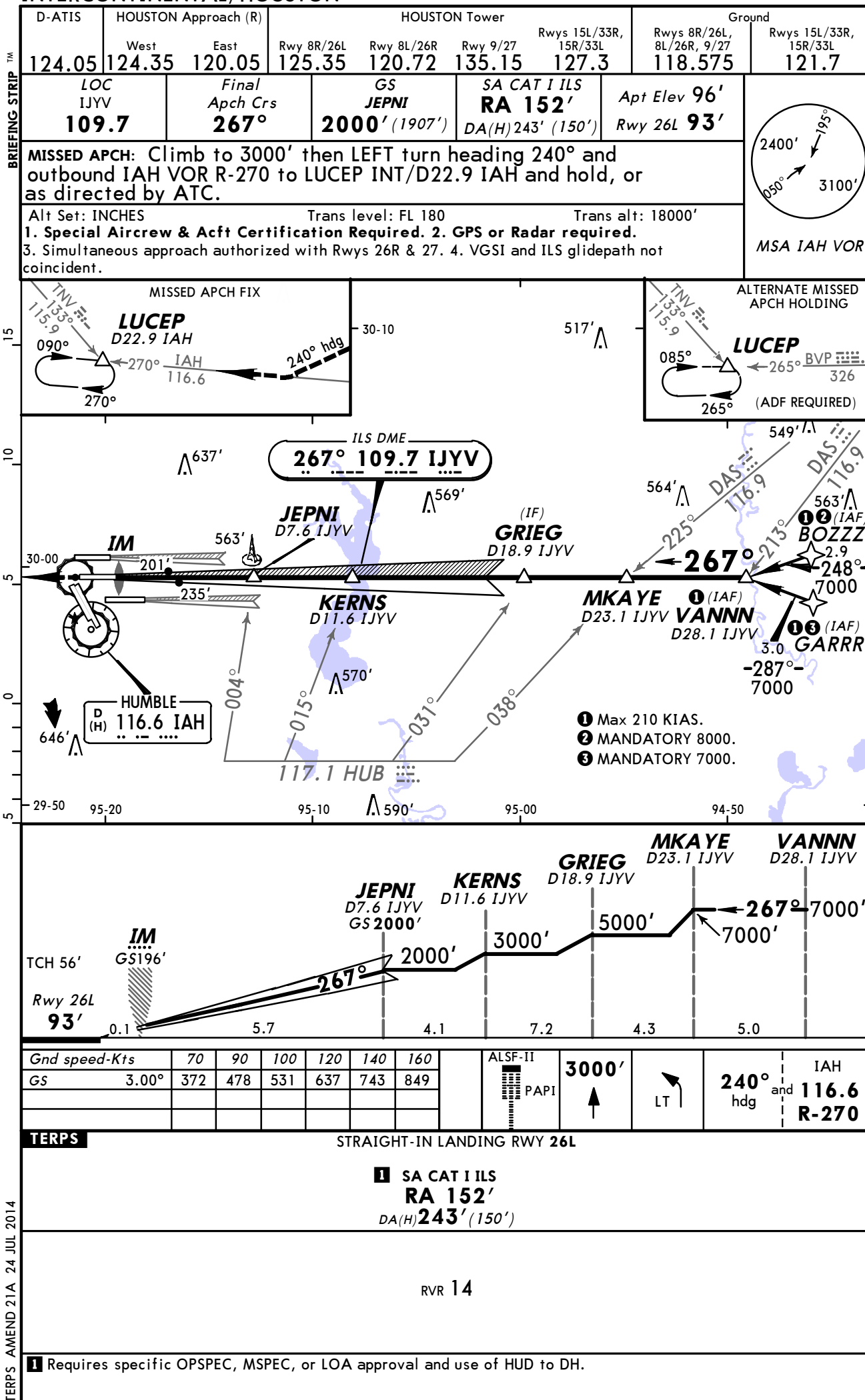
HOUSTON, TEXAS

18 JUL 14

(71-5A)

ILS Rwy 26L CAT II & III



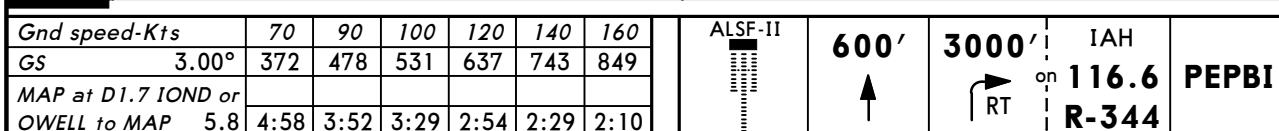
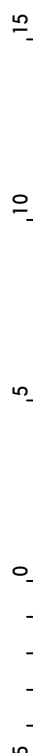


BRIEFING STRIP™

MSA IAH VOR

Trans alt: 18000'

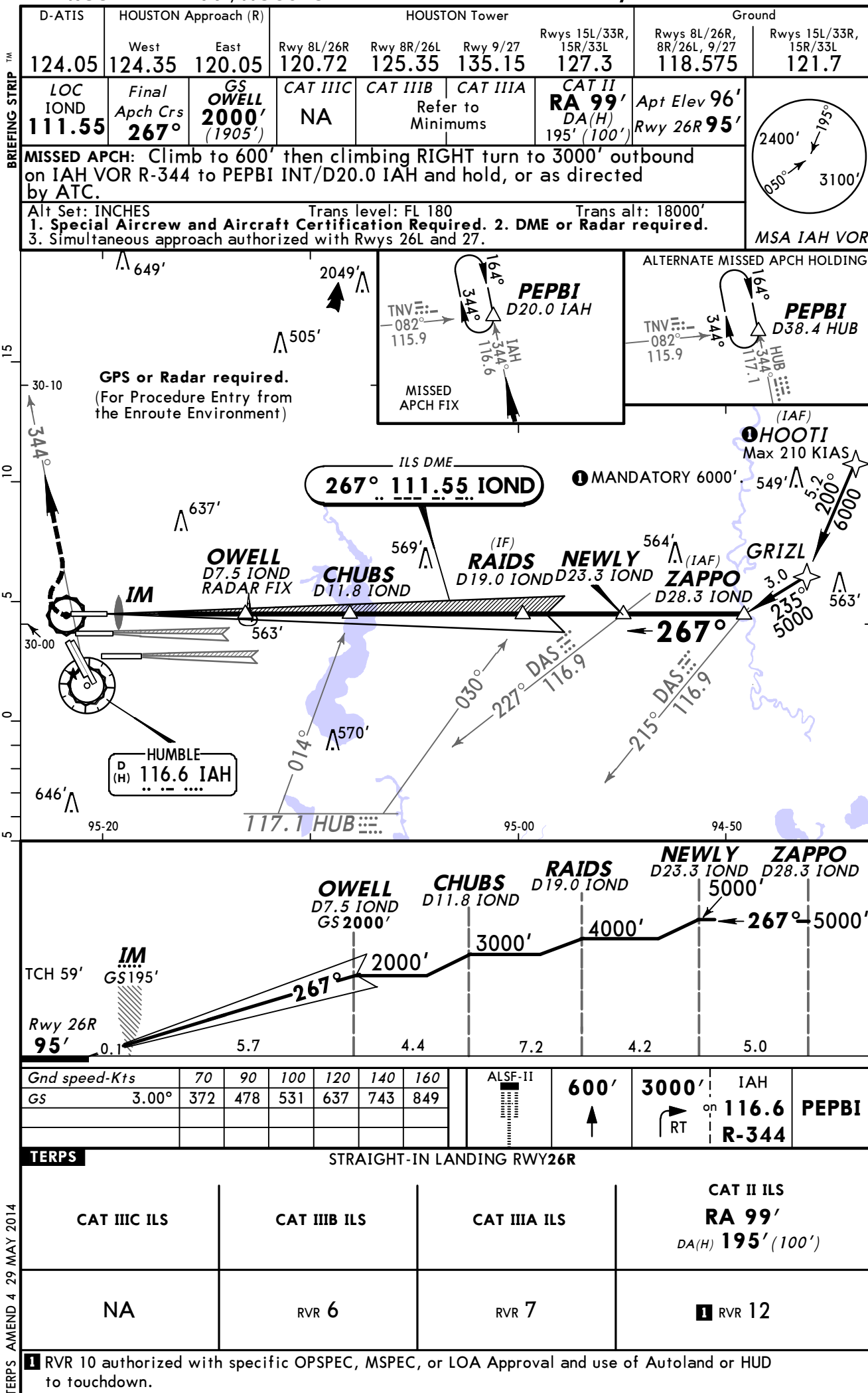
SSD APCH HOLDING



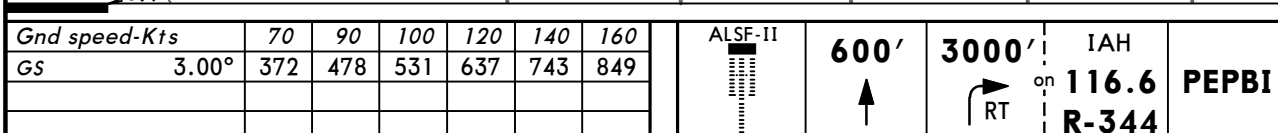
STRAIGHT-IN LANDING RWY26R

TERPS AMEND 4 29 MAY 2014

CHANGES: Procedure.



MSA IAH VOR

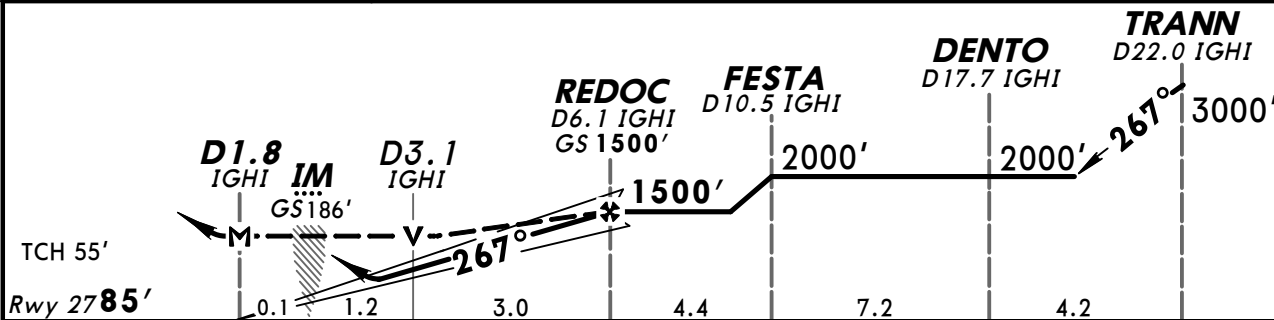
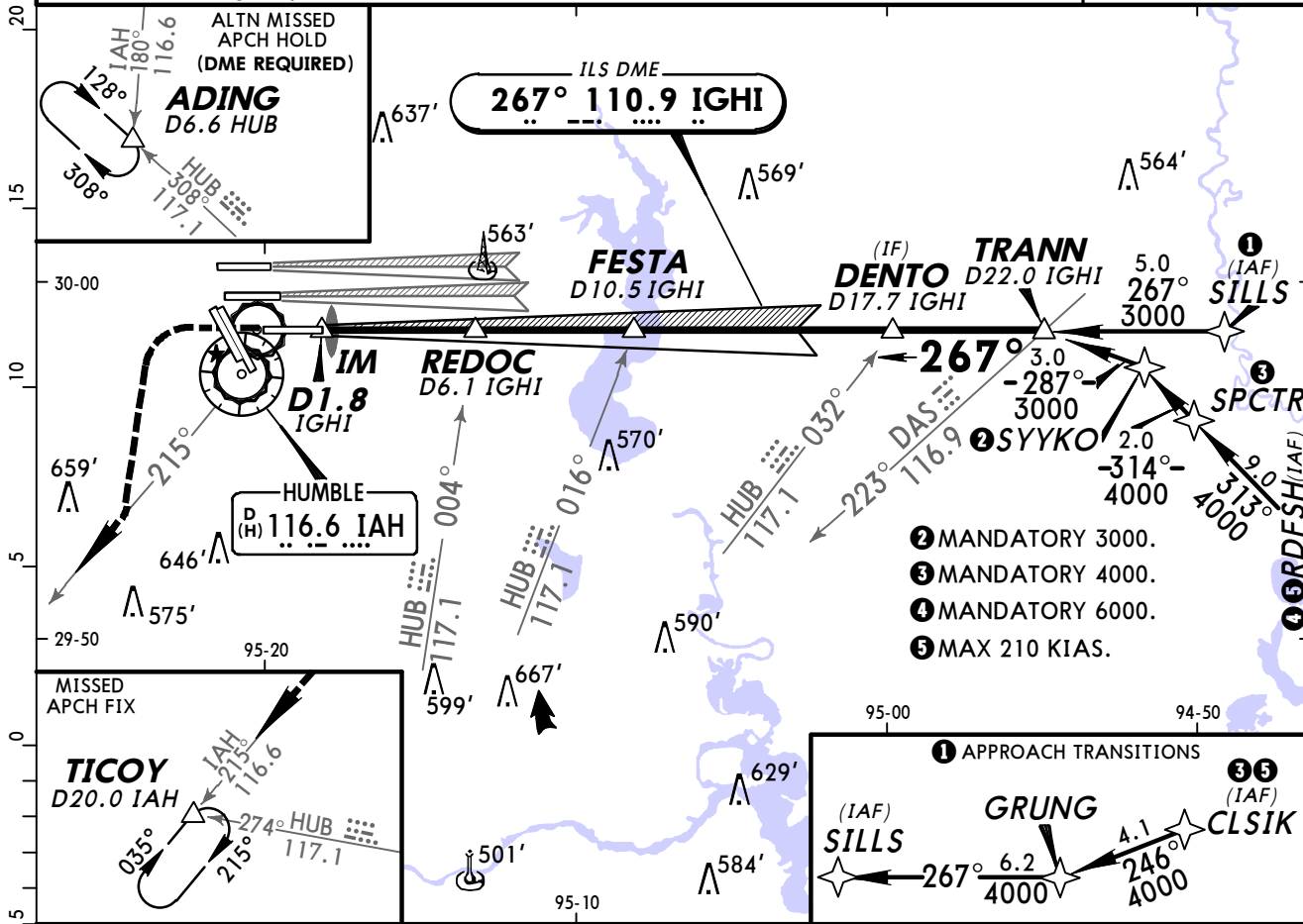


RVR 14

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BRIEFING STRIP™

D-ATIS		HOUSTON Approach (R)		HOUSTON Tower				Ground	
		West	East	Rwy 9/27	Rwy 8R/26L	Rwy 8L/26R	Rwys 15L/33R, 15R/33L	Rwys 9/27, 8L/26R, 8R/26L	Rwys 15L/33R, 15R/33L
124.05		124.35	120.05	135.15	125.35	120.72	127.3	118.575	121.7
LOC IGHI 110.9		Final Apch Crs 267°		GS REDOC 1500' (1415')		ILS DA(H) 285' (200')		Apt Elev 96' Rwy 27 85'	
MISSED APCH: Climb to 560' then climbing LEFT turn to 3000' outbound on IAH VOR R-215 to TICOY INT/D20.0 IAH and hold, or as directed by ATC.									
Alt Set: INCHES									



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	560'	3000'	IAH	TICOY
GS	3.00°	372	478	531	637	743	849	PAPI	↑	LT	on 116.6 R-215
MAP at D1.8 IGH or REDOC to MAP	4.3	3:41	2:52	2:35	2:09	1:51	1:37				

TERPS				STRAIGHT-IN LANDING RWY 27			
ILS		LOC (GS out)		FULL		ALS out	
DA(H) 285' (200')		MDA(H) 560' (475')					
A				RVR 24 or 1/2		RVR 55 or 1	
B				RVR 24 or 1/2		RVR 55 or 1	
C	RVR 18 or 3/8	1 RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1		1 3/8	
D							

1 RVR 18 with Flight Director or Autopilot or HUD to DA.

KIAH/IAH

GEORGE BUSH

INTERCONTINENTAL/HOUSTON

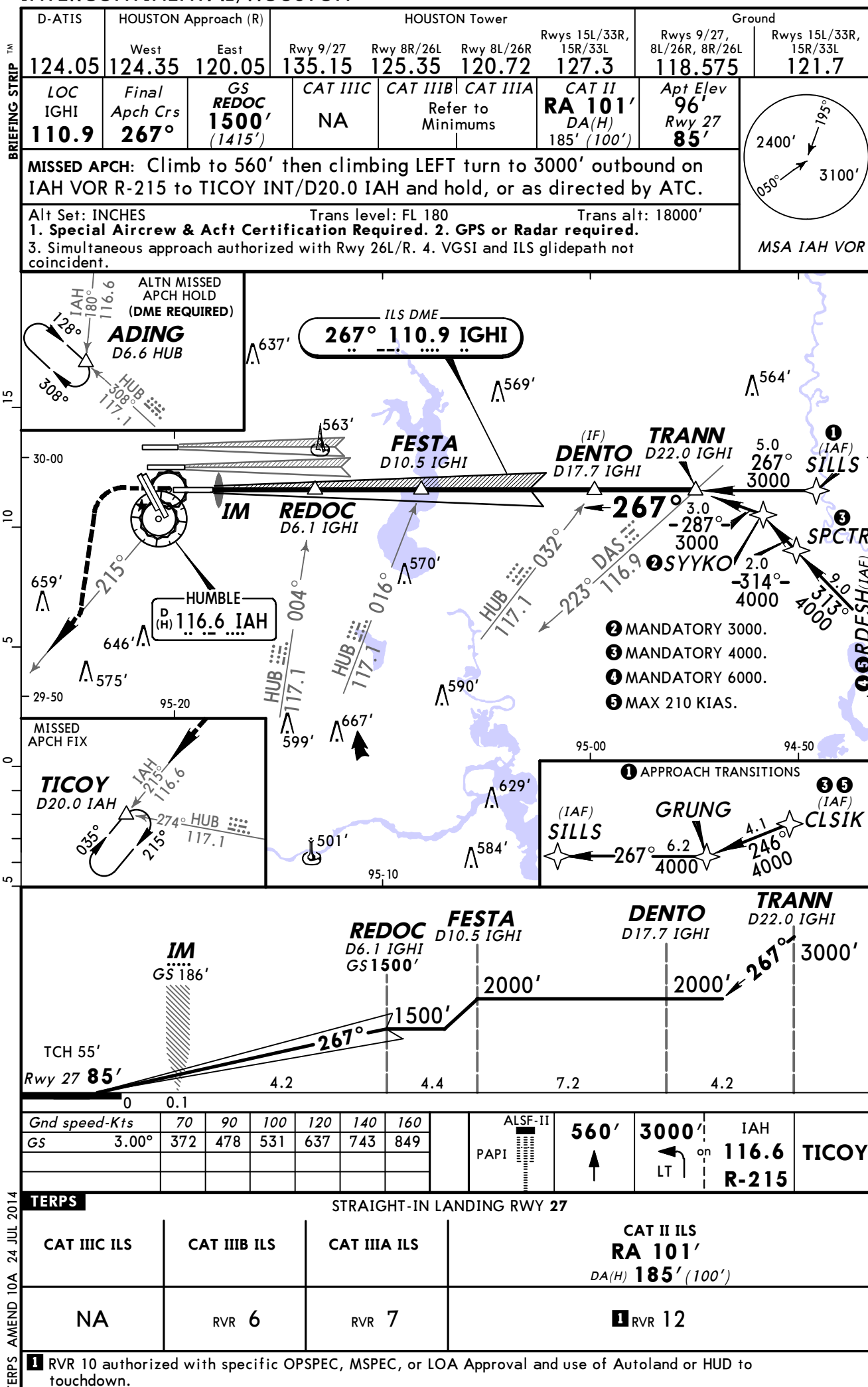
18 JUL 14

(71-7A)

JEPPesen

HOUSTON, TEXAS

ILS Rwy 27 CAT II & III



KIAH/IAH

GEORGE BUSH

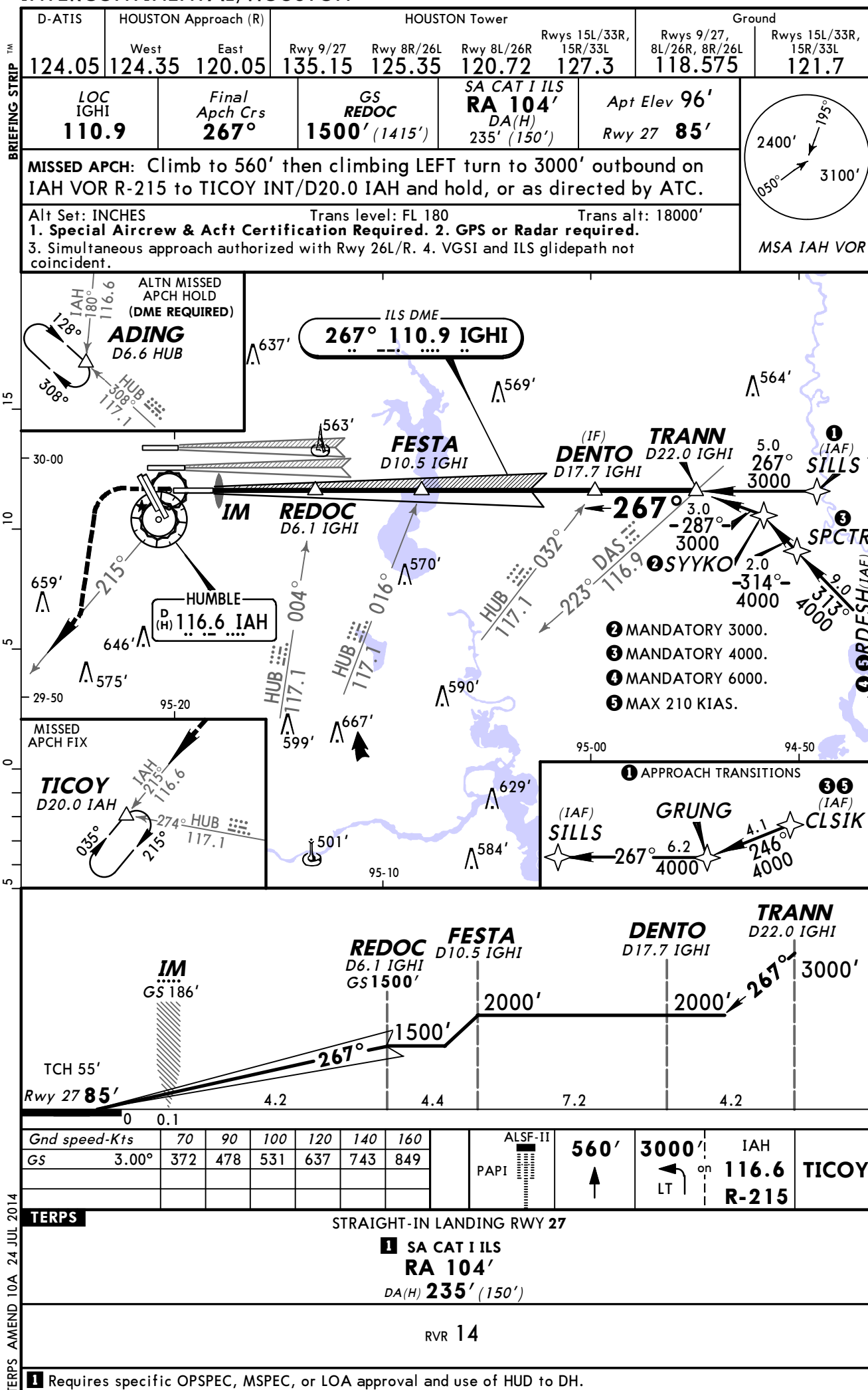
INTERCONTINENTAL/HOUSTON

18 JUL 14

(71-7B)

HOUSTON, TEXAS

ILS Rwy 27 SA CAT I



KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

23 MAY 14

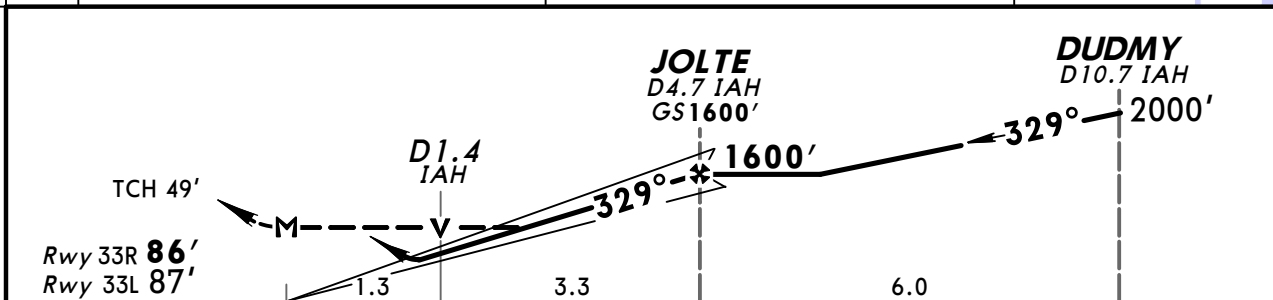
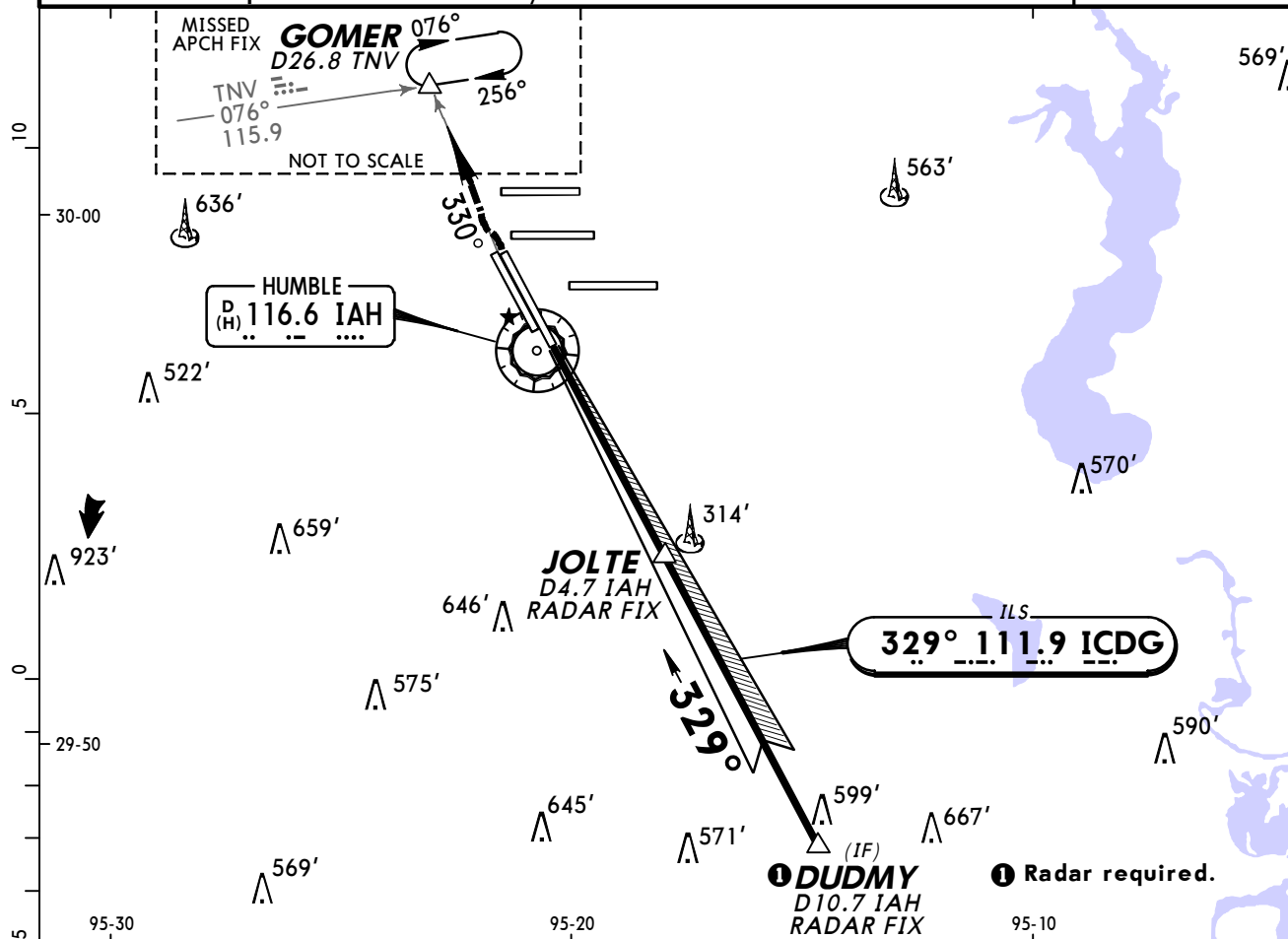
Eff 29 May

(71-8)

HOUSTON, TEXAS
ILS or LOC Rwy 33R

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwys 15L/33R, 15R/33L	Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8L/26R, 8R/26L, 9/27
124.05	124.35	120.05	127.3	125.35	120.72	135.15	121.7	118.575
LOC ICDG 111.9	Final Apch Crs 329°		GS JOLTE 1600' (1514')	ILS DA(H) 286' (200')		Apt Elev 96' Rwy 33R 86'		
MISSED APCH: Climb to 2000' outbound on IAH VOR R-330 to GOMER INT/D26.8 TNV and hold.							195° 2400' 3100' 050° MSA IAH VOR	
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME or Radar required. 2. DME from IAH VOR. Simultaneous reception of ICDG and IAH DME required. 4. PAPI-R on Rwy 33L.								



Gnd speed-Kts	70	90	100	120	140	160	MALSR	2000'	IAH	GOMER
GS	3.00°	372	478	531	637	743		↑	on 116.6	
JOLTE to MAP	4.6	3:57	3:04	2:46	2:18	1:58			R-330	

TERPS STRAIGHT-IN LANDING RWY33R						SIDESTEP LANDING RWY33L	
ILS DA(H) 286' (200')			LOC (GS out) MDA(H) 540' (454')			MDA(H) 540' (453')	
FULL	RAIL or ALS out		RAIL out	ALS out			
A			RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1	RVR 50 or 1	
B							
C	1 RVR 24 or 1/2	RVR 40 or 3/4	RVR 45 or 7/8	RVR 55 or 1	1 3/8	1 1/2	
D						2	

1 RVR 18 authorized with the use of Flight Director or Autopilot or HUD to DA.

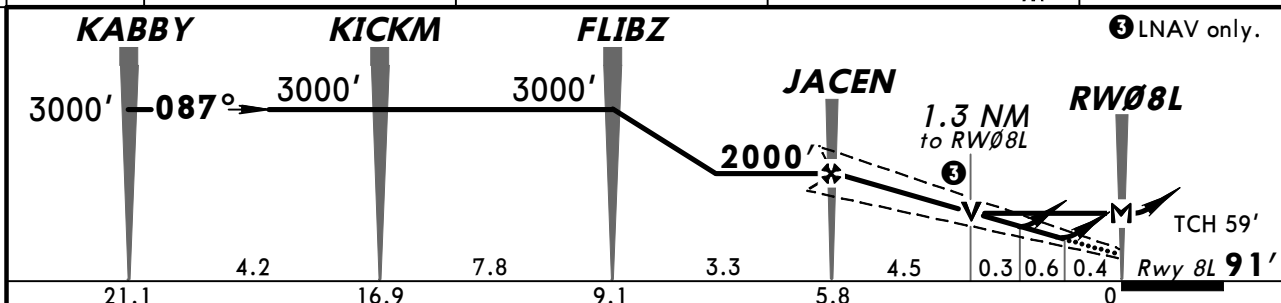
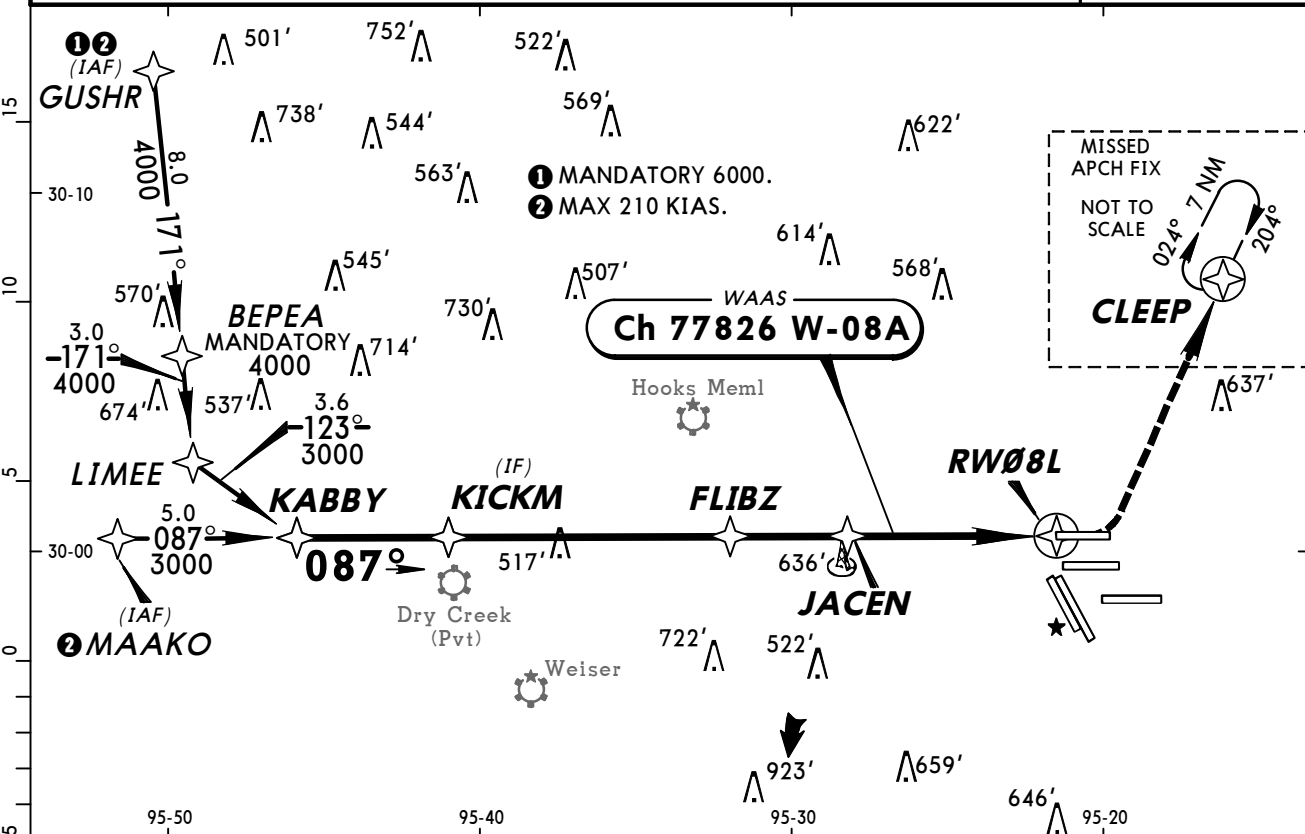
CHANGES: Procedure.

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TERPS AMEND 13 29 MAY 2014

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 8L/26R	Rwy 8R/26L	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8L/26R, 8R/26L, 9/27	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	120.72	125.35	135.15	127.3	118.575	121.7
WAAS Ch 77826 W-08A		Final Apch Crs 087°	Minimum Alt JACEN 2000' (1909')	LPV DA(H) 291' (200')		Apt Elev 96' Rwy 8L 91'		3100' MSA RW08L
MISSED APCH: Climb to 580', then climbing LEFT turn to 4000' direct CLEEP and hold.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Radar required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -3°C (27°F) or above 54°C (130°F). 3. DME/DME RNP-0.30 not authorized. 4. Simultaneous approach authorized with Rwy 8R and Rwy 9. 5. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations.								

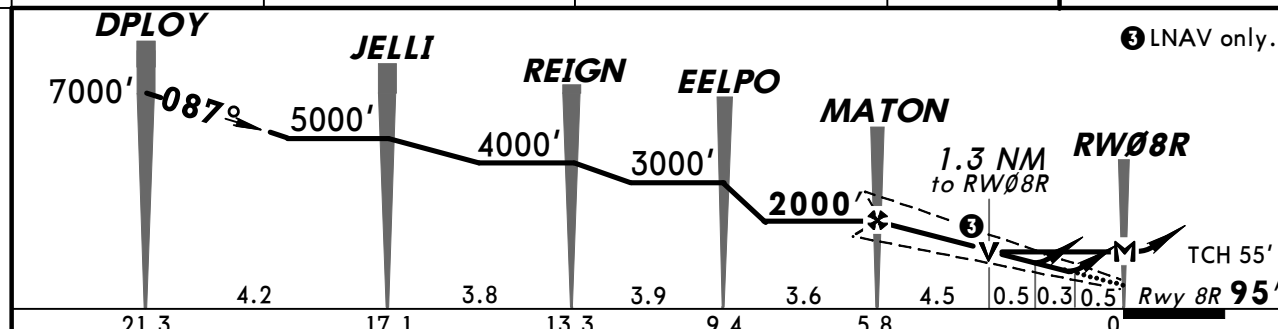
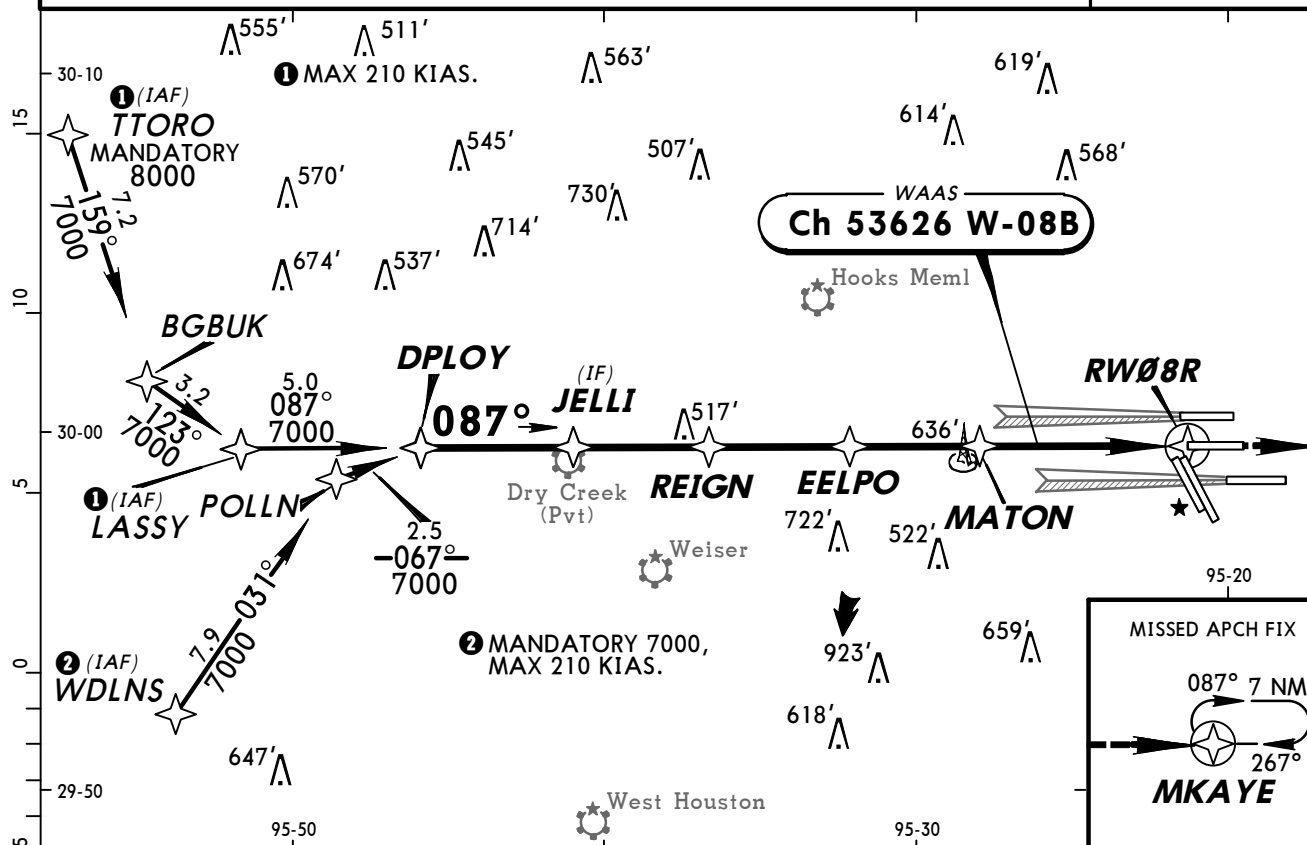


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	580'	4000'	→	CLEEP
Glide Path Angle 3.00°	372	478	531	637	743	849		↑	LT		
MAP at RW08L											

TERPS		STRAIGHT-IN LANDING RWY 8L				LNAV	
		LPV	LNAV/VNAV			LNAV	
		DA(H) 291' (200')	DA(H) 482' (391')			MDA(H) 580' (489')	
		ALS out	ALS out			ALS out	
A							
B						RVR 24 or 1/2	RVR 55 or 1
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 40 or 3/4	1 1/4		RVR 50 or 1	1 3/8
D							

1 Not authorized during simultaneous operations.

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8R/26L, 8L/26R, 9/27	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	125.35	120.72	135.15	127.3	118.575	121.7
WAAS Ch 53626 W-08B		Final Apch Crs 087°	Minimum Alt MATON 2000' (1905')		LPV DA(H) 295' (200')		Apt Elev 96' Rwy 8R 95'	
MISSED APCH: Climb to 3000' direct MKAYE and hold.								3100' <i>MSA RWØ8R</i>
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'								
1. Radar required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -3°C (27°F) or above 54°C (130°F). 3. DME/DME RNP-0.30 not authorized. 4. VGSI and RNAV glidepath not coincident. 5. Simultaneous approach authorized with Rwy 8L and Rwy 9. 6. Use of Flight Director or Autopilot providing RNAV track guidance during simultaneous operations.								



Gnd speed-Kts	70	90	100	120	140	160		MKAYE
Glide Path Angle 3.00°	372	478	531	637	743	849		
MAP at RW08R								

TERPS			STRAIGHT-IN LANDING RWY 8R			1 LNAV		
LPV			LNAV/VNAV					
DA(H) 295' (200')			DA(H) 420' (325')			MDA(H) 580' (485')		
		RAIL out	ALS out			RAIL out	ALS out	
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 32 or 5/8	RVR 40 or 3/4	RVR 60 or 1 1/8	RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1
B								
C								
D						RVR 50 or 1	RVR 60 or 1 1/8	1 3/8

1 Not authorized during simultaneous operations.

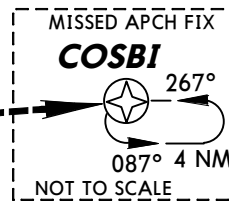
CHANGES: TTORO altitude restriction added.

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BRIEFING STRIP™

1 Not authorized during simultaneous operations.

ERPS AMEND 5 29 MAY 2014



MALSR

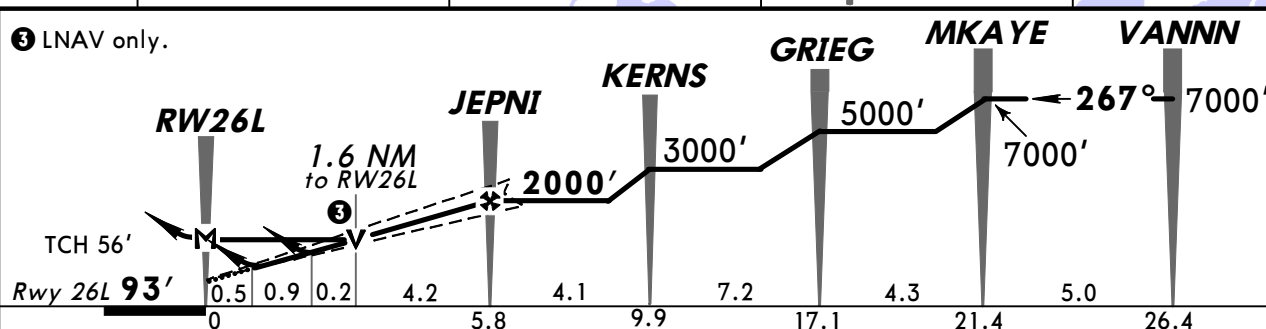
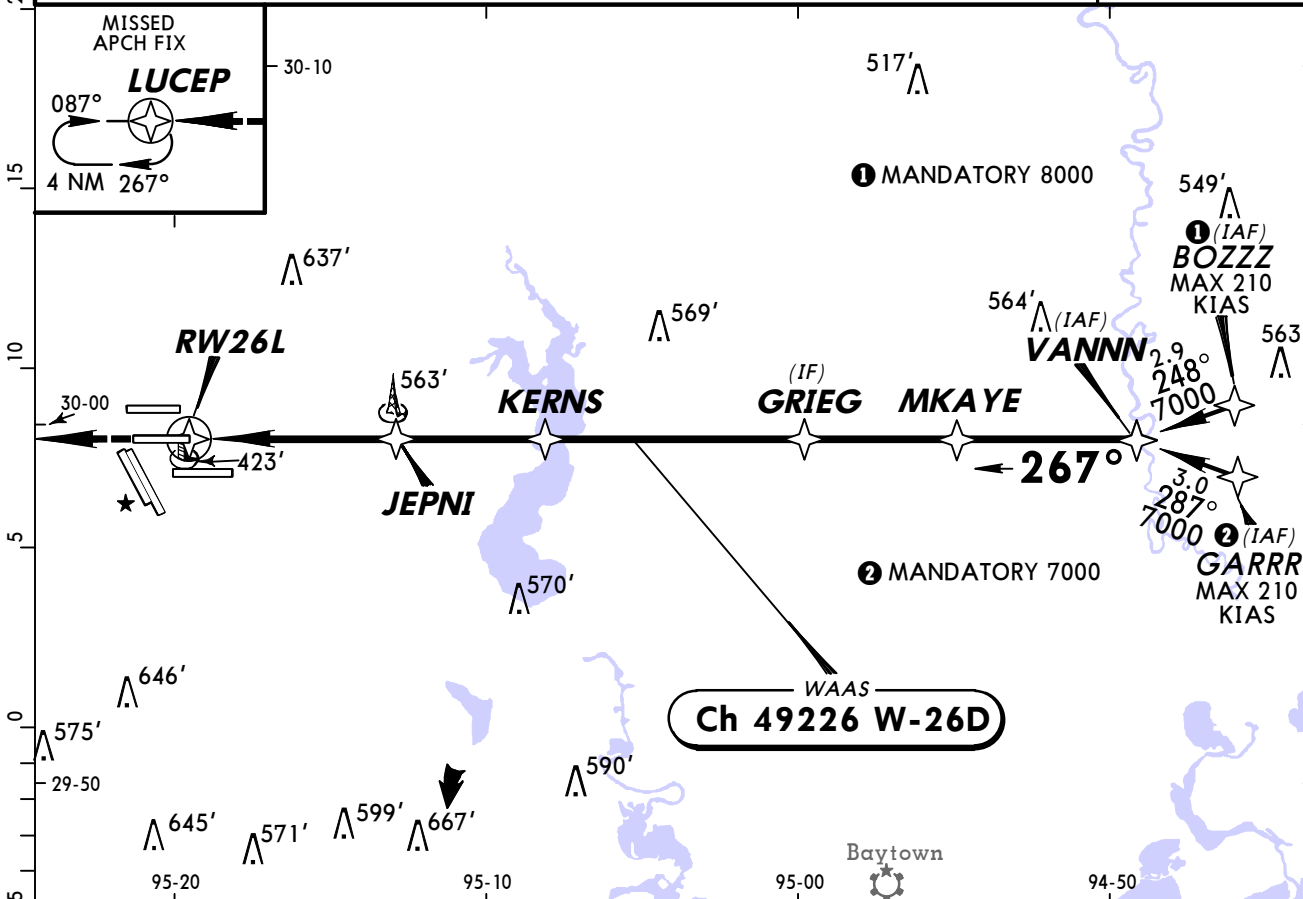
PAPI

TERPS AMEND 2 29 MAY 2014

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8R/26L, 8L/26R, 9/27	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	125.35	120.72	135.15	127.3	118.575	121.7
WAAS Ch 49226 W-26D		Final Apch Crs 267°	Minimum Alt JEPNI 2000' (1907')		LPV DA(H) 293' (200')	Apt Elev 96' Rwy 26L 93'		3100' MSA RW26L
MISSED APCH: Climb to 3000' direct LUCEP and hold.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'								
1. Radar required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -3°C (27°F) or above 54°C (130°F). 3. DME/DME RNP-0.30 not authorized. 4. VGSI and RNAV glidepath not coincident. 5. Simultaneous approach authorized with Rwy 26R and Rwy 27. 6. Use of flight director or autopilot providing RNAV track guidance required during simultaneous operations.								

20



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	→	LUCEP
Glide Path Angle	3.00°	372	478	531	637	743	PAPI	↑	→	
MAP at RW26L										

TERPS		STRAIGHT-IN LANDING RWY 26L			
LPV		LNAV/VNAV		1 LNAV	
DA(H) 293' (200')		DA(H) 584' (491')		MDA(H) 680' (587')	
ALS out		ALS out		ALS out	
A				RVR 24 or 1/2	RVR 55 or 1
B					
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 60 or 1 1/8	1 5/8	1 1/4
D					1 3/4

1 Procedure not authorized during simultaneous operations.

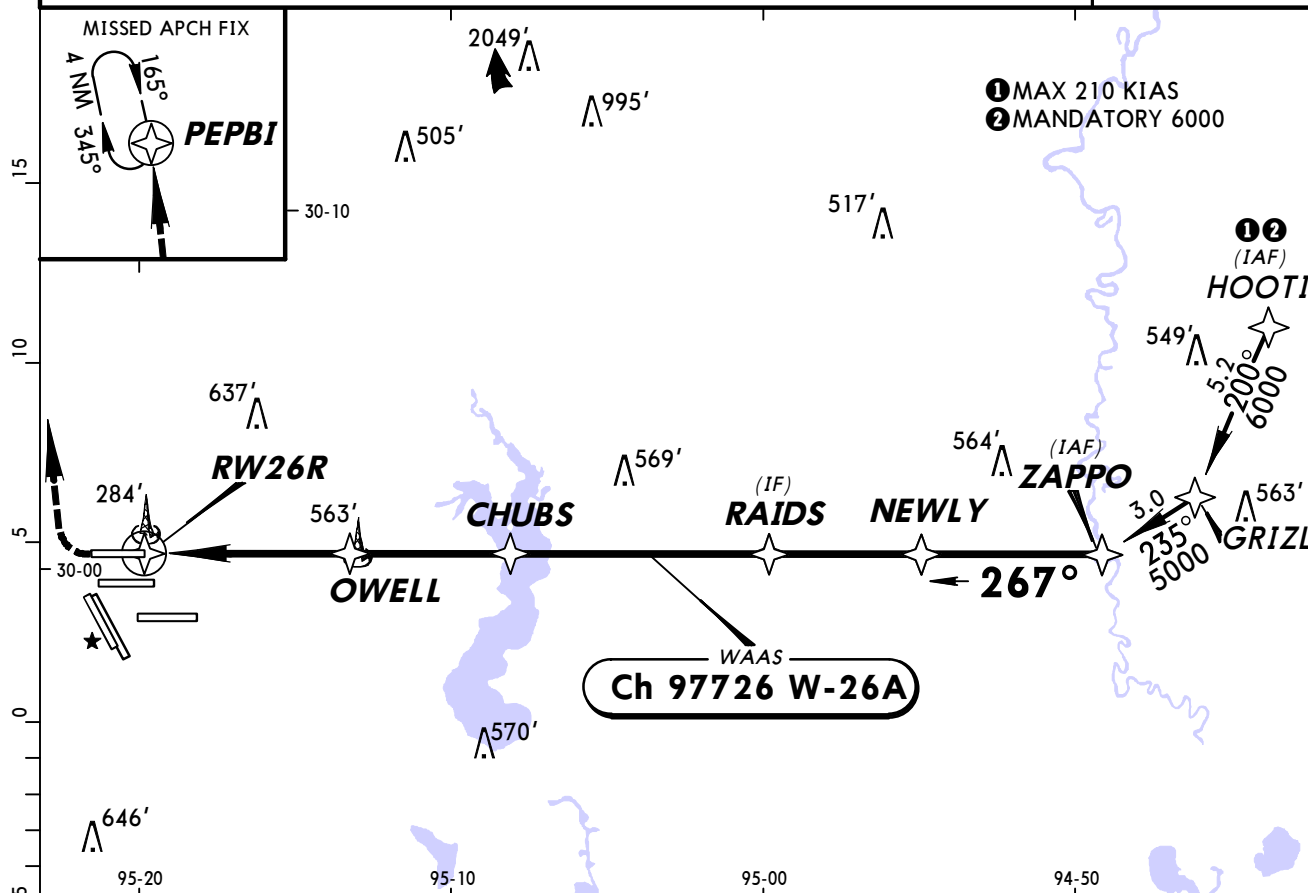
KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

HOUSTON, TEXAS

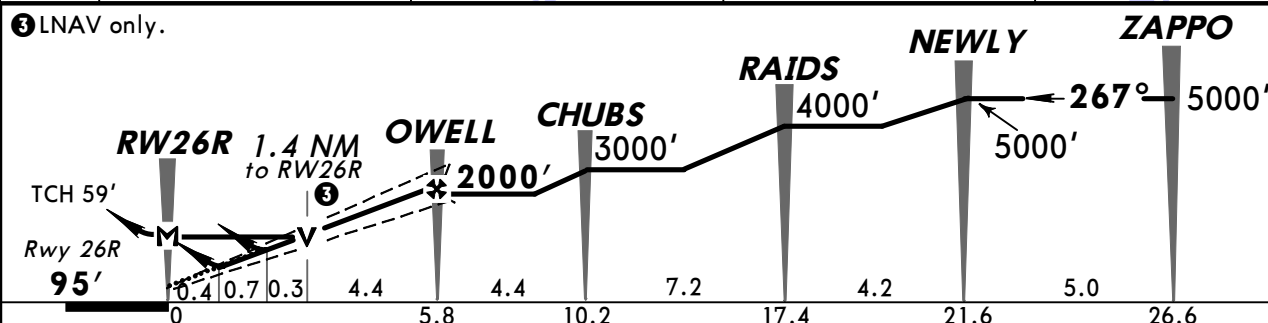
23 MAY 14 **72-6** Eff 29 May RNAV (GPS) Z Rwy 26R

BRIEFING STRIP

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 8L/26R	Rwy 8R/26L	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8L/26R, 8R/26L, 9/27	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	120.72	125.35	135.15	127.3	118.575	121.7
WAAS Ch 97726 W-26A		Final Apch Crs 267°	Minimum Alt OWELL 2000' (1905')		LPV DA(H) 295' (200')		Apt Elev 96' Rwy 26R 95'	
MISSED APCH: Climb to 600' then climbing RIGHT turn to 3000' direct PEPBI and hold.								3100'
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'								
1. Radar required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -3°C (27°F) or above 54°C (130°F). 3. DME/DME RNP-0.30 not authorized. 4. Simultaneous approach authorized with Rwy 26L and Rwy 27. 5. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations.								
								MSA RW26R



③ LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	600'	3000'	PEPBI
Glide Path Angle	3.00°	372	478	531	637	743	849			
MAP at RW26R										

TERPS					
LPV			STRAIGHT-IN LANDING RWY 26R		① LNAV
DA(H) 295' (200')			LNAV/VNAV DA(H) 495' (400')		MDA(H) 600' (505')
ALS out			ALS out		ALS out
A					
B	RVR 24 or 1/2	RVR 40 or 3/4	RVR 42 or 3/4	1 1/4	RVR 24 or 1/2
C					RVR 55 or 1
D					1 3/8

① Procedure not authorized during simultaneous operations.

CHANGES: Procedure.

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TERPS AMEND 4 29 MAY 2014

BRIEFING STRIP TM

MAP at RW27

TERPS

CHANGES: SPCTR and SYYKO altitude restrictions added.

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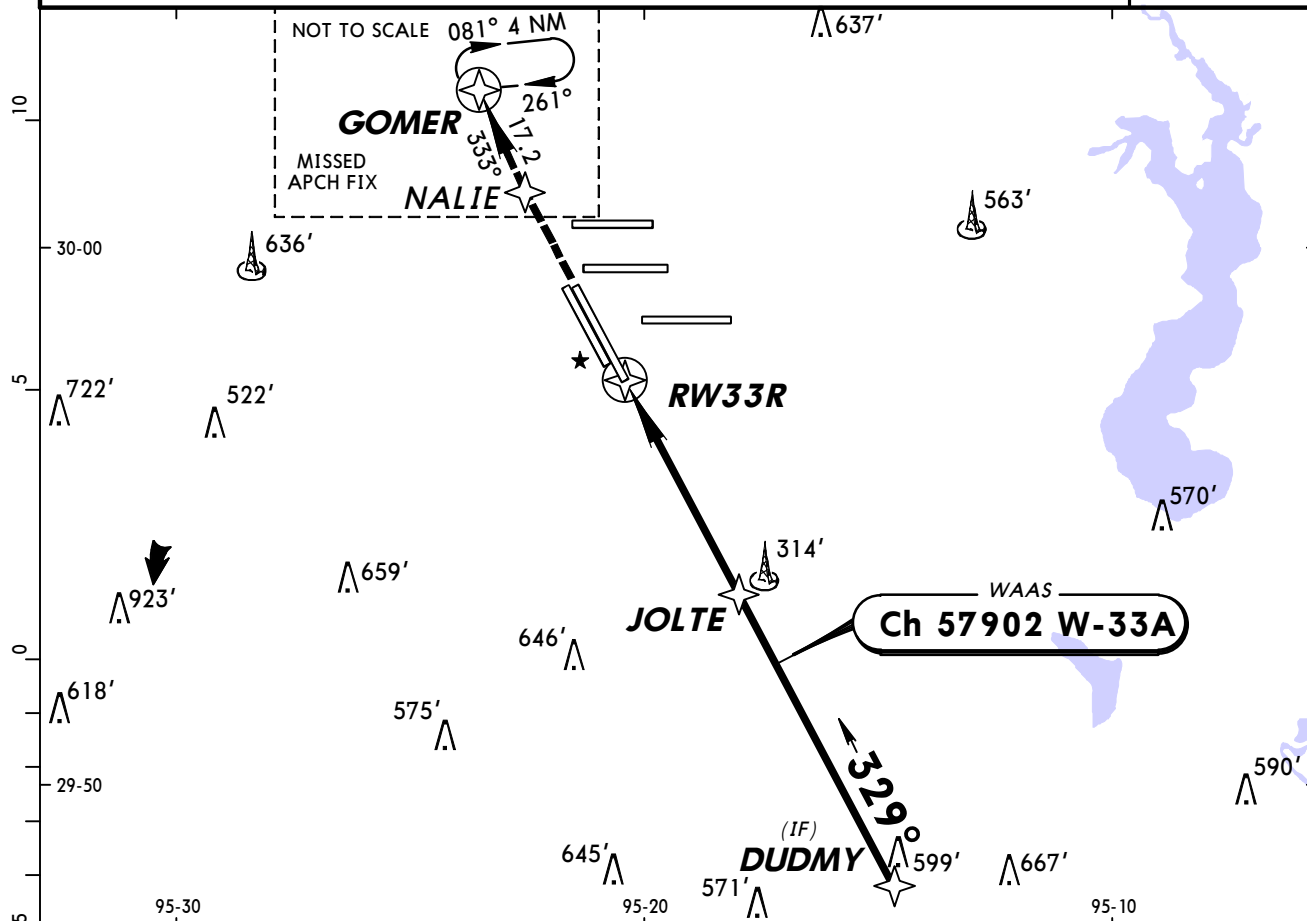
KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

18 JUL 14 (72-8)

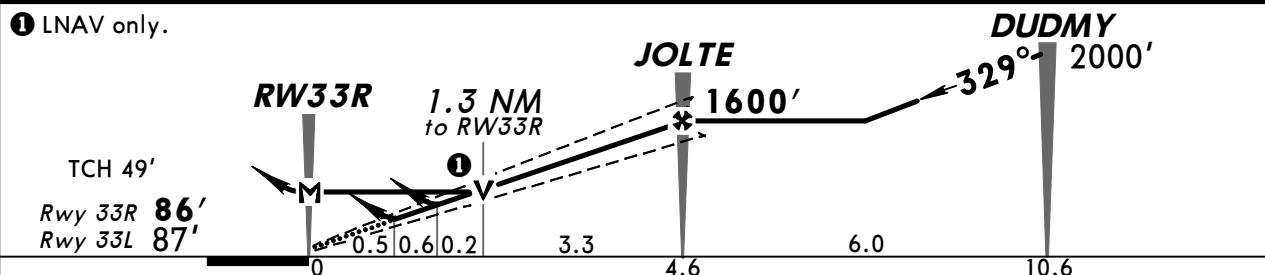
HOUSTON, TEXAS
RNAV (GPS) Rwy 33R

BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)			HOUSTON Tower				Ground	
	West	East	Rwys 15L/33R, 15R/33L	Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8L/26R, 8R/26L, 9/27	
124.05	124.35	120.05	127.3	125.35	120.72	135.15	121.7	118.575	
WAAS Ch 57902 W-33A		Final Apch Crs 329°	Minimum Alt JOLTE 1600' (1514')	LPV DA(H) 286' (200')	Apt Elev 96' Rwy 33R 86'		3100' MSA RW33R		
MISSED APCH: Climb to 2000' direct NALIE and on track 333° to GOMER and hold.									
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Radar required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -3°C (27°F) or above 54°C (130°F). 3. DME/DME RNP-0.30 not authorized. 4. PAPI-R on Rwy 33L.									



① LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	MALSR 	2000' 		NALIE
Glide Path Angle	3.00°	372	478	531	637	743				
MAP at RW33R										

TERPS								SIDESTEP LANDING RWY 33L	
STRAIGHT-IN LANDING RWY 33R				LNAV				MDA(H)	
LPV		LNAV/VNAV		LNAV		LNAV		540' (453')	
DA(H) 286' (200')		DA(H) 487' (401')		MDA(H) 540' (454')		MDA(H) 540' (454')			
RAIL or ALS out		RAIL out		ALS out		RAIL out		ALS out	
A						RVR 24	RVR 40	RVR 55	1
B						or 1/2	or 3/4	or 1	
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 45 or 7/8	RVR 50 or 1	1 1/4	RVR 45 or 7/8	RVR 55 or 1	1 3/8	1 1/2
D									2

CHANGES: None.

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TERPS AMEND 2 29 MAY 2014

KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

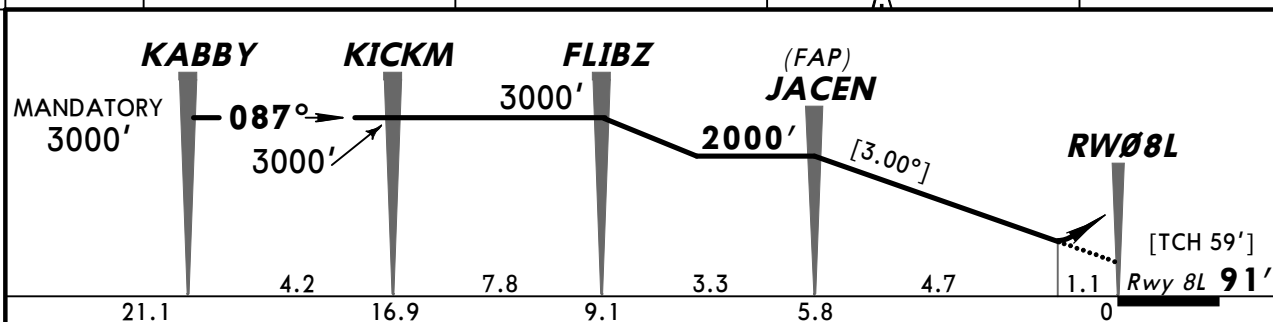
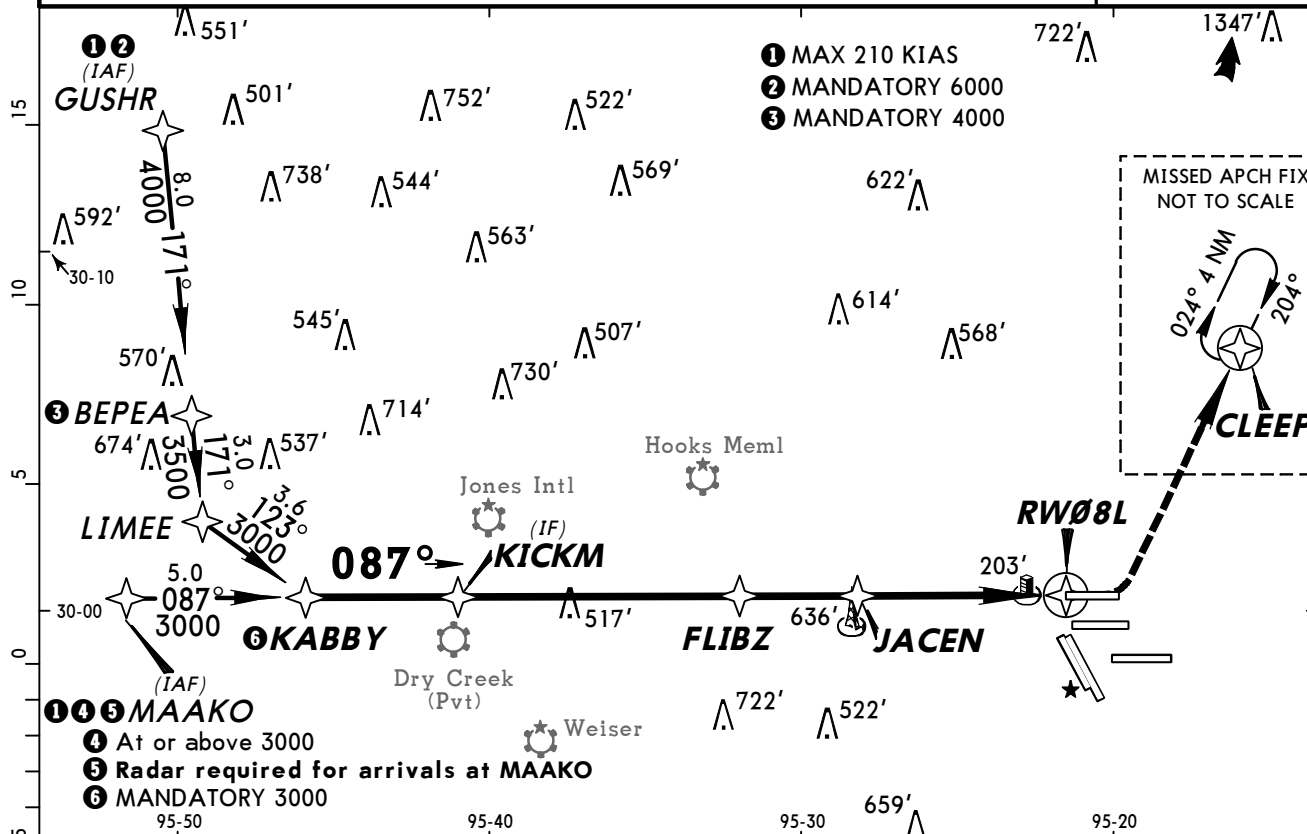
JEPPesen

HOUSTON, TEXAS

23 MAY 14 **72-20** Eff 29 May RNAV (RNP) Y Rwy 8L

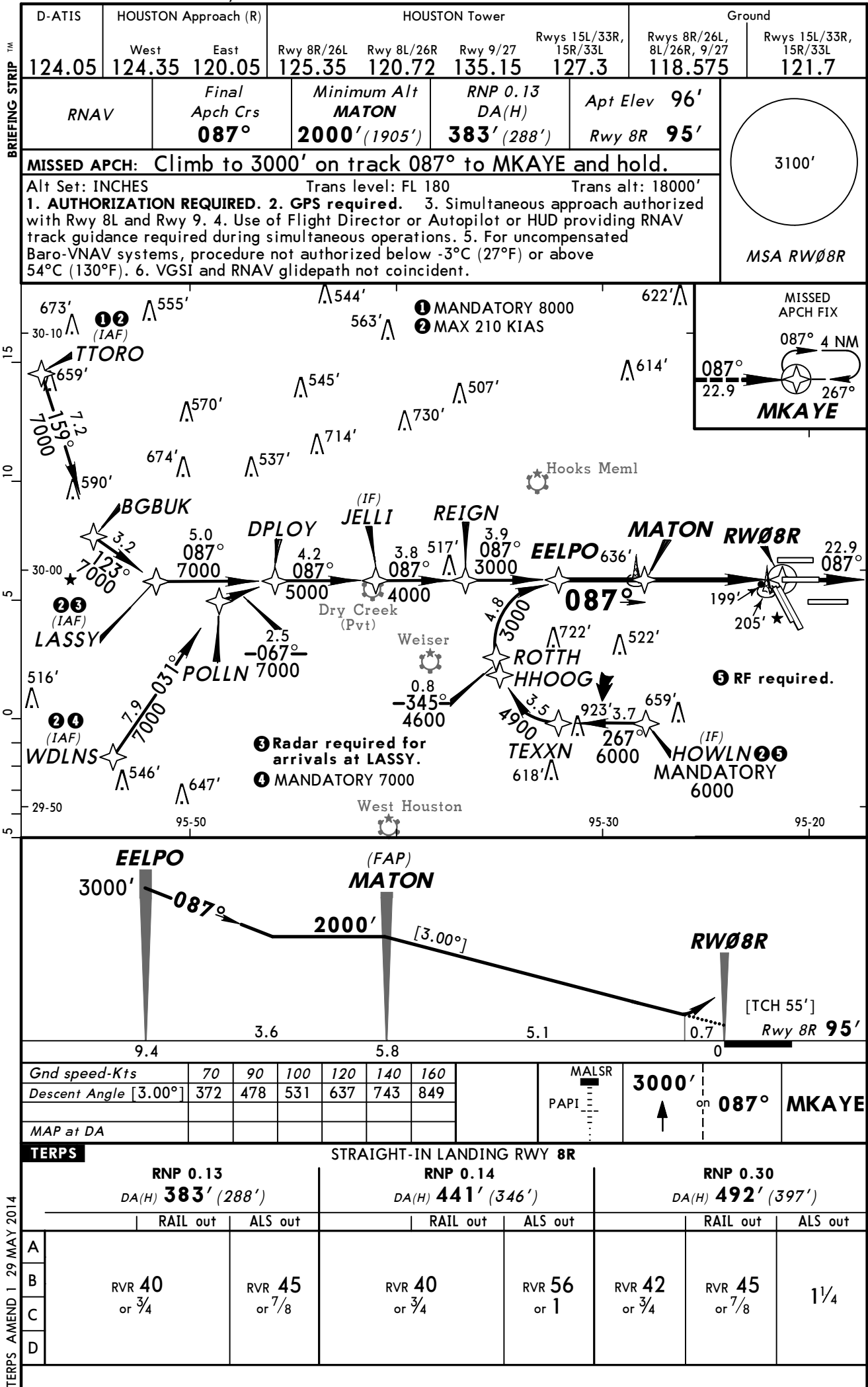
BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 8L/26R	Rwy 8R/26L	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 8L/26R, 8R/26L, 9/27	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	120.72	125.35	135.15	127.3	118.575	121.7
RNAV	Final Apch Crs 087°		Minimum Alt JACEN 2000' (1909')		RNP 0.30 DA(H) 506' (415')		Apt Elev 96' Rwy 8L 91'	
MISSED APCH: Climb to 580' then climbing LEFT turn to 4000' direct CLEEP and hold.								3100' MSA RW08L
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. AUTHORIZATION REQUIRED. 2. GPS required. 3. Simultaneous approach authorized with Rwy 8R and Rwy 9. 4. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 5. For uncompensated Baro-VNAV systems, procedure not authorized below -3°C (27°F) or above 54°C (130°F).								



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	580'	4000'	LT	CLEP
Descent Angle [3.00°]	372	478	531	637	743	849					
MAP at DA											

TERPS		STRAIGHT-IN LANDING RWY 8L	
		RNP 0.30	
		DA(H) 506' (415')	
		ALS out	
A	RVR 45 or 7/8	13/8	
B			
C			
D			



KIAH/IAH

GEORGE BUSH

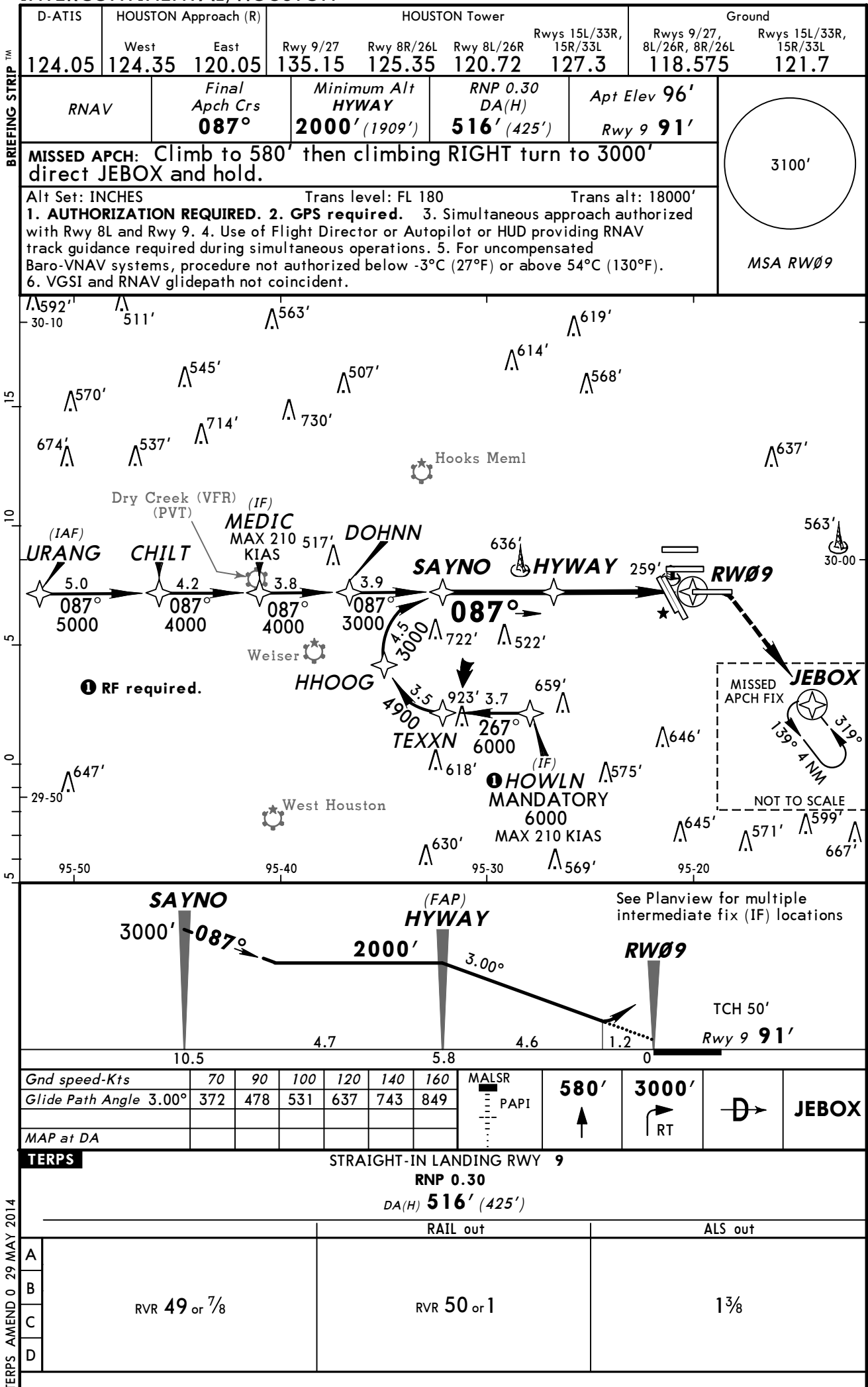
INTERCONTINENTAL/HOUSTON

12 SEP 14

72-22

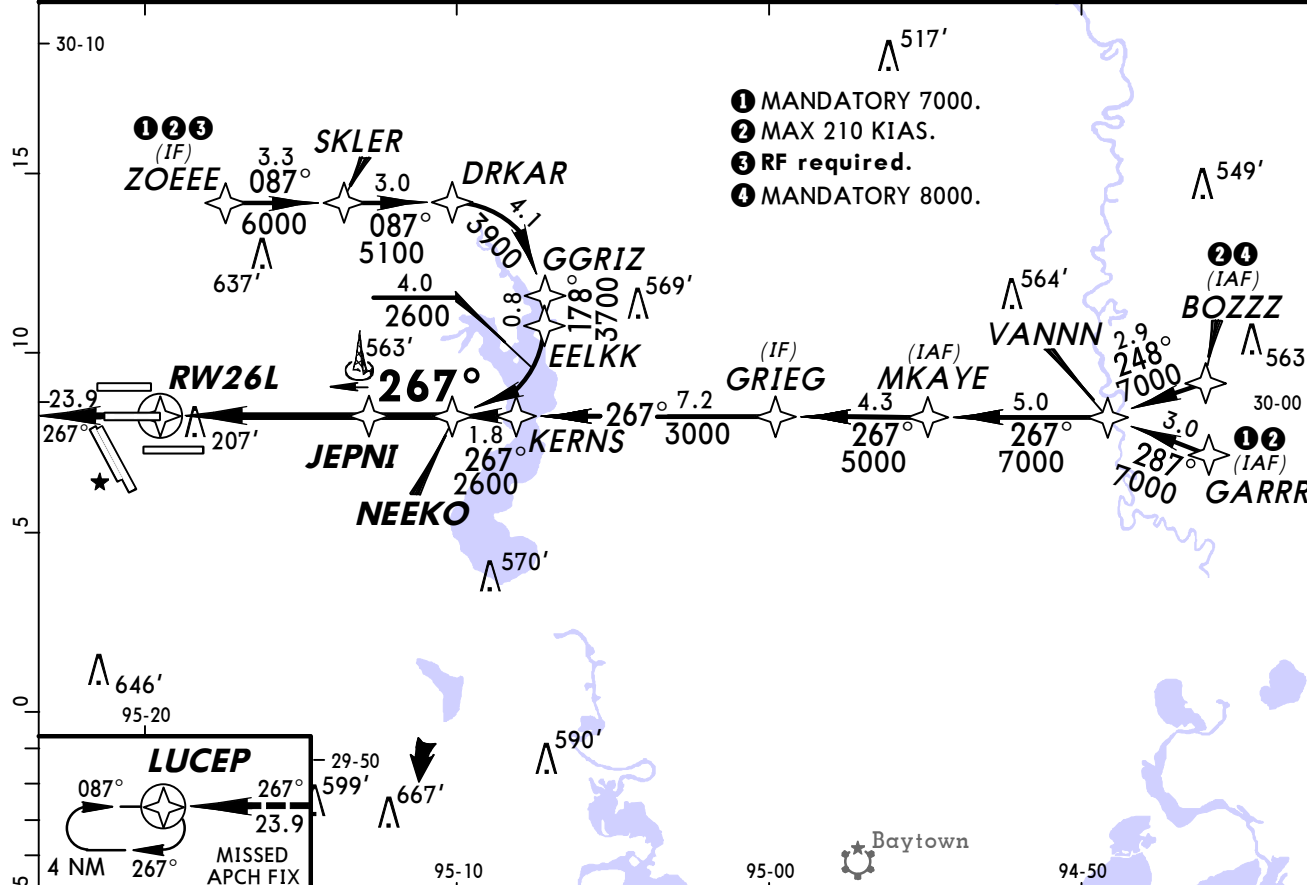
Eff 18 Sep

HOUSTON, TEXAS
RNAV (RNP) Y Rwy 9

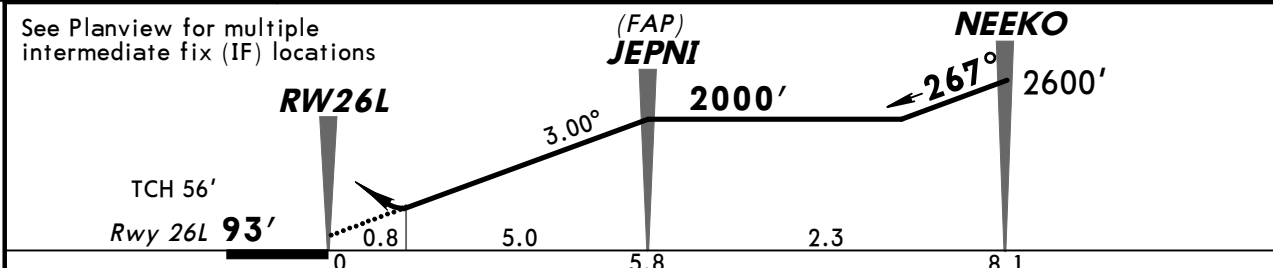


BRIEFING STRIP™

D-ATIS		HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 9/27, 8L/26R, 8R/26L	Rwys 15L/33R, 15R/33L	
124.05	124.35	120.05	125.35	120.72	135.15	127.3	118.575	121.7	
RNAV		Final Apch Crs 267°		Minimum Alt JEPNI 2000' (1907')		RNP 0.13 DA(H) 412' (319')		Apt Elev 96' Rwy 26L 93'	
MISSED APCH: Climb to 3000' on track 267° to LUCEP and hold.								3100'	
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. AUTHORIZATION REQUIRED. 2. GPS required 3. Radar required. 4. Simultaneous approach authorized with Rwy 26R and Rwy 27, except for arrivals at ZOEEE. 5. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 6. For uncompensated Baro-VNAV systems, procedure not authorized below -3°C (27°F) or above 54°C (130°F). 7. VGSI and RNAV glidepath not coincident.									
								MSA RW26L	



See Planview for multiple intermediate fix (IF) locations



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	267°	LUCEP
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI			
MAP at DA										

TERPS

STRAIGHT-IN LANDING RWY 26L

RNP 0.13		RNP 0.30	
DA(H) 412' (319')		DA(H) 547' (454')	
ALS out		ALS out	
A			
B			
C	RVR 40 or 3/4	RVR 51 or 1	RVR 53 or 1
D			1 1/2

KIAH/IAH GEORGE BUSH INTERCONTINENTAL/HOUSTON

HOUSTON, TEXAS RNAV (RNP) Y Rwy 26R

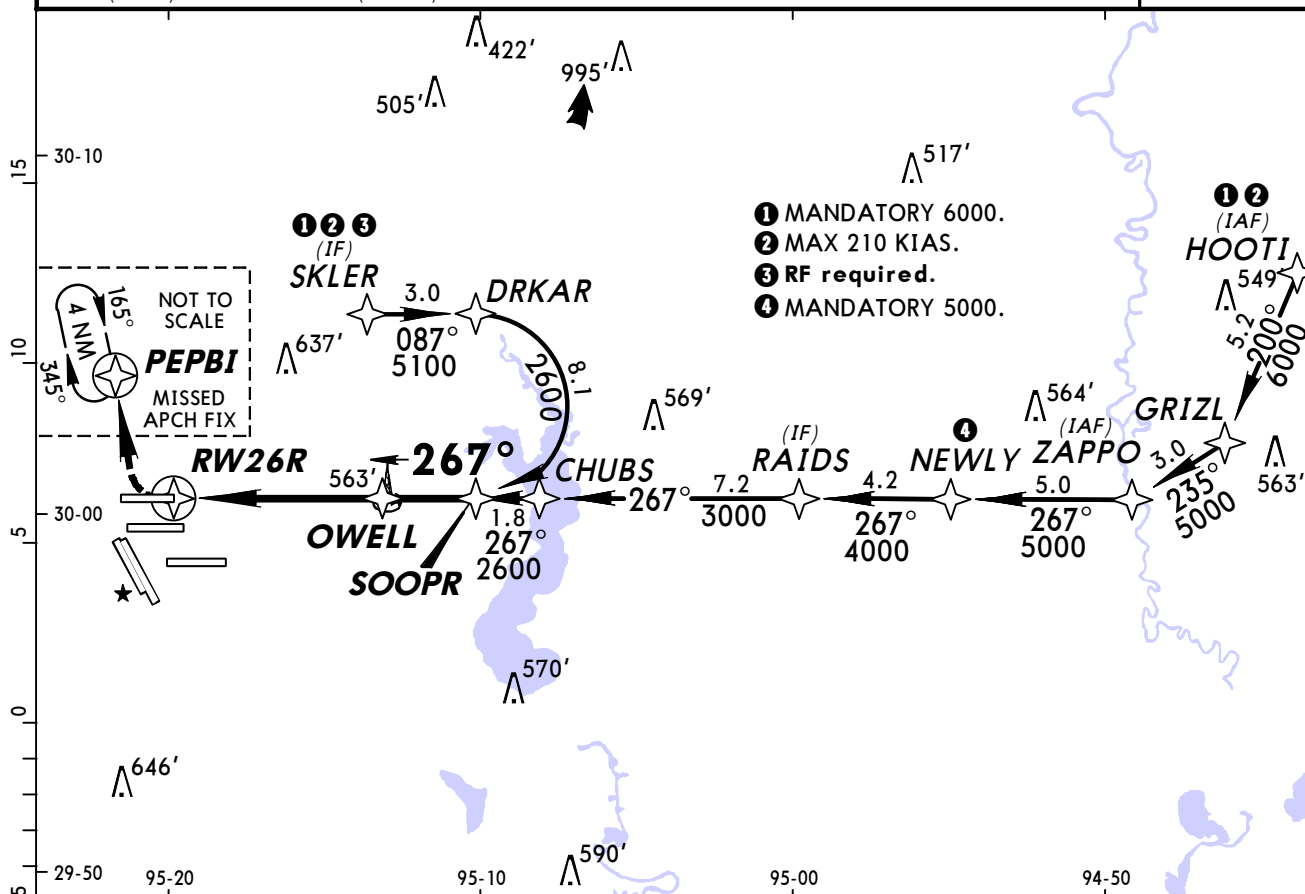
12 SEP 14
Eff 18 Sep 72-24

BRIEFING STRIP™

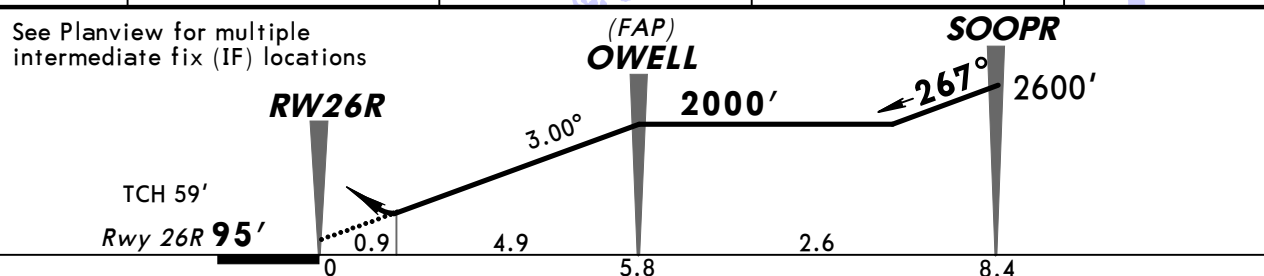
D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 8R/26L	Rwy 8L/26R	Rwy 9/27	Rwys 15L/33R, 15R/33L	Rwys 9/27, 8L/26R, 8R/26L	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	125.35	120.72	135.15	127.3	118.575	121.7
RNAV		Final Apch Crs 267°		Minimum Alt OWELL 2000' (1905')		RNP 0.11 DA(H) 428' (333')		Apt Elev 96' Rwy 26R 95'
MISSED APCH: Climb to 600' then climbing RIGHT turn to 3000' direct PEPBI and hold.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'								
1. AUTHORIZATION REQUIRED. 2. GPS required 3. Radar required. 4. Simultaneous approach authorized with Rwy 26L and Rwy 27, except for arrivals at SKLER. 5. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 6. For uncompensated Baro-VNAV systems, procedure not authorized below -3°C (27°F) or above 54°C (130°F).								

3100'

MSA RW26R



See Planview for multiple intermediate fix (IF) locations



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	600'	3000'	PEPBI
Glide Path Angle 3.00°	372	478	531	637	743	849		↑	RT	→
MAP at DA										

TERPS STRAIGHT-IN LANDING RWY 26R					
RNP 0.11 DA(H) 428' (333')		RNP 0.15 DA(H) 495' (400')		RNP 0.30 DA(H) 553' (458')	
ALS out		ALS out		ALS out	
A					
B	RVR 40 or 3/4	RVR 53 or 1	RVR 42 or 3/4	1 1/4	RVR 53 or 1
C					1 1/2
D					

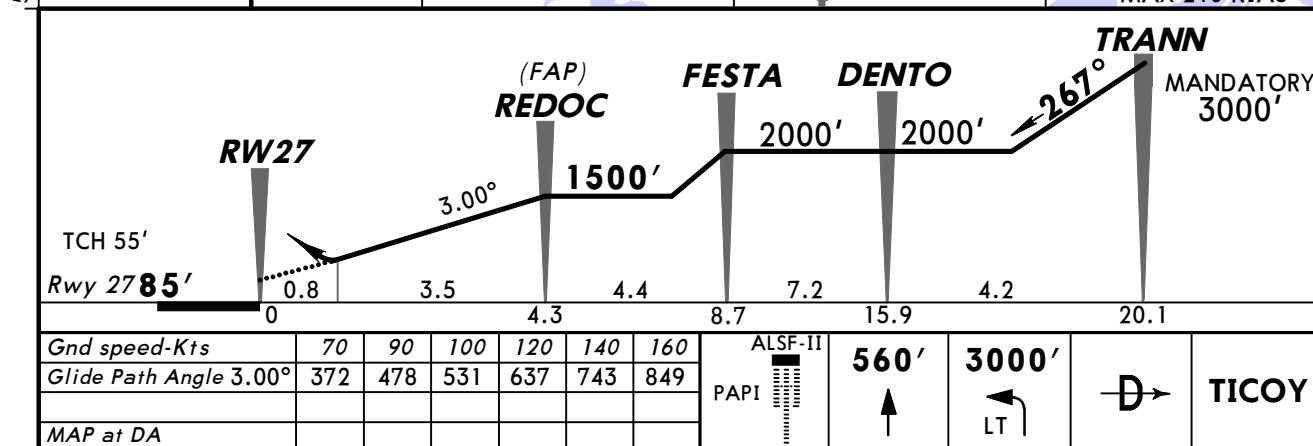
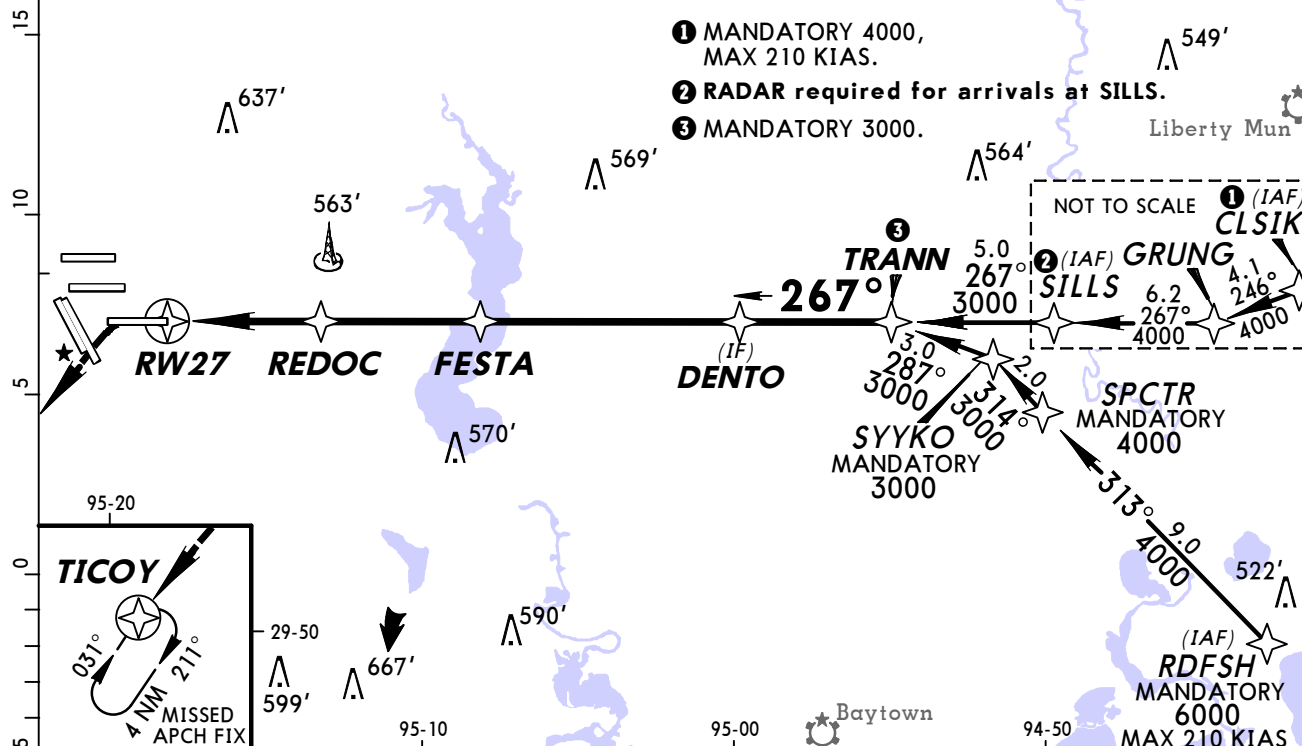
CHANGES: SKLER, notes.

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TERPS AMEND 0A 18 SEP 2014

RNAV (RNP) Y Rwy 27

BRIDGING STRIP™



A
B
C
D

RVR **48** or $\frac{7}{8}$

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KIAH/IAH

GEORGE BUSH

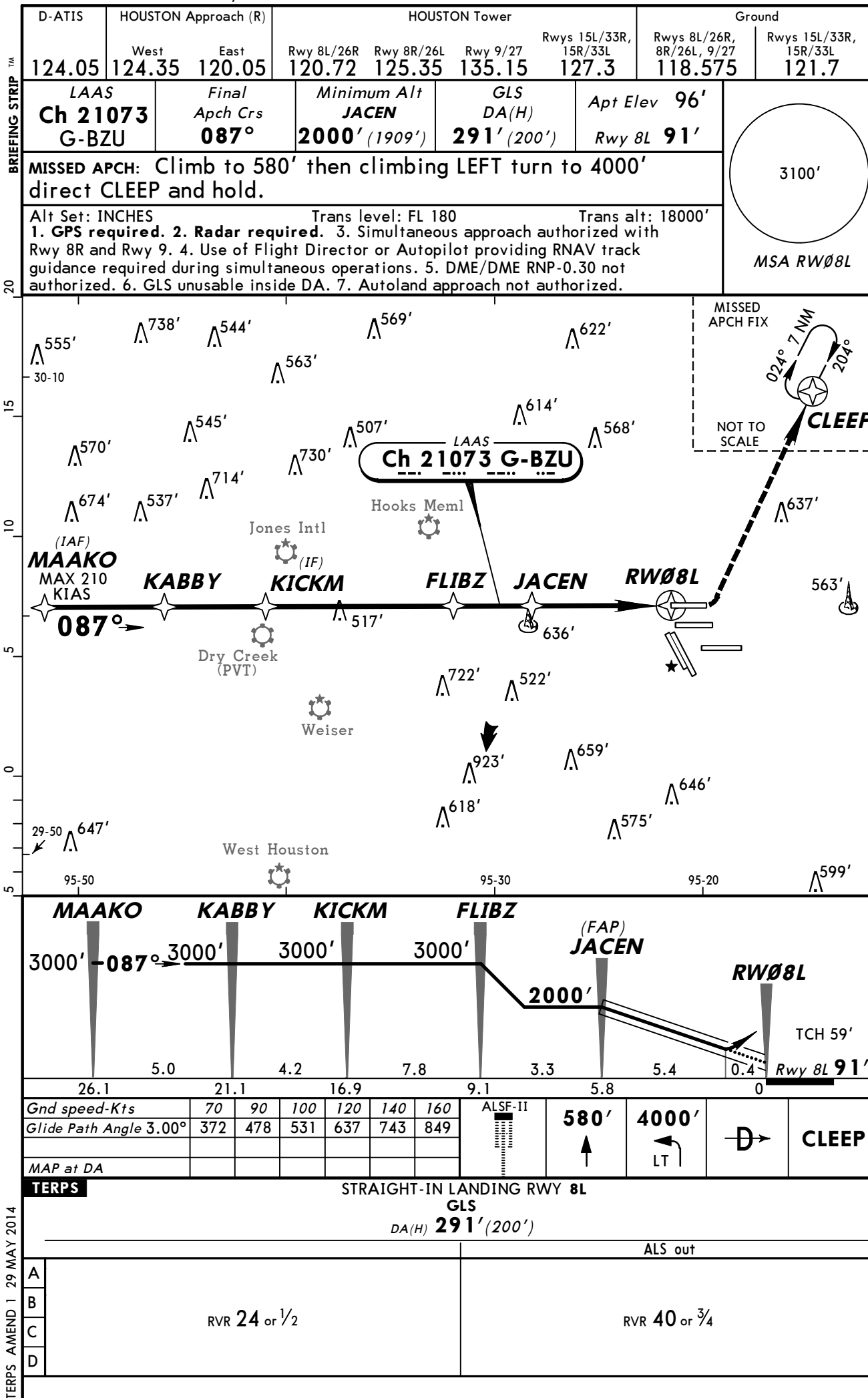
INTERCONTINENTAL/HOUSTON

23 MAY 14

72-40

Eff 29 May

HOUSTON, TEXAS
GLS Rwy 8L



CHANGES: Procedure.

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GLS Rwy 9

BRIEFING STRIP™

TERPS AMEND 1 29 MAY 2014

TERPS AMEND 1 29 MAY 2014

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KIAH/IAH

GEORGE BUSH

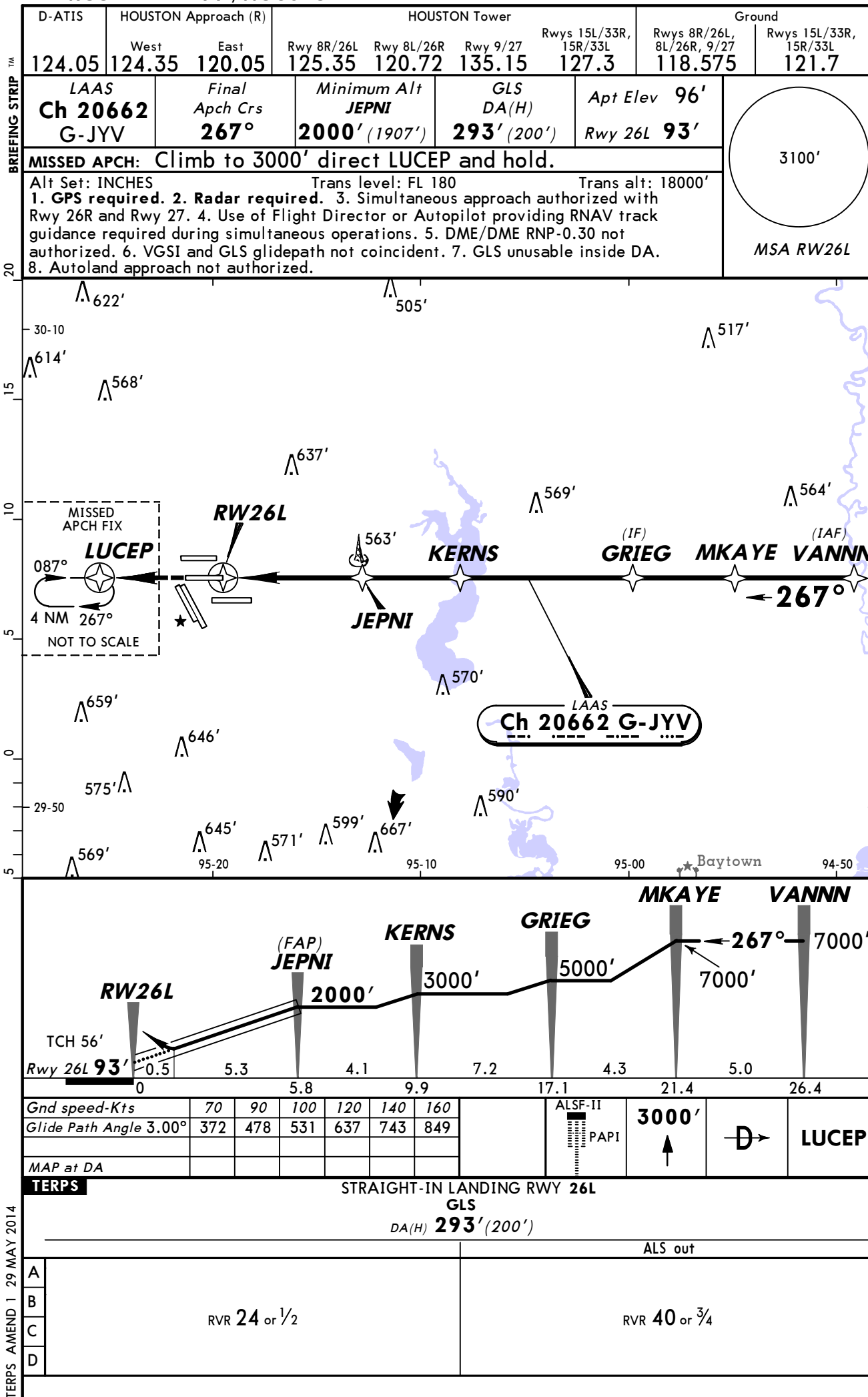
INTERCONTINENTAL/HOUSTON

23 MAY 14

72-43

Eff 29 May

HOUSTON, TEXAS
GLS Rwy 26L



KIAH/IAH

GEORGE BUSH

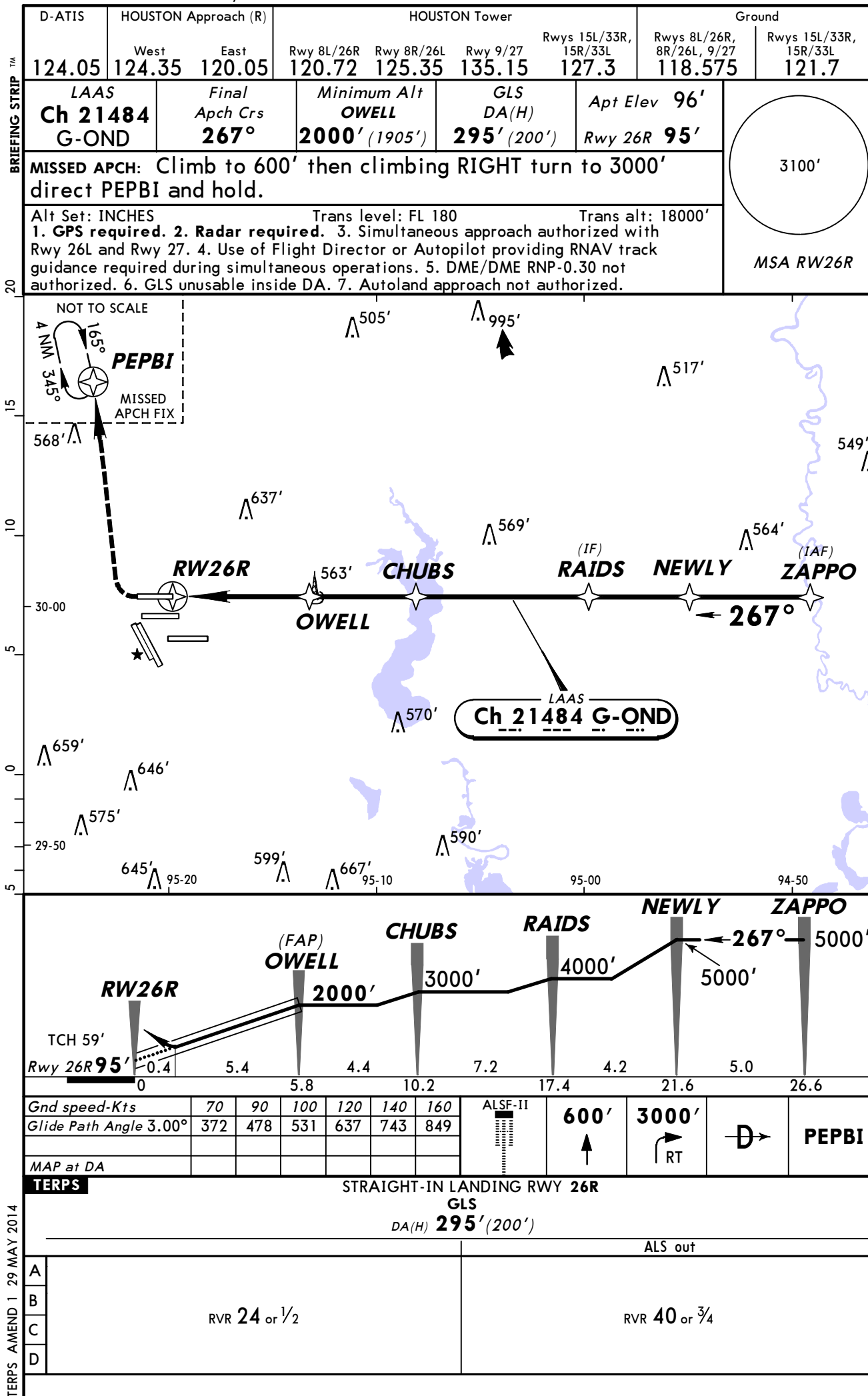
INTERCONTINENTAL/HOUSTON

23 MAY 14

72-44

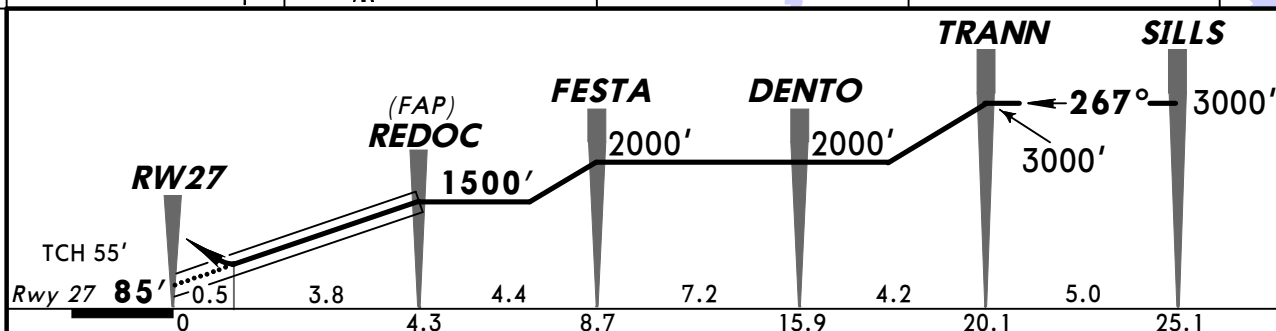
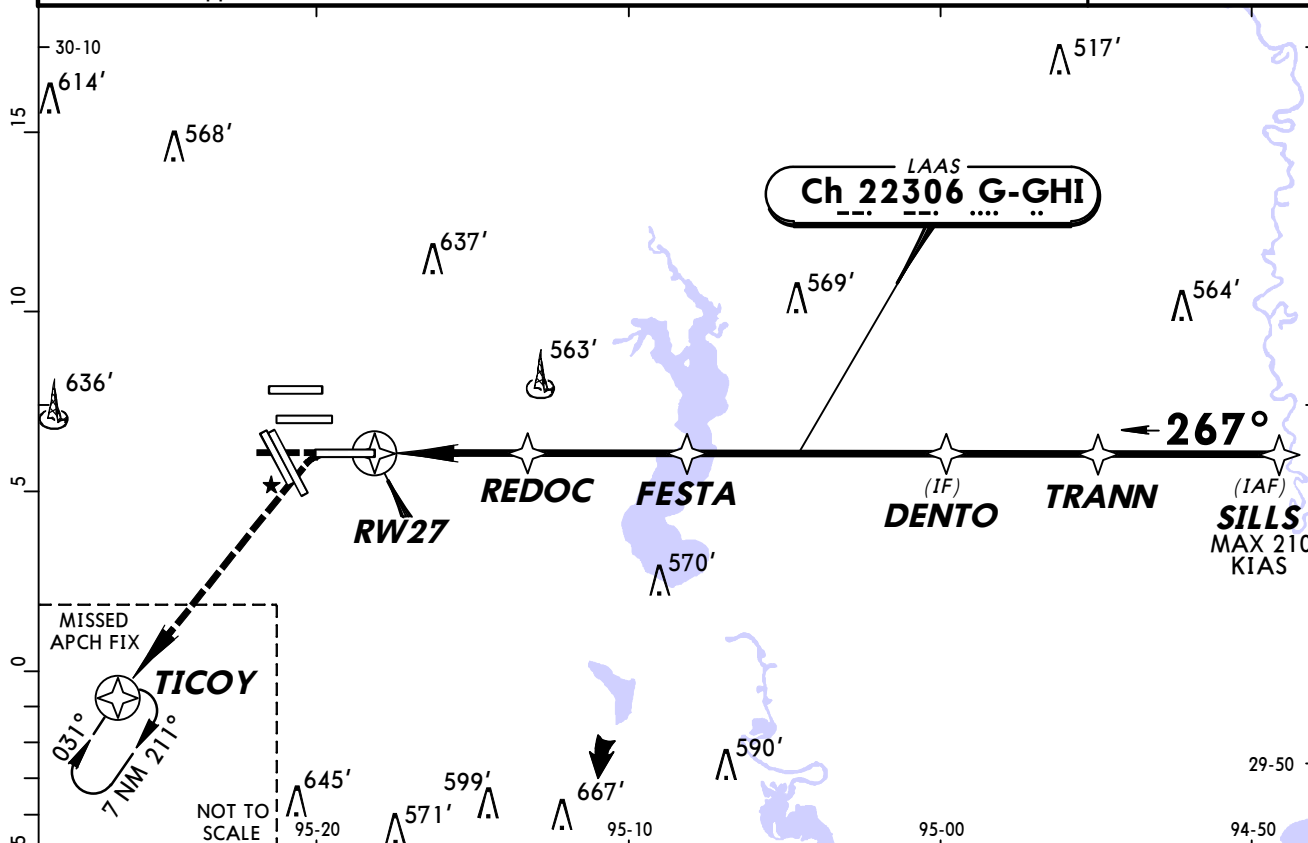
Eff 29 May

HOUSTON, TEXAS
GLS Rwy 26R



BRIEFING STRIP™

D-ATIS	HOUSTON Approach (R)		HOUSTON Tower				Ground	
	West	East	Rwy 9/27	Rwy 8R/26L	Rwy 8L/26R	Rwys 15L/33R, 15R/33L	Rwys 9/27, 8L/26R, 8R/26L	Rwys 15L/33R, 15R/33L
124.05	124.35	120.05	135.15	125.35	120.72	127.3	118.575	121.7
LAAS Ch 22306 G-GHI		Final Apch Crs 267°	Minimum Alt REDOC 1500' (1415')		GLS DA(H) 285' (200')		Apt Elev 96' Rwy 27 85'	3100' MSA RW27
MISSED APCH: Climb to 560' then climbing LEFT turn to 3100' direct TICOY and hold.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. GPS required. 2. Radar required. 3. Simultaneous approach authorized with Rwy 26L and Rwy 26R. 4. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 5. DME/DME RNP-0.30 not authorized. 6. VGSI and GLS glidepath not coincident. 7. GLS unusable inside DA. 8. Autoland approach not authorized.								



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	560'	3100'	TICOY
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI	↑	← LT	→
MAP at DA										

TERPS		STRAIGHT-IN LANDING RWY 27	
		GLS	
		DA(H) 285' (200')	
		ALS out	
A			
B			
C			
D			

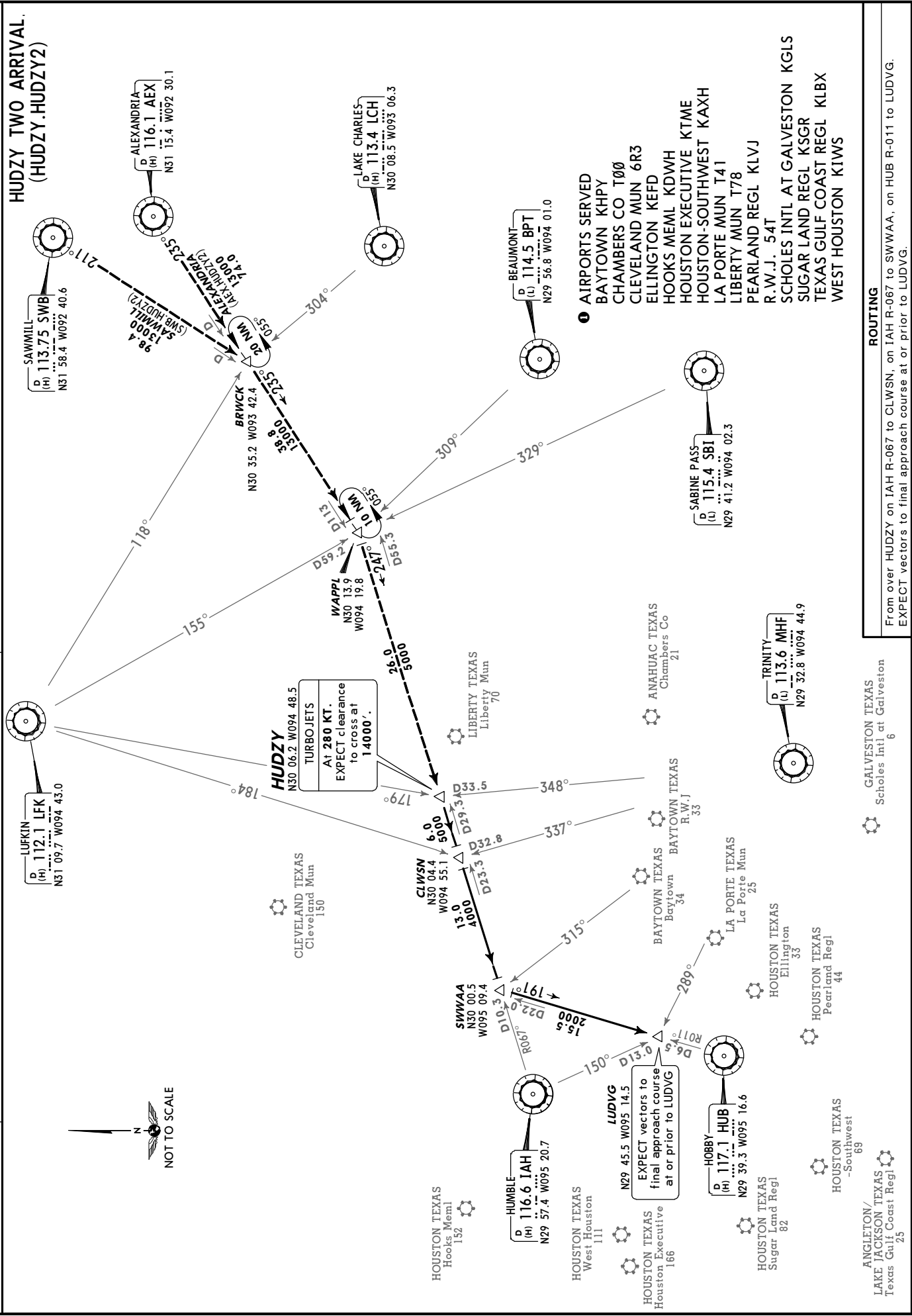
Apt Elev
See graphic

Alt Set: INCHES

Trans level: FL180

Trans alt: 18000'

1. For use by turbojet and turboprop aircraft capable of 280 KT or greater only.
2. For conventional navigation equipped aircraft only. DME/DME/IRU or GPS equipped aircraft must file the WAPPL (RNAV) STAR.
3. ATC assigned only for aircraft landing Hooks Meml, Liberty Mun, Cleveland Mun.



ATC assigned only for airports other than Hooks Meml, Liberty Mun, Cleveland Mun.

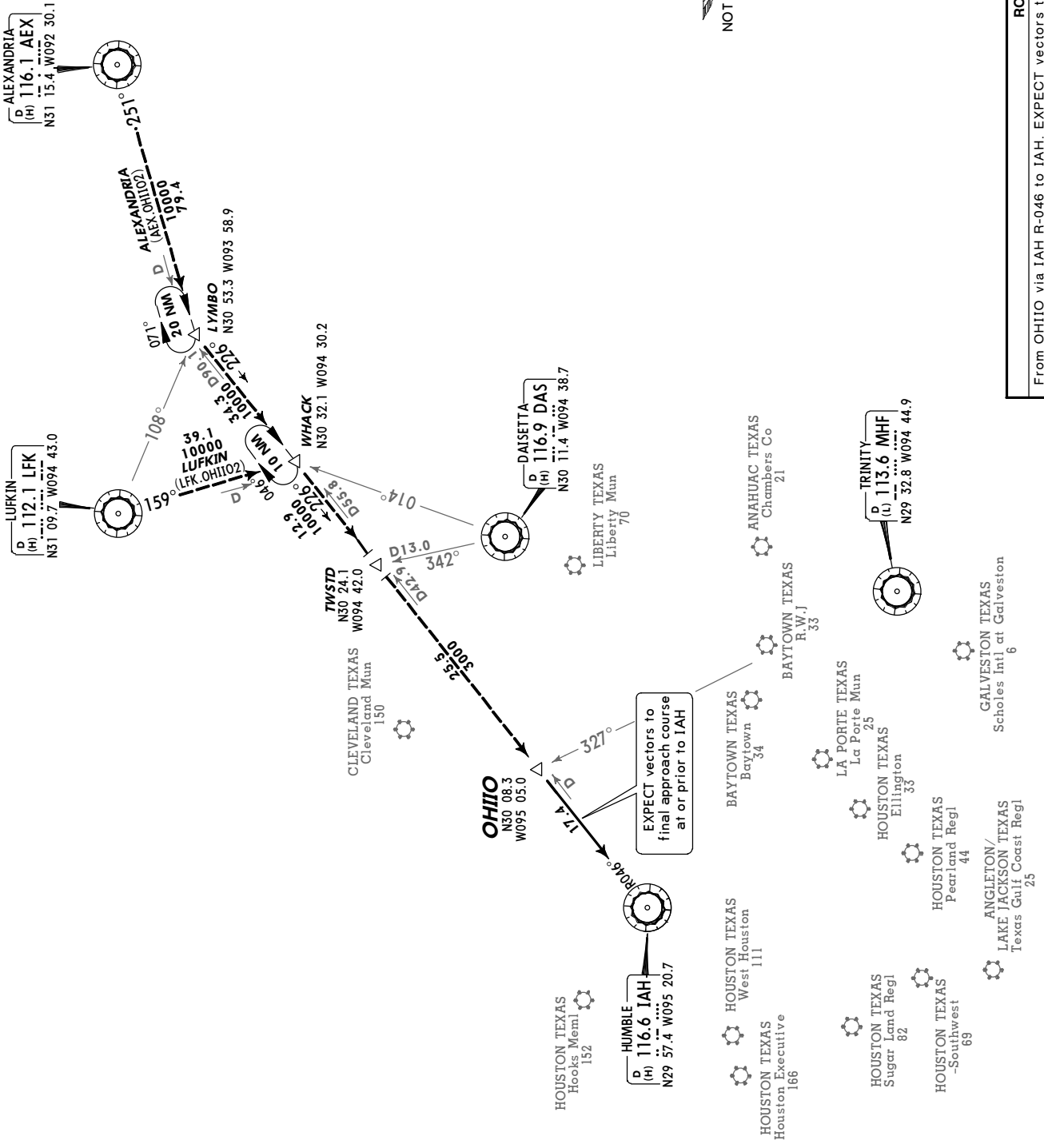
Alt Set: INCHES Trans level: FL180 Trans alt: 18000'

Apt Elev
See graphic

OHIO TWO ARRIVAL
(WHACK.OHII02)

AIRPORTS SERVED

- BAYTOWN KHPY
- CHAMBERS CO T00
- CLEVELAND MUN 6R3
- ELLINGTON KEFD
- HOOKS MEML KDWH
- HOUSTON EXECUTIVE KTME
- HOUSTON-SOUTHWEST KAXH
- LA PORTE MUN T41
- LIBERTY MUN T78
- PEARLAND REGL KLVJ
- R.W.J. 54T
- SCHOLES INTL AT GALVESTON KGLS
- SUGAR LAND REGL KSGR
- TEXAS GULF COAST REGL KLBX
- WEST HOUSTON KIWS



ROUTING

From OHIO via IAH R-046 to IAH. EXPECT vectors to final approach course at or prior to IAH.

TCHDN TWO ARRIVAL
(TCHDN.TCHDN2)

HUMBLE
D 116.6 IAH
(H) 116.6 IAH
N29 57.4 W095 20.7



HOUSTON TEXAS
West Houston
111



BAYTOWN TEXAS
Baytown
34



ANAHUAC TEXAS
Chambers Co
21



NOT TO SCALE



TCHDN



N29 38.0 W095 23.2
EXPECT vectors
to final approach
course at or
prior to TCHDN



N29 39.3 W095 16.6
HUB
(H) 117.1 HUB
D 117.1 HUB
N29 39.3 W095 16.6



HOUSTON TEXAS
Sugar Land Regl
82



LA PORTE TEXAS
La Porte Mun
25



HOUSTON TEXAS
Ellington
33



HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
6



LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



R.W.J. 54T



SCHOLES INTL AT GALVESTON KGLS



SUGAR LAND REGl KSGR



TEXAS GULF COAST REGl KLBX



WEST HOUSTON KIWS



HOUSTON TEXAS
Sugar Land Regl
82



LA PORTE TEXAS
La Porte Mun
25



HOUSTON TEXAS
Ellington
33



HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
6



LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



R.W.J. 54T



SCHOLES INTL AT GALVESTON KGLS



SUGAR LAND REGl KSGR



TEXAS GULF COAST REGl KLBX



WEST HOUSTON KIWS



HOUSTON TEXAS
Sugar Land Regl
82



LA PORTE TEXAS
La Porte Mun
25



HOUSTON TEXAS
Ellington
33



HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
6



LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



R.W.J. 54T



SCHOLES INTL AT GALVESTON KGLS



SUGAR LAND REGl KSGR



TEXAS GULF COAST REGl KLBX



WEST HOUSTON KIWS



HOUSTON TEXAS
Sugar Land Regl
82



LA PORTE TEXAS
La Porte Mun
25



HOUSTON TEXAS
Ellington
33



HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
6



LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



R.W.J. 54T



SCHOLES INTL AT GALVESTON KGLS



SUGAR LAND REGl KSGR



TEXAS GULF COAST REGl KLBX



WEST HOUSTON KIWS



HOUSTON TEXAS
Sugar Land Regl
82



LA PORTE TEXAS
La Porte Mun
25



HOUSTON TEXAS
Ellington
33



HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
6



LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



R.W.J. 54T



SCHOLES INTL AT GALVESTON KGLS



SUGAR LAND REGl KSGR



TEXAS GULF COAST REGl KLBX



WEST HOUSTON KIWS



HOUSTON TEXAS
Sugar Land Regl
82



LA PORTE TEXAS
La Porte Mun
25



HOUSTON TEXAS
Ellington
33



HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
6



LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



R.W.J. 54T



SCHOLES INTL AT GALVESTON KGLS



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WEST HOUSTON KIWS



HOUSTON TEXAS
Sugar Land Regl
82



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HOUSTON TEXAS
Ellington
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HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
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LA PORTE TEXAS
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HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
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ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
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GALVESTON TEXAS
Scholes Intl at Galveston
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LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



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WEST HOUSTON KIWS



HOUSTON TEXAS
Sugar Land Regl
82



LA PORTE TEXAS
La Porte Mun
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HOUSTON TEXAS
Ellington
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HOUSTON TEXAS
Pearland Regl
44



HOUSTON TEXAS
-Southwest
69



HOUSTON TEXAS
Texas Gulf Coast Regl
25



ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25



GALVESTON TEXAS
Scholes Intl at Galveston
6



LA PORTE TEXAS
Mun T41



PEARLAND REGl KLVJ



R.W.J. 54T



SCHOLES INTL AT GALVESTON KGLS



SUGAR LAND REGl KSGR



TEXAS GULF COAST REGl KLBX

AREA STAR

SERVES ONLY: 1

JEPPESEN

18 JUL 14

90-2G

Eff 24 Jul

HOUSTON METROPLEX,
TEXAS

RNAV STAR

Apt Elev
See graphic

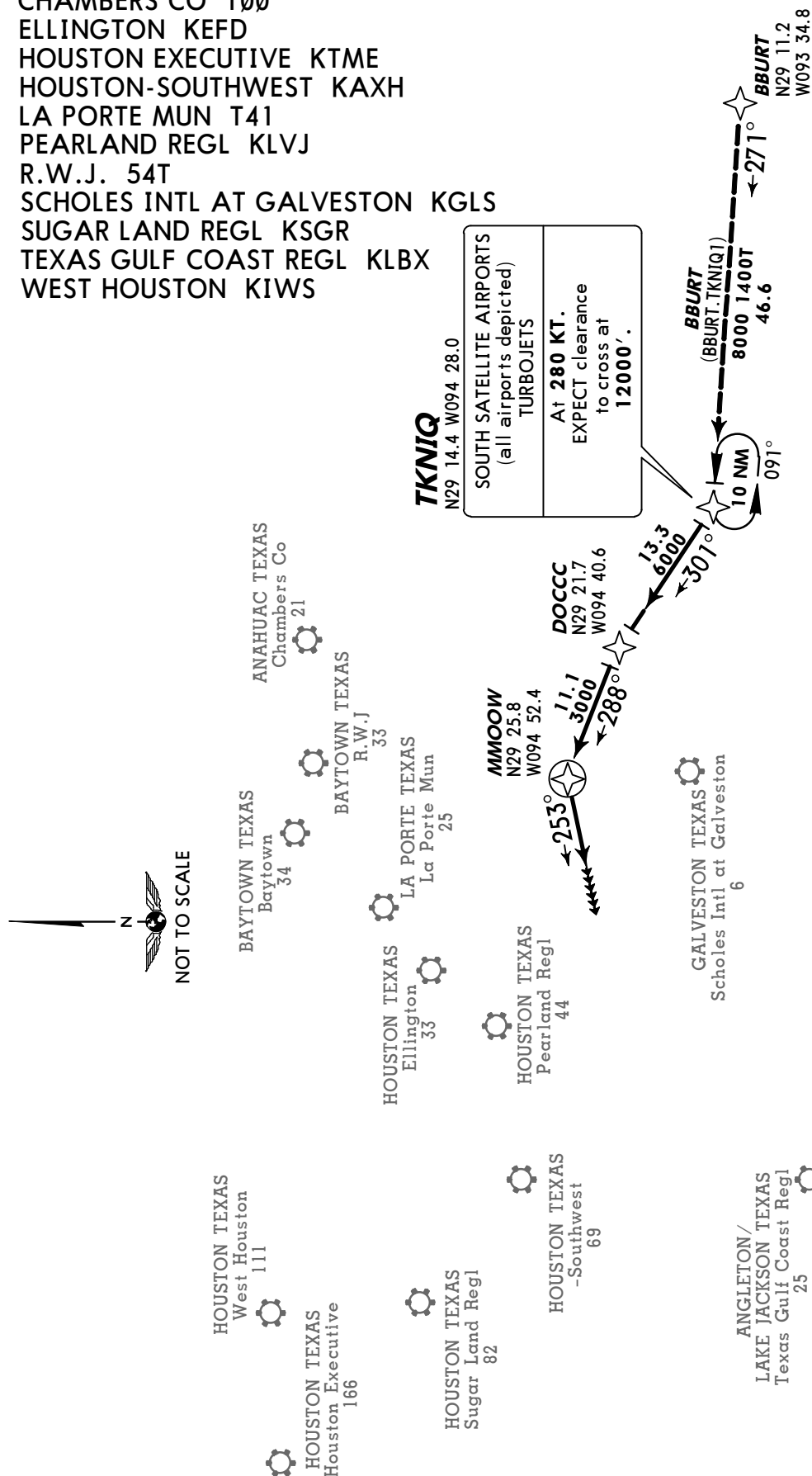
Alt Set: INCHES Trans level: FL180 Trans alt: 18000'

1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.
4. Turbojet and turboprop aircraft only.

TKNIQ ONE RNAV ARRIVAL (TKNIQ.TKNIQ1)

1 AIRPORTS SERVED

BAYTOWN KHPY
CHAMBERS CO T00
ELLINGTON KEFD
HOUSTON EXECUTIVE KTME
HOUSTON-SOUTHWEST KAXH
LA PORTE MUN T41
PEARLAND REGL KLVJ
R.W.J. 54T
SCHOLLES INTL AT GALVESTON KGLS
SUGAR LAND REGL KSGR
TEXAS GULF COAST REGL KLBX
WEST HOUSTON KIWS



ROUTING

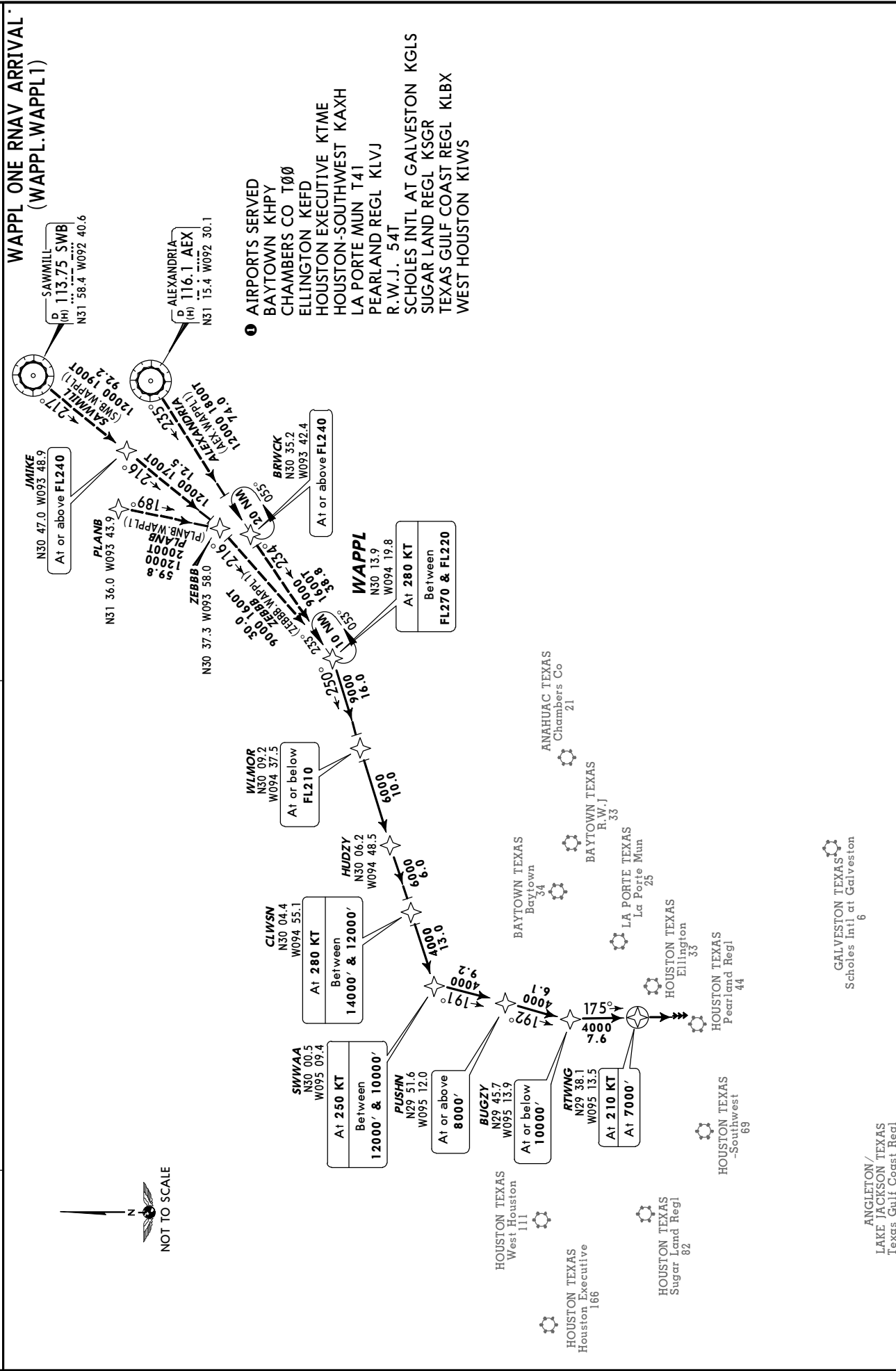
From TKNQ on track 301° to DOCCC. From DOCCC on track 288° to MMOOW. Then on track 253°.
EXPECT vectors to final approach course.

AREA STAR
SERVES ONLY: ①

Apt Elev
See graphic

Alt Set: INCHES Trans level: FL180 Trans alt: 18000'

1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.
4. For turbojet and turboprop aircraft capable of 280 KT or greater only.
5. EXPECT runway assignment from Houston TRACON upon initial contact.



From over WHAEL on TNV R-204 to COWZZ, then on TNV R-204 to TNV.
Depart TNV heading 070° for vectors to final approach course.

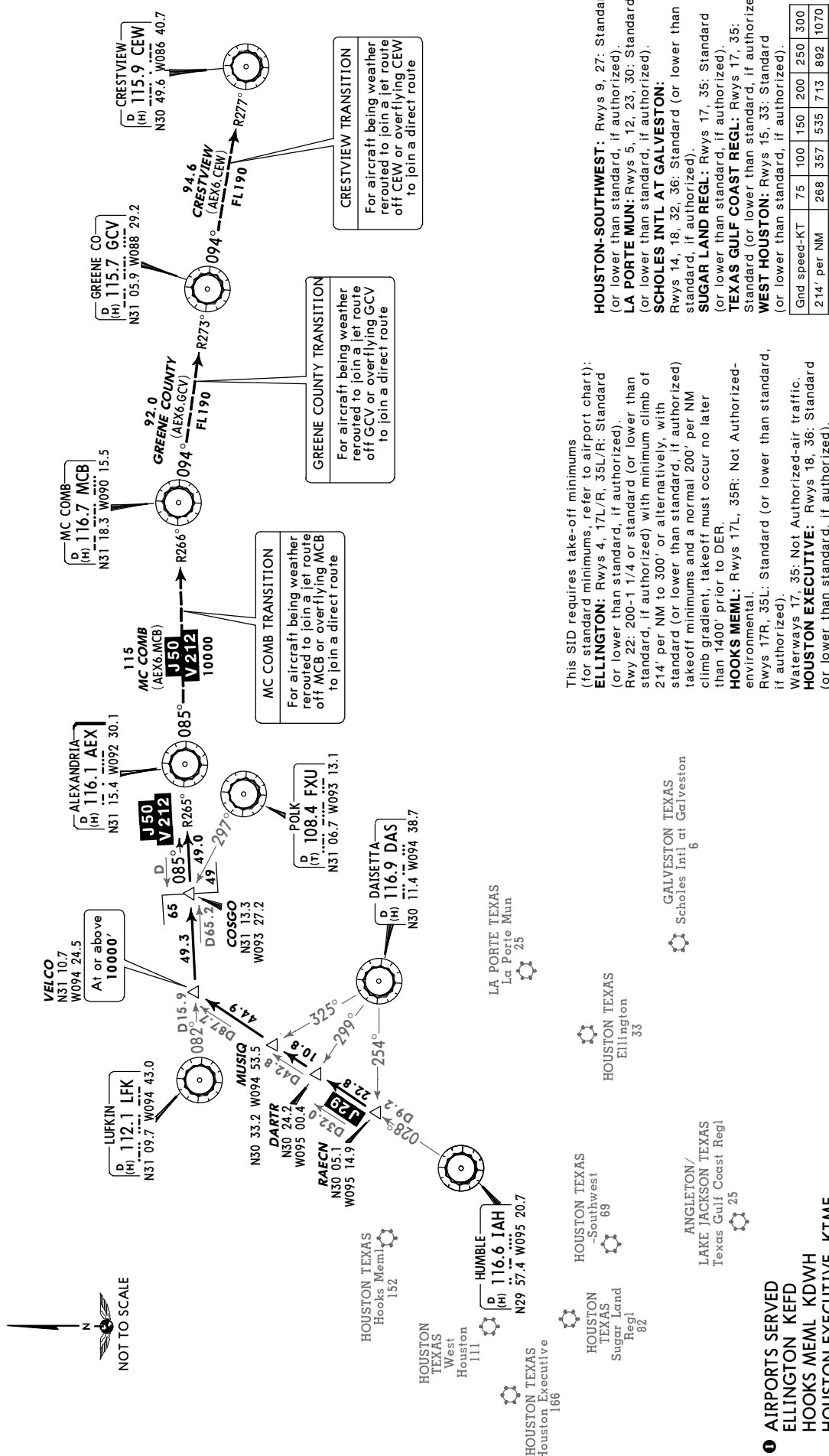
AREA SID
SERVES ONLY: 1

Apr Elev
See graphic

Trans level: FL180 Trans alt: 18000'

1. RADAR required.
2. CRESTVIEW, GREENE COUNTY and MC COMB Transitions are ATC assigned only, do not file.

ALEXANDRIA SIX DEPARTURE
(AEX6.AEX)



- 1 AIRPORTS SERVED
ELLENGTON KEFD
HOOKS MEML KDWH
HOUSTON EXECUTIVE KTME
HOUSTON-SOUTHWEST KAXH
LA PORTE MUN T41
SCHOLES INTL AT GALVESTON KGLS
SUGAR LAND REGL KSGR
TEXAS GULF COAST REGL KIBX
WEST HOUSTON KIWS

This SID requires take-off minimums (for standard minimums, refer to airport chart):
ELLENGTON: Rwy 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized).
Rwy 22: 200-1 1/4 or standard (or lower than standard, if authorized) with minimum climb of 214' per NM to 300' or alternatively, with standard (or lower than standard, if authorized) takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.
HOOKS MEML: Rwy 17L, 35R: Not Authorized-environmental.
Rwys 17R, 35L: Standard (or lower than standard, if authorized).
Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwy 18, 36: Standard (or lower than standard, if authorized).

HOUSTON-SOUTHWEST: Rwy 9, 27: Standard (or lower than standard, if authorized).
LA PORTE MUN: Rwy 5, 12, 23, 30: Standard (or lower than standard, if authorized).
SCHOLES INTL AT GALVESTON: Rwy 14, 18, 32, 36: Standard (or lower than standard, if authorized).
SUGAR LAND REGL: Rwy 17, 35: Standard (or lower than standard, if authorized).
TEXAS GULF COAST REGL: Rwy 17, 35: Standard (or lower than standard, if authorized).
WEST HOUSTON: Rwy 15, 33: Standard (or lower than standard, if authorized).

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

INITIAL CLIMB

AIRPORT	Climb on assigned heading for RADAR vectors to RAECN.					
ELLENGTON	Climb on assigned heading for RADAR vectors to RAECN.					
ALL OTHER AIRPORTS	When entering controlled airspace, climb on assigned heading for RADAR vectors to RAECN.					

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 90-30B1.

ROUTING

MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At RAECN, on IAH R-028 to VELCO, then R18T turn on LFK R-082 and AEX R-265 to AEX.

**AREA SID
SERVES ONLY: 1**

<i>Apt Elev</i> <i>See graphic</i>	Trans level: FL180 Trans alt: 18000'	1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.
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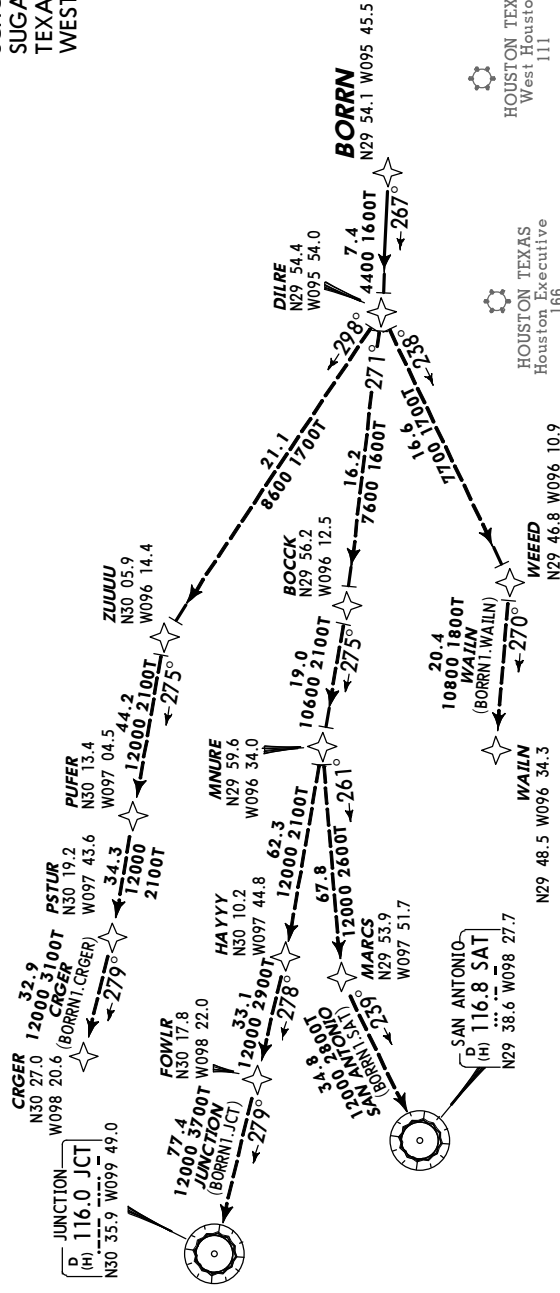
1 AIRPORTS SERVED
BAYTOWN KHPY
CHAMBERS CO TQA

**For Procedure Text and
Takeoff Minimums see 90-3A 1
PROCEDURE GRAPHIC**

OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 90-30B1

HOUSTON EXECUTIVE KTME
HOUSTON-SOUTHWEST KAXH
LA PORTE MUN T41
LIBERTY MUN T78
PEARLAND REGL KLVJ
R.W.J. 54T
SCHOLES INTL AT GALVESTON
SUGAR LAND REGL KSGR
TEXAS GULF COAST REGL KLE
WEST HOUSTON KIWS

CLEVELAND TEXAS
Cleveland Mun
150



 HOUSTON TEXAS
West Houston
111

ANAHUAC TEXAS
Chambers Co
21


BAYTOWN TEXAS
Baytown
34


BAYTOWN TEXAS
H.W.J
33


 HOUSTON TEXAS
Sugar Land Regl
82

LA PORTE TEXAS
La Porte Mun
25


HOUSTON TEXAS
Ellington
33


HOUSTON TEXAS
Pearland Regl
44


HOUSTON TEXAS
-Southwest
69


ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25


GALVESTON TEXAS
Scholes Intl et Galveston
6


BORRN ONE RNAV DEPARTURE
(BORRN1.BORRN)
For Procedure Graphic see 90-3A
PROCEDURE TEXT

❶ AIRPORTS SERVED	INITIAL CLIMB
BAYTOWN	Rwy 14: Climb on heading 138° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 32: Climb on heading 318° to 540', EXPECT RADAR vectors to BORRN.
CHAMBERS CO	Rwy 12: Climb on heading 124° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 30: Climb on heading 304° to 540', EXPECT RADAR vectors to BORRN.
CLEVELAND MUN	Rwy 16: Climb on heading 157° to 1400', EXPECT RADAR vectors to BORRN.
	Rwy 34: Climb on heading 337° to 2000', EXPECT RADAR vectors to BORRN.
ELLINGTON	Rwy 4: Climb on heading 039° to 540', EXPECT RADAR vectors to BORRN.
	Rwys 17L/R: Climb on heading 174° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 22: Climb on heading 219° to 540', EXPECT RADAR vectors to BORRN.
	Rwys 35L/R: Climb on heading 354° to 540', EXPECT RADAR vectors to BORRN.
HOOKS MEML	Rwy 17R: Climb on heading 168° to 660', EXPECT RADAR vectors to BORRN.
	Rwy 35L: Climb on heading 348° to 660', EXPECT RADAR vectors to BORRN.
HOUSTON EXECUTIVE	Rwy 18: Climb on heading 174° to 680', EXPECT RADAR vectors to BORRN.
	Rwy 36: Climb on heading 354° to 680', EXPECT RADAR vectors to BORRN.
HOUSTON -SOUTHWEST	Rwy 9: Climb heading 089° to 2000', EXPECT RADAR vectors to BORRN.
	Rwy 27: Climb heading 269° to 2200', EXPECT RADAR vectors to BORRN.
LA PORTE MUN	Rwy 5: Climb on heading 046° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 12: Climb on heading 121° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 23: Climb on heading 226° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 30: Climb on heading 301° to 540', EXPECT RADAR vectors to BORRN.
LIBERTY MUN	Rwy 16: Climb on heading 161° to 1700', EXPECT RADAR vectors to BORRN.
	Rwy 34: Climb on heading 341° to 1000', EXPECT RADAR vectors to BORRN.
PEARLAND REGL	Rwy 14: Climb on heading 140° to 1600', EXPECT RADAR vectors to BORRN.
	Rwy 32: Climb on heading 320° to 900', EXPECT RADAR vectors to BORRN.
R.W.J.	Rwy 8: Climb on heading 084° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 14: Climb on heading 143° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 26: Climb on heading 264° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 32: Climb on heading 323° to 540', EXPECT RADAR vectors to BORRN.
SCHOLLES INTL AT GALVESTON	Rwy 14: Climb on heading 135° to 520', EXPECT RADAR vectors to BORRN.
	Rwy 18: Climb on heading 176° to 520', EXPECT RADAR vectors to BORRN.
	Rwy 32: Climb on heading 315° to 520', EXPECT RADAR vectors to BORRN.
	Rwy 36: Climb on heading 356° to 520', EXPECT RADAR vectors to BORRN.
SUGAR LAND REGL	Rwy 17: Climb on heading 170° to 1500', EXPECT RADAR vectors to BORRN.
	Rwy 35: Climb on heading 350° to 1100', EXPECT RADAR vectors to BORRN.
TEXAS GULF COAST REGL	Rwy 17: Climb on heading 175° to 540', EXPECT RADAR vectors to BORRN.
	Rwy 35: Climb on heading 355° to 540', EXPECT RADAR vectors to BORRN.
WEST HOUSTON	Rwy 15: Climb on heading 150° to 620', EXPECT RADAR vectors to BORRN.
	Rwy 33: Climb on heading 330° to 620', EXPECT RADAR vectors to BORRN.
ROUTING	

From BORRN on track 267° to DILRE, then on transition. MAINTAIN 4000' or as assigned by ATC.
EXPECT filed altitude 10 minutes after departure.

CHANGES: New chart.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
BAYTOWN: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
CHAMBERS CO: Rwys 12, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
Rwys 17, 35: Not Authorized-environmental.
CLEVELAND MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'.
ELLINGTON: Rwys 4, 17L/R, 22, 35L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
HOOKS MEML: Rwys 17L, 35R: Not Authorized-environmental.
Rwys 17R, 35L: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'.
Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwys 18, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 680'.
HOUSTON-SOUTHWEST: Rwys 9, 27: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
LA PORTE MUN: Rwys 5, 12, 23, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
LIBERTY MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
PEARLAND REGL: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 560'.
R.W.J.: Rwys 8, 26: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
SCHOLLES INTL AT GALVESTON: Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 520'.
SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 600'.
TEXAS GULF COAST REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
WEST HOUSTON: Rwys 15, 33: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 620'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

AREA SID
SERVES ONLY: ●

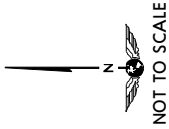
Apt Elev
See graphic

Trans level: FL180 Trans alt: 18000'
1. RADAR required. 2. RNAV 1.
3. DME/DME/IRU or GPS required.

4. For non-GPS equipped aircraft LCH, LEV, LLA and TBD DMEs must be operational.
5. ATC assigned only. Do not file.

BOWFN FIVE RNAV DEPARTURE
(BOWFN5.BOWFN)

- AIRPORTS SERVED
ELLINGTON KEFD
HOOKS MEML KDWH
HOUSTON EXECUTIVE KTME
HOUSTON-SOUTHWEST KAXH
LA PORTE MUN T41
SCHOLLES INTL AT GALVESTON KGLS
SUGAR LAND REGL KSGR
TEXAS GULF COAST REGL KLBX
WEST HOUSTON KIWS



HOUSTON TEXAS
Hooks Meml
152

HOUSTON TEXAS
West Houston
111

HOUSTON TEXAS
Houston Executive
166

LA PORTE TEXAS
La Porte Mun
25

HOUSTON TEXAS
Sugar Land Regl
82

HOUSTON TEXAS
Ellington
33

HOUSTON TEXAS
-Southwest
89

GALVESTON TEXAS
Scholes Intl
at Galveston
6

SCHOLLES
(L) 113.0 VUH
N29 16.2 W094 52.1

ANGLETON/LAKE JACKSON
TEXAS
25
Texas Gulf Coast Regl

SBIRO
N29 00.0
W093 40.0
At or above
11000'

HOODO
N28 59.8 W094 20.2

BOWFN
N28 59.4 W091 13.7

LEEVILLE
(BOWFN5.LEV)
D 113.5 LEV
(H)
N29 10.5 W090 06.2

HARVEY
D 114.1 HRV
(H)
N29 51.0 W090 00.2

118°

31.6

36.1

087°

128

076°

048°

This SID requires take-off minimums

(for standard minimums, refer to airport chart):

ELLINGTON: Rwy 4, 17L/R, 35L/R: Standard

(or lower than standard, if authorized).

Rwy 22: 200-1 1/4 or standard (or lower than

standard, if authorized) with minimum climb of

214' per NM to 300' or alternatively, with

standard (or lower than standard, if authorized)

takeoff minimums and a normal 200' per NM

climb gradient, takeoff must occur no later

than 1400' prior to DER.

HOOKS MEML: Rwy 17L, 35R: Not Authorized-

environmental.

Rwy 17R, 35L: Standard (or lower than standard,

if authorized).

Waterways 17, 35: Not Authorized-air traffic.

HOUSTON EXECUTIVE: Rwy 18, 36: Standard

(or lower than standard, if authorized).

HOUSTON-SOUTHWEST: Rwy 9, 27: Standard

(or lower than standard, if authorized).

LA PORTE MUN: Rwy 5, 12, 23, 30: Standard

(or lower than standard, if authorized).

SCHOLLES INTL AT GALVESTON:

Rwy 14, 18, 32, 36: Standard (or lower than

standard, if authorized).

SUGAR LAND REGL: Rwy 17, 35: Standard

(or lower than standard, if authorized).

TEXAS GULF COAST REGL: Rwy 17, 35:

Standard (or lower than standard, if authorized).

WEST HOUSTON: Rwy 15, 33: Standard

(or lower than standard, if authorized).

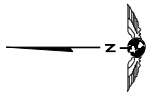
OBSTACLE
For TAKEOFF OBSTACLE NOTES see 90-30B1.

AIRPORT	INITIAL CLIMB
ELLINGTON	Climb on assigned heading for RADAR vectors to VUH.
ALL OTHER AIRPORTS	When entering controlled airspace, climb on assigned heading for RADAR vectors to VUH.

ROUTING
MAINTAIN 4000' or ATC assigned altitude on depicted route to HOODO. Then cross SBIRO at or above 11000' on depicted route to BOWFN. Then via transition. EXPECT filed altitude 10 minutes after departure.

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

Apt Elev See graphic	Trans level: FL180 Trans alt: 18000'	RADAR required.
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NOT TO SCALE

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 90-30B1.

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
ELLINGTON: Rwys 4, 17L/R, 35L/R: Standard
 (or lower than standard, if authorized).
 Rwy 22: 200-1 1/4 or standard (or lower than
 standard, if authorized) with minimum climb of
 214' per NM to 300' or alternatively, with
 standard (or lower than standard, if authorized)
 takeoff minimums and a normal 200' per NM
 climb gradient, takeoff must occur no later
 than 1400' prior to DER.
HOOKS MEML: Rwys 17L, 35R: Not Authorized-
 environmental.
 Rwys 17R, 35L: Standard (or lower than standard,
 if authorized).
 Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwys 18, 36: Standard
 (or lower than standard, if authorized).
HOUSTON-SOUTHWEST: Rwys 9, 27: Standard
 (or lower than standard, if authorized).
LA PORTE MUN: Rwys 5, 12, 23, 30: Standard
 (or lower than standard, if authorized).
SCHOLES INTL AT GALVESTON:
 Rwys 14, 18, 32, 36: Standard (or lower than
 standard, if authorized).
SUGAR LAND REGL: Rwys 17, 35: Standard
 (or lower than standard, if authorized).
TEXAS GULF COAST REGL: Rwys 17, 35:
 Standard (or lower than standard, if authorized).
WEST HOUSTON: Rwys 15, 33: Standard
 (or lower than standard, if authorized).

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

AIRPORT	INITIAL CLIMB
ELLINGTON	Climb on assigned heading for RADAR vectors to LITLD.
ALL OTHER AIRPORTS	When entering controlled airspace, climb on assigned heading for RADAR vectors to LITLD.

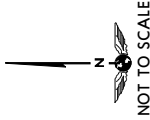
ROUTING
MAINTAIN 4000': EXPECT filed altitude 10 minutes after departure. At LITLD, on IAH R-344 to STELL, then on IAH R-344 to CRIED, then LEFT turn on CQY R-144 to CQY.

Apt Elev See graphic	Trans level: FL180	Trans alt: 18000'	1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.	
AIRPORT	INITIAL CLIMB			
BAYTOWN	Rwy 14:	Climb on heading 140° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 32:	Climb on heading 320° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 12:	Climb on heading 126° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 30:	Climb on heading 306° to 540°	EXPECT RADAR vectors to DREMR.	
CLEVELAND MUN	Rwy 16:	Climb on heading 159° to 1400°	EXPECT RADAR vectors to DREMR.	
	Rwy 34:	Climb on heading 339° to 2000°	EXPECT RADAR vectors to DREMR.	
	Rwy 4:	Climb on heading 041° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwys 17L/R:	Climb on heading 176° to 540°	EXPECT RADAR vectors to DREMR.	
ELLINGTON	Rwy 22:	Climb on heading 221° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwys 35L/R:	Climb on heading 356° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 17R:	Climb on heading 170° to 860°	EXPECT RADAR vectors to DREMR.	
	Rwy 35L:	Climb on heading 350° to 860°	EXPECT RADAR vectors to DREMR.	
HOOKS MEML	Rwy 18:	Climb on heading 176° to 680°	EXPECT RADAR vectors to DREMR.	
	Rwy 36:	Climb on heading 356° to 680°	EXPECT RADAR vectors to DREMR.	
	Rwy 9:	Climb on heading 091° to 2000°	EXPECT RADAR vectors to DREMR.	
	Rwy 27:	Climb on heading 271° to 2200°	EXPECT RADAR vectors to DREMR.	
HOUSTON -SOUTHWEST	Rwy 5:	Climb on heading 048° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 12:	Climb on heading 123° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 23:	Climb on heading 228° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 30:	Climb on heading 303° to 540°	EXPECT RADAR vectors to DREMR.	
LA PORTE MUN	Rwy 16:	Climb on heading 163° to 1700°	EXPECT RADAR vectors to DREMR.	
	Rwy 34:	Climb on heading 343° to 1000°	EXPECT RADAR vectors to DREMR.	
	Rwy 14:	Climb on heading 142° to 1600°	EXPECT RADAR vectors to DREMR.	
	Rwy 32:	Climb on heading 322° to 900°	EXPECT RADAR vectors to DREMR.	
PEARLAND REGL	Rwy 8:	Climb on heading 086° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 14:	Climb on heading 145° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 26:	Climb on heading 266° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 32:	Climb on heading 325° to 540°	EXPECT RADAR vectors to DREMR.	
R.W.J.	Rwy 14:	Climb on heading 137° to 520°	EXPECT RADAR vectors to DREMR.	
	Rwy 18:	Climb on heading 178° to 520°	EXPECT RADAR vectors to DREMR.	
	Rwy 32:	Climb on heading 317° to 520°	EXPECT RADAR vectors to DREMR.	
	Rwy 36:	Climb on heading 358° to 520°	EXPECT RADAR vectors to DREMR.	
SCHOLES INTL AT GALVESTON	Rwy 17:	Climb on heading 172° to 1500°	EXPECT RADAR vectors to DREMR.	
	Rwy 35:	Climb on heading 352° to 1100°	EXPECT RADAR vectors to DREMR.	
	Rwy 17:	Climb on heading 177° to 540°	EXPECT RADAR vectors to DREMR.	
	Rwy 35:	Climb on heading 357° to 540°	EXPECT RADAR vectors to DREMR.	
TEXAS GULF COAST REGL	Rwy 15:	Climb on heading 152° to 620°	EXPECT RADAR vectors to DREMR.	
	Rwy 33:	Climb on heading 332° to 620°	EXPECT RADAR vectors to DREMR.	
	WEST HOUSTON			
ROUTING				
From DREMR on track 345° to LITLD, then on track 346° to BLTWY, then on track 346° to CRIED. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.				

ROUTING

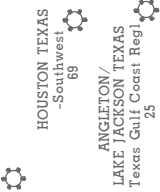
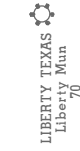
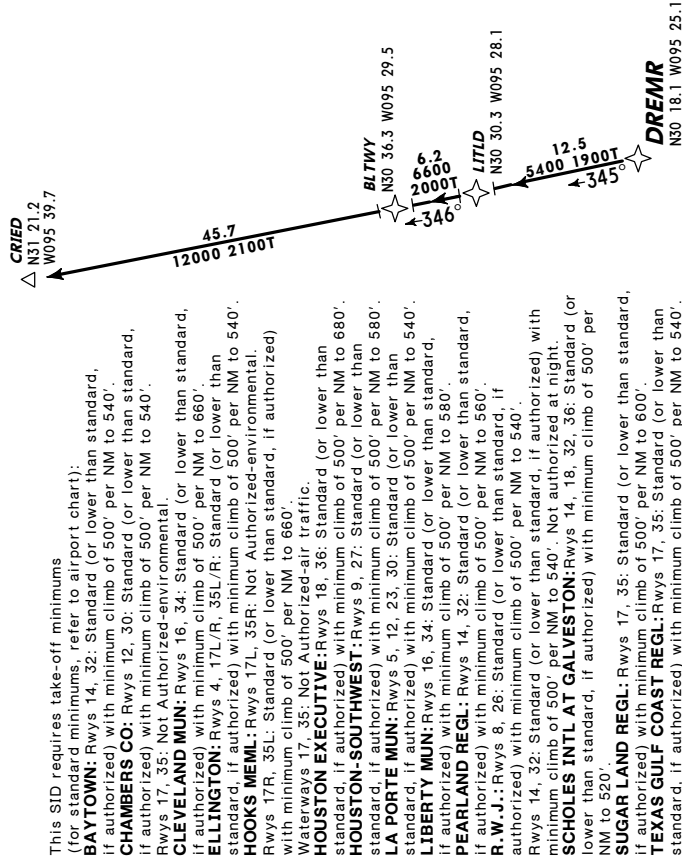
From DREMR on track 345° to LITLD, then on track 346° to BLTWY, then on track 346° to CRIED.
MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.

OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 90-30B1.



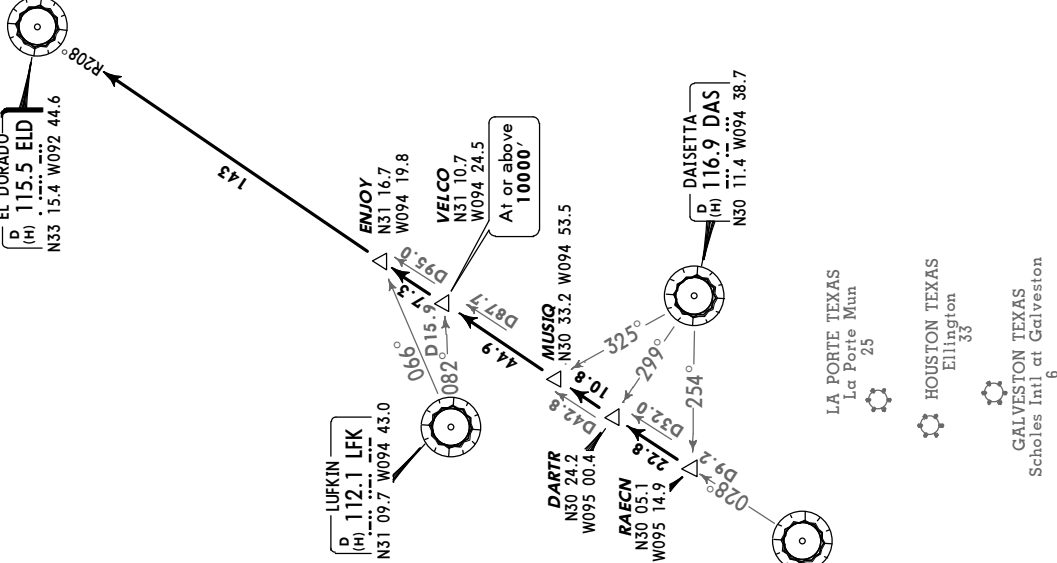
DREMR ONE RNAV DEPARTURE
(DREMR 1.DREMR)

1 AIRPORTS SERVED
BAYTOWN KHPY
CHAMBERS CO T00
CLEVELAND MUN 6R3
ELLINGTON KEFD
HOOKS MEML KDWH
HOUSTON EXECUTIVE KTME
HOUSTON-SOUTHWEST KAXH
LA PORTE MUN T41
LIBERTY MUN T78
PEARLAND REGL KLVJ
R.W.J. 54T
SCHOLES INTL AT GALVESTON KGLS
SUGAR LAND REGL KSGR
TEXAS GULF COAST REGL KLBX
WEST HOUSTON KIWS



EL DORADO FOUR DEPARTURE
(ELD4.ELD)

AIRPORTS SERVED
ELLINGTON KEFD
HOOKS MEML KDWH
HOUSTON EXECUTIVE KTFM
HOUSTON-SOUTHWEST KAXH
LA PORTE MUN T41
SCHOLES INTL AT GALVESTON KGIS
SUGAR LAND REGL KSGR
TEXAS GULF COAST REGL KLBX
WEST HOUSTON KIWS



NOT TO SCALE

- 1. RADAR required.**
- 2. For aircraft destined Memphis Intl, or filed via Q-32 or J-42.**

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 90-30B1

This SID requires take-off minimums (for standard minimums, refer to airport chart):

ELLINGTON: Rwy 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized).

Rwy 22: 200-1 1/4 or standard (or lower than standard, if authorized) with minimum climb of 214' per NM to 300' or alternatively, with standard (or lower than standard, if authorized) takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

HOOKS MEML: Rwy 17L, 35R: Not Authorized-environmental.

Rwy 17R, 35L: Standard (or lower than standard if authorized).

Waterways 17, 35: Not Authorized-air traffic.

HOUSTON EXECUTIVE: Rwy 18, 36: Standard (or lower than standard, if authorized).

HOUSTON-SOUTHWEST: Rwy 9, 27: Standard (or lower than standard, if authorized).

LA PORTE MUN: Rwy 5, 12, 23, 30: Standard (or lower than standard, if authorized).

SCHOLES INTL AT GALVESTON:

Rwy 14, 18, 32, 36: Standard (or lower than standard, if authorized).

SUGAR LAND REGL: Rwy 17, 35: Standard (or lower than standard, if authorized).

TEXAS GULF COAST REGL: Rwy 17, 35: Standard (or lower than standard, if authorized).

WEST HOUSTON: Rwy 15, 33: Standard (or lower than standard, if authorized).

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

AIRPORT	INITIAL CLIMB
ELLINGTON	Climb on assigned heading for RADAR vectors to RAEON.
ALL OTHER AIRPORTS	When entering controlled airspace, climb on assigned heading for RADAR vectors to RAEON.
ROUTING	
MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At RAEON on IAH R-028 and the ELD R-208 to ELD.	

AREA SID

SERVES ONLY: 1

Apt Elev See graphic	Trans level: FL180	Trans alt: 18000'
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1. RADAR required.
2. For aircraft destined for Dallas Ft Worth (DFW) terminal area only.

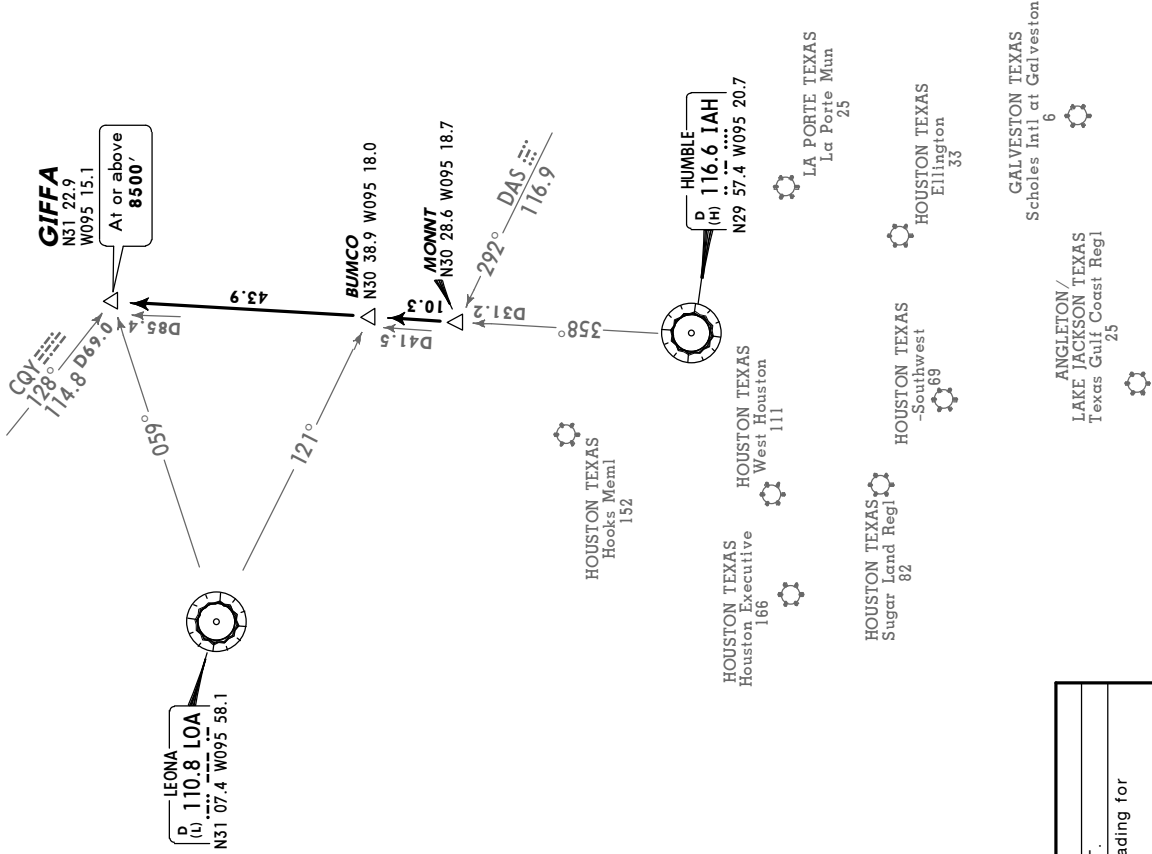
GIFFA FIVE DEPARTURE

(GIFFA5.GIFFA)

- 1 AIRPORTS SERVED
- ELLINGTON KEFD
- HOOKS MEML KDWH
- HOUSTON EXECUTIVE KTME
- HOUSTON-SOUTHWEST KAXH
- LA PORTE MUN T41
- SCHOLES INTL AT GALVESTON KGLS
- SUGAR LAND REGL KSGR
- TEXAS GULF COAST REGL KLBX
- WEST HOUSTON KIWS

OBSTACLE

For TAKEOFF OBSTACLE NOTES see 90-30B1.



This SID requires take-off minimums (for standard minimums, refer to airport chart):
ELLINGTON: Rwys 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized).
Rwy 22: 200-1 1/4 or standard (or lower than standard, if authorized) with minimum climb of 214' per NM to 300' or alternatively, with standard (or lower than standard, if authorized) takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.
HOOKS MEML: Rwys 17L, 35R: Not Authorized-environmental.
Rwys 17R, 35L: Standard (or lower than standard, if authorized).
Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwys 18, 36: Standard (or lower than standard, if authorized).
HOUSTON-SOUTHWEST: Rwys 9, 27: Standard (or lower than standard, if authorized).
LA PORTE MUN: Rwys 5, 12, 23, 30: Standard (or lower than standard, if authorized).
SCHOLES INTL AT GALVESTON: Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized).
SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized).
TEXAS GULF COAST REGL: Rwys 17, 35: Standard (or lower than standard, if authorized).
WEST HOUSTON: Rwys 15, 33: Standard (or lower than standard, if authorized).

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

INITIAL CLIMB	
AIRPORT	
ELLINGTON	Climb on assigned heading for RADAR vectors to MONNT.
ALL OTHER AIRPORTS	When entering controlled airspace, climb on assigned heading for RADAR vectors to MONNT.
ROUTING	
MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure.. At MONNT on IAH R-358 to GIFFA.	

CHANGES: New chart.

Apt Elev See graphic		Trans level: FL180	Trans alt: 18000'	1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1. 4. TPAKK Transition: For non-GPS equipped aircraft TNV DME must be operational.
INITIAL CLIMB				
AIRPORT	This SID requires take-off minimums (for standard minimums, refer to airport chart): BAYTOWN: Rwy 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. CHAMBERS CO: Rwys 12, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. CLEVELAND MUN: Rwy 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'. ELLINGTON: Rwy 17, 35: Not Authorized-environmental. HOOKS MEML: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'. ELLINGTON: Rwy 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. HOOKS MEML: Rwy 17L, 35R: Not Authorized-environmental. HOOKS MEML: Rwy 17R, 35L: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'. Waterways 17, 35: Not Authorized-air traffic. HOUSTON EXECUTIVE: Rwys 18, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 680'. HOUSTON-SOUTHWEST: Rwys 9, 27: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'. LA PORTE MUN: Rwys 5, 12, 23, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. LIBERTY MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'. PEARLAND REGL: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 560'. R.W.J.: Rwys 8, 26: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. SCHOLLES INTL AT GALVESTON: Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 520'. SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 600'. TEXAS GULF COAST REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. WEST HOUSTON: Rwys 15, 33: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 620'.			
BAY TOWN	Rwy 14: Climb on heading 140° to 540', EXPECT RADAR vectors to RENNK. Rwy 32: Climb on heading 320° to 540', EXPECT RADAR vectors to RENNK.			
CHAMBERS CO	Rwy 12: Climb on heading 126° to 540', EXPECT RADAR vectors to RENNK. Rwy 30: Climb on heading 306° to 540', EXPECT RADAR vectors to RENNK.			
CLEVELAND MUN	Rwy 16: Climb on heading 159° to 1400', EXPECT RADAR vectors to RENNK. Rwy 34: Climb on heading 339° to 2000', EXPECT RADAR vectors to RENNK.			
ELLINGTON	Rwy 4: Climb on heading 041° to 540', EXPECT RADAR vectors to RENNK. Rwys 17L/R: Climb on heading 176° to 540', EXPECT RADAR vectors to RENNK. Rwy 22: Climb on heading 221° to 540', EXPECT RADAR vectors to RENNK. Rwys 35L/R: Climb on heading 356° to 540', EXPECT RADAR vectors to RENNK.			
HOOKS MEML	Rwy 17R: Climb on heading 170° to 660', EXPECT RADAR vectors to RENNK. Rwy 35L: Climb on heading 350° to 660', EXPECT RADAR vectors to RENNK.			
HOUSTON EXECUTIVE	Rwy 18: Climb on heading 176° to 680', EXPECT RADAR vectors to RENNK. Rwy 36: Climb on heading 356° to 680', EXPECT RADAR vectors to RENNK.			
HOUSTON -SOUTHWEST	Rwy 9: Climb on heading 091° to 2000', EXPECT RADAR vectors to RENNK. Rwy 27: Climb on heading 271° to 2200', EXPECT RADAR vectors to RENNK.			
LA PORTE MUN	Rwy 5: Climb on heading 048° to 540', EXPECT RADAR vectors to RENNK. Rwy 12: Climb on heading 123° to 540', EXPECT RADAR vectors to RENNK. Rwy 23: Climb on heading 228° to 540', EXPECT RADAR vectors to RENNK. Rwy 30: Climb on heading 303° to 540', EXPECT RADAR vectors to RENNK.			
LIBERTY MUN	Rwy 16: Climb on heading 163° to 1700', EXPECT RADAR vectors to RENNK. Rwy 34: Climb on heading 343° to 1000', EXPECT RADAR vectors to RENNK.			
PEARLAND REGL	Rwy 14: Climb on heading 142° to 1600', EXPECT RADAR vectors to RENNK. Rwy 32: Climb on heading 322° to 900', EXPECT RADAR vectors to RENNK.			
R.W.J.	Rwy 8: Climb on heading 086° to 540', EXPECT RADAR vectors to RENNK. Rwy 14: Climb on heading 145° to 540', EXPECT RADAR vectors to RENNK. Rwy 26: Climb on heading 266° to 540', EXPECT RADAR vectors to RENNK. Rwy 32: Climb on heading 325° to 540', EXPECT RADAR vectors to RENNK.	From RENNK on track 016° to COLET, then on track 025° to SUSHI, then on track 026° to INDIE, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure. OBSTACLE For TAKEOFF OBSTACLE NOTES see 90-30B1. ROUTING		
SCHOLLES INTL AT GALVESTON	Rwy 14: Climb on heading 137° to 520', EXPECT RADAR vectors to RENNK. Rwy 18: Climb on heading 178° to 520', EXPECT RADAR vectors to RENNK. Rwy 32: Climb on heading 317° to 520', EXPECT RADAR vectors to RENNK. Rwy 36: Climb on heading 358° to 520', EXPECT RADAR vectors to RENNK.			
SUGAR LAND REGL	Rwy 17: Climb on heading 172° to 1500', EXPECT RADAR vectors to RENNK. Rwy 35: Climb on heading 352° to 1100', EXPECT RADAR vectors to RENNK.			
TEXAS GULF COAST REGL	Rwy 17: Climb on heading 177° to 540', EXPECT RADAR vectors to RENNK. Rwy 35: Climb on heading 357° to 540', EXPECT RADAR vectors to RENNK.			
WEST HOUSTON	Rwy 15: Climb on heading 152° to 820', EXPECT RADAR vectors to RENNK. Rwy 33: Climb on heading 332° to 820', EXPECT RADAR vectors to RENNK.			

AREA SID

SERVES ONLY: ①

JEPPESSEN

12 SEP 14

90-3J

Eff 18 Sep

HOUSTON METROPLEX,
TEXAS

SID

Apt Elev
See graphic

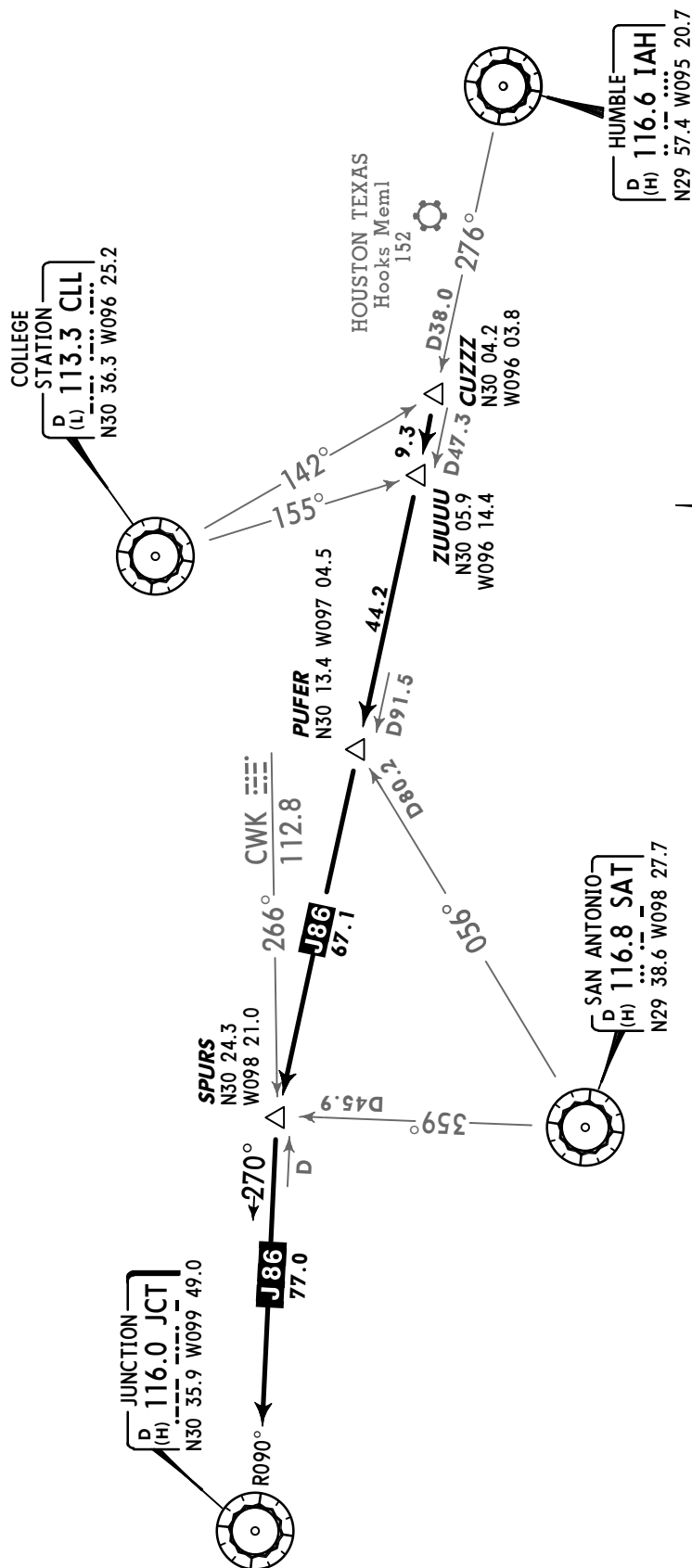
Trans level: FL180 Trans alt: 18000'

1. **RADAR required.**

2. For aircraft overflying JCT via J-86 filing FL240 or above.

JUNCTION SEVEN DEPARTURE (JCT7.JCT)

① AIRPORT SERVED
HOOKS MEML KDWH



OBSTACLES

For TAKEOFF OBSTACLE
NOTES see 90-30B1.

INITIAL CLIMB

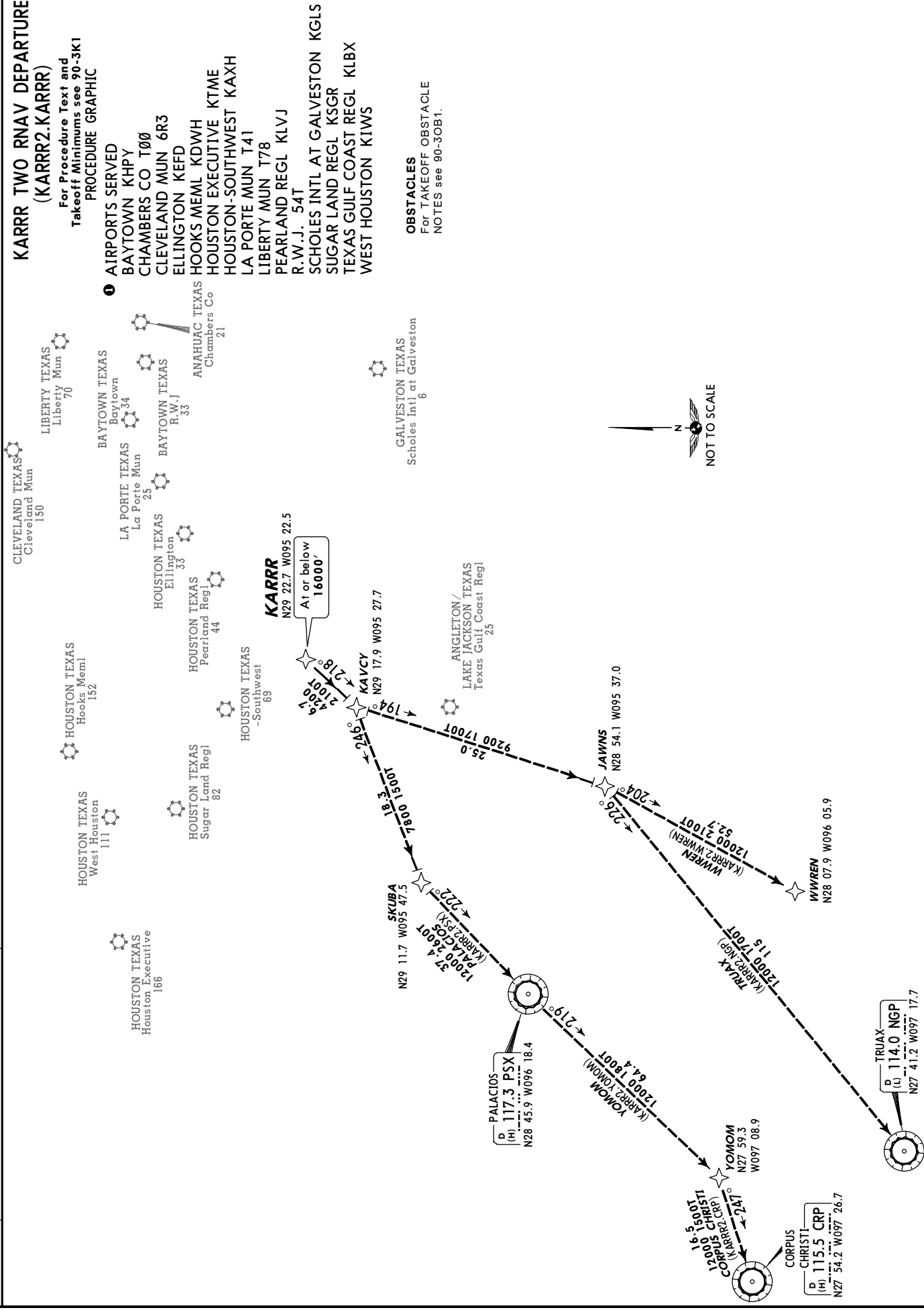
This SID requires take-off minimums (for standard minimums, refer to airport chart):
HOOKS MEML: Rwy 17L, 35R: Not Authorized - environmental.
Rwys 17R, 35L: Standard (or lower than standard, if authorized).
Waterways 17, 35: Not Authorized - air traffic.

When entering controlled airspace, climb on assigned heading for RADAR vectors to CUZZZ. MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. Then via IAH R-276 and JCT R-090 to JCT.

<i>Apt Elev</i> <i>See graphic</i>	Trans level: FL180 Trans alt: 18000'	1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.
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**KARRR TWO RNAV DEPARTURE
(KARRR2.KARRR)**

For Procedure Text and
Takeoff Minimums see 90-3K1
PROCEDURE GRAPHIC



KARRR TWO RNAV DEPARTURE
(KARRR2.KARRR)
For Procedure Graphic see 90-3K
PROCEDURE TEXT

❶ AIRPORTS SERVED	INITIAL CLIMB
BAYTOWN	Rwy 14: Climb on heading 138° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 32: Climb on heading 318° to 540', EXPECT RADAR vectors to KARRR.
CHAMBERS CO	Rwy 12: Climb on heading 124° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 30: Climb on heading 304° to 540', EXPECT RADAR vectors to KARRR.
CLEVELAND MUN	Rwy 16: Climb on heading 157° to 1400', EXPECT RADAR vectors to KARRR.
	Rwy 34: Climb on heading 337° to 2000', EXPECT RADAR vectors to KARRR.
ELLINGTON	Rwy 4: Climb on heading 039° to 540', EXPECT RADAR vectors to KARRR.
	Rwys 17L/R: Climb on heading 174° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 22: Climb on heading 219° to 540', EXPECT RADAR vectors to KARRR.
HOOKS MEML	Rwys 35L/R: Climb on heading 354° to 540', EXPECT RADAR vectors to KARRR.
HOUSTON EXECUTIVE	Rwy 17R: Climb on heading 168° to 660', EXPECT RADAR vectors to KARRR.
	Rwy 35L: Climb on heading 348° to 660', EXPECT RADAR vectors to KARRR.
HOUSTON -SOUTHWEST	Rwy 18: Climb on heading 174° to 680', EXPECT RADAR vectors to KARRR.
	Rwy 36: Climb on heading 354° to 680', EXPECT RADAR vectors to KARRR.
LA PORTE MUN	Rwy 9: Climb on heading 089° to 2000', EXPECT RADAR vectors to KARRR.
	Rwy 27: Climb on heading 269° to 2200', EXPECT RADAR vectors to KARRR.
LIBERTY MUN	Rwy 5: Climb on heading 046° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 12: Climb on heading 121° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 23: Climb on heading 226° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 30: Climb on heading 301° to 540', EXPECT RADAR vectors to KARRR.
PEARLAND REGL	Rwy 16: Climb on heading 161° to 1700', EXPECT RADAR vectors to KARRR.
	Rwy 34: Climb on heading 341° to 1000', EXPECT RADAR vectors to KARRR.
R.W.J.	Rwy 14: Climb on heading 140° to 1600', EXPECT RADAR vectors to KARRR.
	Rwy 32: Climb on heading 320° to 900', EXPECT RADAR vectors to KARRR.
	Rwy 8: Climb on heading 084° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 14: Climb on heading 143° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 26: Climb on heading 264° to 540', EXPECT RADAR vectors to KARRR.
SCHOLLES INTL AT GALVESTON	Rwy 32: Climb on heading 323° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 14: Climb on heading 135° to 520', EXPECT RADAR vectors to KARRR.
SUGAR LAND REGL	Rwy 18: Climb on heading 176° to 520', EXPECT RADAR vectors to KARRR.
	Rwy 32: Climb on heading 315° to 520', EXPECT RADAR vectors to KARRR.
TEXAS GULF COAST REGL	Rwy 36: Climb on heading 356° to 520', EXPECT RADAR vectors to KARRR.
	Rwy 17: Climb on heading 170° to 1500', EXPECT RADAR vectors to KARRR.
WEST HOUSTON	Rwy 35: Climb on heading 350° to 1100', EXPECT RADAR vectors to KARRR.
	Rwy 17: Climb on heading 175° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 35: Climb on heading 355° to 540', EXPECT RADAR vectors to KARRR.
	Rwy 15: Climb on heading 150° to 620', EXPECT RADAR vectors to KARRR.
	Rwy 33: Climb on heading 330° to 620', EXPECT RADAR vectors to KARRR.

ROUTING

Cross KARRR at or below 16000'. From KARRR on track 218° to KAVCY, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
BAYTOWN: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
CHAMBERS CO: Rwys 12, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
Rwys 17, 35: Not Authorized-environmental.
CLEVELAND MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'.
ELLINGTON: Rwys 4, 17L/R, 22, 35L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
HOOKS MEML: Rwys 17L, 35R: Not Authorized-environmental.
Rwys 17R, 35L: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'.
Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwys 18, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 680'.
HOUSTON-SOUTHWEST: Rwys 9, 27: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
LA PORTE MUN: Rwys 5, 12, 23, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
LIBERTY MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
PEARLAND REGL: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 560'.
R.W.J.: Rwys 8, 26: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
SCHOLLES INTL AT GALVESTON: Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 520'.
SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 600'.
TEXAS GULF COAST REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
WEST HOUSTON: Rwys 15, 33: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 620'.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

AREA SID

SERVES ONLY: ①

JEPPesen

23 MAY 14

90-3L

Eff 29 May

HOUSTON METROPLEX,
TEXAS

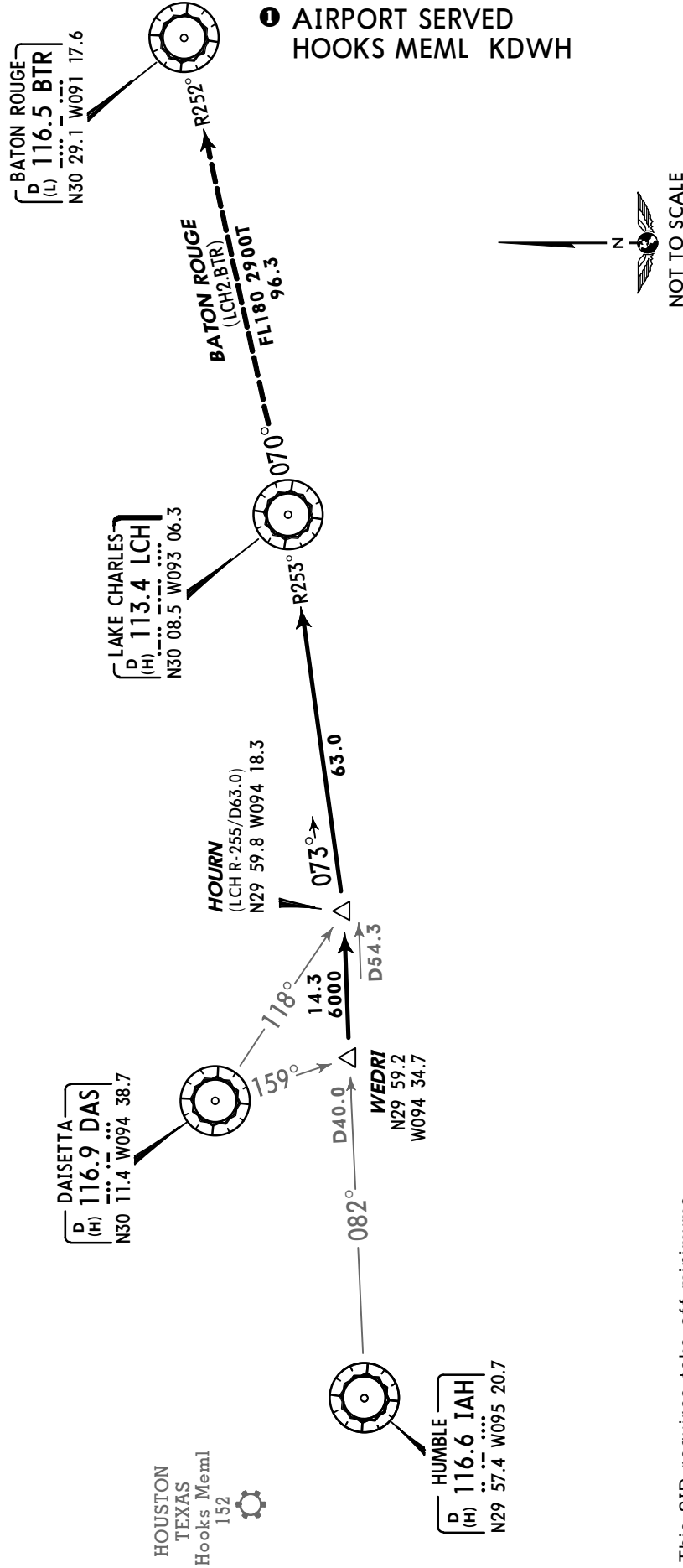
SID

Apt Elev
See graphic

Trans level: FL180 Trans alt: 18000'
RADAR required.

LAKE CHARLES TWO DEPARTURE (LCH2.LCH)

① AIRPORT SERVED
HOOKS MEML KDWH



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
HOOKS MEML: Rwy 17L, 35R: Not Authorized-
environmental.
Rwys 17R, 35L: Standard (or lower than standard,
if authorized).
Waterways 17, 35: Not Authorized-air traffic.

When entering controlled airspace, climb on assigned heading for RADAR vectors to WEDRI.
MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. Then via IAH R-082 to
HURN, then via LCH R-253 to LCH.

**AREA SID
SERVES ONLY: 1**

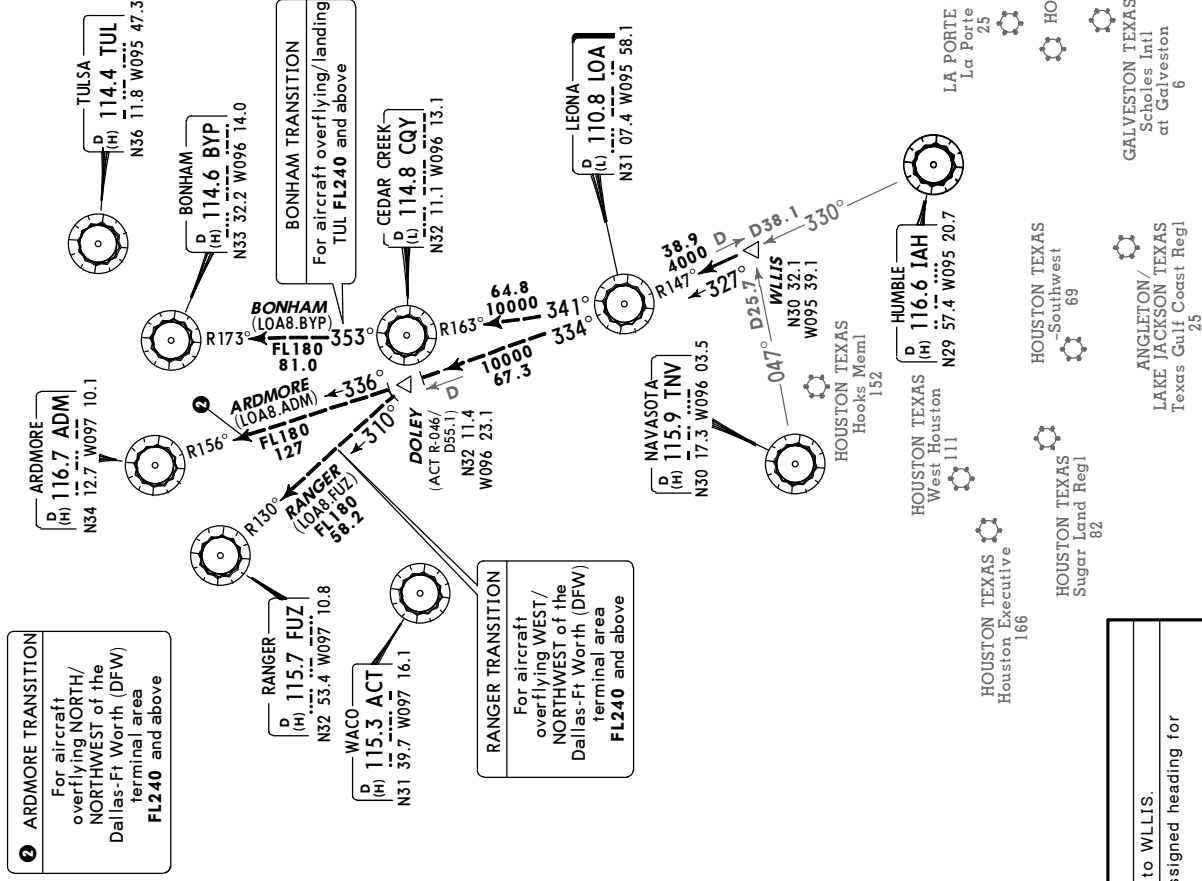
<i>Apt Elev</i> <i>See graphic</i>	Trans level: FL180 Trans alt: 18000'
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1. **RADAR required.**
2. Except for aircraft destined Waco (ACT) or the Dallas Ft Worth (DFW) terminal area, all aircraft filing the LEONA SID must file one of the published transitions via FUZ, ADM or BYP.

**LEONA EIGHT DEPARTURE
(LOA8.LOA)**

- ## 1 AIRPORTS SERVED

ELLINGTON KEFD
HOOKS MEML KDWH
HOUSTON EXECUTIVE
HOUSTON-SOUTHWEST
LA PORTE MUN T41
SCHOLES INTL AT GAA
SUGAR LAND REG H
TEXAS GULF COAST H
WEST HOUSTON KIV



OBSTACLE
For TAKEOFF OBSTACLE NOTES see 90-30B1.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
ELLINGTON: Rwy's 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized).
 Rwy 22: 200-1 1/4 or standard (or lower than standard, if authorized) with minimum climb of 214' per NM to 300' or alternatively, with standard (or lower than standard, if authorized) takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

HOOKS MEML: Rwys 17L, 35R: Not Authorized-
environmental.
Rwys 17R, 35L: Standard (or lower than standard,
if authorized).

Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwy 18, 36: Standard
 (or lower than standard, if authorized).

HOUSTON-SOUTHWEST: Rwy 9, 27: Standard (or lower than standard, if authorized).

LA PORTE MUN: Rwy 5, 12, 23, 30: Standard (or lower than standard, if authorized).

SCHOLES INTL AT GALVESTON:
Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized)

SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized).

TEXAS GULF COAST REG: Rwy 17, 35: Standard (or lower than standard, if authorized)

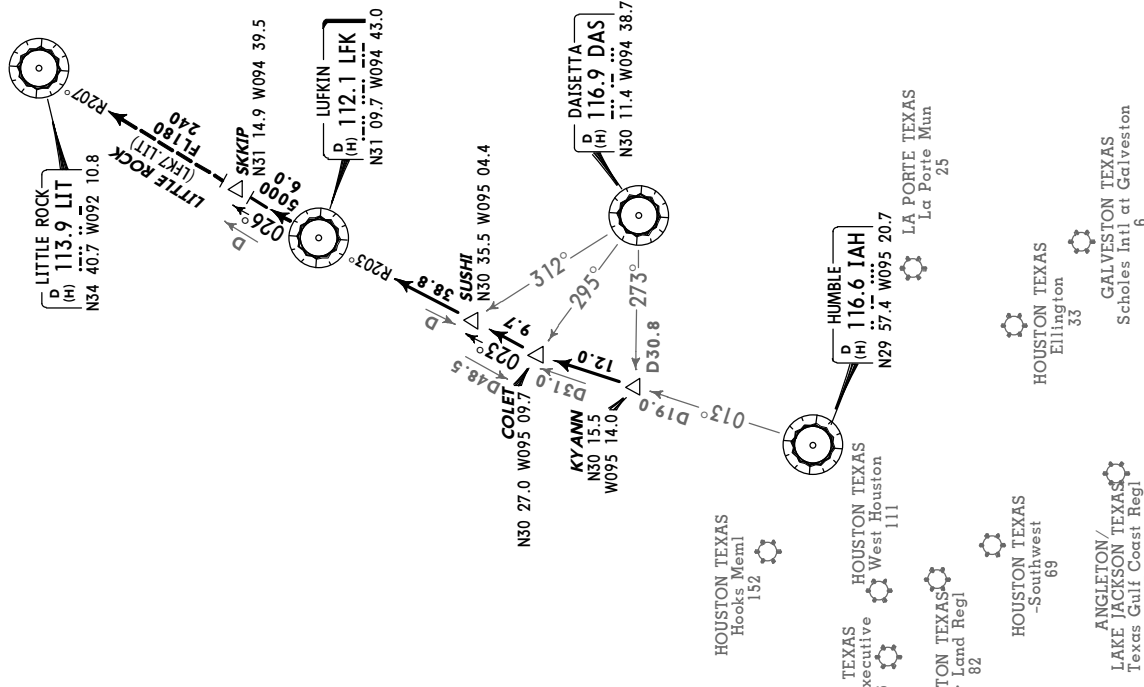
WEST HOUSTON: Rwy 15, 33: Standard (or lower than standard if authorized).

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

AIRPORT	INITIAL CLIMB
ELLINGTON	Climb on assigned heading for RADAR vectors to WLLIS.
ALL OTHER AIRPORTS	When entering controlled airspace, climb on assigned heading for RADAR vectors to WLLIS.
ROUTING	
MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. From WLLIS on LOA R-147 to LOA.	

LUFKIN SEVEN DEPARTURE
(LFK7.LFK)

- 1** AIRPORTS SERVED
 ELLINGTON KEFD
 HOOKS MEML KDWH
 HOUSTON EXECUTIVE KTMF
 HOUSTON-SOUTHWEST KAXH
 LA PORTE MUN T41
 SCHOLES INTL AT GALVESTON KGLS
 SUGAR LAND REGL KSGR
 TEXAS GULF COAST REGL KLBX
 WEST HOUSTON KIWS



NOT TO SCALE

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 90-30B1

This SID requires take-off minimums

ELLINGTON: Rwy 4, 17L/R, 35L/R: Standard (or lower than standard if authorized).

Rwy 22: 200'-1 1/4' or standard (or lower than standard, if authorized) with minimum climb of 214' per NM to 300' or alternatively, with standard (or lower than standard, if authorized) takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

HOOKS MEML: Rwy's 17L, 35R: Not Authorized-environmental.
Rwy's 17R, 35L: Standard (or lower than standard if authorized).

Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwys 18, 36: Standard (or lower than standard if authorized).

HOUSTON-SOUTHWEST: Rwy 9, 27: Standard (or lower than standard, if authorized).
LA PORTE MUN: Rwy 5, 12, 23, 30: Standard

SCHOLES INTL AT GALVESTON:
Dive 14 18 32 36: Standard (or lower than
Dive 14 18 32 36: Standard (or lower than

SUGAR LAND REG: Rws 17, 35: Standard

TEXAS GULF COAST REG: Rwy 17, 35:
Standard (or lower than standard, if authorized)

Grd speed:KT	75	100	150	200	250	300
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Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

AIRPORT	INITIAL CLIMB
ELLINGTON	Climb on assigned heading for RADAR vectors to KYANN.
ALL OTHER AIRPORTS	When entering controlled airspace, climb on assigned heading for RADAR vectors to KYANN.
ROUTING	
MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At KYANN on IAH R-013 to COLET, then RIGHT turn on LFK R-203 to LFK.	

TAKEOFF OBSTACLE NOTES**BAYTOWN**

- RWY 14:
MULTIPLE TREES, POWER POLES AND HOUSES BEGINNING AT DER, LEFT AND RIGHT OF CENTERLINE, UP TO 60' AGL/89' MSL. VEHICLE 187' FROM DER, 47' RIGHT OF CENTERLINE, 15' AGL/44' MSL. TOWER 4066' FROM DER, 1217' RIGHT OF CENTERLINE, 156' AGL/180' MSL.
- RWY 32:
VEHICLE 53' FROM DER, 23' RIGHT OF CENTERLINE, 15' AGL/49' MSL. BUILDINGS BEGINNING 104' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 30' AGL/59' MSL. TREES BEGINNING 116' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 60' AGL/94' MSL.

CHAMBERS CO

- RWY 12:
VEHICLES ON ROADWAY BEGINNING 19' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 15' AGL/34' MSL. TREES BEGINNING 986' FROM DER, 732' LEFT OF CENTERLINE, UP TO 100' AGL/119' MSL.
- RWY 30:
TREES BEGINNING 60' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 100' AGL/124' MSL. VEHICLES ON ROADWAY 121' FROM DER, 512' RIGHT OF CENTERLINE, UP TO 17' AGL/36' MSL. TOWER 2152' FROM DER, 593' RIGHT OF CENTERLINE, 60' AGL/83' MSL.

CLEVELAND MUN

- RWY 16:
TREES BEGINNING ABEAM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 100' AGL/239' MSL.
- RWY 34:
TREES BEGINNING 120' FROM DER, 243' LEFT OF CENTERLINE, UP TO 100' AGL/259' MSL. TREES AND POLES BEGINNING 225' FROM DER, 363' RIGHT OF CENTERLINE, UP TO 100' AGL/220' MSL. VEHICLES ON ROAD 738' FROM DER, RIGHT AND LEFT OF CENTERLINE, UP TO 19' AGL/169' MSL.

ELLINGTON

- RWY 4:
TREE 1526' FROM DER, 737' RIGHT OF CENTERLINE, 39' AGL/69' MSL.
- RWY 17R:
POLE 1488' FROM DER, 817' RIGHT OF CENTERLINE, 40' AGL/74' MSL.
- RWY 22:
OBSTACLE LIGHT ON GLIDESLOPE AND EQUIPMENT 321' FROM DER, 544' LEFT OF CENTERLINE, 39' AGL/68' MSL. SIGN 213' FROM DER, 472' RIGHT OF CENTERLINE, 6' AGL/32' MSL. ANTENNA ON BUILDING 1998' FROM DER, 598' RIGHT OF CENTERLINE, 54' AGL/83' MSL. OBSTRUCTION LIGHT ON COMM EQUIPMENT AND ANTENNA 1626' FROM DER, 837' RIGHT OF CENTERLINE, 88' AGL/114' MSL. OBSTRUCTION LIGHT ON WATER TOWER AND TANK 6114' FROM DER, 1635' RIGHT OF CENTERLINE, 159' AGL/192' MSL.
- RWY 35L:
TREES BEGINNING 1119' FROM DER, 679' RIGHT OF CENTERLINE, UP TO 37' AGL/77' MSL. CRANE 2353' FROM DER, 1024' LEFT OF CENTERLINE, 58' AGL/97' MSL.

TAKEOFF OBSTACLE NOTES (CONTD 1)**ELLINGTON (CONTD)**

◦ RWY 35R:

TREE 1597' FROM DER, 32' LEFT OF CENTERLINE, 50' AGL/80' MSL. TANK 2639' FROM DER, 1157' RIGHT OF CENTERLINE, 77' AGL/109' MSL.

HOOKS MEML

◦ RWY 17R:

MULTIPLE TREES BEGINNING 708' FROM DER, 68' LEFT OF CENTERLINE, UP TO 71' AGL/220' MSL. MULTIPLE HANGARS BEGINNING 433' FROM DER, 515' LEFT OF CENTERLINE, UP TO 37' AGL/182' MSL. DME ANTENNA 653' FROM DER, 256' LEFT OF CENTERLINE, 13' AGL/162' MSL. MULTIPLE TREES AND POLE BEGINNING 85' FROM DER, 294' RIGHT OF CENTERLINE, UP TO 45' AGL/189' MSL.

◦ RWY 35L:

MULTIPLE TREES AND POLES BEGINNING 144' FROM DER, 32' LEFT OF CENTERLINE, UP TO 79' AGL/238' MSL. MULTIPLE HANGARS AND BUILDINGS BEGINNING 85' FROM DER, 9' LEFT OF CENTERLINE, UP TO 53' AGL/202' MSL. MULTIPLE TREES, TOWERS AND POLES BEGINNING 100' FROM DER, 124' RIGHT OF CENTERLINE, UP TO 93' AGL/247' MSL. VEHICLE AND ROAD 315' FROM DER, ON CENTERLINE, 15' AGL/166' MSL. BUILDING 894' FROM DER, 231' RIGHT OF CENTERLINE, 23' AGL/173' MSL.

HOUSTON EXECUTIVE

◦ RWY 36:

POWER POLES FROM LEFT TO RIGHT BEGINNING 703' FROM DER, 623' LEFT TO 685' RIGHT OF CENTERLINE, UP TO 32' AGL/196' MSL.

HOUSTON-SOUTHWEST

◦ RWY 9:

MULTIPLE HANGARS BEGINNING 239' FROM DER, 360' RIGHT OF CENTERLINE, UP TO 42' AGL/106' MSL. MULTIPLE TREES BEGINNING 501' FROM DER, 355' RIGHT OF CENTERLINE, UP TO 43' AGL/111' MSL. MULTIPLE HANGARS BEGINNING 119' FROM DER, 498' LEFT OF CENTERLINE, UP TO 41' AGL/105' MSL. POLE 332' FROM DER, 299' LEFT OF CENTERLINE, 43' AGL/97' MSL. ANTENNA 1172' FROM DER, 658' LEFT OF CENTERLINE, 51' AGL/115' MSL. MULTIPLE TREES BEGINNING 558' FROM DER, 68' LEFT OF CENTERLINE, UP TO 58' AGL/122' MSL.

◦ RWY 27:

MULTIPLE TREES BEGINNING 1050' FROM DER, 40' LEFT OF CENTERLINE, UP TO 71' AGL/140' MSL. VEHICLE ON ROAD 99' FROM DER, 291' RIGHT OF CENTERLINE, 15' AGL/83' MSL. MULTIPLE TREES BEGINNING 873' FROM DER, 514' RIGHT OF CENTERLINE, UP TO 59' AGL/130' MSL. MULTIPLE TRANSMISSION POLES BEGINNING 1304' FROM DER, 131' RIGHT OF CENTERLINE, UP TO 41' AGL/110' MSL.

LA PORTE MUN

(ALEXANDRIA, BOWFN, CRIED, EL DORADO, GIFFA, INDUSTRY, JUNCTION, LAKE CHARLES, LEONA, LUFKIN, PALACIOS DEPARTURES)

◦ RWY 12:

TREES AND POLES BEGINNING 128' FROM DER, 42' LEFT OF CENTERLINE, UP TO 50' AGL/74' MSL. TREES AND POLES BEGINNING 131' FROM DER, 114' RIGHT OF CENTERLINE, UP TO 39' AGL/63' MSL. CHIMNEY 676' FROM DER, 412' RIGHT OF CENTERLINE, 31' AGL/55' MSL.

◦ RWY 23:

TREES BEGINNING 1320' FROM DER, 43' LEFT OF CENTERLINE, UP TO 63' AGL/87' MSL. HANGARS BEGINNING 233' FROM DER, 288' RIGHT OF CENTERLINE, UP TO 35'

TAKEOFF OBSTACLE NOTES (CONTD 2)**LA PORTE MUN (CONTD)**◦ **RWY 23 (CONTD):**

AGL/59' MSL. VEHICLE ON ROAD 594' FROM DER, 513' LEFT OF CENTERLINE, 15' AGL/39' MSL. TREES 1010' FROM DER, 1010' RIGHT OF CENTERLINE, UP TO 63' AGL/87' MSL.

◦ **RWY 30:**

TREES AND POLES BEGINNING 114' FROM DER, 67' LEFT OF CENTERLINE, UP TO 63' AGL/87' MSL. BUILDINGS 335' FROM DER, 356' LEFT OF CENTERLINE, 25' AGL/50' MSL. TREES AND POLES BEGINNING 44' FROM DER, 35' RIGHT OF CENTERLINE, UP TO 52' AGL/76' MSL.

LA PORTE MUN

(BORRN, DREMR, INDIE, KARRR, LURIC, MMALT, STRYA, STYCK, WATFO, WYLSN DEPARTURES)

◦ **RWY 5:**

TREES BEGINNING 334' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 67' AGL/91' MSL. POLES BEGINNING 973' FROM DER, 387' LEFT OF CENTERLINE, UP TO 40' AGL/64' MSL. BUILDINGS BEGINNING 319' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 30' AGL/54' MSL. STACK 2.3 NM FROM DER, 3296' LEFT OF CENTERLINE, 300' AGL/334' MSL.

◦ **RWY 12:**

POLES BEGINNING 127' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 54' AGL/74' MSL. TREES BEGINNING 183' FROM DER, 446' RIGHT OF CENTERLINE, UP TO 40' AGL/60' MSL. BUILDINGS 675' FROM DER, 411' RIGHT OF CENTERLINE, UP TO 32' AGL/55' MSL. TREES BEGINNING 888' FROM DER, 113' RIGHT OF CENTERLINE, UP TO 43' AGL/63' MSL.

◦ **RWY 23:**

BUILDINGS BEGINNING 30' FROM DER, 242' LEFT OF CENTERLINE, UP TO 30' AGL/54' MSL. BUILDINGS BEGINNING 231' FROM DER, 134' RIGHT OF CENTERLINE, UP TO 30' AGL/54' MSL. TREES BEGINNING 243' FROM DER, 494' RIGHT OF CENTERLINE, UP TO 67' AGL/91' MSL. POLES BEGINNING 363' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 40' AGL/64' MSL. VEHICLE ON ROAD BEGINNING 493' FROM DER, 562' LEFT OF CENTERLINE, UP TO 15' AGL/39' MSL. TREES BEGINNING 573' FROM DER, 292' LEFT OF CENTERLINE, UP TO 67' AGL/91' MSL. TREES BEGINNING 1123' FROM DER, 69' RIGHT OF CENTERLINE, UP TO 67' AGL/91' MSL.

◦ **RWY 30:**

TREES BEGINNING 44' FROM DER, 331' RIGHT OF CENTERLINE, UP TO 51' AGL/71' MSL. POLE 114' FROM DER, 500' LEFT OF CENTERLINE, 37' AGL/60' MSL. BUILDINGS BEGINNING 334' FROM DER, 355' LEFT OF CENTERLINE, UP TO 25' AGL/50' MSL. TREES BEGINNING 367' FROM DER, 471' LEFT OF CENTERLINE, UP TO 37' AGL/57' MSL. BUILDING 669' FROM DER, 415' RIGHT OF CENTERLINE, 30' AGL/55' MSL. POLES BEGINNING 768' FROM DER, 427' RIGHT OF CENTERLINE, UP TO 50' AGL/74' MSL. TREES BEGINNING 1048' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 67' AGL/87' MSL.

LIBERTY MUN◦ **RWY 16:**

HANGARS BEGINNING 4' FROM DER, 340' RIGHT OF CENTERLINE, UP TO 21' AGL/91' MSL. TREE 273' FROM DER, 401' RIGHT OF CENTERLINE, 28' AGL/96' MSL. TREES BEGINNING 1067' FROM DER, 122' LEFT OF CENTERLINE, UP TO 76' AGL/146' MSL. TREES AND POLES BEGINNING 1166' FROM DER, 48' RIGHT OF CENTERLINE, UP TO 85' AGL/155' MSL.

TAKEOFF OBSTACLE NOTES (CONTD 3)**LIBERTY MUN (CONTD)**

◦ RWY 34:

TREES BEGINNING 176' FROM DER, 262' LEFT OF CENTERLINE, UP TO 52' AGL/117' MSL. POLES BEGINNING 427' FROM DER, 318' RIGHT OF CENTERLINE, UP TO 40' AGL/105' MSL. POLES BEGINNING 451' FROM DER, 236' LEFT OF CENTERLINE, UP TO 39' AGL/106' MSL. TREES BEGINNING 758' FROM DER, 101' RIGHT OF CENTERLINE, UP TO 101' AGL/166' MSL. TREES BEGINNING 1953' FROM DER, 40' LEFT OF CENTERLINE, UP TO 96' AGL/161' MSL.

PEARLAND REGL

◦ RWY 14:

MULTIPLE TREES BEGINNING 199' FROM DER, 226' RIGHT OF CENTERLINE, UP TO 66' AGL/100' MSL. VEHICLE ON ROAD 398' FROM DER, 405' LEFT OF CENTERLINE, 9' AGL/55' MSL. TREES 1287' FROM DER, 453' LEFT OF CENTERLINE, UP TO 56' AGL/90' MSL.

◦ RWY 32:

MULTIPLE TREES BEGINNING 690' FROM DER, 81' LEFT OF CENTERLINE, UP TO 79' AGL/128' MSL. MULTIPLE POLES BEGINNING 745' FROM DER, 24' LEFT OF CENTERLINE, UP TO 40' AGL/80' MSL. MULTIPLE TREES AND POLES BEGINNING 29' FROM DER, 11' RIGHT OF CENTERLINE, UP TO 64' AGL/104' MSL. BUILDING 237' FROM DER, 520' RIGHT OF CENTERLINE, 32' AGL/72' MSL.

R.W.J.

◦ RWY 8:

TREES BEGINNING 21' FROM DER, 152' LEFT OF CENTERLINE, UP TO 100' AGL/129' MSL. VEHICLE ON ROAD BEGINNING 100' FROM DER, CROSSING CENTERLINE, UP TO 15' AGL/44' MSL. FENCE BEGINNING ABEAM DER, 115' RIGHT OF CENTERLINE, UP TO 6' AGL/35' MSL. TREES BEGINNING 133' FROM DER, 333' RIGHT OF CENTERLINE, UP TO 100' AGL/129' MSL. BUILDINGS BEGINNING 266' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 30' AGL/59' MSL. POWER LINES BEGINNING 356' FROM DER, 460' LEFT OF CENTERLINE, UP TO 32' AGL/61' MSL. POLE 663' FROM DER, 188' RIGHT OF CENTERLINE, 100' AGL/129' MSL.

◦ RWY 14:

VEHICLE ON ROAD BEGINNING 10' FROM DER, CROSSING CENTERLINE, UP TO 15' AGL/44' MSL. BUILDINGS BEGINNING 35' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 30' AGL/59' MSL. TREES BEGINNING 30' FROM DER, CROSSING CENTERLINE, UP TO 100' AGL/129' MSL. POWER LINES BEGINNING 341' FROM DER, CROSSING CENTERLINE, UP TO 32' AGL/61' MSL.

◦ RWY 26:

BUILDINGS BEGINNING 47' FROM DER, 118' RIGHT OF CENTERLINE, UP TO 30' AGL/64' MSL. BUILDINGS BEGINNING 187' FROM DER, 85' LEFT OF CENTERLINE, UP TO 30' AGL/64' MSL. POWER LINES BEGINNING 407' FROM DER, CROSSING CENTERLINE, UP TO 32' AGL/66' MSL. VEHICLE ON ROAD BEGINNING 448' FROM DER, CROSSING CENTERLINE, UP TO 15' AGL/49' MSL. TREES BEGINNING 619' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 100' AGL/134' MSL. QUARRY EQUIPMENT 2800' FROM DER, 193' RIGHT OF CENTERLINE, UP TO 100' AGL/134' MSL.

◦ RWY 32:

VEHICLE ON ROAD BEGINNING 10' FROM DER, CROSSING CENTERLINE, UP TO 15' AGL/49' MSL. FENCE BEGINNING 30' FROM DER, CROSSING CENTERLINE, UP TO 6' AGL/40' MSL. BUILDINGS BEGINNING 29' FROM DER, 223' LEFT OF CENTERLINE, UP TO 30' AGL/64' MSL. BUILDINGS BEGINNING 31' FROM DER, 146' RIGHT OF CENTERLINE, UP TO 30' AGL/64' MSL. POWER LINES BEGINNING 259' FROM DER, 139' LEFT OF CENTERLINE, UP TO 32' AGL/66' MSL. TREES BEGINNING 620' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 100' AGL/139' MSL.

TAKEOFF OBSTACLE NOTES (CONTD 4)**SCHOLES INTL AT GALVESTON**

- RWY 14:
BUILDING 2614' FROM DER, 376' RIGHT OF CENTERLINE, 76' AGL/81' MSL.
- RWY 18:
BUILDINGS BEGINNING 2560' FROM DER, 284' LEFT OF CENTERLINE, UP TO 121' AGL/178' MSL. T-L TOWER 636' FROM DER, 551' RIGHT OF CENTERLINE, 55' AGL/60' MSL. TREES AND POLES BEGINNING 50' FROM DER, 75' RIGHT OF CENTERLINE, UP TO 60' AGL/65' MSL.
- RWY 32:
CRANE 4434' FROM DER, 1081' LEFT OF CENTERLINE, 131' AGL/131' MSL.
- RWY 36:
BUSH 419' FROM DER, 577' LEFT OF CENTERLINE, 12' AGL/17' MSL. TREE 526' FROM DER, 371' LEFT OF CENTERLINE, 14' AGL/19' MSL. TREES BEGINNING 713' FROM DER, 383' RIGHT OF CENTERLINE, UP TO 27' AGL/32' MSL.

SUGAR LAND REGL

- RWY 17:
MULTIPLE POLES BEGINNING 436' FROM DER, 172' RIGHT OF CENTERLINE, UP TO 44' AGL/124' MSL. RAILROAD 110' FROM DER, 10' LEFT OF CENTERLINE, 23' AGL/104' MSL. MULTIPLE POLES BEGINNING 135' FROM DER, 270' LEFT OF CENTERLINE, UP TO 44' AGL/111' MSL. BUILDING 1036' FROM DER, 743' RIGHT OF CENTERLINE, 26' AGL/102' MSL.
- RWY 35:
VEHICLE AND ROAD 65' FROM DER, 2' RIGHT OF CENTERLINE, 15' AGL/96' MSL. MULTIPLE TREES BEGINNING 37' FROM DER, 275' RIGHT OF CENTERLINE, UP TO 81' AGL/164' MSL. DME ANTENNA 380' FROM DER, 253' RIGHT OF CENTERLINE, 24' AGL/100' MSL. MULTIPLE TREES BEGINNING 83' FROM DER, 65' LEFT OF CENTERLINE, UP TO 81' AGL/155' MSL.

TEXAS GULF COAST REGL

- RWY 35:
TREE 1510' FROM DER, 721' LEFT OF CENTERLINE, 48' AGL/68' MSL.

WEST HOUSTON

- RWY 15:
ROAD AND VEHICLE BEGINNING 74' FROM DER, 60' LEFT OF CENTERLINE, UP TO 15' AGL/123' MSL. ROAD AND VEHICLE BEGINNING 342' FROM DER, 6' RIGHT OF CENTERLINE, UP TO 15' AGL/123' MSL. BUILDING 177' FROM DER, 398' LEFT OF CENTERLINE, 18' AGL/126' MSL. LIGHT POLE 942' FROM DER, 453' RIGHT OF CENTERLINE, 39' AGL/145' MSL. TREES BEGINNING 307' FROM DER, 26' LEFT OF CENTERLINE, UP TO 58' AGL/165' MSL. TREES BEGINNING 130' FROM DER, 117' RIGHT OF CENTERLINE, UP TO 100' AGL/208' MSL.
- RWY 33:
TREES BEGINNING 168' FROM DER, 9' LEFT OF CENTERLINE, UP TO 70' AGL/179' MSL. TREES BEGINNING 66' FROM DER, 3' RIGHT OF CENTERLINE, UP TO 75' AGL/184' MSL.



AREA SID

SERVES ONLY: ①

HOUSTON METROPLEX, TEXAS

23 MAY 14

90-3P

Eff 29 May

RNAV SID

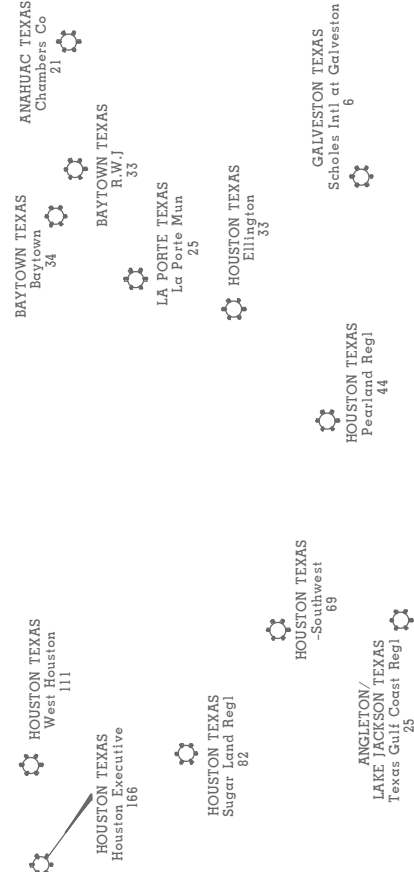
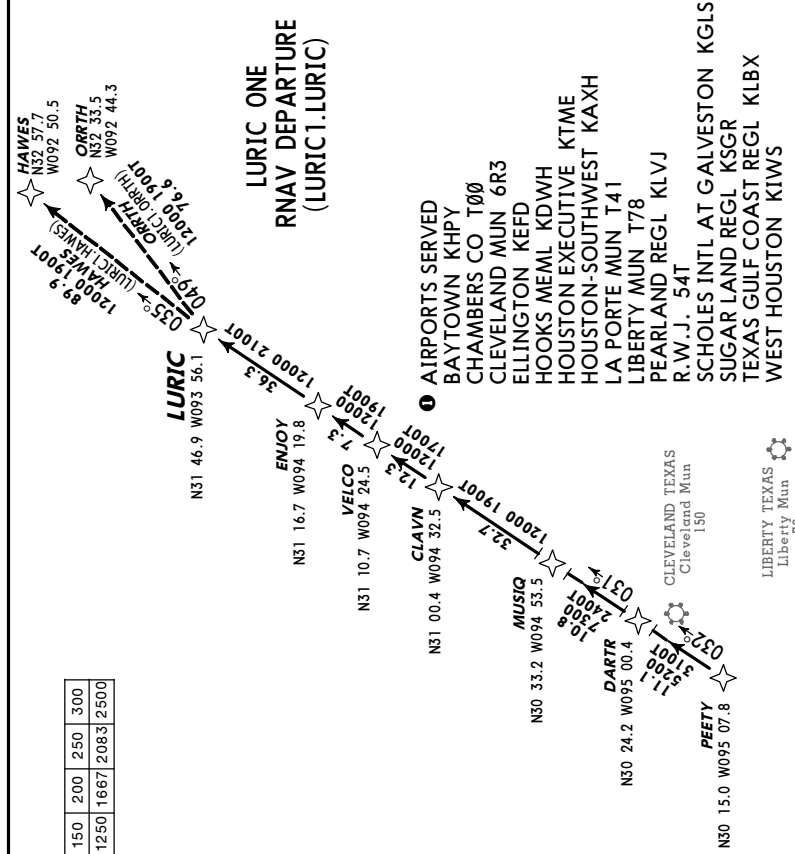
Apt Elev See graphic	Trans level: FL180	Trans alt: 18000'	1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1.
This SID requires take-off minimums (for standard minimums, refer to airport chart): BAYTOWN: Rwy 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. CHAMBERS CO: Rwy 12, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. CLEVELAND MUN: Rwy 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'. ELLINGTON: Rwy 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'. HOOKS MEML: Rwy 17L, 35R: Not Authorized-environmental. HOUSTON EXECUTIVE: Rwy 17R, 35L: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. LA PORTE MUN: Rwy 17R, 35L: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'. PEARLAND REGL: Rwy 17R, 35L: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'. R.W.J.: Rwy 8, 26: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. SCHOLES INTL AT GALVESTON: Rwy 14, 18, 32, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. SUGAR LAND REGL: Rwy 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 520'. TEXAS GULF COAST REGL: Rwy 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'. WEST HOUSTON: Rwy 8, 15, 33: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 620'.			
INITIAL CLIMB			
AIRPORT	BAYTOWN	Rwy 14: Climb on heading 140° to 540', EXPECT RADAR vectors to PEETY. Rwy 32: Climb on heading 320° to 540', EXPECT RADAR vectors to PEETY.	
	CHAMBERS CO	Rwy 12: Climb on heading 126° to 540', EXPECT RADAR vectors to PEETY. Rwy 30: Climb on heading 306° to 540', EXPECT RADAR vectors to PEETY.	
	CLEVELAND MUN	Rwy 16: Climb on heading 159° to 1400', EXPECT RADAR vectors to PEETY. Rwy 34: Climb on heading 339° to 2000', EXPECT RADAR vectors to PEETY.	
	ELLINGTON	Rwy 4: Climb on heading 041° to 540', EXPECT RADAR vectors to PEETY. Rwys 17L/R: Climb on heading 176° to 540', EXPECT RADAR vectors to PEETY. Rwy 22: Climb on heading 221° to 540', EXPECT RADAR vectors to PEETY. Rwys 35L/R: Climb on heading 356° to 540', EXPECT RADAR vectors to PEETY.	
HOOKS MEML	HOUSTON EXECUTIVE	Rwy 17R: Climb on heading 170° to 660', EXPECT RADAR vectors to PEETY. Rwy 35L: Climb on heading 350° to 660', EXPECT RADAR vectors to PEETY.	
	HOUSTON EXECUTIVE	Rwy 18: Climb on heading 176° to 680', EXPECT RADAR vectors to PEETY. Rwy 36: Climb on heading 356° to 680', EXPECT RADAR vectors to PEETY.	
	HOUSTON -SOUTHWEST	Rwy 9: Climb on heading 091° to 2000', EXPECT RADAR vectors to PEETY. Rwy 27: Climb on heading 271° to 2200', EXPECT RADAR vectors to PEETY.	
	LA PORTE MUN	Rwy 5: Climb on heading 048° to 540', EXPECT RADAR vectors to PEETY. Rwy 12: Climb on heading 123° to 540', EXPECT RADAR vectors to PEETY. Rwy 23: Climb on heading 228° to 540', EXPECT RADAR vectors to PEETY. Rwy 30: Climb on heading 303° to 540', EXPECT RADAR vectors to PEETY.	
LIBERTY MUN	PEARLAND REGL	Rwy 16: Climb on heading 163° to 1700', EXPECT RADAR vectors to PEETY. Rwy 34: Climb on heading 343° to 1000', EXPECT RADAR vectors to PEETY.	
	PEARLAND REGL	Rwy 14: Climb on heading 142° to 1600', EXPECT RADAR vectors to PEETY. Rwy 32: Climb on heading 322° to 900', EXPECT RADAR vectors to PEETY.	
	R.W.J.	Rwy 8: Climb on heading 086° to 540', EXPECT RADAR vectors to PEETY. Rwy 14: Climb on heading 145° to 540', EXPECT RADAR vectors to PEETY. Rwy 26: Climb on heading 266° to 540', EXPECT RADAR vectors to PEETY. Rwy 32: Climb on heading 325° to 540', EXPECT RADAR vectors to PEETY.	
	SCHOLES INTL AT GALVESTON	Rwy 14: Climb on heading 137° to 520', EXPECT RADAR vectors to PEETY. Rwy 18: Climb on heading 178° to 520', EXPECT RADAR vectors to PEETY. Rwy 32: Climb on heading 317° to 520', EXPECT RADAR vectors to PEETY. Rwy 36: Climb on heading 358° to 520', EXPECT RADAR vectors to PEETY.	
SUGAR LAND REGL	SUGAR LAND REGL	Rwy 17: Climb on heading 172° to 1500', EXPECT RADAR vectors to PEETY. Rwy 35: Climb on heading 352° to 1100', EXPECT RADAR vectors to PEETY.	
	TEXAS GULF COAST REGL	Rwy 17: Climb on heading 177° to 540', EXPECT RADAR vectors to PEETY. Rwy 35: Climb on heading 357° to 540', EXPECT RADAR vectors to PEETY.	
	WEST HOUSTON	Rwy 15: Climb on heading 152° to 620', EXPECT RADAR vectors to PEETY. Rwy 33: Climb on heading 332° to 620', EXPECT RADAR vectors to PEETY.	
ROUTING			
From PEETY on track 032° to DART, then on track 031° to MUSIQ, CLAVN, VELCO, ENJOY and LURIC, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.			

CHANGES: New chart.

Grnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwy 18, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 680'.
HOUSTON SOUTHWEST: Rwy 9, 27: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
LA PORTE MUN: Rwy 5, 12, 23, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
LIBERTY MUN: Rwy 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
PEARLAND REGL: Rwy 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
R.W.J.: Rwy 8, 26: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
SCHOLES INTL AT GALVESTON: Rwy 14, 18, 32, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
SUGAR LAND REGL: Rwy 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 520'.
TEXAS GULF COAST REGL: Rwy 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
WEST HOUSTON: Rwy 8, 15, 33: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 620'.

OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 90-30B1.



Apt Elev See graphic	Trans level: FL180	Trans alt: 18000'	RADAR required.
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PALACIOS FIVE DEPARTURE
(PSX5.PSX)

1 AIRPORTS SERVED
ELLINGTON KEFD
HOOKS MEML KDWH
HOUSTON EXECUTIVE KTME
HOUSTON-SOUTHWEST KAXH
LA PORTE MUN T41
SCHOLES INTL AT GALVESTON KGLS
SUGAR LAND REGL KSGR
TEXAS GULF COAST REGL KLBX
WEST HOUSTON KIWS

NOT TO SCALE

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 90-30B1.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
ELLINGTON: Rwy 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized).
Rwy 22: 200-1 1/4 or standard (or lower than standard, if authorized) with minimum climb of 214' per NM to 300' or alternatively, with standard (or lower than standard, if authorized) takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.
HOOKS MEML: Rwy 17L, 35R: Not Authorized- environmental.
Rwys 17R, 35L: Standard (or lower than standard, if authorized).
Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwy 18, 36: Standard (or lower than standard, if authorized).
HOUSTON-SOUTHWEST: Rwy 9, 27: Standard (or lower than standard, if authorized).
LA PORTE MUN: Rwy 5, 12, 23, 30: Standard (or lower than standard, if authorized).
SCHOLES INTL AT GALVESTON: Rwy 14, 18, 32, 36: Standard (or lower than standard, if authorized).
Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized).
SUGAR LAND REGL: Rwy 17, 35: Standard (or lower than standard, if authorized).
TEXAS GULF COAST REGL: Rwy 17, 35: Standard (or lower than standard, if authorized).
WEST HOUSTON: Rwy 15, 33: Standard (or lower than standard, if authorized).

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

ELLINGTON

When entering controlled airspace, climb on assigned heading for RADAR vectors to SKUBA.

ALL OTHER AIRPORTS

RADAR vectors to SKUBA.

ROUTING

MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At SKUBA on PSX R-038 to PSX.

CHANGES: New chart.

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AREA SID

SERVES ONLY: 0

1. RADAR required.
2. DME/DME/IRU or GPS required.
3. RNAV 1.

Appt Elev See graphic	Trans level: FL180	Trans alt: 18000'	INITIAL CLIMB	
			AIRPORT	
BAYTOWN	Rwy 14:	Climb on heading 140° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 14:	Climb on heading 140° to 540°; EXPECT RADAR vectors to SPICR.
			Rwy 32:	Climb on heading 320° to 540°; EXPECT RADAR vectors to SPICR.
			Rwy 30:	Climb on heading 306° to 540°; EXPECT RADAR vectors to SPICR.
CHAMBERS CO	Rwy 16:	Climb on heading 159° to 1400°; EXPECT RADAR vectors to SPICR.	Rwy 16:	Climb on heading 159° to 1400°; EXPECT RADAR vectors to SPICR.
			Rwy 34:	Climb on heading 339° to 2000°; EXPECT RADAR vectors to SPICR.
CLEVELAND MUN	Rwy 4:	Climb on heading 041° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 4:	Climb on heading 041° to 540°; EXPECT RADAR vectors to SPICR.
			Rwys 17L/R:	Climb on heading 176° to 540°; EXPECT RADAR vectors to SPICR.
ELLINGTON	Rwy 22:	Climb on heading 221° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 22:	Climb on heading 221° to 540°; EXPECT RADAR vectors to SPICR.
			Rwys 35L/R:	Climb on heading 356° to 540°; EXPECT RADAR vectors to SPICR.
HOOKS MEML	Rwy 17R:	Climb on heading 170° to 660°; EXPECT RADAR vectors to SPICR.	Rwy 17R:	Climb on heading 170° to 660°; EXPECT RADAR vectors to SPICR.
			Rwy 35L:	Climb on heading 350° to 660°; EXPECT RADAR vectors to SPICR.
HOUSTON EXECUTIVE	Rwy 18:	Climb on heading 176° to 680°; EXPECT RADAR vectors to SPICR.	Rwy 18:	Climb on heading 176° to 680°; EXPECT RADAR vectors to SPICR.
			Rwy 36:	Climb on heading 356° to 680°; EXPECT RADAR vectors to SPICR.
HOUSTON -SOUTHWEST	Rwy 9:	Climb on heading 091° to 2000°; EXPECT RADAR vectors to SPICR.	Rwy 9:	Climb on heading 091° to 2000°; EXPECT RADAR vectors to SPICR.
			Rwy 27:	Climb on heading 271° to 2200°; EXPECT RADAR vectors to SPICR.
LA PORTE MUN	Rwy 5:	Climb on heading 048° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 5:	Climb on heading 048° to 540°; EXPECT RADAR vectors to SPICR.
			Rwy 12:	Climb on heading 123° to 540°; EXPECT RADAR vectors to SPICR.
LIBERTY MUN	Rwy 23:	Climb on heading 228° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 23:	Climb on heading 228° to 540°; EXPECT RADAR vectors to SPICR.
			Rwy 30:	Climb on heading 303° to 540°; EXPECT RADAR vectors to SPICR.
PEARLAND REGL	Rwy 16:	Climb on heading 163° to 1700°; EXPECT RADAR vectors to SPICR.	Rwy 16:	Climb on heading 163° to 1700°; EXPECT RADAR vectors to SPICR.
			Rwy 34:	Climb on heading 343° to 1000°; EXPECT RADAR vectors to SPICR.
R. W. J.	Rwy 14:	Climb on heading 142° to 1600°; EXPECT RADAR vectors to SPICR.	Rwy 14:	Climb on heading 142° to 1600°; EXPECT RADAR vectors to SPICR.
			Rwy 32:	Climb on heading 322° to 900°; EXPECT RADAR vectors to SPICR.
SCHOLES INTL AT GALVESTON	Rwy 8:	Climb on heading 086° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 8:	Climb on heading 086° to 540°; EXPECT RADAR vectors to SPICR.
			Rwy 14:	Climb on heading 145° to 540°; EXPECT RADAR vectors to SPICR.
SUGAR LAND REGL	Rwy 26:	Climb on heading 266° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 26:	Climb on heading 266° to 540°; EXPECT RADAR vectors to SPICR.
			Rwy 32:	Climb on heading 325° to 540°; EXPECT RADAR vectors to SPICR.
TEXAS GULF COAST REGL	Rwy 14:	Climb on heading 137° to 520°; EXPECT RADAR vectors to SPICR.	Rwy 14:	Climb on heading 137° to 520°; EXPECT RADAR vectors to SPICR.
			Rwy 18:	Climb on heading 178° to 520°; EXPECT RADAR vectors to SPICR.
WEST HOUSTON	Rwy 32:	Climb on heading 317° to 520°; EXPECT RADAR vectors to SPICR.	Rwy 32:	Climb on heading 317° to 520°; EXPECT RADAR vectors to SPICR.
			Rwy 36:	Climb on heading 358° to 520°; EXPECT RADAR vectors to SPICR.
	Rwy 17:	Climb on heading 172° to 1500°; EXPECT RADAR vectors to SPICR.	Rwy 17:	Climb on heading 172° to 1500°; EXPECT RADAR vectors to SPICR.
			Rwy 35:	Climb on heading 352° to 1100°; EXPECT RADAR vectors to SPICR.
	Rwy 17:	Climb on heading 177° to 540°; EXPECT RADAR vectors to SPICR.	Rwy 17:	Climb on heading 177° to 540°; EXPECT RADAR vectors to SPICR.
			Rwy 35:	Climb on heading 357° to 540°; EXPECT RADAR vectors to SPICR.
	Rwy 15:	Climb on heading 152° to 620°; EXPECT RADAR vectors to SPICR.	Rwy 15:	Climb on heading 152° to 620°; EXPECT RADAR vectors to SPICR.
			Rwy 33:	Climb on heading 332° to 620°; EXPECT RADAR vectors to SPICR.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

ROUTING

From SPICR on track 331° to WILLIS, then on track 332° to STYCK, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.

This SID requires take-off minimums (for standard minimums, refer to airport chart):

BAYTOWN: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540°.

CHAMBERS CO: Rwys 12, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540°.

Rwys 17, 35: Not Authorized-environmental.

CLEVELAND MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660°.

ELLINGTON: Rwys 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540°.

HOOKS MEML: Rwys 17L, 35R: Not Authorized-environmental.

Rwys 17R, 35L: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660°.

Waterways 17, 35: Not Authorized-air traffic.

HOUSTON EXECUTIVE: Rwys 18, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 680°.

HOUSTON-SOUTHWEST: Rwys 9, 27: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580°.

LA PORTE MUN: Rwys 5, 12, 23, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540°.

LIBERTY MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580°.

PEARLAND REGL: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 560°.

R.W.J.: Rwys 8, 26: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540°.

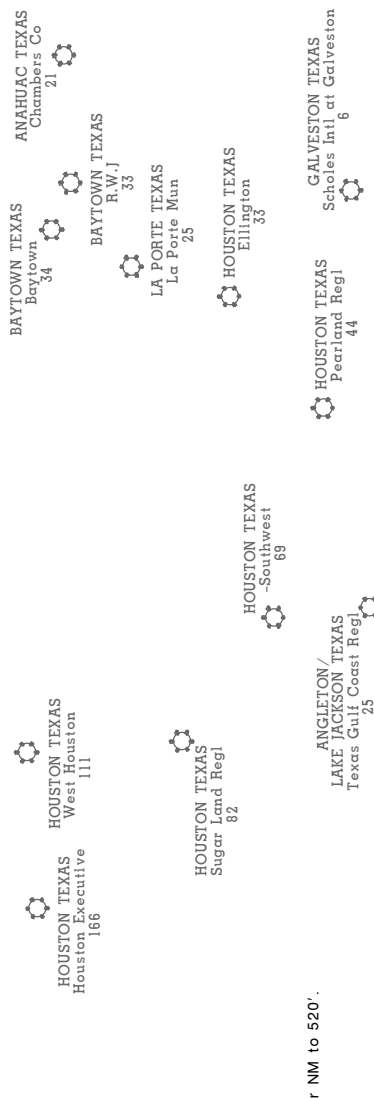
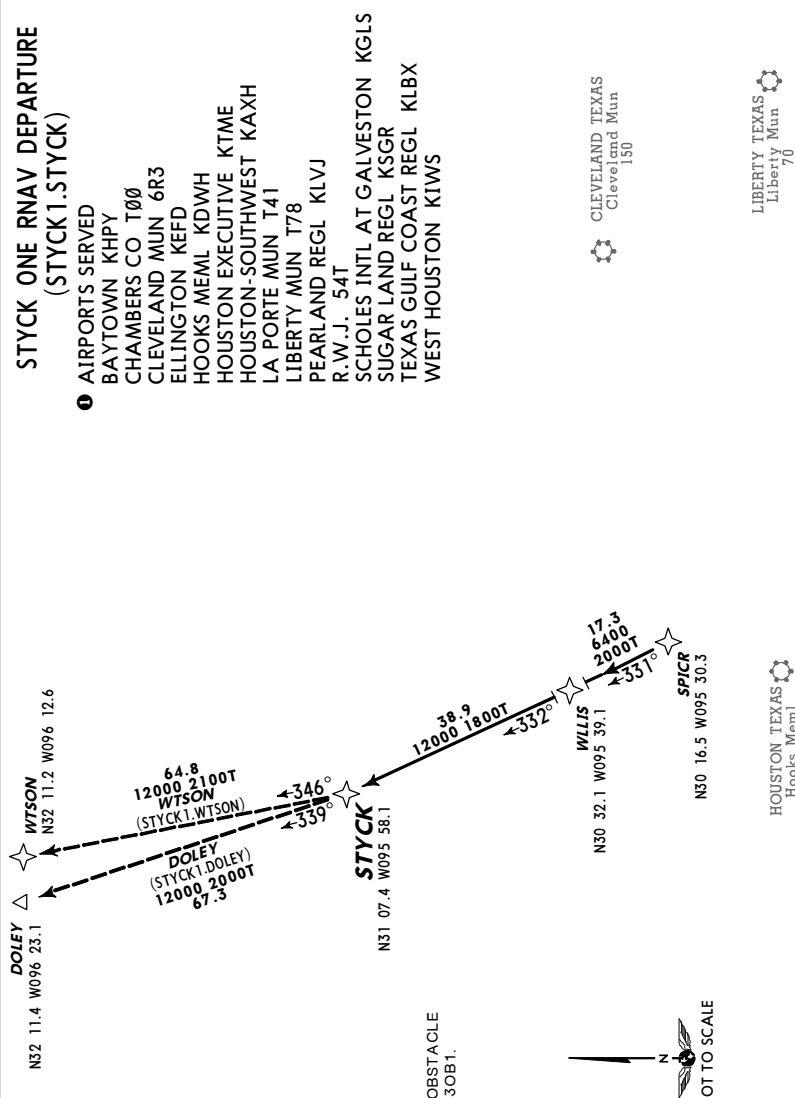
Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540°.

SCHOLES INTL AT GALVESTON: Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 520°.

SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 600°.

TEXAS GULF COAST REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540°.

WEST HOUSTON: Rwys 15, 33: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 620°.



AREA SID

SERVES ONLY: ❶

JEPPESSEN

23 MAY 14

90-3V

Eff 29 May

HOUSTON METROPLEX,
TEXAS

SID

Apt Elev
See graphic

Trans level: FL180 Trans alt: 18000'

1. **RADAR required.**

2. For aircraft filed FL180 and above to Rio Grande Valley area or for aircraft filed FL180 and above overflying NGP to international destinations.

TRUAX THREE DEPARTURE (NGP3.NGP)

❶ AIRPORTS SERVED

ELLINGTON KEFD

SCHOLES INTL AT GALVESTON KGLS

SUGAR LAND REGL KSGR

TEXAS GULF COAST REGL KLBX

This SID requires take-off minimums

(for standard minimums, refer to airport chart):

ELLINGTON: Rwy 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized).

Rwy 22: 200-1 1/4 or standard (or lower than standard, if authorized) with minimum climb of 214' per NM to 300' or alternatively, with standard (or lower than standard, if authorized) takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

SCHOLES INTL AT GALVESTON:

Rwys 14, 18, 32, 36: Standard (or lower than standard, if authorized).

SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized).

TEXAS GULF COAST REGL: Rwys 17, 35: Standard (or lower than standard, if authorized).

Gnd speed-KT	75	100	150	200	250	300
214' per NM	268	357	535	713	892	1070

HOUSTON TEXAS
Sugar Land Regl
82

HOUSTON TEXAS
Ellington
33

SCHOLES
D (L) 113.0 VUH
N29 16.2 W094 52.1

ANGLETON/
LAKE JACKSON TEXAS
Texas Gulf Coast Regl
25

GALVESTON
TEXAS
Scholes Intl
at Galveston
6

TRUAX
D (L) 114.0 NGP
N27 41.2 W097 17.7

YAWNS
N28 49.4 W095 34.0

OBSTACLE

For TAKEOFF OBSTACLE
NOTES see 90-3OB1.

AIRPORT

INITIAL CLIMB

ELLINGTON

Climb on assigned heading for RADAR vectors to YAWNS.

ALL OTHER AIRPORTS

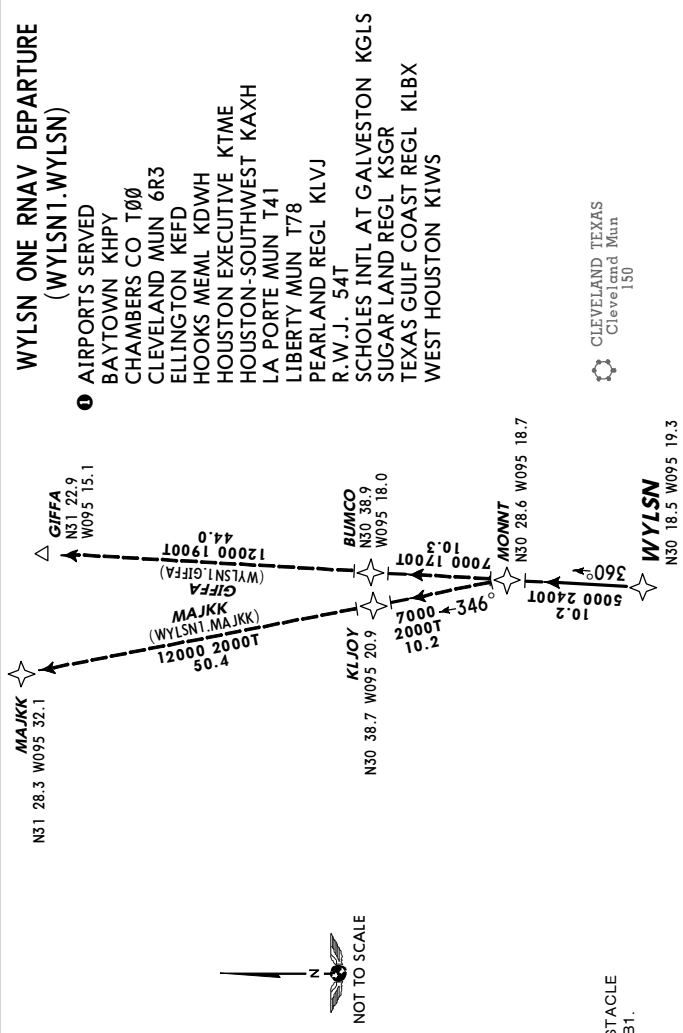
When entering controlled airspace, climb on assigned heading for RADAR vectors to YAWNS.

ROUTING

MAINTAIN 4000'. EXPECT filed altitude 10 minutes after departure. At YAWNS, on VUH R-228 and NGP R-047 to NGP.

Apft Elev See graphic	Trans level: FL180	Trans alt: 18000'	1. RADAR required. 2. DME/DME/IRU or GPS required. 3. RNAV 1. 4. MAJCK Transition ATC assigned only.
AIRPORT	INITIAL CLIMB		
BAYTOWN	Rwy 14:	Climb on heading 140° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 32:	Climb on heading 320° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 12:	Climb on heading 126° to 540°, EXPECT RADAR vectors to WYLSN.	
CHAMBERS CO	Rwy 30:	Climb on heading 306° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 16:	Climb on heading 159° to 1400°, EXPECT RADAR vectors to WYLSN.	
CLEVELAND MUN	Rwy 34:	Climb on heading 339° to 2000°, EXPECT RADAR vectors to WYLSN.	
	Rwy 4:	Climb on heading 041° to 540°, EXPECT RADAR vectors to WYLSN.	
ELLINGTON	Rwys 17L/R:	Climb on heading 176° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 22:	Climb on heading 221° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwys 35L/R:	Climb on heading 356° to 540°, EXPECT RADAR vectors to WYLSN.	
HOOKS MEML	Rwy 17R:	Climb on heading 170° to 660°, EXPECT RADAR vectors to WYLSN.	
	Rwy 35L:	Climb on heading 350° to 660°, EXPECT RADAR vectors to WYLSN.	
	Rwy 18:	Climb on heading 176° to 680°, EXPECT RADAR vectors to WYLSN.	
HOUSTON EXECUTIVE	Rwy 36:	Climb on heading 356° to 680°, EXPECT RADAR vectors to WYLSN.	
	Rwy 9:	Climb on heading 091° to 2000°, EXPECT RADAR vectors to WYLSN.	
HOUSTON -SOUTHWEST	Rwy 27:	Climb on heading 271° to 2200°, EXPECT RADAR vectors to WYLSN.	
	Rwy 5:	Climb on heading 048° to 540°, EXPECT RADAR vectors to WYLSN.	
LA PORTE MUN	Rwy 12:	Climb on heading 123° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 23:	Climb on heading 228° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 30:	Climb on heading 303° to 540°, EXPECT RADAR vectors to WYLSN.	
LIBERTY MUN	Rwy 16:	Climb on heading 163° to 1700°, EXPECT RADAR vectors to WYLSN.	
	Rwy 34:	Climb on heading 343° to 1000°, EXPECT RADAR vectors to WYLSN.	
	Rwy 14:	Climb on heading 142° to 1600°, EXPECT RADAR vectors to WYLSN.	
PEARLAND REGL	Rwy 32:	Climb on heading 322° to 900°, EXPECT RADAR vectors to WYLSN.	
	Rwy 8:	Climb on heading 086° to 540°, EXPECT RADAR vectors to WYLSN.	
R. W. J.	Rwy 14:	Climb on heading 145° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 26:	Climb on heading 266° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 32:	Climb on heading 325° to 540°, EXPECT RADAR vectors to WYLSN.	
SCHOLLES INTL AT GALVESTON	Rwy 14:	Climb on heading 137° to 520°, EXPECT RADAR vectors to WYLSN.	
	Rwy 18:	Climb on heading 178° to 520°, EXPECT RADAR vectors to WYLSN.	
	Rwy 32:	Climb on heading 317° to 520°, EXPECT RADAR vectors to WYLSN.	
SUGAR LAND REGL	Rwy 36:	Climb on heading 358° to 520°, EXPECT RADAR vectors to WYLSN.	
	Rwy 17:	Climb on heading 172° to 1500°, EXPECT RADAR vectors to WYLSN.	
TEXAS GULF COAST REGL	Rwy 35:	Climb on heading 352° to 1100°, EXPECT RADAR vectors to WYLSN.	
	Rwy 17:	Climb on heading 177° to 540°, EXPECT RADAR vectors to WYLSN.	
WEST HOUSTON	Rwy 35:	Climb on heading 357° to 540°, EXPECT RADAR vectors to WYLSN.	
	Rwy 15:	Climb on heading 152° to 620°, EXPECT RADAR vectors to WYLSN.	
	Rwy 33:	Climb on heading 332° to 620°, EXPECT RADAR vectors to WYLSN.	
ROUTING			
From WYLSN on track 360° to MONNT, then on transition. MAINTAIN 4000' or as assigned by ATC. EXPECT filed altitude 10 minutes after departure.			

This SID requires take-off minimums (for standard minimums, refer to airport chart):
BAYTOWN: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
CHAMBERS CO: Rwys 12, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
Rwys 17, 35: Not Authorized-environmental.
CLEVELAND MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 660'.
ELLINGTON: Rwys 4, 17L/R, 35L/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
HOOKS MEML: Rwys 17R, 35R: Not Authorized-environmental.
Waterways 17, 35: Not Authorized-air traffic.
HOUSTON EXECUTIVE: Rwys 18, 36: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 680'.
HOUSTON-SOUTHWEST: Rwys 5, 12, 23, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
LA PORTE MUN: Rwys 5, 12, 23, 30: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
LIBERTY MUN: Rwys 16, 34: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 580'.
PEARLAND REGL: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 560'.
R.W.J.: Rwys 8, 26: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
SCHOLES INTL AT GALVESTON: Rwys 14, 32: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 520'.
SUGAR LAND REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 600'.
TEXAS GULF COAST REGL: Rwys 17, 35: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 540'.
WEST HOUSTON: Rwys 15, 33: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 620'.



OBSTACLE
For TAKEOFF OBSTACLE
NOTES see 90-30B1.

Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

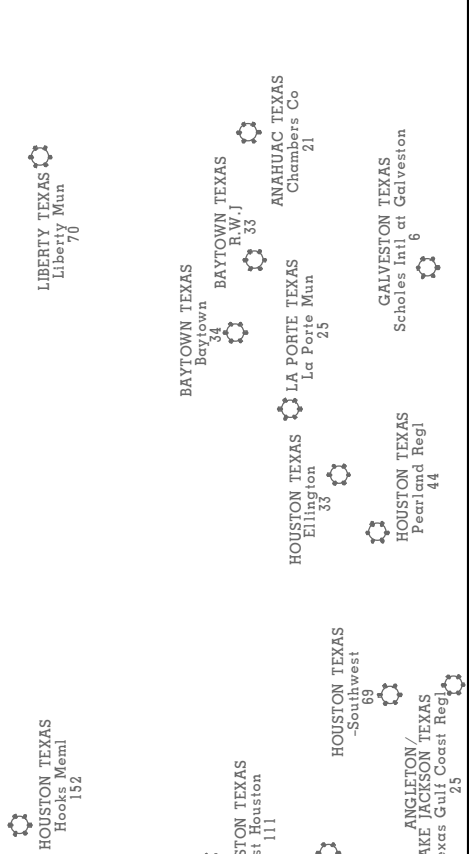


Chart changes since cycle 26-2014

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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HOUSTON, TX (GEORGE BUSH INTERCONTINENTAL/H - KIAH)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport KIAH