

List of pages in this Trip Kit

Trip Kit Index

Airport Information For KCAK

Terminal Charts For KCAK

Airport Information For KCLE

Terminal Charts For KCLE

Airport Information For KCMH

Terminal Charts For KCMH

Airport Information For KCVG

Terminal Charts For KCVG

Airport Information For KDAY

Terminal Charts For KDAY

Airport Information For KFFO

Terminal Charts For KFFO

Airport Information For KILN

Terminal Charts For KILN

Airport Information For KLCK

Terminal Charts For KLCK

Airport Information For KMFD

Terminal Charts For KMFD

Airport Information For KSGH

Terminal Charts For KSGH

Airport Information For KTOL

Terminal Charts For KTOL

Airport Information For KYNG

Terminal Charts For KYNG

Revision Letter For Cycle 04-2012

Change Notices

Notebook

General Information

Location: Akron OH USA
IATA Code: CAK
Lat/Long: N40° 54.9' W081° 26.6'
Elevation: 1228 ft

Airport Use: Public
Magnetic Variation: 8.3°W
Sectional Chart: Detroit

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

Sunrise: 1203 Z
Sunset: 2314 Z,

Runway Information

Runway: 01
Length x Width: 7601 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1209 ft
Lighting: Edge, ALS

Runway: 05
Length x Width: 8204 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1199 ft
Lighting: Edge, ALS

Runway: 19
Length x Width: 7601 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1218 ft
Lighting: Edge, ALS
Displaced Threshold: 594 ft

Runway: 23
Length x Width: 8204 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1226 ft
Lighting: Edge, ALS

Communication Information

ATIS 121.05

Akron-Canton Regl Tower 118.3

Akron-Canton Regl Ground Control 121.7

Akron-Canton Regl Clearance Delivery 132.05

Akron-Canton Regl Approach Control 126.4 Secondary

Akron-Canton Regl Approach Control 125.5 (7°-186°) Initial Contact

Akron-Canton Regl Approach Control 118.6 (187°-6°)

Akron-Canton App ARSA 125.5 (7°-186°)

Akron-Canton App ARSA 118.6 (187°-6°)

Akron-Canton Departure Control 126.4 Secondary

Akron-Canton Departure Control 125.5 (7°-186°)

Akron-Canton Departure Control 118.6 (187°-6°)

Akron-Canton Regl Unicom 122.95

Cleveland Center 134.9 Remote Communications Air-Ground

PARKING GATE COORDINATES

GATE NO.	COORDINATES
1, 2, 8	N40 54.9 W081 26.2
4 thru 7	N40 54.9 W081 26.3
9 thru 11	N40 54.8 W081 26.2

RUNWAY INCURSION HOT SPOTS

See 20-9A for description of Hot Spots
READ BACK ALL HOLD SHORT INSTRUCTIONS

TWY E north of TWY B closed to aircraft over 117' (36m) wingspan.

Air carrier taxiing on Jet Tech Ramp and North Hangar areas not visible from ATCT.

TERMINAL

Runway Incursion Hot Spots:

- HS1:** Located at the intersection of Taxiway H and Taxiway J.
- HS2:** Located near the South De-Icing Pad.
- HS3:** Located near the intersection of Taxiway F and Taxiway K.

GENERAL

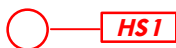
Deer and birds in vicinity of airport.

ADDITIONAL RUNWAY INFORMATION

RWY					USABLE LENGTHS		TAKE-OFF	WIDTH
					LANDING BEYOND Threshold	Glide Slope		
1 ① 19	HIRL	MALSR		RVR	② 7007' 2136m	5947' 1813m		150' 46m
	HIRL	MALSR	PAPI-L (angle 3.0°)	RVR	7007' 2136m	6088' 1855m	5/23 3100' 945m	

① Grooved.**②** Last 594' (181m) not available for landing distance computations.

5 ③ 23	HIRL	MALSR	PAPI-L (angle 3.00°)		7375' 2248m	1/19 5604' 1708m		150' 46m
	HIRL	MALSR	PAPI-L (angle 3.00°)	RVR	7175' 2187m			

③ Grooved.**RUNWAY INCURSION HOT SPOTS**

For information only, not to be construed as ATC instructions.

HS1 Pilots are advised to contact ground prior to taxi. The first markings you will encounter when taxiing to Twy J or Twy H are ILS hold lines.

HS2 Caution! When taxiing out on Twy C from the terminal ramp, the first set of hold lines is for **both** Rwy 1/19 and Rwy 5/23.

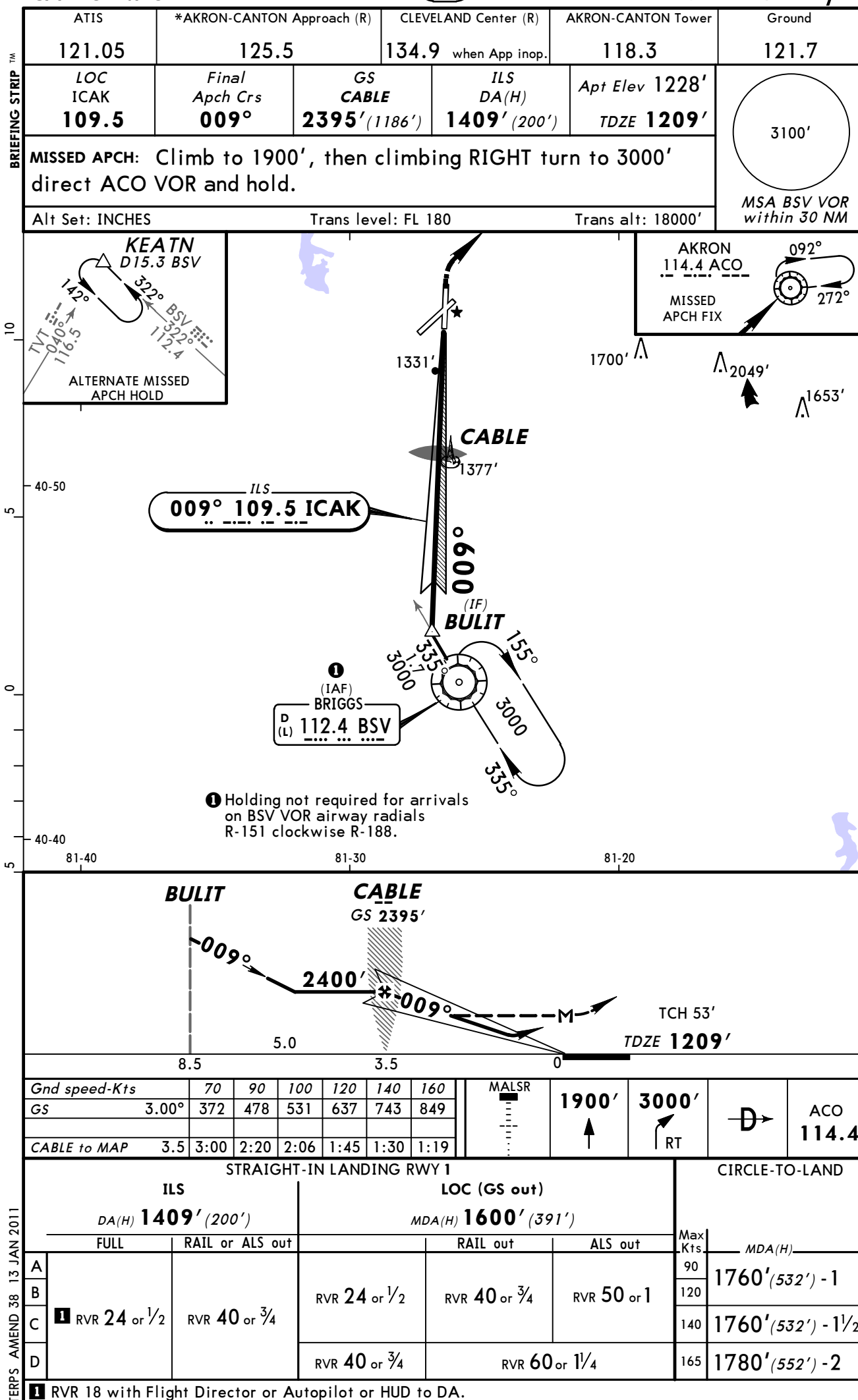
HS3 When taxiing on Twy K between Rwy 1/19 and 5/23, the two sets of hold-short markings are **very** close together. In the absence of ATC instructions, aircraft exiting one runway must hold short of the other runway.

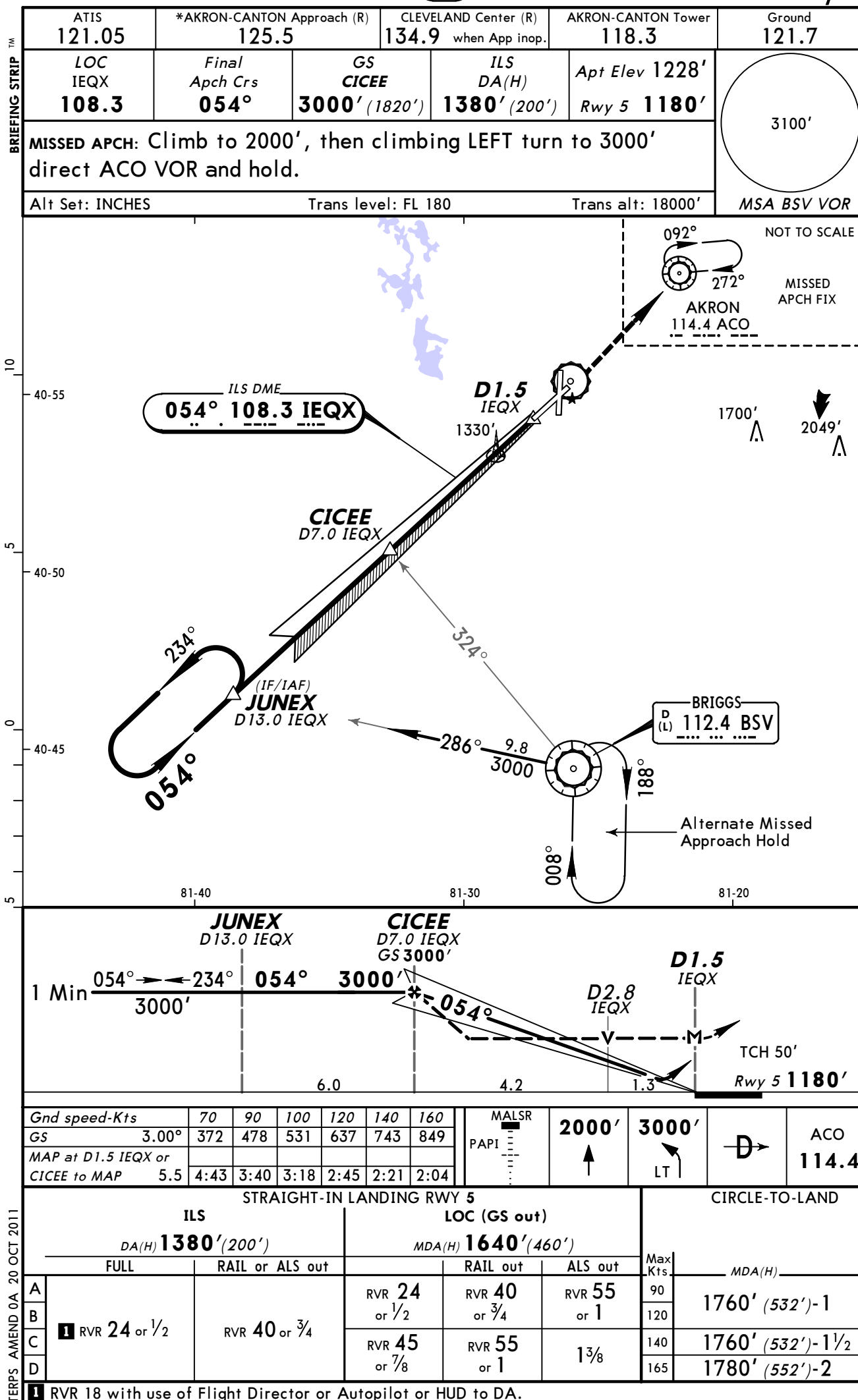
TAKE-OFF

Rwy 1, 19				Rwy 5, 23		
Both RVRs are required and controlling	Adequate Vis Ref	STD		Adequate Vis Ref	STD	
RCLM & HIRL		3 & 4 Eng	1 & 2 Eng		3 & 4 Eng	1 & 2 Eng
TDZ RVR 10 Rollout RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1

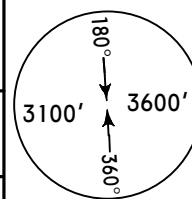
FOR FILING AS ALTERNATE

ILS Rwy 1 ILS Rwy 5 ILS Rwy 19 ILS Rwy 23		LOC Rwy 1 LOC Rwy 5 LOC Rwy 19 LOC Rwy 23 RNAV (GPS) Rwy 1	RNAV (GPS) Rwy 5 RNAV (GPS) Rwy 19 RNAV (GPS) Rwy 23 VOR Rwy 5 VOR Rwy 23	RADAR-1
A B C D		600-2		800-2

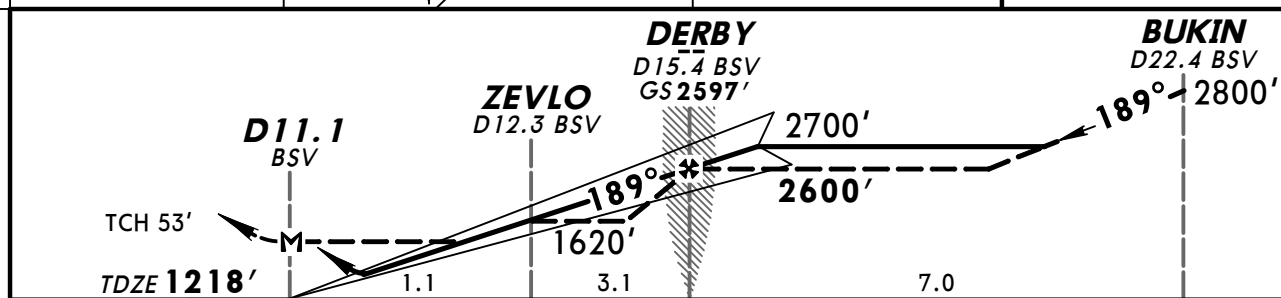
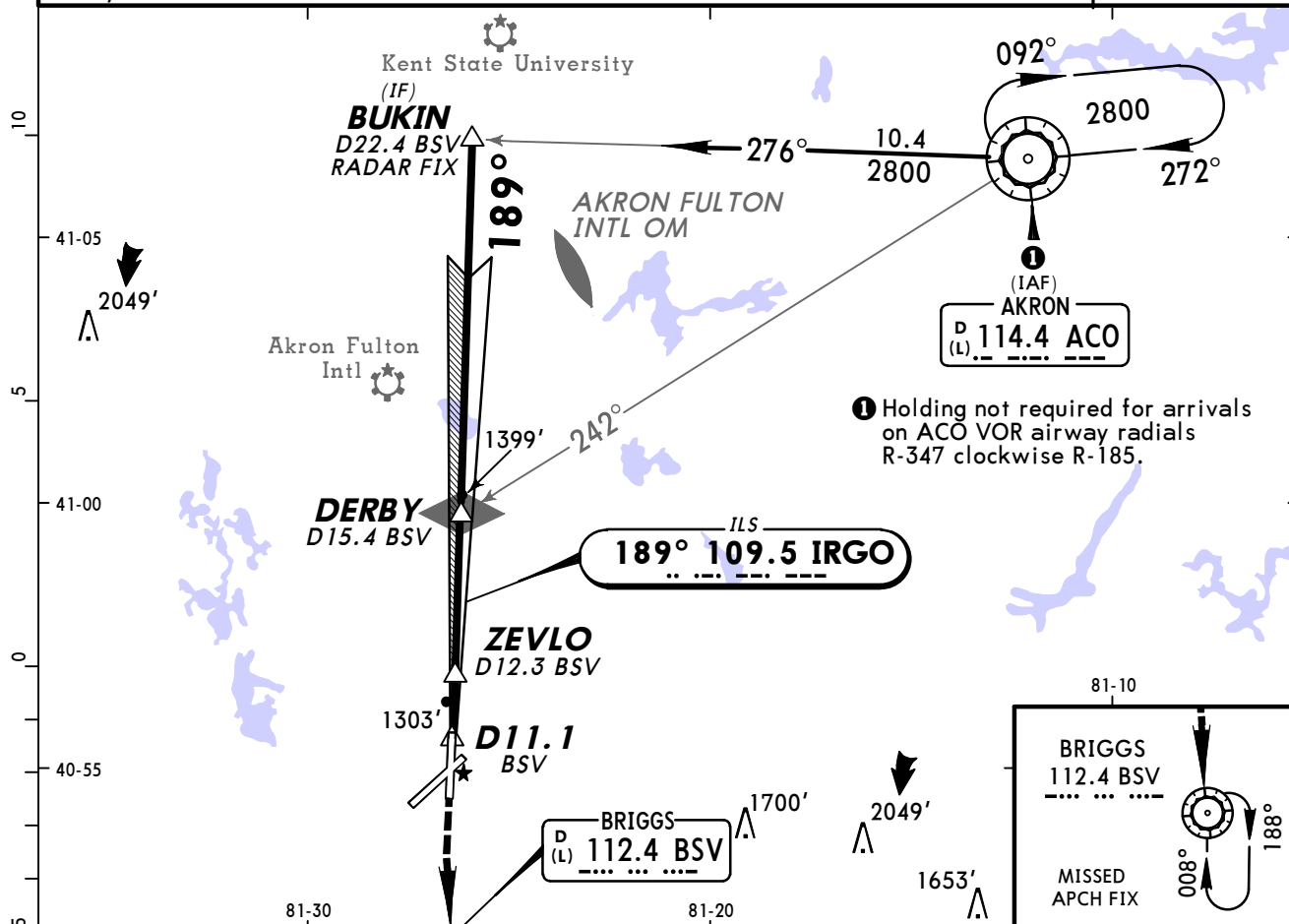




ATIS 121.05	*AKRON-CANTON Approach (R) 125.5	CLEVELAND Center (R) 134.9 when App inop.	AKRON-CANTON Tower 118.3	Ground 121.7
LOC IRGO 109.5	Final Apch Crs 189°	GS DERBY 2597' (1379')	ILS DA(H) 1418' (200')	Apt Elev 1228' TDZE 1218'
MISSED APCH: Climb to 1700' then climbing LEFT turn to 3000' direct BSV VOR and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. CAUTION: OM for Akron Fulton Intl may be received approximately 5 NM North of Derby OM.				



MSA ACO VOR



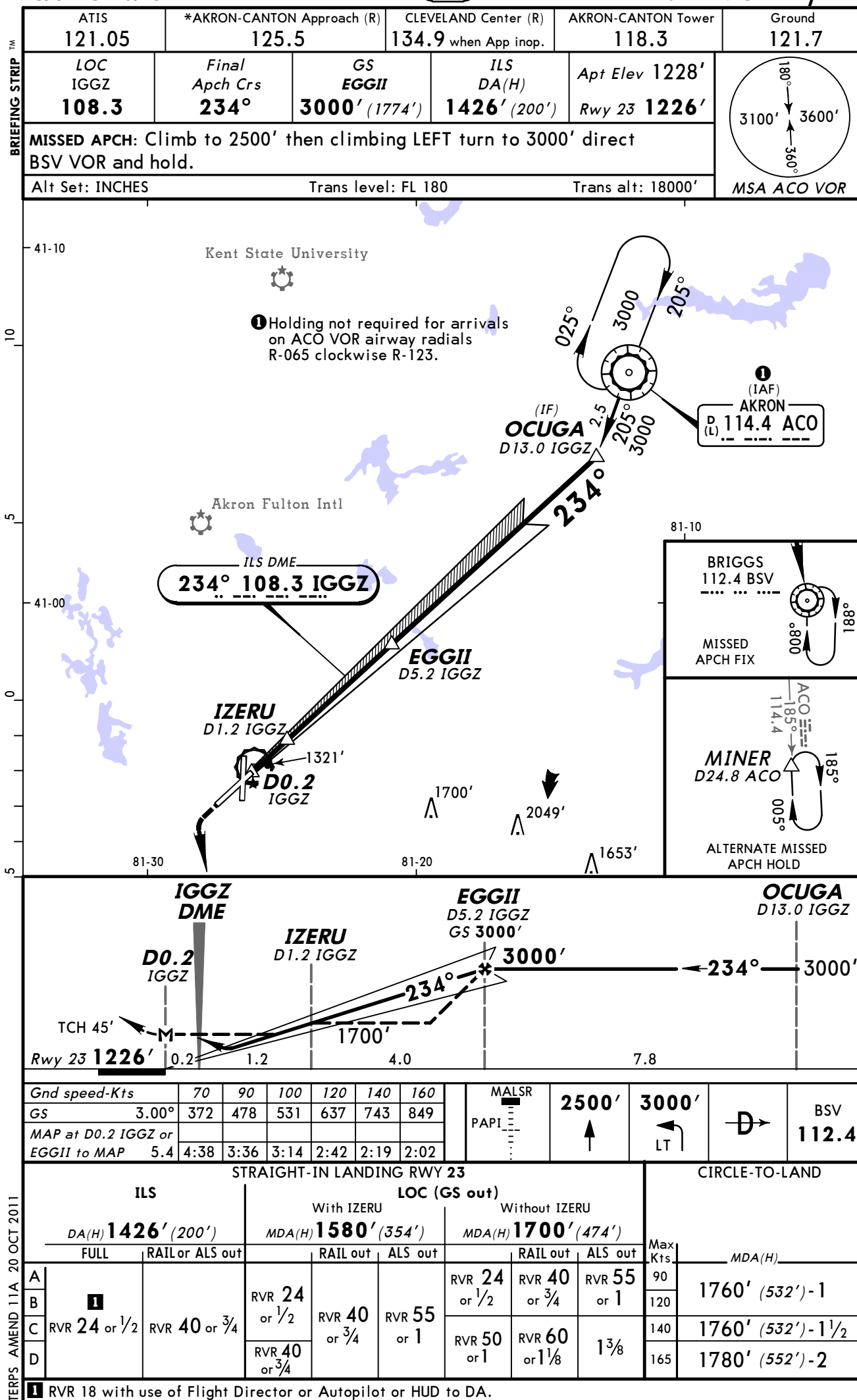
Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI	1700' ↑	3000' LT ↙	D →	BSV 112.4
GS 3.00°	372	478	531	637	743	849					
MAP at D11.1 BSV or DERBY to MAP 4.2	3:36	2:48	2:31	2:06	1:48	1:35					

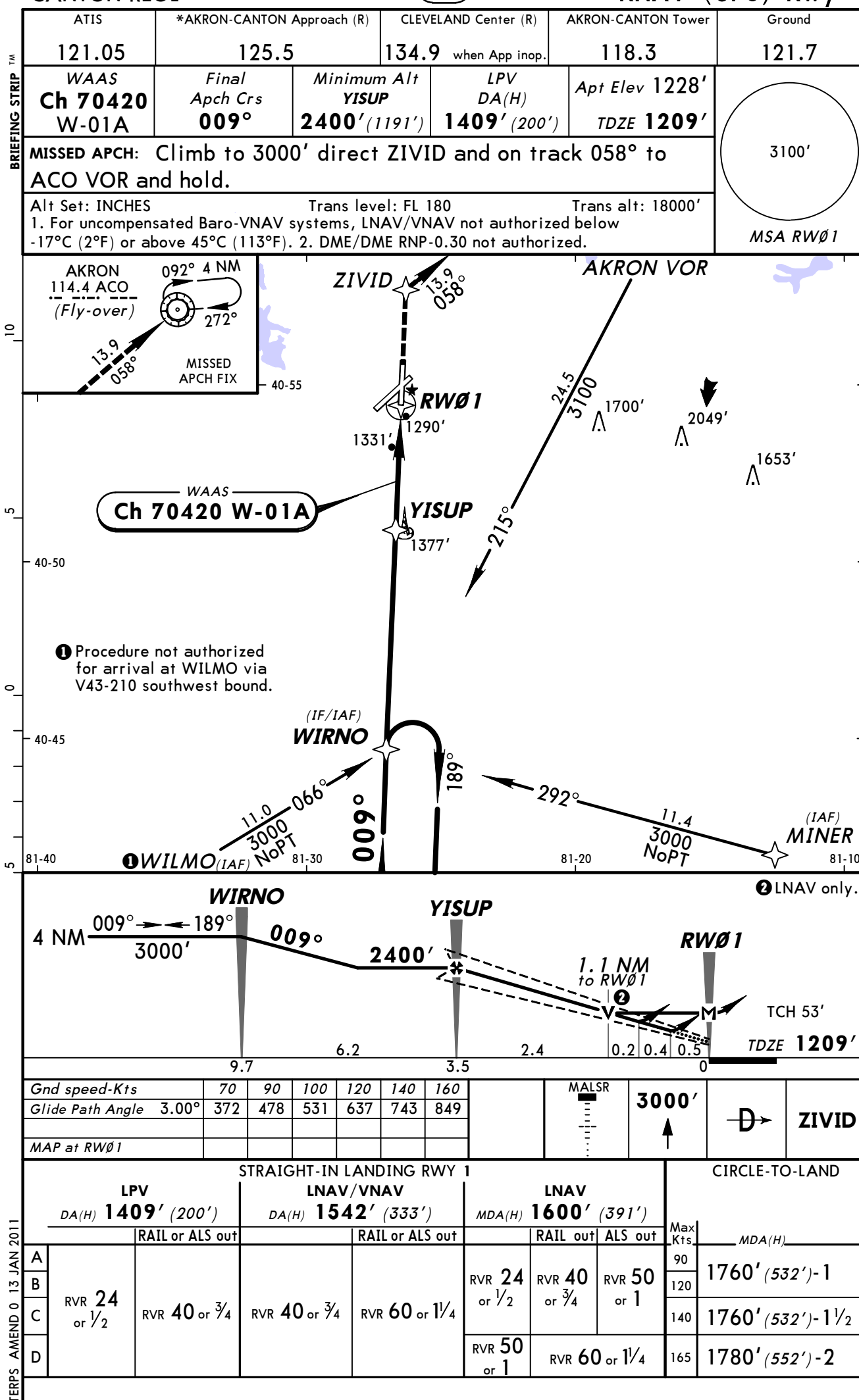
STRAIGHT-IN LANDING RWY 19						CIRCLE-TO-LAND			
ILS		LOC (GS out)							
DA(H) 1418' (200')		With ZEVLO		Without ZEVLO					
FULL		RAIL or ALS out		RAIL out		MDA(H) 1620' (402')		Max Kts	
A						RVR 24	RVR 40	RVR 50	90
B	1					or 1/2	or 3/4	or 1	120
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	RVR 40 or 3/4	RVR 60 or 1/4		140
D			RVR 40 or 3/4	RVR 60 or 1/4					165

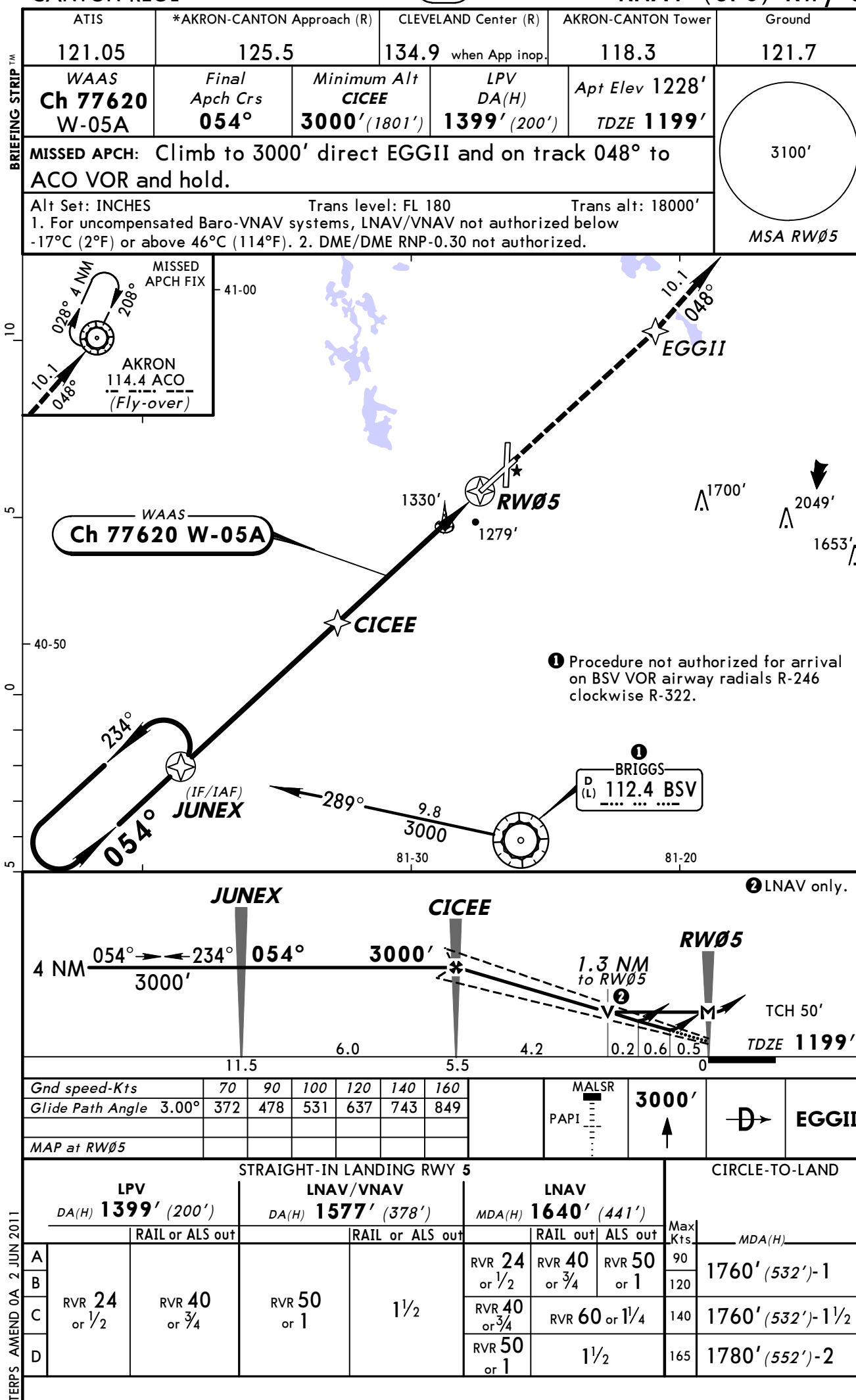
1 RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: None.

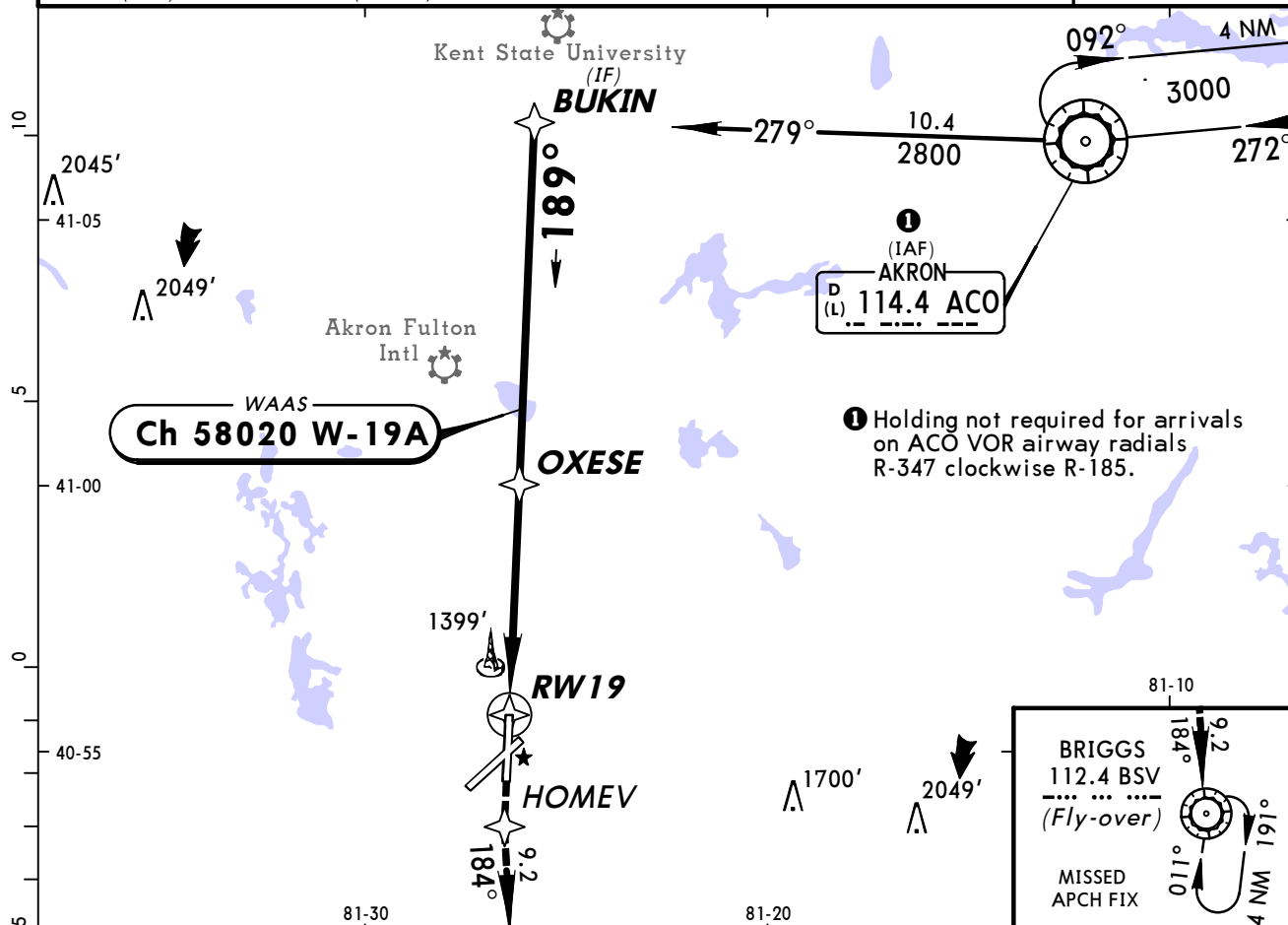
© JEPPESEN, 2003, 2011. ALL RIGHTS RESERVED.



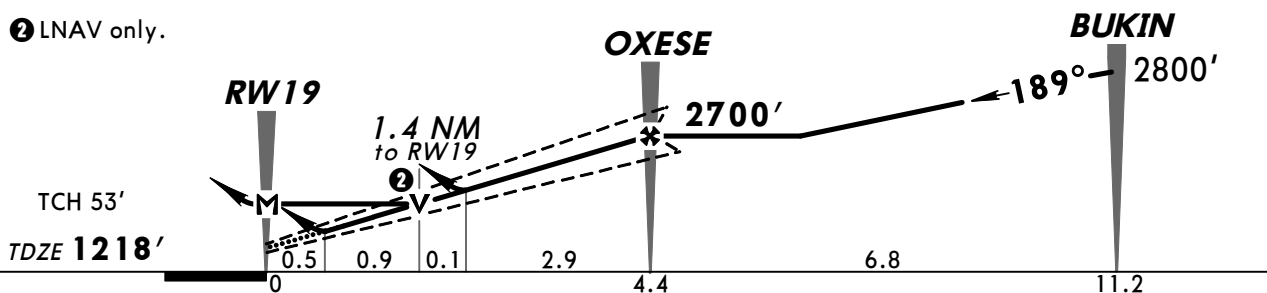




ATIS 121.05	*AKRON-CANTON Approach (R) 125.5	CLEVELAND Center (R) 134.9 when App inop.	AKRON-CANTON Tower 118.3	Ground 121.7
WAAS Ch 58020 W-19A	Final Apch Crs 189°	Minimum Alt OXESE 2700' (1482')	LPV DA(H) 1418' (200')	Apt Elev 1228' TDZE 1218'
MISSED APCH: Climb to 3000' direct HOMEV and on track 184° to BSV VOR and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (2°F) or above 46°C (114°F). 2. DME/DME RNP-0.30 not authorized.				
3100'				
MSA RW19				



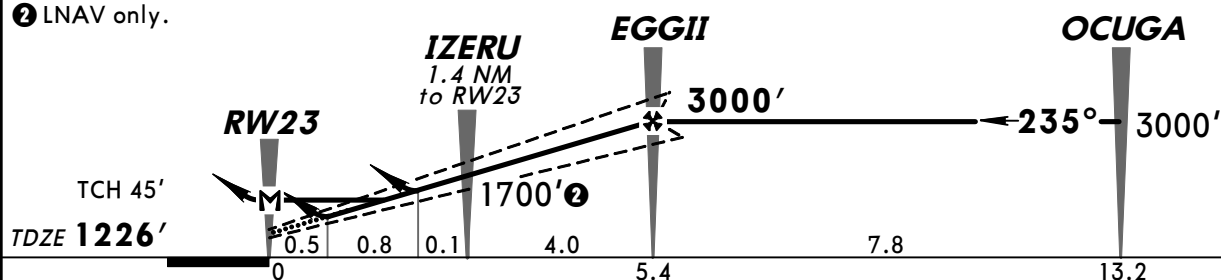
② LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	MALSR	3000'	HOMEV
Glide Path Angle	3.00°	372	478	531	637	743	PAPI		
MAP at RW19									

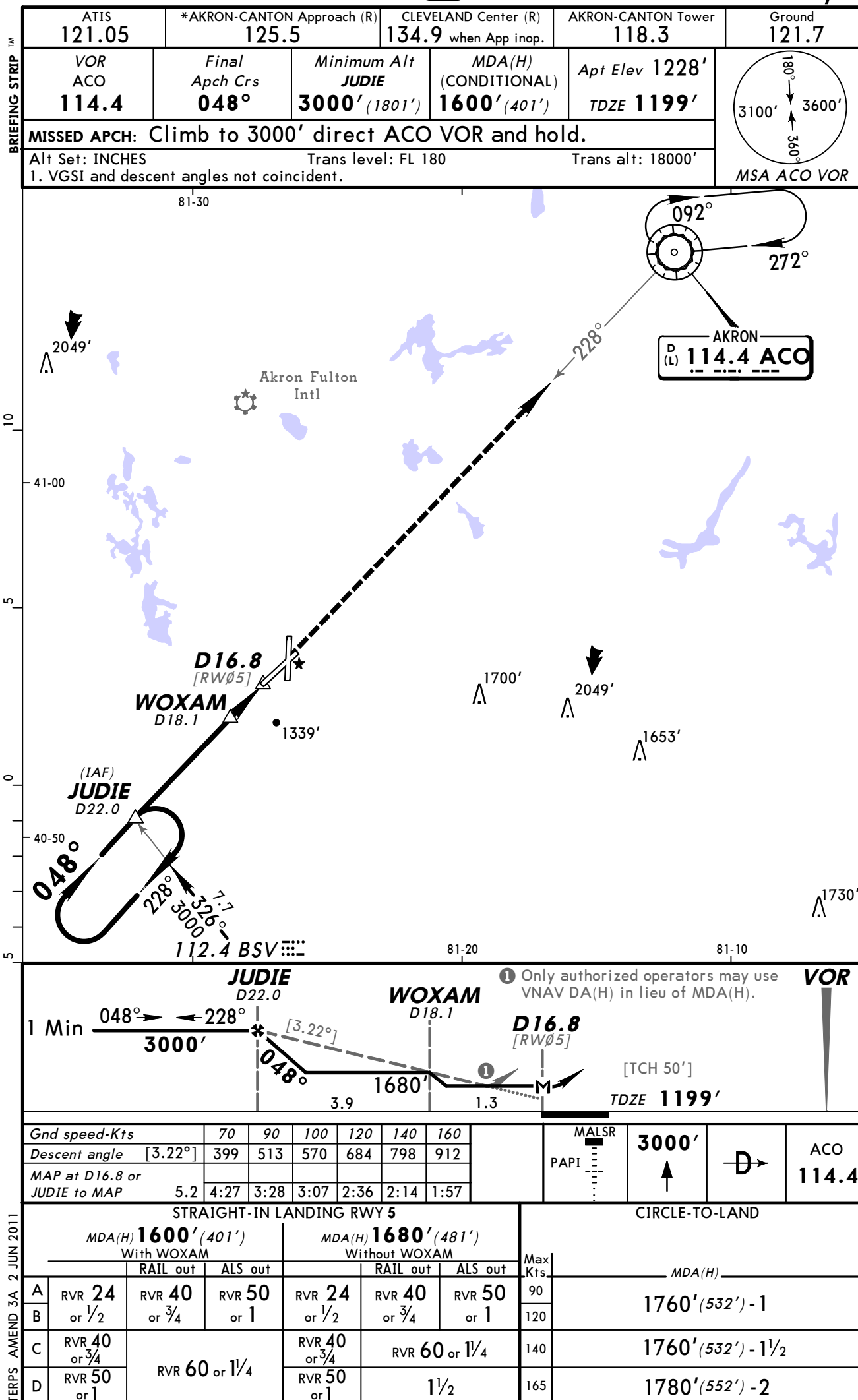
STRAIGHT-IN LANDING RWY 19				CIRCLE-TO-LAND		
LPV DA(H) 1418' (200')		LNAV/VNAV DA(H) 1753' (535')		LNAV MDA(H) 1700' (482')		Max Kts
RAIL or ALS out		RAIL or ALS out		RAIL out	ALS out	
A				RVR 24 or 1/2	RVR 40 or 3/4	90
B	RVR 24 or 1/2	RVR 40 or 3/4	1 1/2	2	RVR 50 or 1	120
C				RVR 40 or 3/4	RVR 60 or 1/4	140
D				RVR 50 or 1	1 1/2	165
						1760' (532') -1
						1760' (532') -1 1/2
						1780' (552') -2

BRIEFING STRIP™



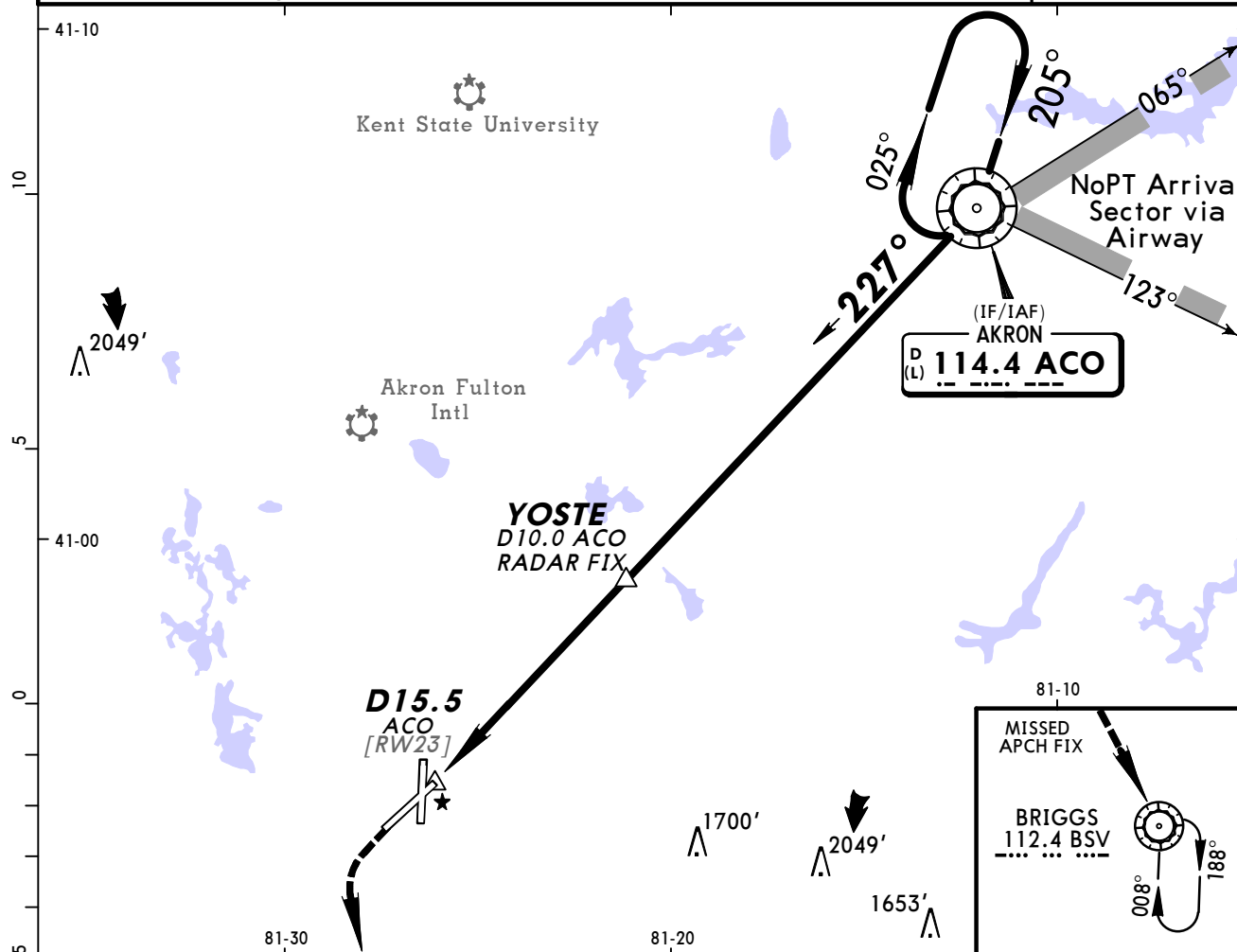
MAP at RW23

TERPS AMEND 0 10 MAR 2011

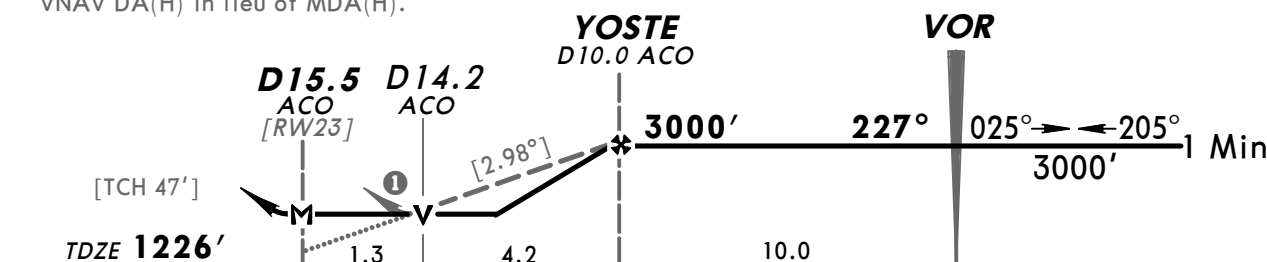


BRIEFING STRIP™

ATIS 121.05		*AKRON-CANTON Approach (R) 125.5		CLEVELAND Center (R) 134.9 when App inop.		AKRON-CANTON Tower 118.3		Ground 121.7	
VOR ACO 114.4		Final Apch Crs 227°		Minimum Alt YOSTE 3000' (1774')		MDA(H) 1680' (454')		Apt Elev 1228' TDZE 1226'	
MISSED APCH: Climb to 3000' then LEFT turn direct BSV VOR and hold.									
Alt Set: INCHES 1. Radar or DME required.				Trans level: FL 180			Trans alt: 18000'		
180° 3100' 3600' 360° MSA ACO VOR									

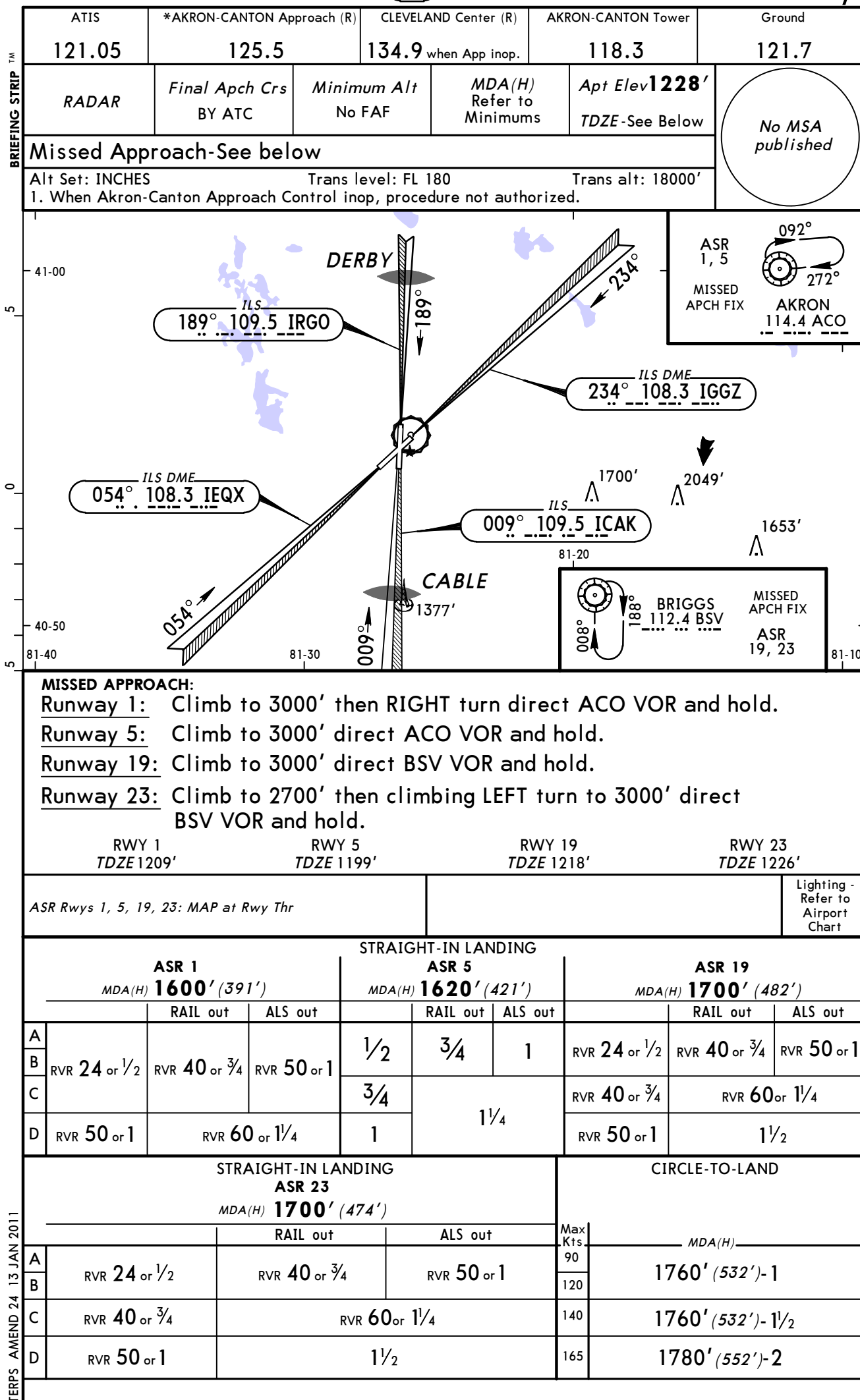


① Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



Gnd speed-Kts	70	90	100	120	140	160	MALS R	3000'	LT	BSV
Descent angle [2.98°]	369	474	527	633	738	843	PAPI			112.4
MAP at D15.5 ACO or YOSTE to MAP	5.5	4:43	3:40	3:18	2:45	2:04				

STRAIGHT-IN LANDING RWY 23				CIRCLE-TO-LAND	
MDA(H) 1680' (454')				Max Kts	MDA(H)
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1760' (532') - 1
B				120	
C	RVR 40 or 3/4	RVR 60 or 1/4		140	1760' (532') - 1 1/2
D	RVR 50 or 1	1 1/2		165	1780' (552') - 2



General Information

Location: Cleveland OH USA
IATA Code: CLE
Lat/Long: N41° 24.6' W081° 51.3'
Elevation: 799 ft

Airport Use: Public
Magnetic Variation: 8.1 °W
Sectional Chart: Detroit

Fuel Types: 100 Octane (LL), Jet A, Jet A-1
Oxygen Types: High Pressure, Low Pressure, HP Bottle, LP Bottle
Repair Types: Major Airframe, Major Engine
Customs: Upon Prior Request
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: Yes
Beacon: Yes

Sunrise: 1206 Z
Sunset: 2315 Z,

Runway Information

Runway: 06L
Length x Width: 9000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 773 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 06R
Length x Width: 9955 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 777 ft
Lighting: Edge, ALS, Centerline, TDZ
Displaced Threshold: 1926 ft

Runway: 10
Length x Width: 6017 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 782 ft
Lighting: Edge, REIL

Runway: 24L
Length x Width: 9955 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 787 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 24R
Length x Width: 9000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 780 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 28
Length x Width: 6017 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 799 ft
Lighting: Edge, ALS

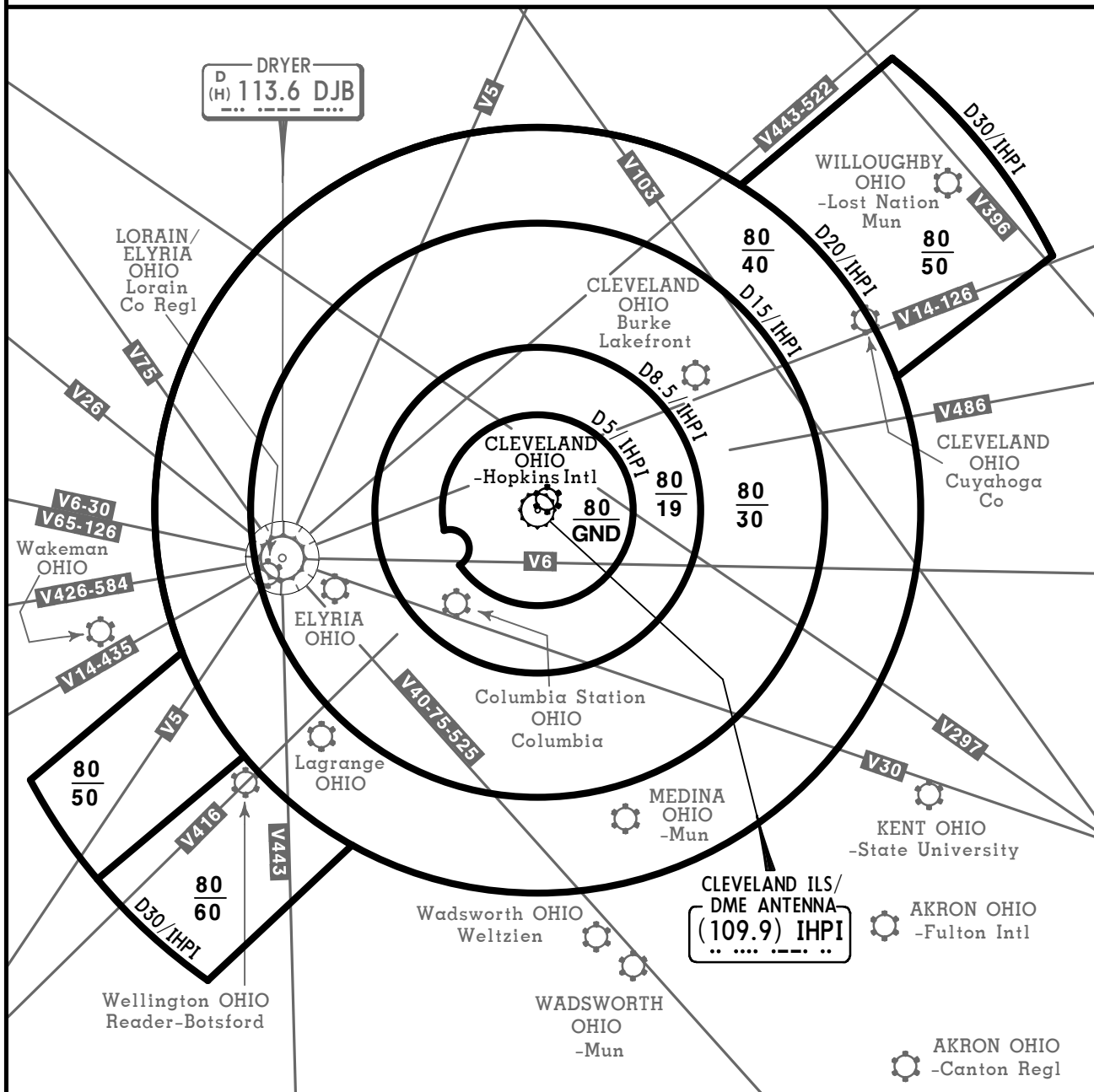
Communication Information

ATIS 132.375 Departure Service
ATIS 127.85 Arrival Service
Cleveland Tower 124.5
Cleveland Tower 135.875
Cleveland Tower 118.975
Cleveland Tower 120.9
Metering Ground Control 127.275
Cleveland Ground Control 121.7
Cleveland Ground Control 133.6 Secondary
Ramp Control Ramp/Taxi Control 129.175
Cleveland Clearance Delivery 125.05
Cleveland Pre-Taxi Clearance 125.05
Cleveland Approach Control 124.0
Cleveland Approach Control 126.55
Cleveland App TCA 126.35 (201°-339°)
Cleveland App TCA 125.35 (340°-200°)
Cleveland Departure Control 128.25 (237°-56°)
Cleveland Departure Control 118.15 (57°-236°)
Cleveland-Hopkins Intl Unicom 122.95
Nasa Operations 122.925
Cleveland Flight Service Station 122.35 RCO
Cleveland Flight Service Station 122.2 RCO
Cleveland Flight Service Station 122.1 RCO

CLEVELAND CLASS B AIRSPACE

CLASS B AIRSPACE VFR COMMUNICATIONS

Cleveland App (340°-200°) 125.35 (201°-339°) 126.35



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

FLIGHT PROCEDURES

IFR Flights-Aircraft operating within the Cleveland Class B airspace must be operated in accordance with ATC clearances and instructions.

VFR Flights-

1. Arriving aircraft should contact the appropriate approach control frequencies and in relation to geographic fixes on the accompanying chart. Although arriving aircraft may be operating beneath the floor of the Class B Airspace on initial contact, communications should be established with approach control in relation to the points indicated for sequencing and spacing purposes.
2. Aircraft departing the primary airports are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B Airspace. Aircraft departing from other than the primary airports whose route of flight would penetrate the Class B Airspace should give this information to ATC on the appropriate frequencies.
3. Aircraft desiring to transit the Class B airspace may obtain an ATC clearance to enter the the Class B Airspace and will be handled on an ATC workload permitting basis.

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

1. RADAR required.
2. Also serves **1**

From CXR via CXR R-265 to LEBRN. EXPECT RADAR vectors to final approach course.

For use by BUFFALO NIAGARA INTL
departures only and as assigned by ATC

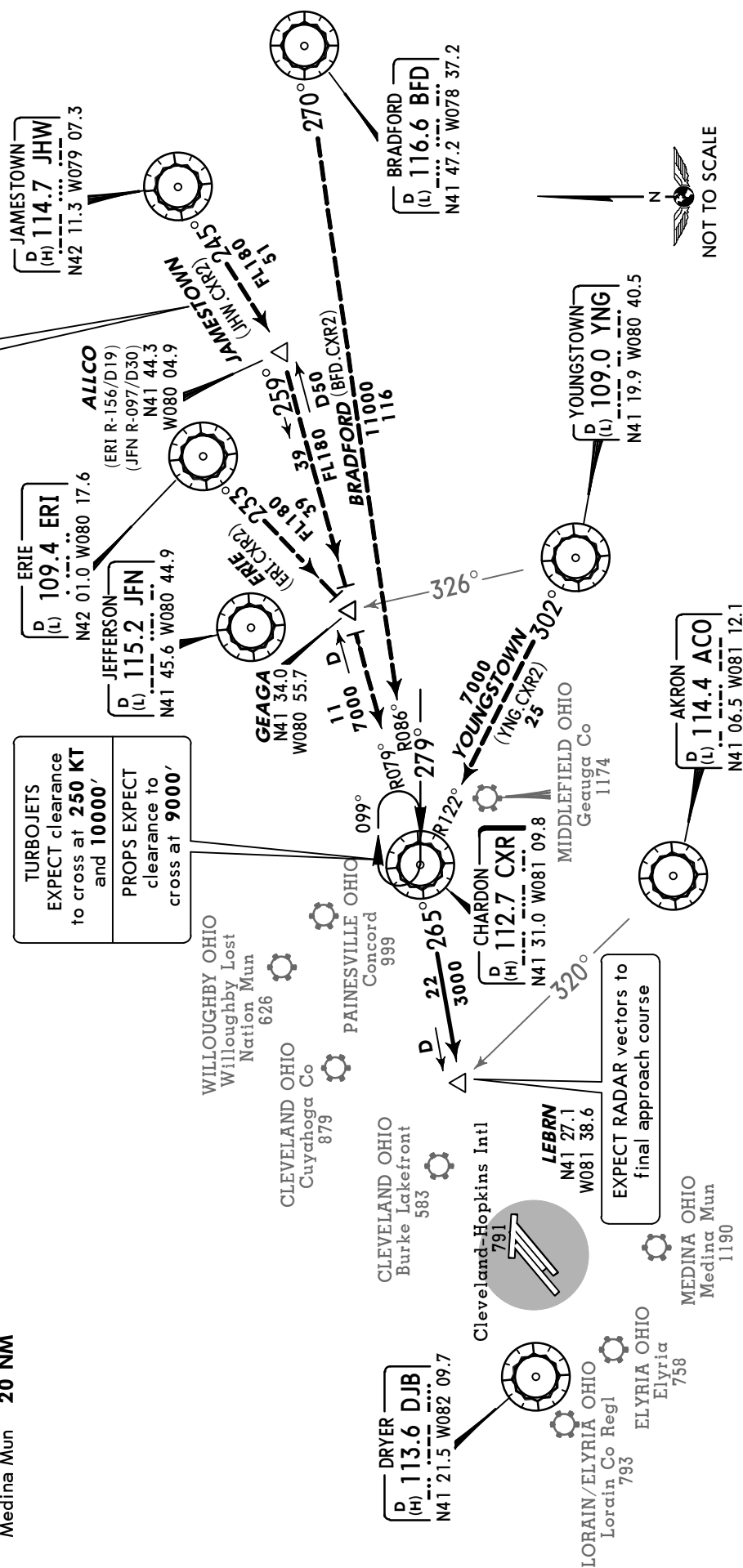
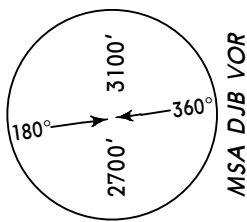
TURBOJET EXPECT clearance to cross at 250 KT and 10000'	PROPS EXPECT clearance to cross at 9000'
---	---

$\left[\begin{array}{c} \text{D} \\ \text{(L)} \end{array} \right] \text{ERIE} \left[\begin{array}{c} 109.4 \text{ ERI} \\ \cdot \text{---} \cdot \cdot \cdot \end{array} \right]$
 N42 01.0 W080 17.6

JEFFERSON
D 115.2 JFN
(L) --- --- ..
N42 01.0 W080 17.6
ALLCO
(ERI R-156/D19)
(JFN R-097/D30)
N41 44.3

74N 11.3 W019 01.3

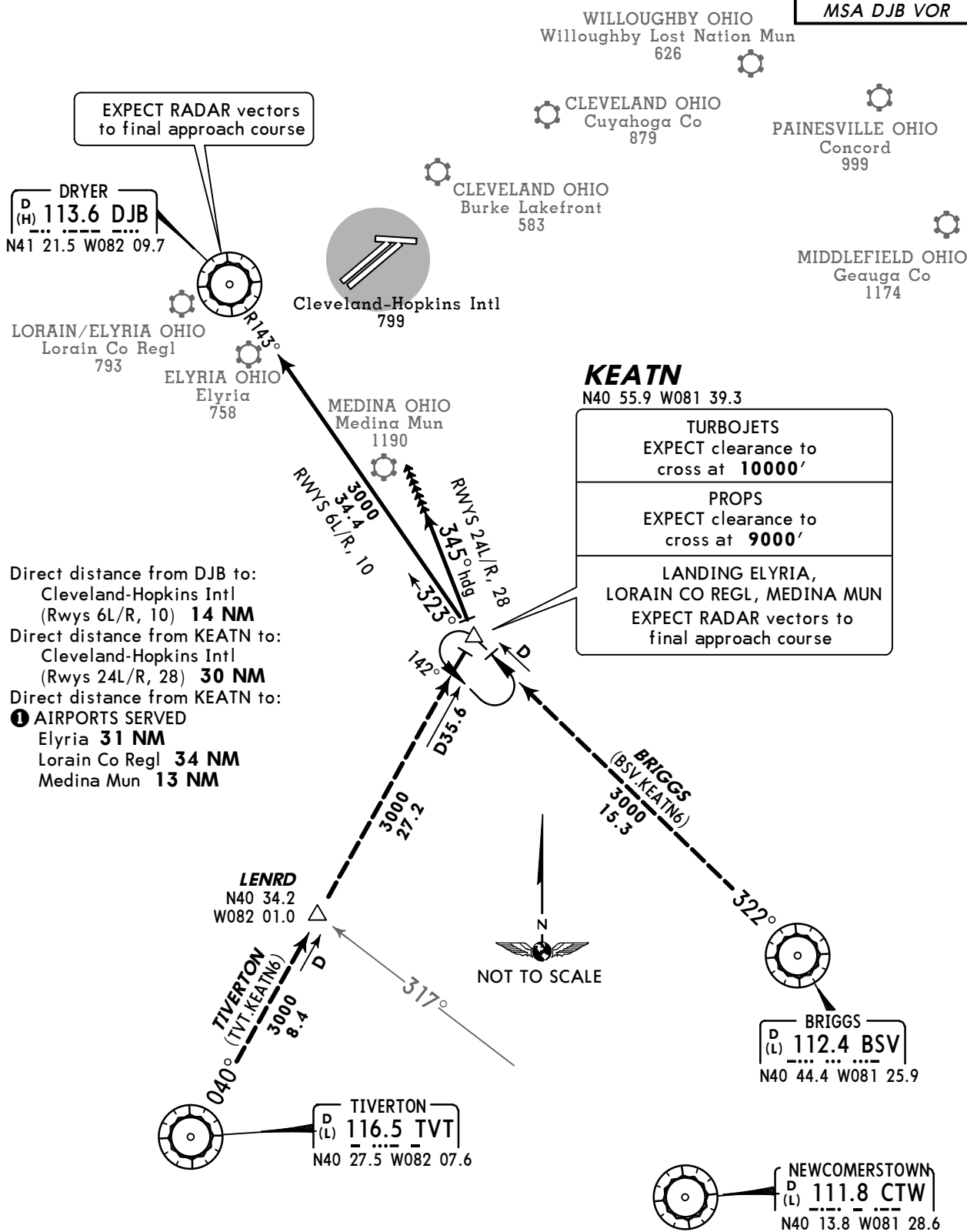
CHARDON TWO ARRIVAL (CXR.CXR2)



NOT TO SCALE

-HOPKINS INTL D-ATIS Arrival 127.85	<i>Apt Elev See graphic</i>	Alt Set: INCHES Trans level: FL180 Trans alt: 18000' 1. RADAR required. 2. Also serves 1	3100' MSA DJB VOR
--	-------------------------------------	---	--

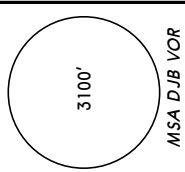
KEATN SIX ARRIVAL (KEATN.KEATN6)



RWY	LANDING CLEVELAND/HOPKINS INTL
6L/R, 10	Depart KEATN via DJB R-143 to DJB. EXPECT RADAR vectors to final approach course.
24L/R, 28	Depart KEATN fly heading 345°. EXPECT RADAR vectors to final approach course.
LANDING ALL OTHER AIRPORTS	
From KEATN, EXPECT RADAR vectors to final approach course.	

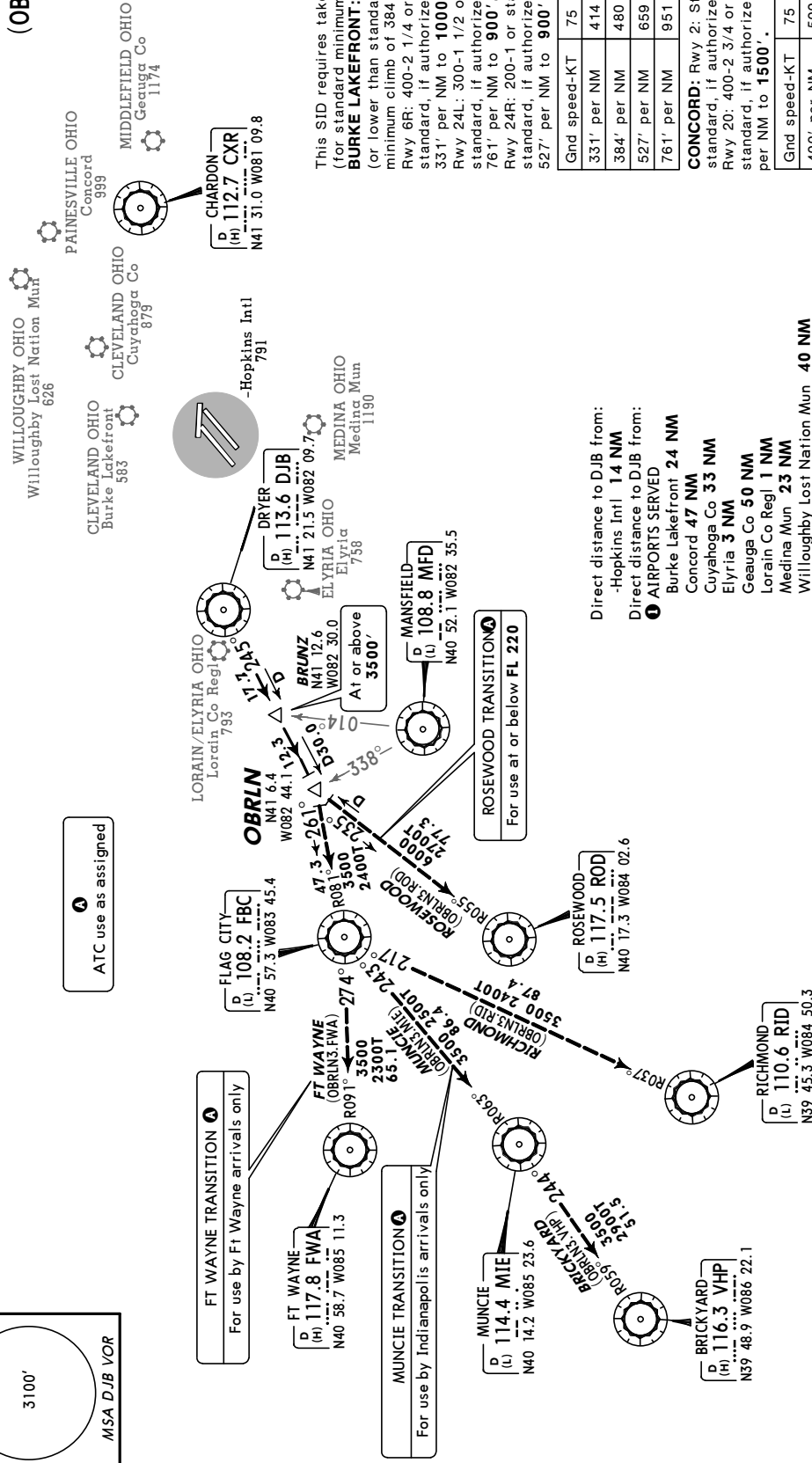
[illegible]

3100'



Trans alt: 18000'

Apt Elev
See
graphic



This SID requires takeoff minimums (for standard minimums, refer to airport chart):

BURKE LAKEFRONT: Rwy 6L: 400-2 or standard (or lower than standard if authorized) with minimum climb of 384' per NM to **1000'**.

Rwy 6R: 400-2 1/4 or standard (or lower than standard if authorized) with minimum climb of 331' per NM to **1000'**.

Rwy 24L: 300-1 1/2 or standard (or lower than standard if authorized) with minimum climb of 761' per NM to **900'**.

Rwy 24R: 200-1 or standard (or lower than standard if authorized) with minimum climb of 527' per NM to **900'**.

Gnd. speed-KT	75	100	150	200	250	300
331' per NM	414	552	828	1103	1379	1655
384' per NM	480	640	960	1280	1600	1920
527' per NM	659	878	1318	1757	2196	2635
761' per NM	951	1268	1903	2537	3171	3805

CONCORD: Rwy 2: Standard (or lower than standard, if authorized).

Rwy 20: 400-2 3/4 or standard (or lower than standard, if authorized) with minimum climb of 400' per NM to 1500'.

Gnd speed-KT	75	100	150	200	250	300
400' per NM	500	667	1000	1333	1667	2000

CUYAHOGA CO: Standard (or lower than standard, if authorized).

ELYRIA: Standard (or lower than standard, if authorized).

GEAUGA CO: Standard (or lower than standard, if authorized).

-HOPKINS INTL: Standard (or lower than standard if authorized).

LORAIN CO REG: Standard (or lower than standard, if authorized).

MEDINA MUN: Standard (or lower than standard, if authorized).

WILLOUGHBY LOST NATION MUN: Standard (or lower than standard, if authorized).

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 10-30B1.

AIRPORT	INITIAL CLIMB
-HOPKINS INTL	RWYS 6L/R, 10, 24L/R, 28: Climb via assigned heading to 5000' or assigned altitude.
BURKE LAKEFRONT	RWYS 6L/R: Climb via heading 065° to 1500' then via assigned heading to 3000' or assigned altitude.
	RWYS 24L/R: Climbing RIGHT turn to intercept CXR R-272 to 1900' then via assigned heading to 3000' or assigned altitude.
	RWY 5: Climb via assigned heading to 3000' or assigned altitude.
WILLOUGHBY LOST NATION MUN	RWY 10: Climb via heading 099° to 1600' then via assigned heading to 3000' or assigned altitude.
	RWY 23: Climb via heading 233° to 1400' then via assigned heading to 3000' or assigned altitude.
	RWY 28: Climb via heading 279° to 1400' then via assigned heading to 3000' or assigned altitude.
ALL OTHER AIRPORTS	Climb via assigned heading to 3000' or assigned altitude.

ROUTING	
Vectors to intercept DJB R-245 to cross BRUNZ at or above	3500', then proceed to OBRUN, then via transition. EXPECT filed altitude/flight level 10 minutes after departure.

**SANDUSKY THREE DEPARTURE
(SKY3.SKY)**

This SID requires takeoff minimums
(for standard minimums; refer to airport chart):
BURKE LAKEFRONT: Rwy 6L: 400-2 or standard
(or lower than standard if authorized) with
minimum climb of 334' per NM to **1000'**.
Rwy 6R: 400-2 1/4 or standard (or lower than
standard, if authorized) with minimum climb of
331' per NM to **1000'**.
Rwy 24L: 300-1 1/2 or standard (or lower than
standard, if authorized) with minimum climb of
761' per NM to **900'**.
Rwy 24R: 200-1 or standard (or lower than
standard, if authorized) with minimum climb of
527' per NM to **900'**.

Gnd. speed-KT	75	100	150	200	250	300
331' per NM	414	552	828	1103	1379	1655
384' per NM	480	640	960	1280	1600	1920
527' per NM	659	878	1318	1757	2196	2635
761' per NM	951	1268	1903	2537	3171	3805

CONCORD: Rwy 2: Standard (or lower than standard, if authorized).
Rwy 20: 400-2 3/4 or standard (or lower than standard, if authorized) with minimum climb of 400 per NM to 1500'.

Gnd speed-KT	75	100	150	200	250	300
400' per NM	500	667	1000	1333	1667	2000

CUYAHOGA CO: Standard (or lower than standard, if authorized).

ELYRIA: Standard (or lower than standard, if authorized).

GEAUGA CO: Standard (or lower than standard, if authorized).

-HOPKINS INTL: Standard (or lower than standard if authorized).

LORAIN CO REG: Standard (or lower than standard, if authorized)

MEDINA MUN: Standard (or lower than standard, authorized).

WILLOUGHBY LOST NATION MUN: Standard (or lower than standard, if authorized).

OBSTACLE

OBSTACLE
For TAKEOFF OBSTACLE NOTES see 10-30B1.

Direct distance to DIB from:

-Hopkins Intl 14 NM

Direct distance to DIB from:

1 AIRPORTS SERVED

Burke |akefront 24 NM

Concord 47 NM

WMA 47 WMA
Cuyaboga Co 33 WMA

Elvis 3 NAA

Elyria 3 NM
 Cuyahoga 50 NM

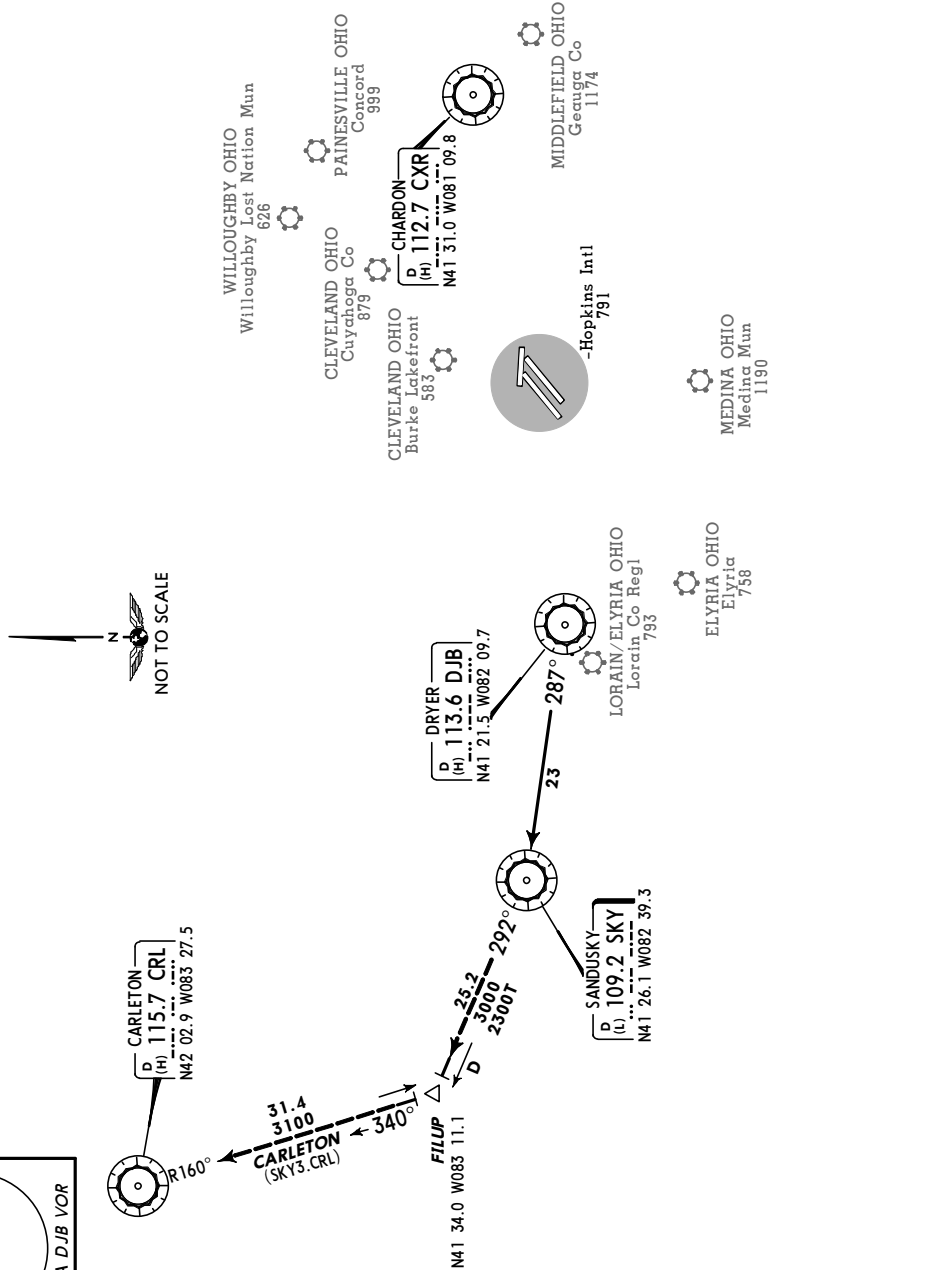
Geauga Co 50 NM
Lewis Co 1 NM

Lorain Co Regl I NM

Medina Mun 23 NM

Willoughby Lost Nation M

© JEPPESEN, 2006, 2010



AIRPORT	INITIAL CLIMB
-HOPKINS INTL	RWYS 6L/R, 10, 24L/R, 28: Climb via assigned heading to 5000' or assigned altitude.
BURKE LAKEFRONT	RWYS 6L/R: Climb via heading 065° to 1500' then via assigned heading to 3000' or assigned altitude.
	RWYS 24L/R: Climbing RIGHT turn to intercept CXR R-272 to 1900' then via assigned heading to 3000' or assigned altitude.
	RWY 5: Climb via assigned heading to 3000' or assigned altitude.
WILLOUGHBY LOST NATION MUN	RWY 10: Climb via heading 099° to 1600' then via assigned heading to 3000' or assigned altitude.
	RWY 23: Climb via heading 233° to 1400' then via assigned heading to 3000' or assigned altitude.
	RWY 28: Climb via heading 279° to 1400' then via assigned heading to 3000' or assigned altitude.
	Climb via assigned heading to 3000' or assigned altitude.
ALL OTHER AIRPORTS	ROUTING
Vectors to intercept DJB R-287 to SKY. EXPECT filed altitude/flight level 10 minutes after departure.	

CHANGES: MSA, takeoff minimums, initial climb text, procedure renumbered.

TAKEOFF OBSTACLE NOTES**BURKE LAKEFRONT**

◦ RWY 6L:

HANGAR LIGHT 1126' FROM DER, 780' RIGHT OF CENTERLINE, 47' AGL/622' MSL. TOWER 2946' FROM DER, 780' RIGHT OF CENTERLINE, 80' AGL/662' MSL. LIGHT ON BUILDING 3282' FROM DER, 598' RIGHT OF CENTERLINE, 123' AGL/704' MSL. STACKS BEGINNING 3301' FROM DER, 683' RIGHT OF CENTERLINE, 312' AGL/898' MSL. TOWER 5589' FROM DER, 1759' RIGHT OF CENTERLINE, 237' AGL/857' MSL.

◦ RWY 6R:

LIGHT ON WINDSOCK 165' FROM DER, 241' LEFT OF CENTERLINE, 15' AGL/590' MSL. POLE 1368' FROM DER, 852' RIGHT OF CENTERLINE, 42' AGL/627' MSL. TOWERS, ANTENNAS AND STACKS BEGINNING 3968' FROM DER, 326' RIGHT OF CENTERLINE, 312' AGL/898' MSL. LIGHT ON BUILDING 4283' FROM DER, 97' RIGHT OF CENTERLINE, 123' AGL/704' MSL.

◦ RWY 24L:

ANTENNA 226' FROM DER, 505' LEFT OF CENTERLINE, 37' AGL/608' MSL. MONUMENT 1257' FROM DER, 10' LEFT OF CENTERLINE, 55' AGL/630' MSL. ANTENNA 1320' FROM DER, 161' RIGHT OF CENTERLINE, 57' AGL/632' MSL. BUILDING 1685' FROM DER, 685' LEFT OF CENTERLINE, 164' AGL/742' MSL. BUILDING 1751' FROM DER, 655' LEFT OF CENTERLINE, 165' AGL/739' MSL. CRANE 2238' FROM DER, 202' RIGHT OF CENTERLINE, 136' AGL/707' MSL. ANTENNA ON STADIUM 2783' FROM DER, 656' LEFT OF CENTERLINE, 186' AGL/764' MSL. BUILDING 2998' FROM DER, 1068' LEFT OF CENTERLINE, 143' AGL/724' MSL. BRIDGES BEGINNING 6699' FROM DER, 2006' LEFT OF CENTERLINE, UP TO 208' AGL/792' MSL.

◦ RWY 24R:

BUSHES BEGINNING 68' FROM DER, 129' RIGHT OF CENTERLINE, UP TO 14' AGL/586' MSL. MONUMENT 1256' FROM DER, 509' LEFT OF CENTERLINE, 55' AGL/630' MSL. ANTENNA 1320' FROM DER, 338' LEFT OF CENTERLINE, 57' AGL/632' MSL. CRANE 2238' FROM DER, 296' LEFT OF CENTERLINE, 136' AGL/707' MSL. ANTENNA 2783' FROM DER, 1155' LEFT OF CENTERLINE, 186' AGL/764' MSL.

CONCORD

◦ RWY 2:

TREES BEGINNING 336' FROM DER, 42' LEFT OF CENTERLINE, UP TO 100' AGL/1039' MSL. TREES BEGINNING 1064' FROM DER, 217' RIGHT OF CENTERLINE, UP TO 100' AGL/1039' MSL.

◦ RWY 20:

TREES BEGINNING 131' FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 100' AGL/1220' MSL. TOWER 1.2 NM FROM DER, 2020' RIGHT OF CENTERLINE, 114' AGL/1223' MSL.

CUYAHOGA CO

◦ RWY 6:

TREES BEGINNING 2127' FROM DER, 33' RIGHT OF CENTERLINE, UP TO 109' AGL/982' MSL. TREE 2595' FROM DER, 739' LEFT OF CENTERLINE, 93' AGL/947' MSL.

◦ RWY 24:

TERRAIN 35' FROM DER, 447' LEFT OF CENTERLINE, 874' MSL. TREES BEGINNING 755' FROM DER, 46' RIGHT OF CENTERLINE, UP TO 82' AGL/975' MSL. BUILDING 1179' FROM DER, 676' LEFT OF CENTERLINE, 34' AGL/917' MSL. TREES BEGINNING 1784' FROM DER, 35' LEFT OF CENTERLINE, UP TO 92' AGL/985' MSL.

TAKEOFF OBSTACLE NOTES (CONTD)**ELYRIA**

- RWY 9:
ROAD 1198' FROM DER, 275' LEFT OF CENTERLINE, 15' AGL/774' MSL. TREE 2077' FROM DER, 778' RIGHT OF CENTERLINE, 100' AGL/859' MSL.
- RWY 27:
TREE 68' FROM DER, 237' LEFT OF CENTERLINE, 100' AGL/859' MSL. TREE 527' FROM DER, 454' RIGHT OF CENTERLINE, 100' AGL/854' MSL.

GEAUGA CO

- RWY 11:
RAILROAD 331' FROM DER, 315' LEFT OF CENTERLINE, 23' AGL/1182' MSL. TREES 3144' FROM DER, 671' LEFT OF CENTERLINE, 100' AGL/1249' MSL.
- RWY 29:
RAILROAD 349' FROM DER, 521' LEFT OF CENTERLINE, 23' AGL/1212' MSL. MULTIPLE BUILDINGS 993' FROM DER, 294' RIGHT OF CENTERLINE, 40' AGL/1239' MSL. TREES 1875' FROM DER, 791' RIGHT OF CENTERLINE, 100' AGL/1319' MSL. TANK 2251' FROM DER, 578' RIGHT OF CENTERLINE, 125' AGL/1315' MSL.

-HOPKINS INTL

- RWY 6R:
ANTENNA 1056' FROM DER, 82' LEFT OF CENTERLINE, 45' AGL/820' MSL.
- RWY 10:
TREES, POLE, AND TOWER BEGINNING 1159' FROM DER, 656' RIGHT OF CENTERLINE, UP TO 137' AGL/922' MSL. SIGNS BEGINNING 1236' FROM DER, 717' LEFT OF CENTERLINE, UP TO 86' AGL/857' MSL.
- RWY 24L:
TREES AND POLES BEGINNING 1903' FROM DER, 5' LEFT OF CENTERLINE, UP TO 89' AGL/849' MSL.
- RWY 24R:
TREES BEGINNING 3652' FROM DER, 856' LEFT OF CENTERLINE, UP TO 100' AGL/870' MSL. TOWER 2564' FROM DER, 1027' RIGHT OF CENTERLINE, 191' AGL/870' MSL.
- RWY 28:
TREES, ANTENNA AND ROAD BEGINNING 3' FROM DER, 304' LEFT OF CENTERLINE, UP TO 94' AGL/820' MSL. TREE 712' FROM DER, 117' RIGHT OF CENTERLINE, 135' AGL/811' MSL.

LORAIN CO REGL

- RWY 7:
MULTIPLE TREES BEGINNING 973' FROM DER, 293' RIGHT OF CENTERLINE, UP TO 75' AGL/865' MSL. MULTIPLE TREES BEGINNING 839' FROM DER, 636' LEFT OF CENTERLINE, UP TO 47' AGL/836' MSL.
- RWY 25:
BUSH 583' FROM DER, 468' RIGHT OF CENTERLINE, 10' AGL/809' MSL. TREE 1587' FROM DER, 698' LEFT OF CENTERLINE, 44' AGL/838' MSL. TREE 2277' FROM DER, 435' RIGHT OF CENTERLINE, 58' AGL/854' MSL.

TAKEOFF OBSTACLE NOTES (CONTD 1)**MEDINA MUN**

- RWY 1:
VEHICLE ON ROAD 534' FROM DER, ON CENTERLINE, 15' AGL/1214' MSL. TREES BEGINNING 562' FROM DER, 588' LEFT OF CENTERLINE, UP TO 100' AGL/1279' MSL. TREES BEGINNING 1925' FROM DER, ON CENTERLINE, UP TO 100' AGL/1319' MSL.
- RWY 9:
TREES BEGINNING 305' FROM DER, 396' RIGHT OF CENTERLINE, UP TO 100' AGL/1249' MSL. TOWER 3626' FROM DER, 533' LEFT OF CENTERLINE, 189' AGL/1321' MSL.
- RWY 19:
TREES BEGINNING AT DER, 112' LEFT OF CENTERLINE, UP TO 100' AGL/1289' MSL. TREES BEGINNING 1490' FROM DER, 150' RIGHT OF CENTERLINE, UP TO 100' AGL/1289' MSL.
- RWY 27:
TREES BEGINNING AT DER, 345' LEFT OF CENTERLINE, UP TO 100' AGL/1319' MSL. TREES BEGINNING AT DER, 366' RIGHT OF CENTERLINE, UP TO 100' AGL/1279' MSL. VEHICLE ON ROAD 501' FROM DER, ON CENTERLINE, 15' AGL/1184' MSL.

WILLOUGHBY LOST NATION MUN

- RWY 5:
TREES BEGINNING 47' FROM DER, 93' RIGHT OF CENTERLINE, UP TO 109' AGL/726' MSL. FENCE 530' FROM DER, 244' RIGHT OF CENTERLINE, 16' AGL/633' MSL. TREES BEGINNING 1079' FROM DER, 150' LEFT OF CENTERLINE, UP TO 120' AGL/737' MSL. POLE 2129' FROM DER, 428' RIGHT OF CENTERLINE, 56' AGL/677' MSL.
- RWY 10:
TREES AND POLES BEGINNING 602' FROM DER, 63' RIGHT OF CENTERLINE, UP TO 109' AGL/730' MSL. TREES AND POLES BEGINNING 608' FROM DER, 67' LEFT OF CENTERLINE, UP TO 117' AGL/731' MSL.
- RWY 23:
LIGHT ON HANGAR 201' FROM DER, 534' RIGHT OF CENTERLINE, 32' AGL/672' MSL. TREES, POLES AND BUILDINGS BEGINNING 294' FROM DER, 87' RIGHT OF CENTERLINE, UP TO 85' AGL/722' MSL. TREES BEGINNING 1660' FROM DER, 164' LEFT OF CENTERLINE, UP TO 77' AGL/714' MSL.
- RWY 28:
LIGHT ON HANGAR 877' FROM DER, 539' LEFT OF CENTERLINE, 32' AGL/672' MSL. BUILDING 881' FROM DER, 665' LEFT OF CENTERLINE, 32' AGL/672' MSL. POLE 988' FROM DER, 533' RIGHT OF CENTERLINE, 31' AGL/661' MSL. BUILDING 1101' FROM DER, 337' RIGHT OF CENTERLINE, 35' AGL/661' MSL. TREES BEGINNING 1177' FROM DER, 395' RIGHT OF CENTERLINE, UP TO 75' AGL/705' MSL. TREES BEGINNING 1179' FROM DER, 200' LEFT OF CENTERLINE, UP TO 80' AGL/717' MSL.

STANDARDIZED TAXI ROUTES

Pilots are encouraged to use extra caution due to the construction. Pilots who are unable to comply with standardized routes should advise ground control on initial contact.

READBACK ALL HOLD SHORT INSTRUCTIONS

To Runway 6L		
Route Ident	Start Point	Routing Via
Violet	All Terminal Parking Areas	Juliet, Kilo, Lima, November, (Hold short of Runway 6R and monitor 120.9) , Golf. Monitor 124.5 when west of Runway 6R.

To Runway 6R		
Route Ident	Start Point	Routing Via
Emerald	All Terminal Parking Areas	Juliet, Kilo, Lima.

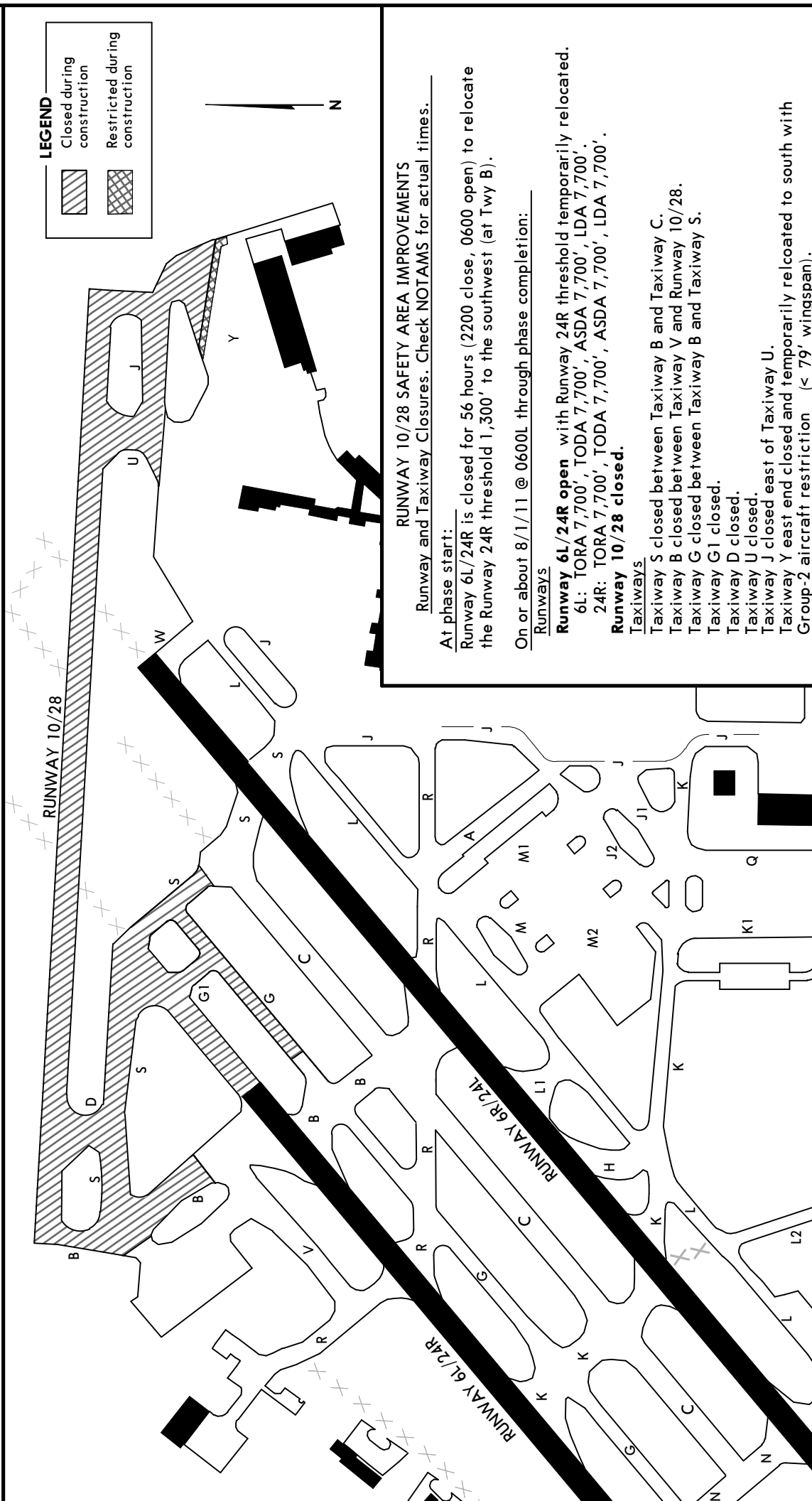
To Runway 6R, Intersection Tango		
Route Ident	Start Point	Routing Via
Red	All Terminal Parking Areas	Juliet, Kilo, Lima, Tango.

To Runway 24L		
Route Ident	Start Point	Routing Via
Blue	All Terminal Parking Areas	Juliet, Sierra, Lima, Whiskey.

To Runway 24R		
Route Ident	Start Point	Routing Via
Grey	All Terminal Parking Areas	Juliet, Sierra, (Hold short of Runway 24L and monitor 120.9) , Sierra. Monitor 124.5 when west of Runway 24L.
Orange	All Terminal Parking Areas	Juliet, Romeo, (Hold short of Runway 24L and monitor 120.9) , Bravo, Golf, Sierra. Monitor 124.5 when west of Runway 24L.

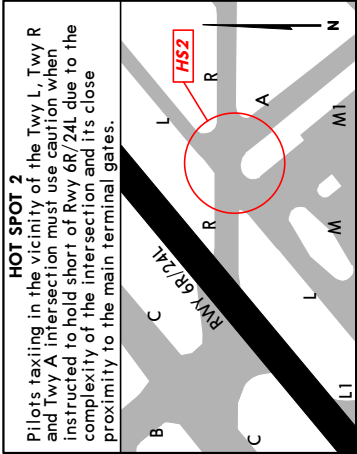
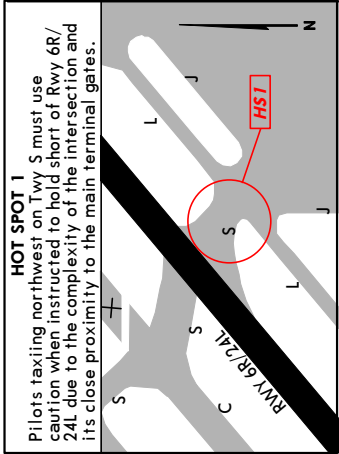
CLEVELAND RUNWAY 10/28 SAFETY AREA IMPROVEMENTS PHASE 2 & 3 RUNWAY AND TAXIWAY CLOSURES

Scheduled to begin at the end of July, 2011. Actual phase start to be activated by NOTAM



RUNWAY INCURSION "HOT SPOTS"

(For information only, not to be construed as ATC instructions)

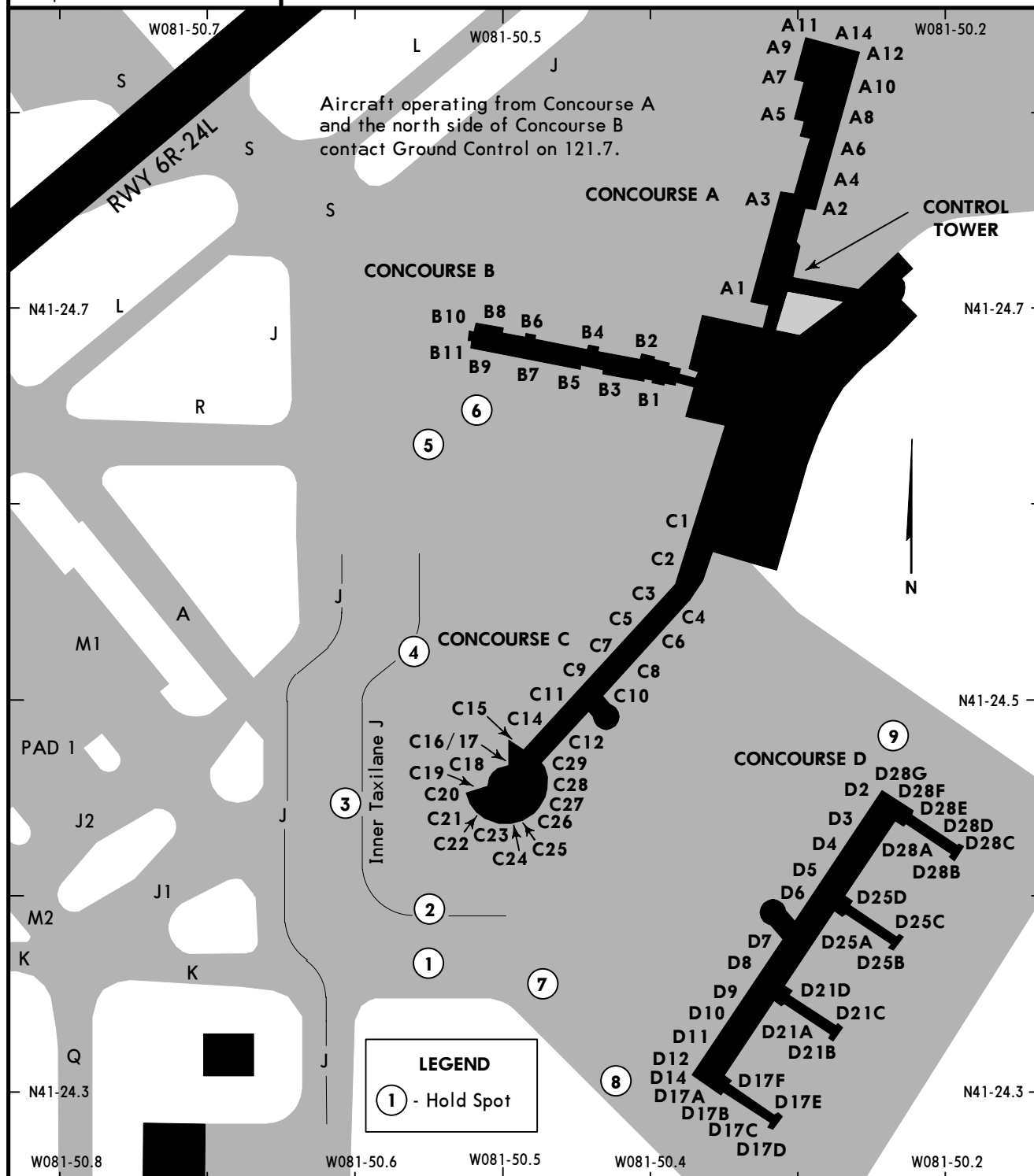


GENERAL									
Deer and birds on and in vicinity of airport. Terminal Doppler Weather Radar.									
ADDITIONAL RUNWAY INFORMATION									
RWY				LANDING BEYOND		USABLE LENGTHS			
	Threshold	Glide Slope	TAKE-OFF	WIDTH					
6R	HIRL CL MALSR TDZ ① PAPI-L grooved RVR	8029' 2448m	7009' 2137m				150' 46m		
24L	HIRL CL MALSR TDZ ① PAPI-R grooved RVR		8934' 2723m						
① Angle 3.00°.									
6L	HIRL CL ALSF-II TDZ ② PAPI-L grooved RVR		7964' 2427m				150' 46m		
24R	HIRL CL ALSF-II TDZ ② PAPI-R grooved RVR		7936' 2419m						
② Angle 3.00°.									
10	③ HIRL REIL PAPI-L	grooved					150' 46m		
28	③ HIRL MALSR ④ PAPI-R	grooved RVR							
③ Not operational during Rwy 24L arrivals. ④ Angle 3.00°.									
TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE									
Rwys 6L, 6R, 24L, 24R									
2 operating RVRs are required		Adequate Vis Ref		STD		1 & 2 Eng			
All operating RVRs are controlling									
CL & HIRL	CL, or RCLM & HIRL			3 & 4 Eng					
TDZ RVR	TDZ RVR	10							
Mid RVR	Mid RVR	10							
Rollout RVR	Rollout RVR	10							
Rwys 10, 28									
Adequate Vis Ref				STD					
		3 & 4 Eng				1 & 2 Eng			
RVR 16 or 1/4		RVR 24 or 1/2				RVR 50 or 1			
OBSTACLE DP									
Rwys 6L, 6R, 10 - climbing left turn to intercept DJB VOR R-082 inbound to 2600' before proceeding on course.									
FOR FILING AS ALTERNATE									
ILS Rwy 6L/R ILS Rwy 24L/R		ILS Rwy 28				Other			
A	600-2		700-2		800-2		NA		
B									
C									
D									

Ramp Control 129.17

27 JUN 08

(10-9B)



PARKING GATE COORDINATES

GATE No.	COORDINATES	GATE No.	COORDINATES
Concourse A		Concourse D	
A1 thru A3	N41 24.7 W081 50.3	C29	N41 24.5 W081 50.5
A4 thru A12	N41 24.8 W081 50.3	D2	N41 24.5 W081 50.3
A14	N41 24.8 W081 50.3	D3 thru D9	N41 24.4 W081 50.3
Concourse B		D10 thru D12, D14	N41 24.3 W081 50.4
B1 thru B4	N41 24.7 W081 50.4	D17A	N41 24.3 W081 50.4
B5 thru B11	N41 24.7 W081 50.5	D17B thru D17F	N41 24.3 W081 50.3
Concourse C		D21A thru D21D	N41 24.3 W081 50.3
C1, C2	N41 24.6 W081 50.4	D25A	N41 24.4 W081 50.3
C3 thru C10	N41 24.5 W081 50.4	D25B, D25C	N41 24.4 W081 50.2
C11, C12	N41 24.5 W081 50.5	D25D	N41 24.4 W081 50.3
C14 thru C18	N41 24.5 W081 50.5	D28A thru D28G	N41 24.4 W081 50.2
C19 thru C28	N41 24.4 W081 50.5		

CLEVELAND DEICING PROCEDURES

AeroMag-Contego operates the Centralized Deicing Facility (CDF) at Cleveland, comprised of two pads identified as Pad-1 and Pad-2. Deice Pad-1 is the primary pad, handling the majority of the traffic. Aircraft are expected to deice in a manner consistent to meet ATC assigned departure release times due to GDP (*ground delay program*) or AFP (*airspace flow program*).

Deice pad frequencies:

- **AEROMAG:** 129.525 (aircraft movement)
- **ICEMAN:** 130.975 (deicing application coordination)

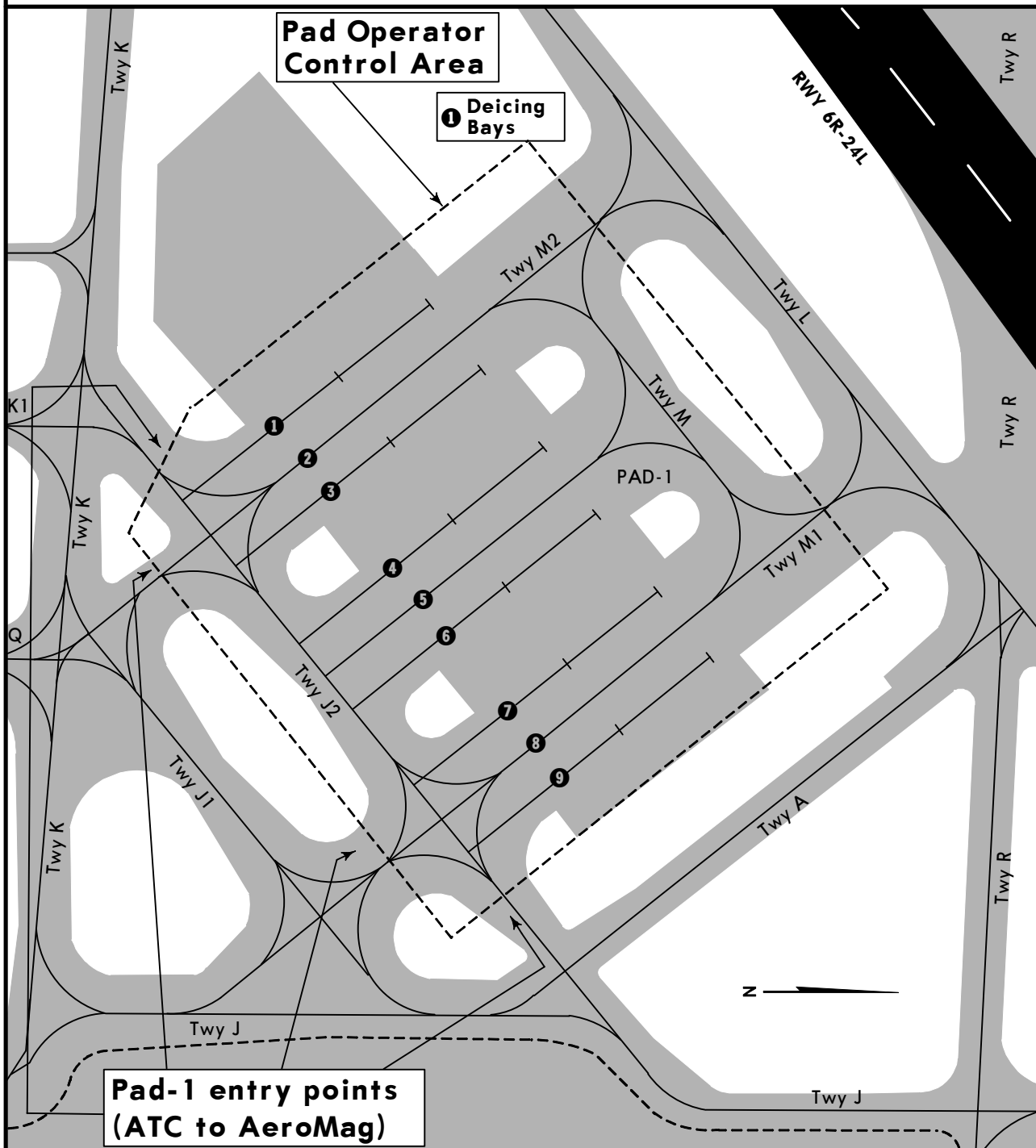
Deice pad restrictions:

- **Pad-1:** Bays 1, 3, 4, 6, 7, and 9 are restricted to Group-3 aircraft (wingspan less than 118' **36m**).
- **Pad-2:** Group-2 aircraft (wingspan less than 79' **24m**).

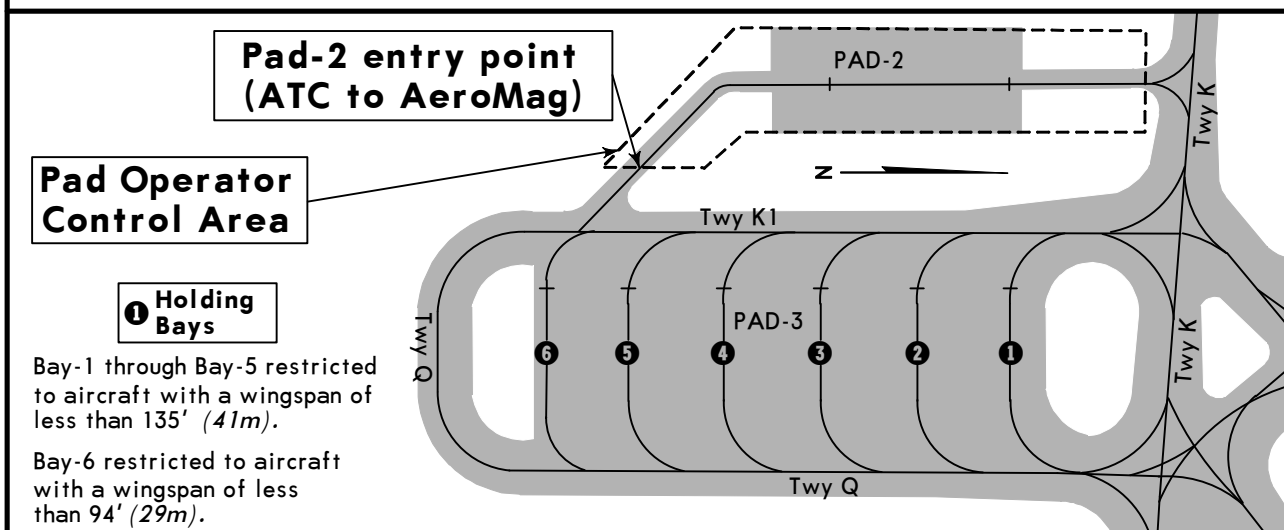
Deicing:

1. All aircraft requiring deicing at the CDF shall coordinate with AeroMag prior to making initial contact with ATC for taxi.
2. Aircraft shall notify AeroMag at least 30 minutes prior, or as soon as possible, when deicing is needed.
3. Aircraft shall advise ATC of intended deice location (Pad-1 or PAD-2 as assigned by AeroMag).
4. Under guidance from ATC Ground Control, aircraft will taxi to the assigned pad, holding short at the hand-off point and contacting AeroMag on frequency 129.525.
 - a. Pad-1 hand-off points are the east and west end of Twy J2, and Twys M1 & M2 short of Twy J2.
 - b. Pad-2 hand-off point is at the Pad-2 entrance off of Twy K1.
5. Aircraft will follow instructions from AeroMag and taxi into the assigned deicing bay, contacting the ICEMAN on frequency 130.975 when so instructed with brakes set, aircraft configured, and engines at idle.
6. After deicing is complete, aircraft will contact AeroMag on frequency 129.525 prior to moving aircraft.
7. AeroMag will guide aircraft out of the deicing bay, and instruct the aircraft to hold short of the active taxiway and contact ATC Ground Control.
 - a. Pad-1 hand-off points for transfer to ATC Ground Control are on Twy M1 & M2 short of Twy L.
 - b. Pad-2 hand-off point is at the exit of Pad-2 short of Twy K.

DEICING PAD-1



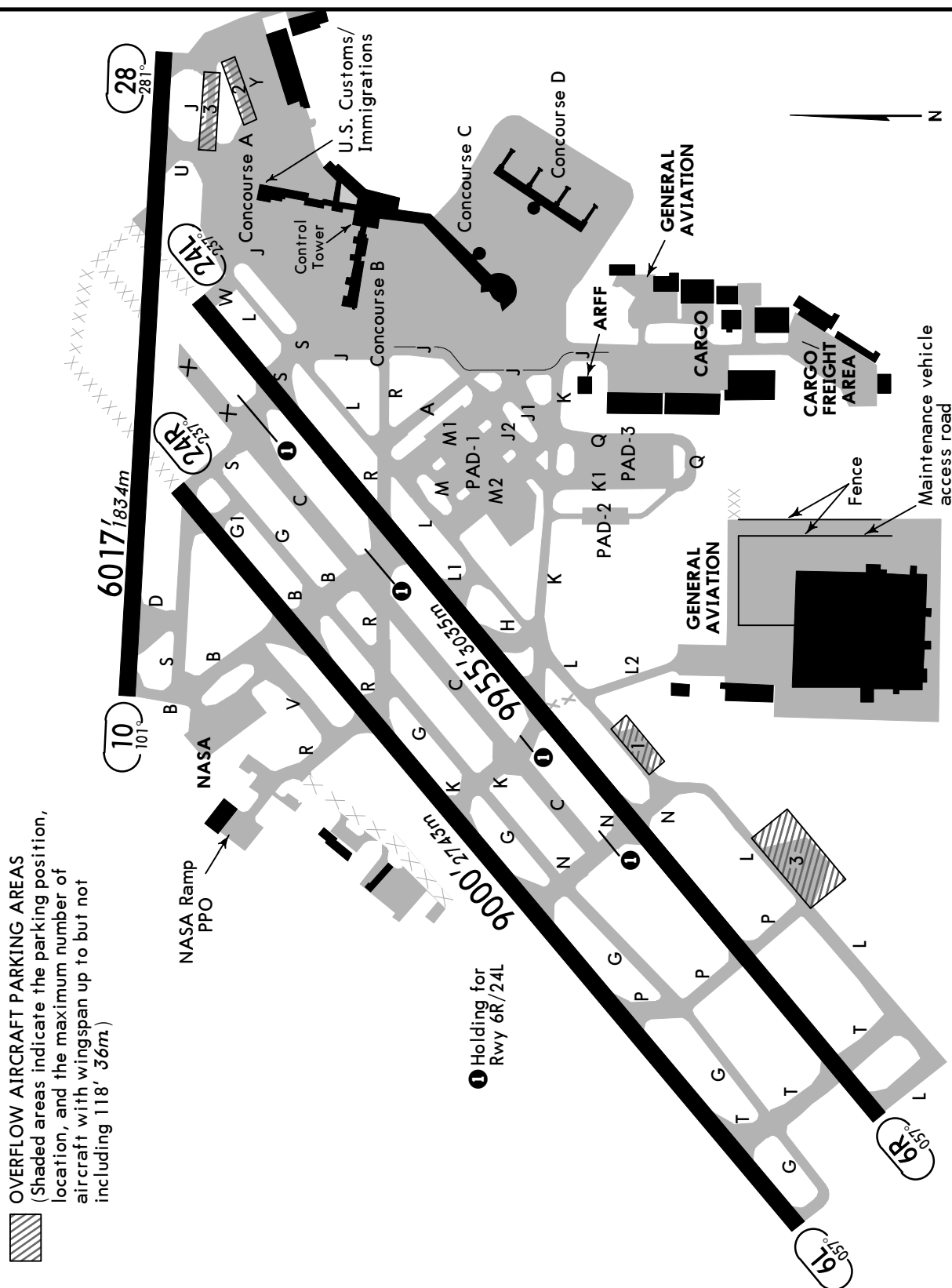
DEICING PAD-2, HOLDING PAD-3



OVERFLOW AIRCRAFT PARKING AREAS

Cleveland-Hopkins International Airport
Overflow Aircraft Parking Plan

The Cleveland-Hopkins International Airport has developed an overflow aircraft parking plan to mitigate the impact on airport operations when conditions require additional off-gate parking space for aircraft. The areas indicated below may be used by ATC personnel for staging aircraft during those occurrences.



RWY 6L ARRIVALS

6017' 1834m

28° 280°

U.S. Customs/Immigrations

GENERAL AVIATION

Concourse A

Control Tower

Concourse B

Concourse C

Concourse D

ARFF

CARGO

CARGO/FREIGHT AREA

Fence

Maintenance vehicle access road

GENERAL AVIATION

NASA Ramp-PPO

NASA

9955' 3034m

9000' 2743m

10/28

24L

24R

25L

25R

26L

26R

27L

27R

28L

28R

29L

29R

30L

30R

31L

31R

32L

32R

33L

33R

34L

34R

35L

35R

36L

36R

37L

37R

38L

38R

39L

39R

40L

40R

41L

41R

42L

42R

43L

43R

44L

44R

45L

45R

46L

46R

47L

47R

48L

48R

49L

49R

50L

50R

51L

51R

52L

52R

53L

53R

54L

54R

55L

55R

56L

56R

57L

57R

58L

58R

59L

59R

60L

60R

61L

61R

62L

62R

63L

63R

64L

64R

65L

65R

66L

66R

67L

67R

68L

68R

69L

69R

70L

70R

71L

71R

72L

72R

73L

73R

74L

74R

75L

75R

76L

76R

77L

77R

78L

78R

79L

79R

80L

80R

81L

81R

82L

82R

83L

83R

84L

84R

85L

85R

86L

86R

87L

87R

88L

88R

89L

89R

90L

90R

91L

91R

92L

92R

93L

93R

94L

94R

95L

95R

96L

96R

97L

97R

98L

98R

99L

99R

100L

100R

101L

101R

102L

102R

103L

103R

104L

104R

105L

105R

106L

106R

107L

107R

108L

108R

109L

109R

110L

110R

111L

111R

112L

112R

113L

113R

114L

114R

115L

115R

116L

116R

117L

117R

118L

118R

119L

119R

120L

120R

121L

121R

122L

122R

123L

123R

124L

124R

125L

125R

126L

126R

127L

127R

128L

128R

129L

129R

130L

130R

131L

131R

132L

132R

133L

133R

134L

134R

135L

135R

136L

136R

137L

137R

138L

138R

139L

139R

140L

140R

141L

141R

142L

142R

143L

143R

144L

144R

145L

145R

146L

146R

147L

147R

148L

148R

149L

149R

150L

150R

151L

151R

152L

152R

153L

153R

154L

154R

155L

155R

156L

156R

157L

157R

158L

158R

159L

159R

160L

160R

161L

161R

162L

162R

163L

163R

164L

164R

165L

165R

166L

166R

167L

167R

168L

168R

169L

169R

170L

170R

171L

171R

172L

172R

173L

173R

174L

174R

175L

175R

176L

176R

177L

177R

178L

178R

179L

179R

180L

180R

181L

181R

182L

182R

183L

183R

184L

184R

185L

185R

186L

186R

187L

187R

188L

188R

189L

189R

190L

190R

191L

191R

192L

192R

193L

193R

194L

194R

195L

195R

196L

196R

197L

197R

198L

198R

199L

199R

200L

200R

201L

201R

202L

202R

203L

203R

204L

204R

205L

205R

206L

206R

207L

207R

208L

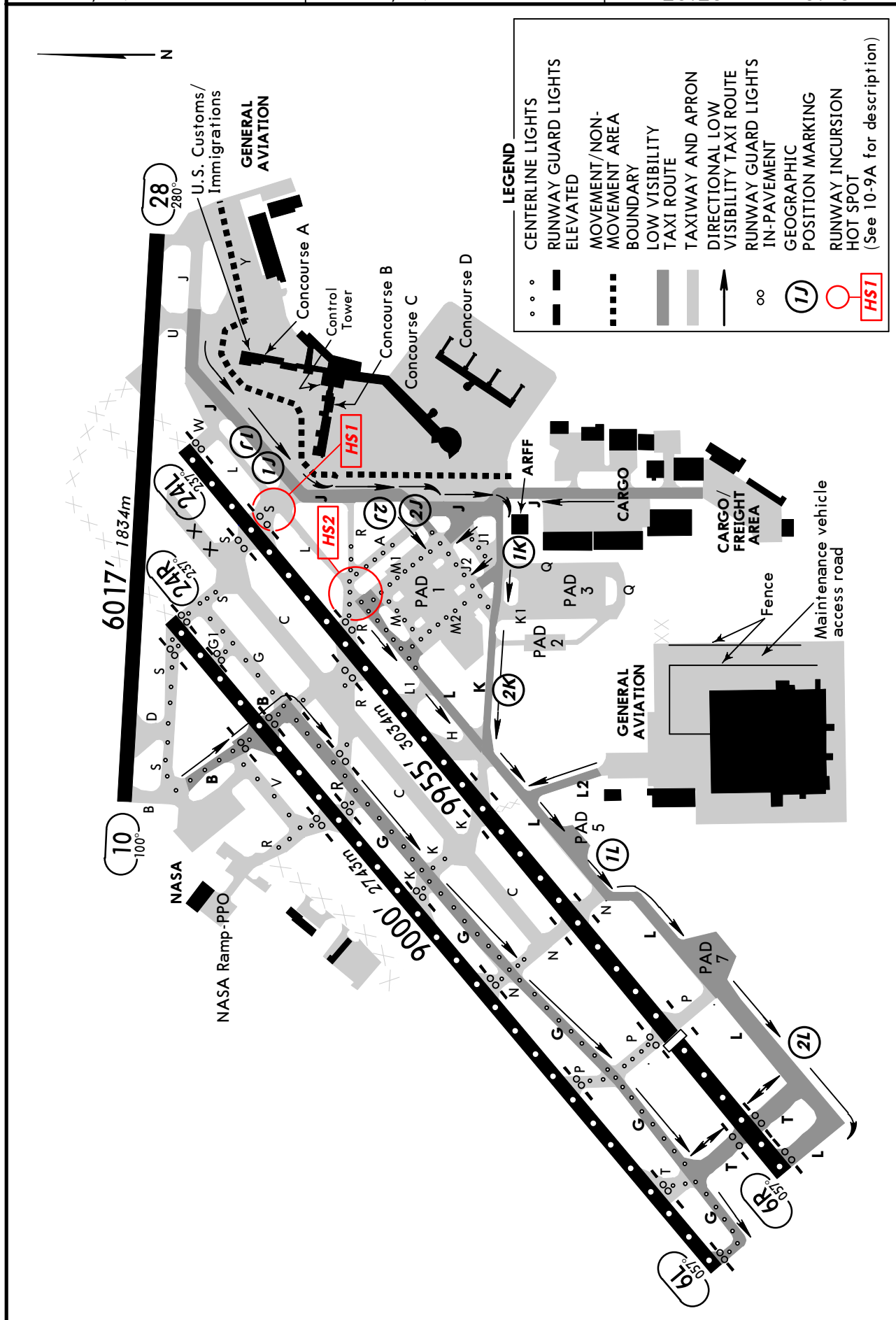
208R

CLEVELAND, OHIO LOW VISIBILITY TAXI ROUTES

LESS THAN RVR 1200 to 600

RWY 6L & 6R DEPARTURES

D-ATIS Departure VOT 110.4	132.37	ACARS: D-ATIS TWIP PDC	CLEVELAND Clearance (Cpt) 125.05	Metering 127.27
Ground Rwys 6R/24L, 10/28 Rwys 6L/24R	121.7 133.6	Tower Rwys 6R/24L, 10/28 Rwys 6L/24R	120.9 124.5	CLEVELAND Departure (R) 237°-056° 057°-236° 128.25 118.15

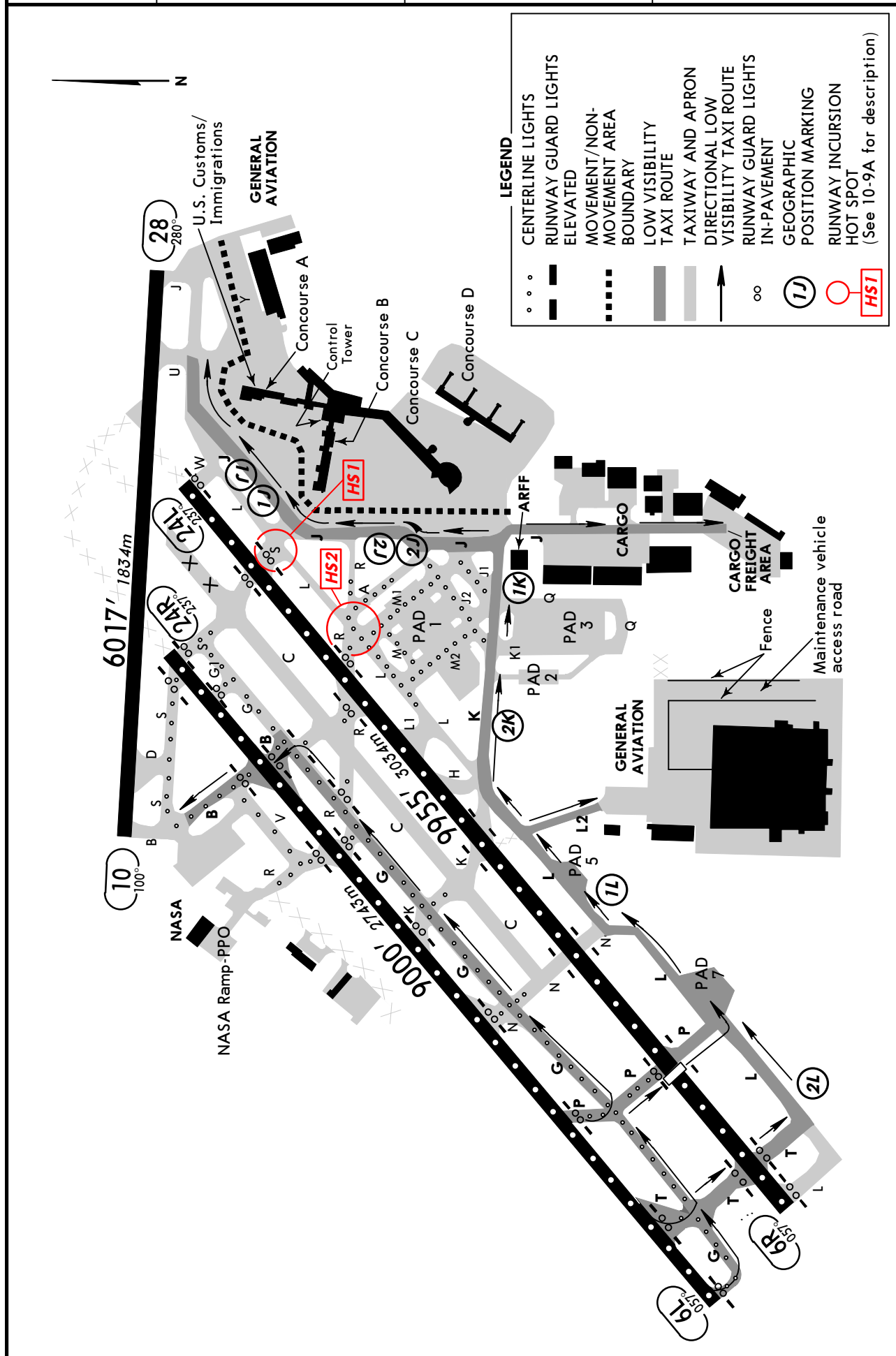


CLEVELAND, OHIO
LOW VISIBILITY TAXI ROUTES

LESS THAN RVR 1200 to 600

RWY 24R ARRIVALS

D-ATIS Arrival	CLEVELAND Approach (R)	Tower	Ground
127.85	Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6

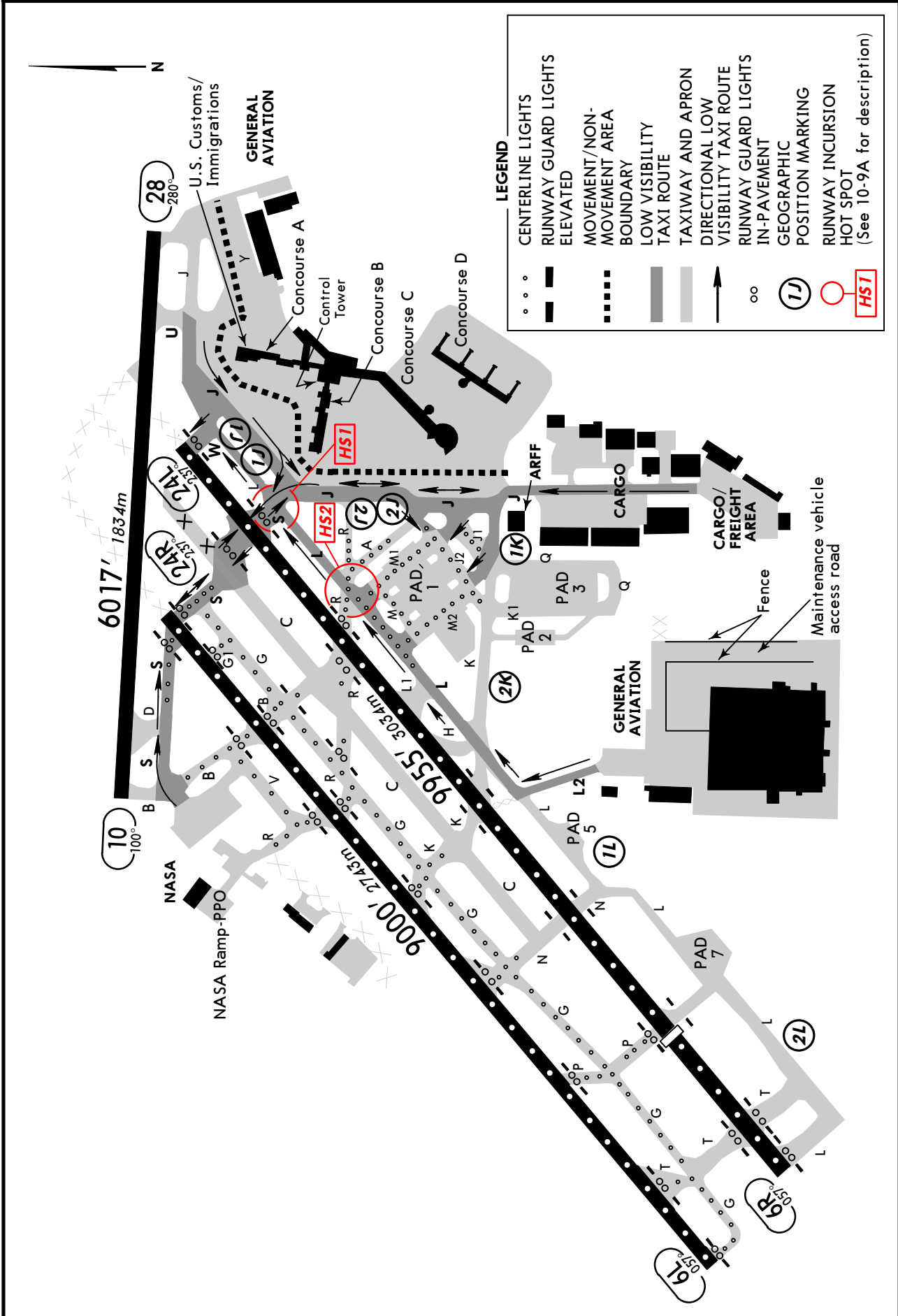


CLEVELAND, OHIO LOW VISIBILITY TAXI ROUTES

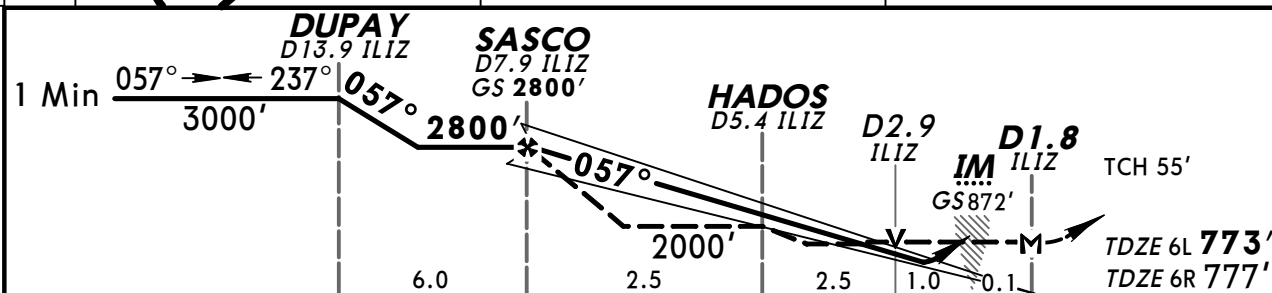
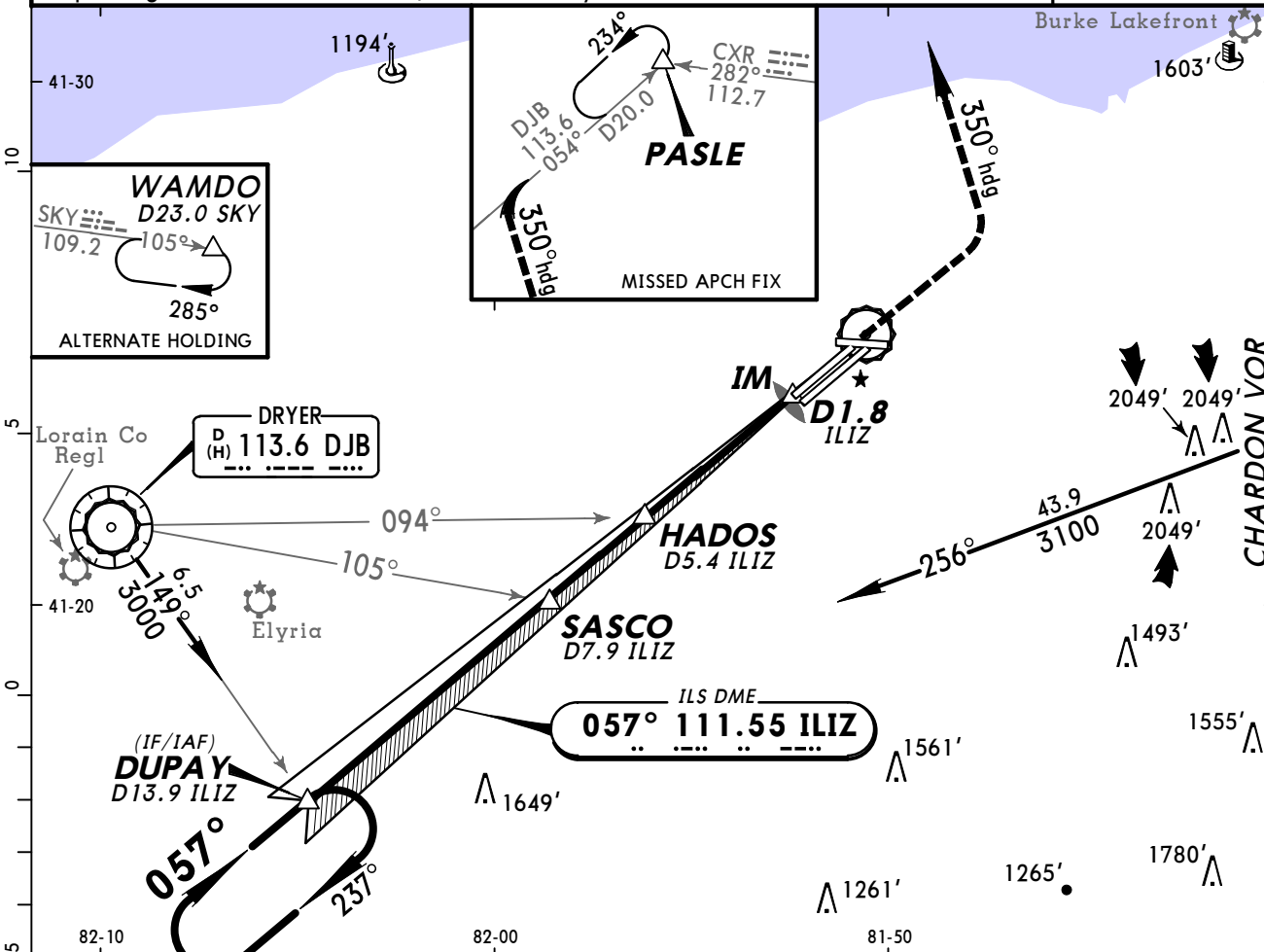
LESS THAN RVR 1200 to 600

RWY 24L & 24R DEPARTURES

D-ATIS Departure VOT 110.4	132.37	ACARS: D-ATIS TWIP PDC	CLEVELAND Clearance (Cpt) 125.05	Metering 127.27
Ground Rwys 6R/24L, 10/28	121.7	Tower Rwys 6R/24L, 10/28	120.9	CLEVELAND Departure (R) 237°-056° 057°-236°
Rwys 6L/24R	133.6	Rwys 6L/24R	124.5	128.25 118.15



D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6L/24R, 10 126.55 Rwys 6R/24L, 28 124.0	CLEVELAND Tower Rwys 6L/24R 124.5 Rwys 6R/24L, 10/28 120.9	Ground Rwys 6L/24R 133.6 Rwys 6R/24L, 10/28 121.7
LOC ILIZ 111.55	Final Apch Crs 057°	GS SASCO 2800' (2027')	ILS DA(H) 973' (200')
Apt Elev 791' TDZE 6L 773'			
MISSED APCH: Climb to 1800' then climbing LEFT turn to 3000' via 350° heading and outbound on DJB VOR R-054 to PASLE INT and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. VGSi and ILS glidepath not coincident. 2. Sidestep maneuver not authorized prior to passing HADOS INT. 3. PAPI-L, MALSR on Rwy 6R.			

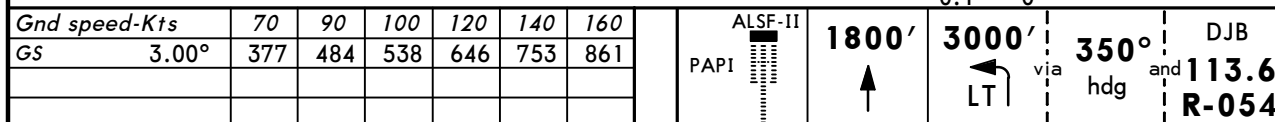


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 1800' ↑ 3000' ↖ LT via 350° hdg DJB and 113.6 R-054
GS 3.00°	377	484	538	646	753	861	
MAP at D1.8 ILIZ or SASCO to MAP 6.1	5:14	4:04	3:40	3:03	2:37	2:17	

STRAIGHT-IN LANDING RWY 6L					SIDESTEP LANDING RWY 6R	CIRCLE-TO-LAND	
ILS DA(H) 973' (200')			LOC (GS out) MDA(H) 1140' (367')		MDA(H) 1180' (403')	Max Kts	MDA(H)
FULL	TDZ or CL out	ALS out		ALS out		90	
A						1300' (509') - 1	
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	120	
C						140	1320' (529') - 1 1/2
D				RVR 40 or 3/4	RVR 60 or 1 1/4	165	1380' (589') - 2

CLEVELAND, OHIO
ILS Rwy 6L CAT II & III

BRIEFING STRIP TM

TERPS AMEND 2B 26 AUG 2010

© JEPPESEN, 2004, 2010. ALL RIGHTS RESERVED.

**ATTENTION ALL USERS OF ILS PRECISION RUNWAY MONITOR (PRM)
ILS PRM RWY 6L**

Special pilot training required. Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ARTCC as soon as practical, but at least 100 miles from destination.

Condensed Briefing Point:

- When instructed, immediately switch to the tower frequency and select the monitor frequency audio.

1. **ATIS.** When the ATIS broadcast advises that simultaneous ILS/PRM and LDA/PRM approaches are in progress, pilots should brief to fly the ILS/PRM approach. If later advised to expect an ILS approach, the ILS/PRM chart may be used after completing the following briefing items:
 - (a) **Minimums and missed approach procedures are unchanged.**
 - (b) **Monitor frequency no longer required.**
 - (c) **A lower glideslope intercept altitude may be assigned when advised to expect ILS 6L approach.**

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 1200 feet (ceiling) and 3 miles (visibility).

2. **Dual VHF Communication required.** To avoid blocked transmissions, each runway will have two frequencies, a primary and a monitor frequency. The tower controller will transmit on both frequencies. The Monitor controller's transmissions, if needed, will override both frequencies. Pilots will **ONLY** transmit on the tower controller's frequency, but will listen to both frequencies. Select the monitor frequency audio only when instructed by ATC to contact the tower. The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked.
3. All "Breakouts" are to be hand flown to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.
 - (a) **ATC Directed "Breakouts".** ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1,000 feet required obstruction clearance. The applicable MVA is 2700 feet at Cleveland-Hopkins International Airport.
 - (b) **Phraseology - "TRAFFIC ALERT":** If an aircraft enters the "NO TRANSGRESSION ZONE (NTZ)", the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:

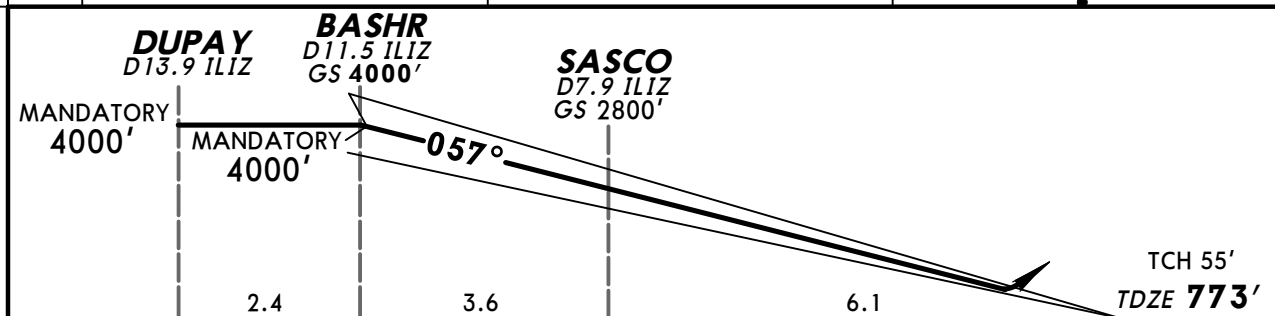
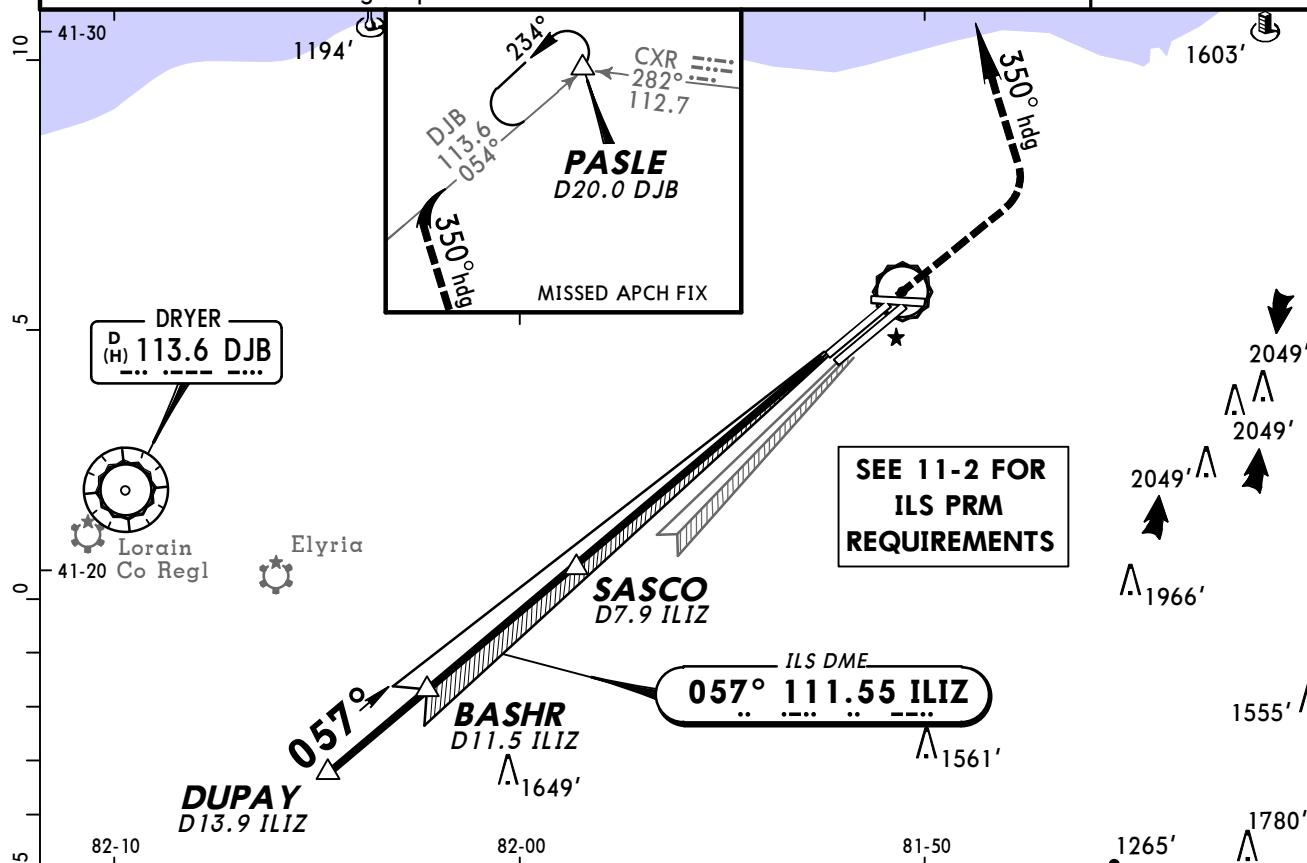
"TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees). CLIMB/DESCEND AND MAINTAIN (altitude)".
4. **LDA Traffic.** While conducting the ILS/PRM approach to Runway 6L, other aircraft may be conducting the Offset LDA/PRM approach to Runway 6R. These aircraft will approach from the right-rear and will re-align with 6R after making visual contact with the ILS traffic.

-HOPKINS INTL

(SIMULTANEOUS CLOSE PARALLEL)

ILS PRM Rwy 6L

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6L/24R, 10 126.55 Rwys 6R/24L, 28 124.0	CLEVELAND Tower Rwys 6L/24R 124.5 Rwys 6R/24L, 10/28 120.9 Monitor Frequency 118.97	Ground Rwys 6L/24R 133.6 Rwys 6R/24L, 10/28 121.7
LOC ILIZ 111.55	Final Apch Crs 057°	GS BASHR 4000' (3227')	ILS DA(H) 973' (200')
Apt Elev 799' TDZE 773'			
MISSED APCH: Climb to 1800' then climbing LEFT turn to 3000' via 350° heading and outbound on DJB VOR R-054 to PASLE INT/D20.0 DJB and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. RADAR required. 2. Dual VHF communications required. 3. Simultaneous close parallel approach authorized with LDA PRM Rwy 6R. 4. See 11-2 for "Attention All Users of ILS Precision Runway Monitor (PRM)". 5. Runway 6L and 6R separated by 1241' centerline to centerline. 6. Procedure not authorized when glideslope not available. 7. VGSI and ILS glidepath not coincident.			
3100' MSA DJB VOR			



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1800'	3000'	350°	DJB
GS 3.00°	372	478	531	637	743	849	PAPI	↑	LT	via	and 113.6
										hdg	R-054

STRAIGHT-IN LANDING RWY 6L		
ILS		
DA(H) 973' (200')		
FULL	TDZ or CL out	ALS out
A		
B		
C	RVR 18 or 1/2	RVR 24 or 1/2
D		RVR 40 or 3/4

TERPS AMEND 0D 10 FEB 2011

KCLE/CLE

-HOPKINS INTL

29 APR 11

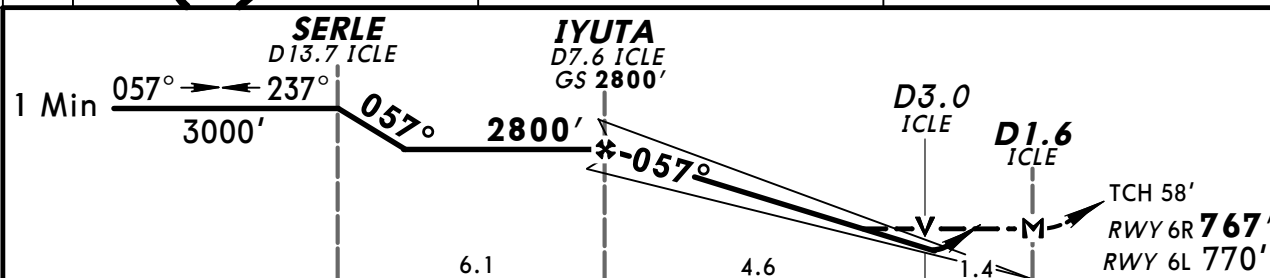
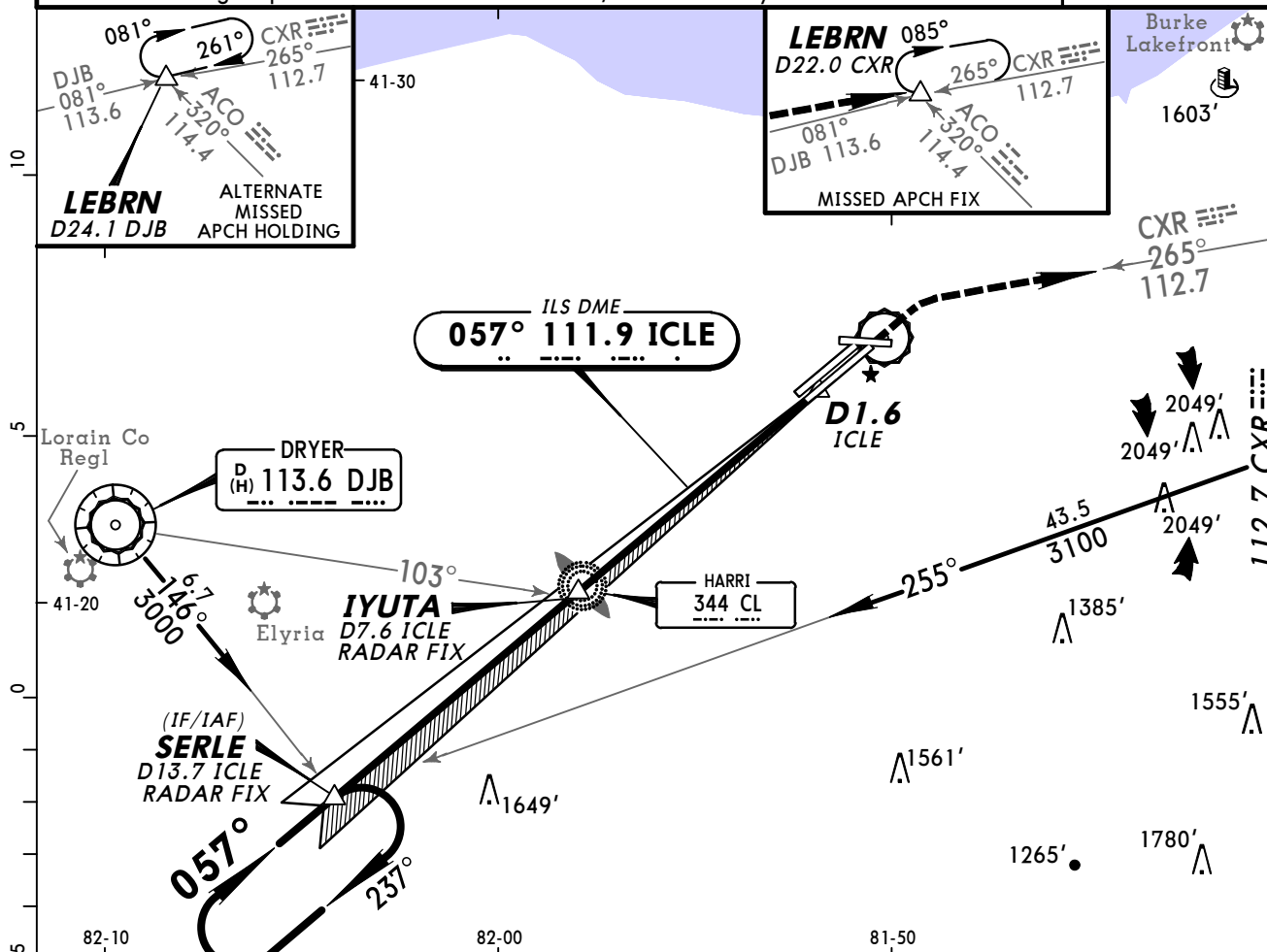
(11-3)

Eff 5 May

CLEVELAND, OHIO

ILS or LOC Rwy 6R

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LOC ICLE 111.9	Final Apch Crs 057°	GS IYUTA 2800' (2033')	ILS DA(H) 967' (200')
Apt Elev 799' Rwy 6R 767'			
MISSED APCH: Climb to 1600' then climbing RIGHT turn to 3100' inbound on CXR VOR R-265 to LEBRN INT/D22.0 CXR and hold, or as directed by ATC.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. VGSI and ILS glidepath not coincident. 2. ALSF-II, PAPI-L on Rwy 6L.			
3100' MSA DJB VOR			



Gnd speed-Kts	70	90	100	120	140	160	MALSR	1600'	3100'	CXR	LEBRN
GS	3.10°	384	494	548	658	768	PAPI	↑	RT	on 112.7	
MAP at D1.6 ICLE or IYUTA to MAP	6.0	5:09	4:00	3:36	3:00	2:34				R-265	

STRAIGHT-IN LANDING RWY6R				LOC (GS out)			SIDESTEP LANDING RWY 6L	CIRCLE-TO-LAND	
ILS				DA(H) 967' (200')			MDA(H) 1260' (493')	Not Authorized to Rwy 10 at Night when VGSI inop	
FULL	TDZ or CL out	RAIL out	ALS out	RAIL out	ALS out	RAIL out	ALS out	Max Kts	MDA(H)
A								90	1300' (501') - 1
B	RVR 18 or 3/8	RVR 24 or 1/2	RVR 26 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1	120	1320' (521') - 1 1/2
C								140	1360' (561') - 2
D								165	

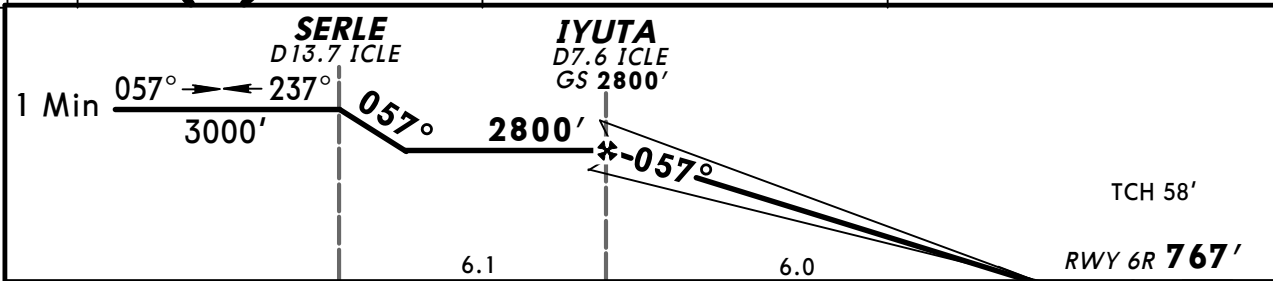
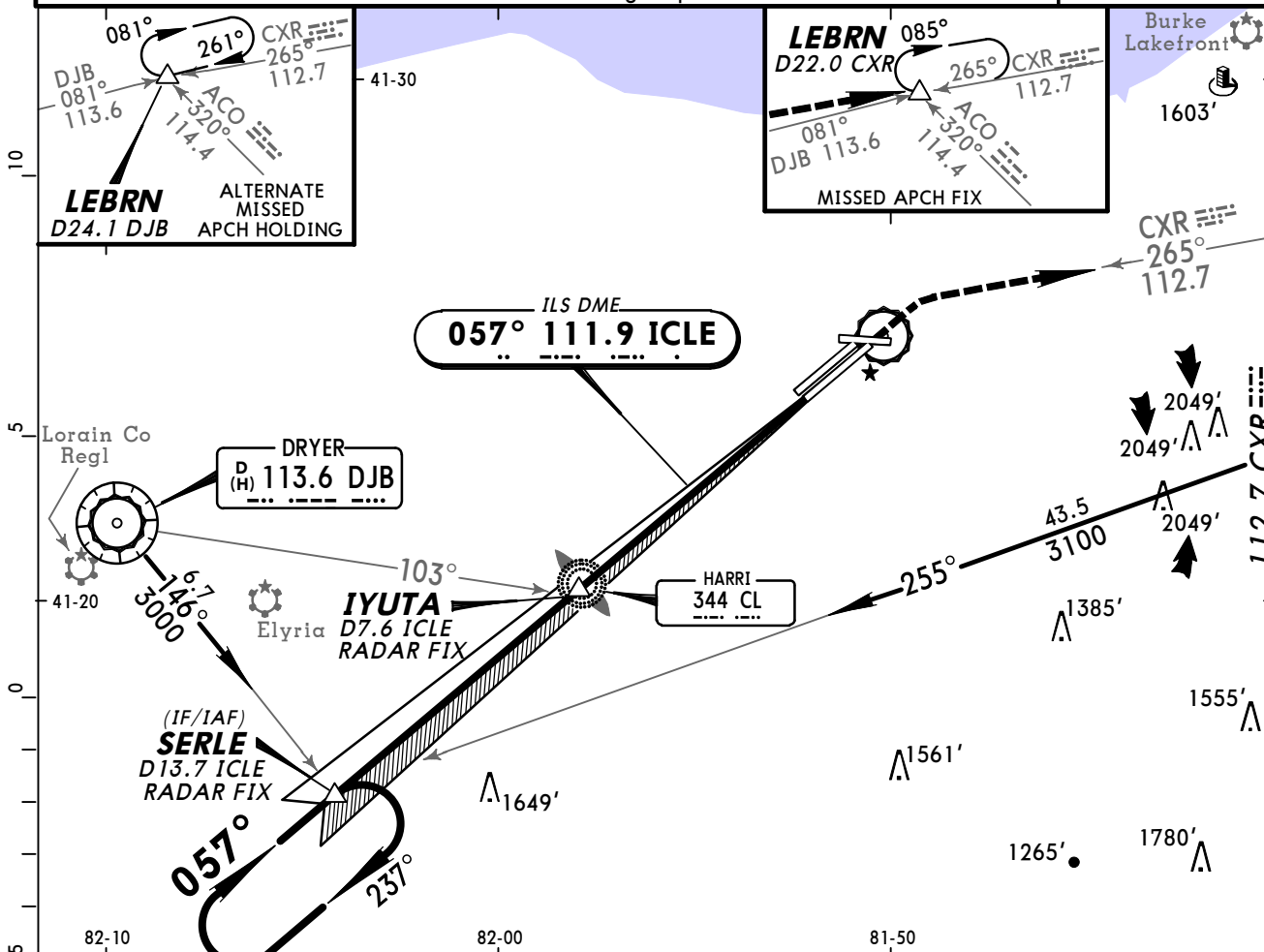
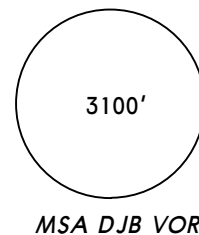
TERPS AMEND 21 5 MAY 2011

CHANGES: Procedure.

© JEPPESEN, 1997, 2011. ALL RIGHTS RESERVED.

BRIEFING STRIP™

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LOC ICLE 111.9	Final Apch Crs 057°	GS IYUTA 2800' (2033')	CAT II ILS RA 100' DA(H) 867' (100')
Apt Elev 799' Rwy 6R 767'			
MISSED APCH: Climb to 1600' then climbing RIGHT turn to 3100' inbound on CXR VOR R-265 to LEBRN INT/D22.0 CXR and hold, or as directed by ATC.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special Aircrew & Acft Certification Required. 2. Reduced lighting: requires specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown. 3. VGSI and ILS glidepath not coincident.			



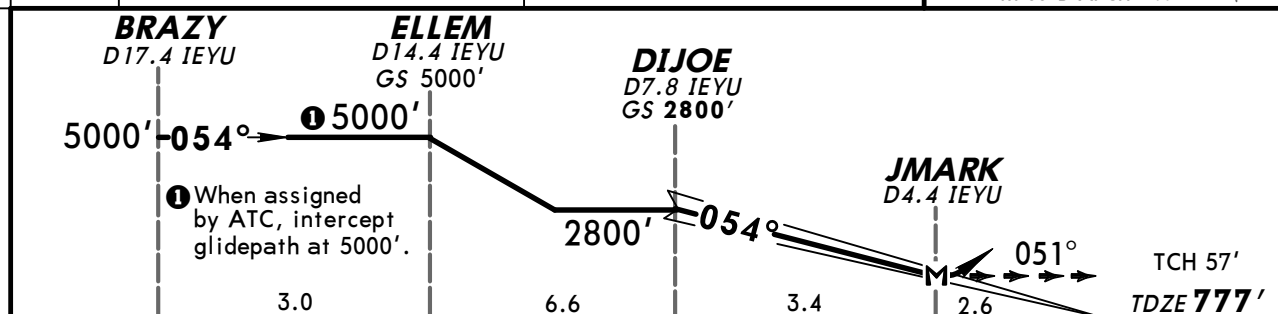
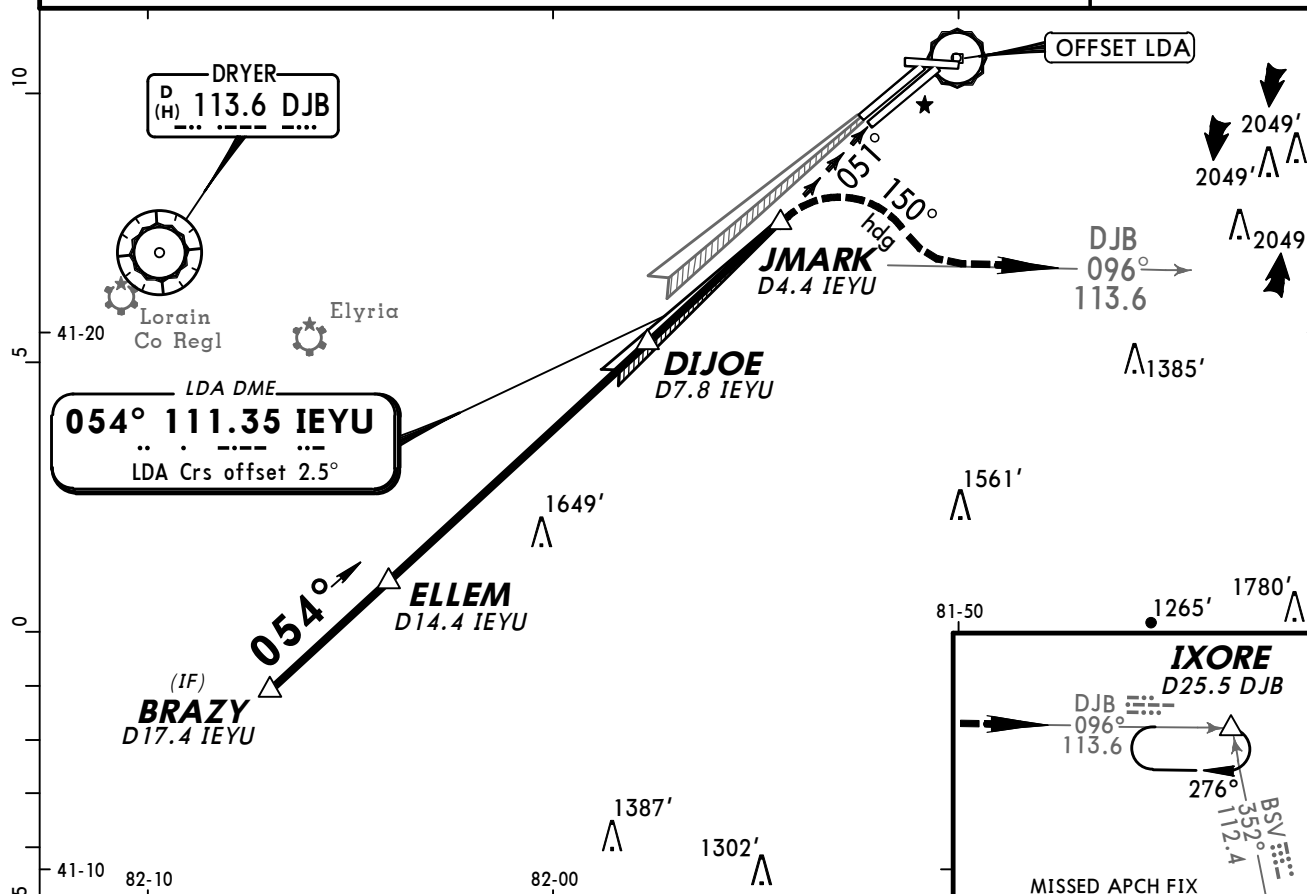
Gnd speed-Kts	70	90	100	120	140	160	MALSR	1600'	3100'	CXR	LEBRN
GS	3.10°	384	494	548	658	768	PAPI	↑	RT	on 112.7 R-265	

STRAIGHT-IN LANDING RWY 6R
CAT II ILS
RA 100'
DA(H) 867' (100')

A	
B	
C	
D	RVR 12

TERPS AMEND 21 5 MAY 2011

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LDA IEYU 111.35	Final Apch Crs 054°	GS DIJOE 2800' (2023')	LDA DA(H) 1691' (914')
Apt Elev 799' TDZE 777'			
MISSED APCH: Climbing RIGHT turn to 3100' via heading 150° and outbound on DJB VOR R-096 to IXORE INT/D25.5 DJB and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Radar required. 2. LDA/GLIDESLOPE. 3. Procedure not authorized when glideslope not available. 4. VGSI and LDA glidepath not coincident. 5. Visibility reduction by helicopters not authorized. 6. Localizer course 1168' right of runway centerline extended 3000' from threshold. 7. Runway 6L and 6R separated by 1241' centerline to centerline.			
3100' MSA DJB VOR			



Gnd speed-Kts	70	90	100	120	140	160	MALSR	3100'	150°	DJB	IXORE
GS	3.00°	372	478	531	637	743	849	PAPI	via RT	113.6	R-096
MAP at JMARK											

STRAIGHT-IN LANDING RWY 6R		
LDA DME		
DA(H) 1691'(914')		
FULL TDZ or CL out RAIL or ALS out		
A		
B	3	
C		
D	NA	

**ATTENTION ALL USERS OF LDA PRECISION RUNWAY MONITOR (PRM)
LDA PRM RWY 6R**

Special pilot training required. Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ARTCC as soon as practical, but at least 100 miles from destination.

Condensed Briefing Points:

- When instructed, immediately switch to tower frequency and select the monitor frequency audio.
- Report the ILS traffic in sight as soon as practical and prior to JMARK.
DO NOT PASS.
- Remain on the LDA until passing the LDA MAP so as not to penetrate the NTZ.

1. **ATIS.** When the ATIS broadcast advises that simultaneous ILS/PRM and LDA/PRM approaches are in progress, pilots should brief to fly the LDA/PRM approach. If later advised to expect an LDA DME approach, the LDA/PRM chart may be used after completing the following briefing items:
 - (a) **Minimums and missed approach procedures are unchanged.**
 - (b) **Monitor frequency no longer required.**
 - (c) **Lower LDA intercept altitudes may be assigned when advised to expect LDA/DME 6R approach.**

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 1200 feet (ceiling) and 3 miles (visibility).

2. **Dual VHF Communication required.** To avoid blocked transmissions, each runway will have two frequencies, a primary and a monitor frequency. The tower controller will transmit on both frequencies. The Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the tower controller's frequency, but will listen to both frequencies. Select the monitor frequency audio only when instructed by ATC to contact the tower. The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked. If executing a missed approach at JMARK, begin the turn as soon as practical.

3. **All "Breakouts" are to be hand flown** to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.
 - (a) ATC Directed "Breakouts:" ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1,000 feet required obstruction clearance. The applicable MVA is 2700 feet at Cleveland-Hopkins International Airport.
 - (b) Phraseology - "TRAFFIC ALERT": If an aircraft enters the "NO TRANSGRESSION ZONE (NTZ)", the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:
"TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees). CLIMB/DESCEND AND MAINTAIN (altitude)".

4. **CLE LDA Visual Segment.** If advised that there is traffic on the 6L ILS, pilots may continue past the LDA MAP if:
 - a) the ILS traffic is in sight and is expected to remain in sight,
 - b) ATC has been advised that "traffic is in sight." (ATC is not required to acknowledge this transmission).
 - c) the runway environment is in sight.

Otherwise, execute a missed approach at the LDA MAP. Between the LDA MAP and the runway threshold, pilots are responsible for separating themselves visually from traffic on the ILS approach, which means maneuvering the aircraft as necessary to avoid the ILS traffic until landing (do not pass), and providing wake turbulence avoidance, if applicable. If visual contact with the ILS traffic is lost, advise ATC as soon as practical and execute the published missed approach unless otherwise instructed by ATC.

KCLE/CLE

4 FEB 11

JEPPESSEN

11-5A

CAT A, B & C

CLEVELAND, OHIO

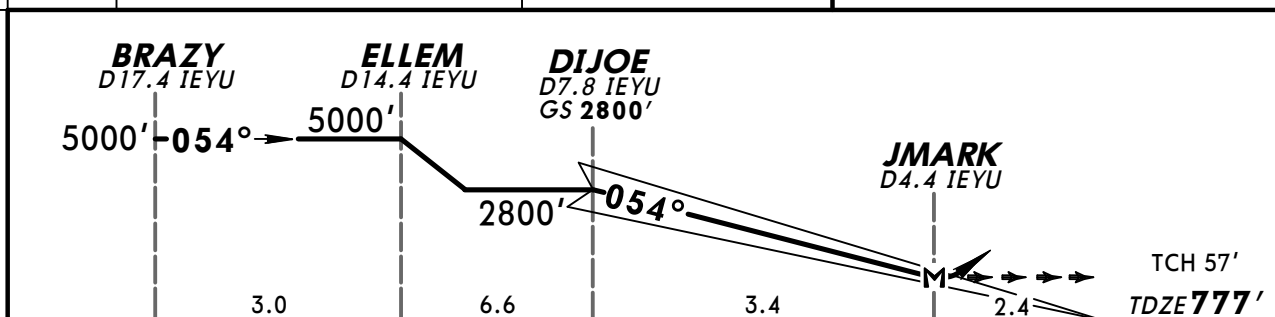
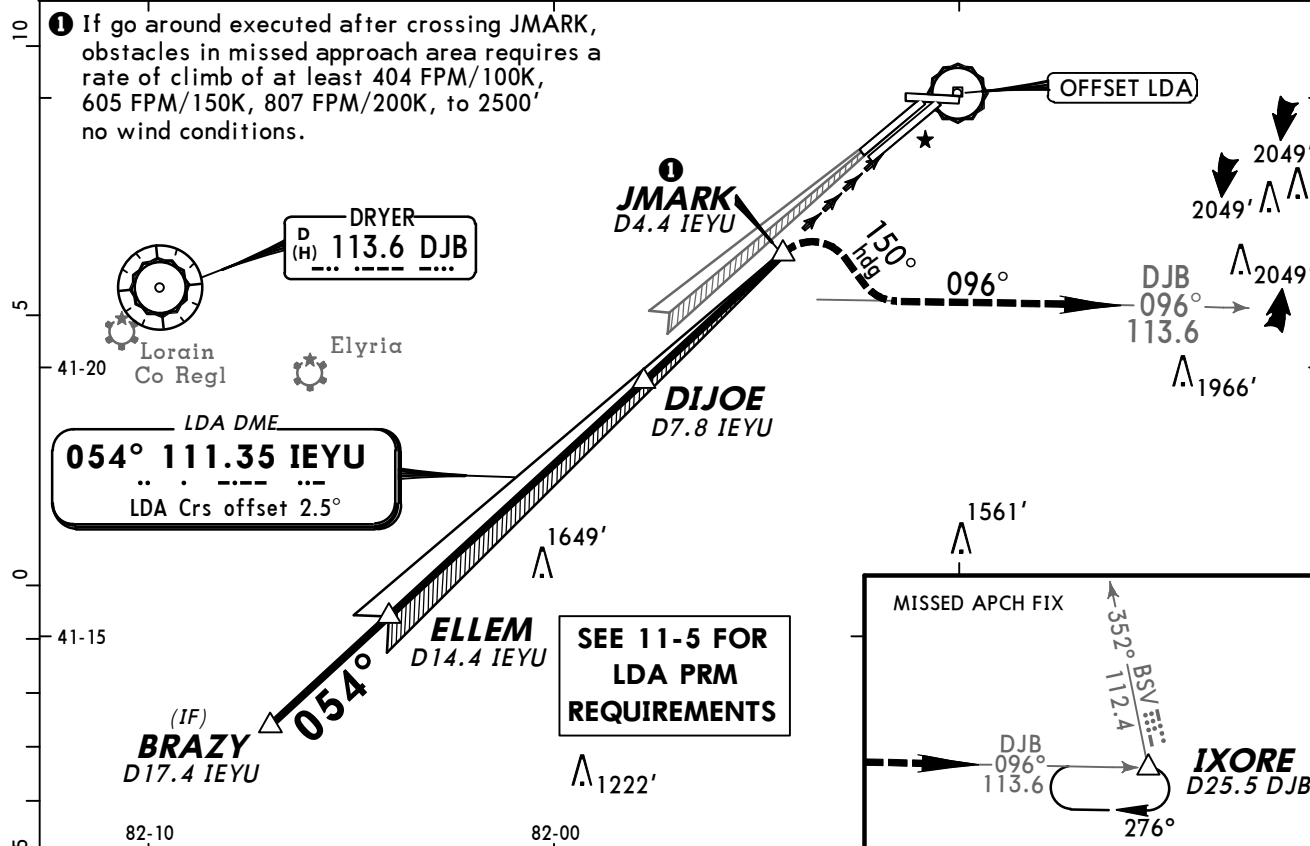
-HOPKINS INTL

(SIMULTANEOUS CLOSE PARALLEL)

LDA PRM Rwy 6R

BRIEFING STRIP™

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5 Monitor Frequency 135.87	Ground All Rwys 121.7
LDA IEYU 111.35	Final Apch Crs 054°	GS DIJOE 2800' (2023')	LDA DA(H) 1691' (914')
Apt Elev 800' TDZE 777'			
MISSED APCH: Climbing RIGHT turn to 3100' via heading 150° and outbound on DJB VOR R-096 to IXORE/D25.5 DJB and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Radar and DME required. 2. Dual VHF communications required. 3. Simultaneous close parallel approach authorized with ILS PRM Rwy 6L. 4. See 11-5 for additional requirements. 5. Runway 6R and 6L separated by 1241' centerline to centerline. 6. LDA/GLIDESLOPE. 7. Procedure not authorized when glideslope not available.			
3100' MSA DJB VOR			



Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI	3100' via 150° RT hdg	DJB 113.6 R-096	IXORE
GS	3.00°	377	484	538	646	753				
MAP at JMARK										

STRAIGHT-IN LANDING RWY 6R

LDA

DA(H) **1691' (914')**

TDZ or CL out

RAIL or ALS out

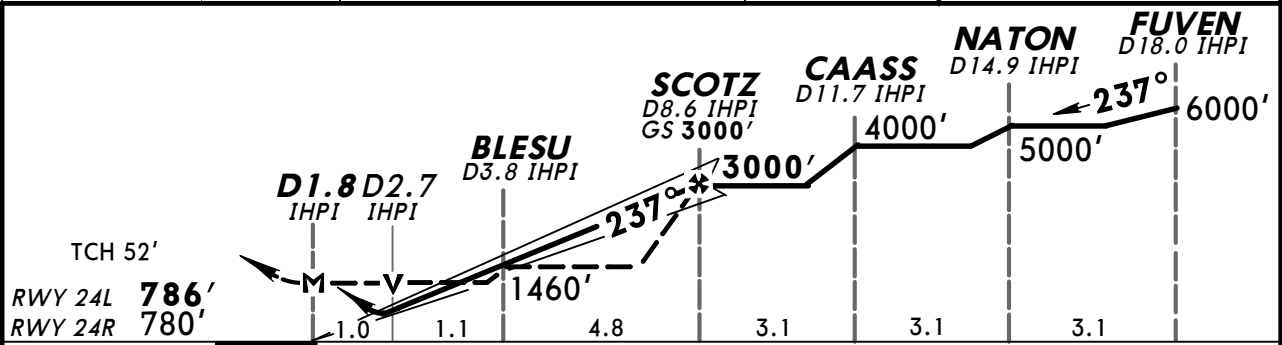
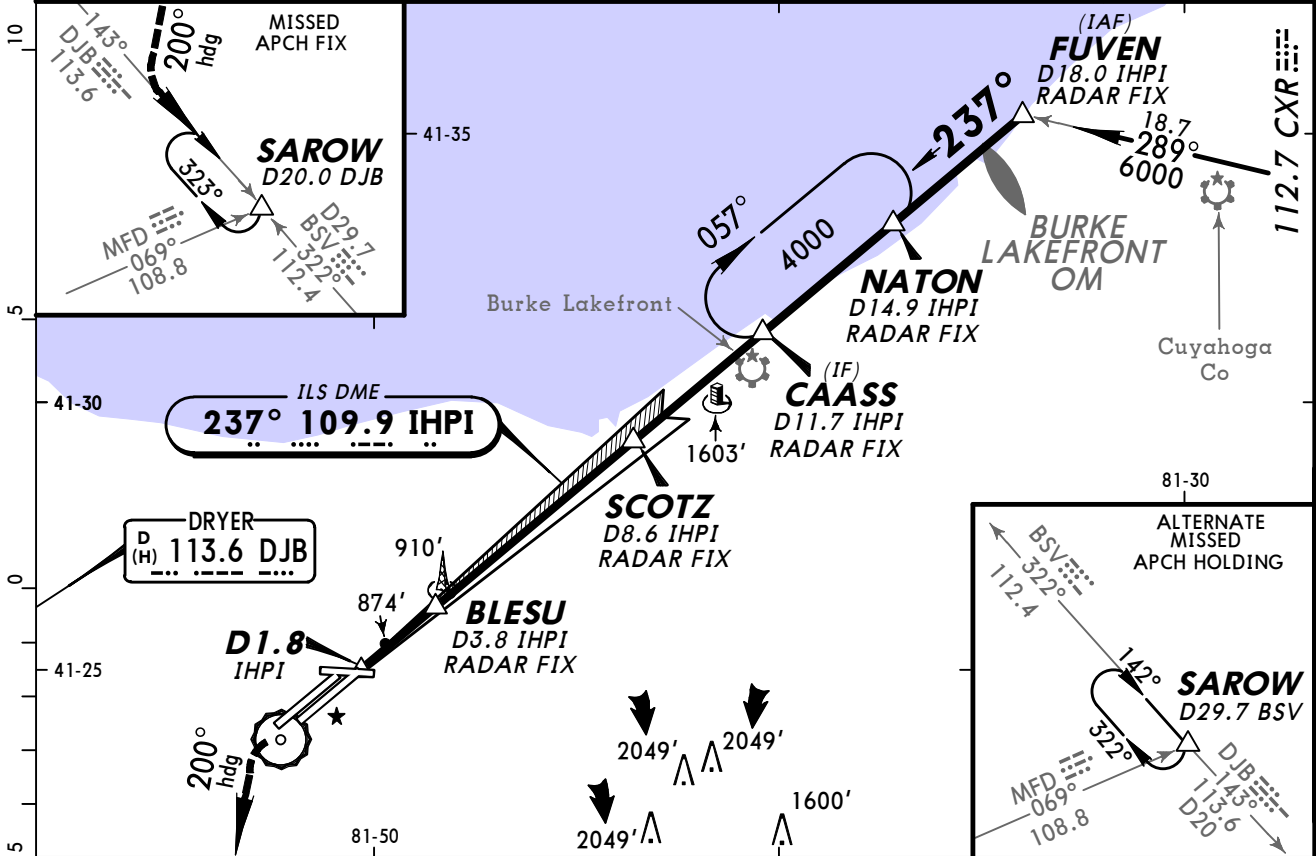
A	3
B	
C	
D	

CHANGES: Airport elevation, ground communications.

© JEPPESSEN, 2005, 2011. ALL RIGHTS RESERVED.

TERPS AMEND 1C 10 FEB 2011

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LOC IHPI 109.9	Final Apch Crs 237°	GS SCOTZ 3000' (2214')	ILS DA(H) 986' (200')
Apt Elev 799' Rwy 24L 786'			
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' on heading 200° and on DJB VOR R-143 to SAROW INT/D20.0 DJB and hold, or as directed by ATC.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME or Radar required. 2. CAUTION: Burke Lakefront OM may be received in intermediate segment. 3. ALSF-II, PAPI-R on Rwy 24R.			
3100' MSA DJB VOR			



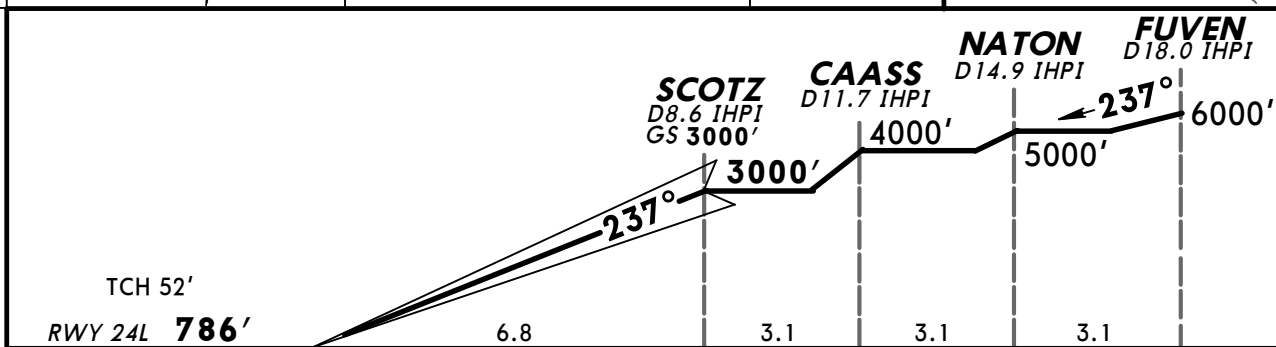
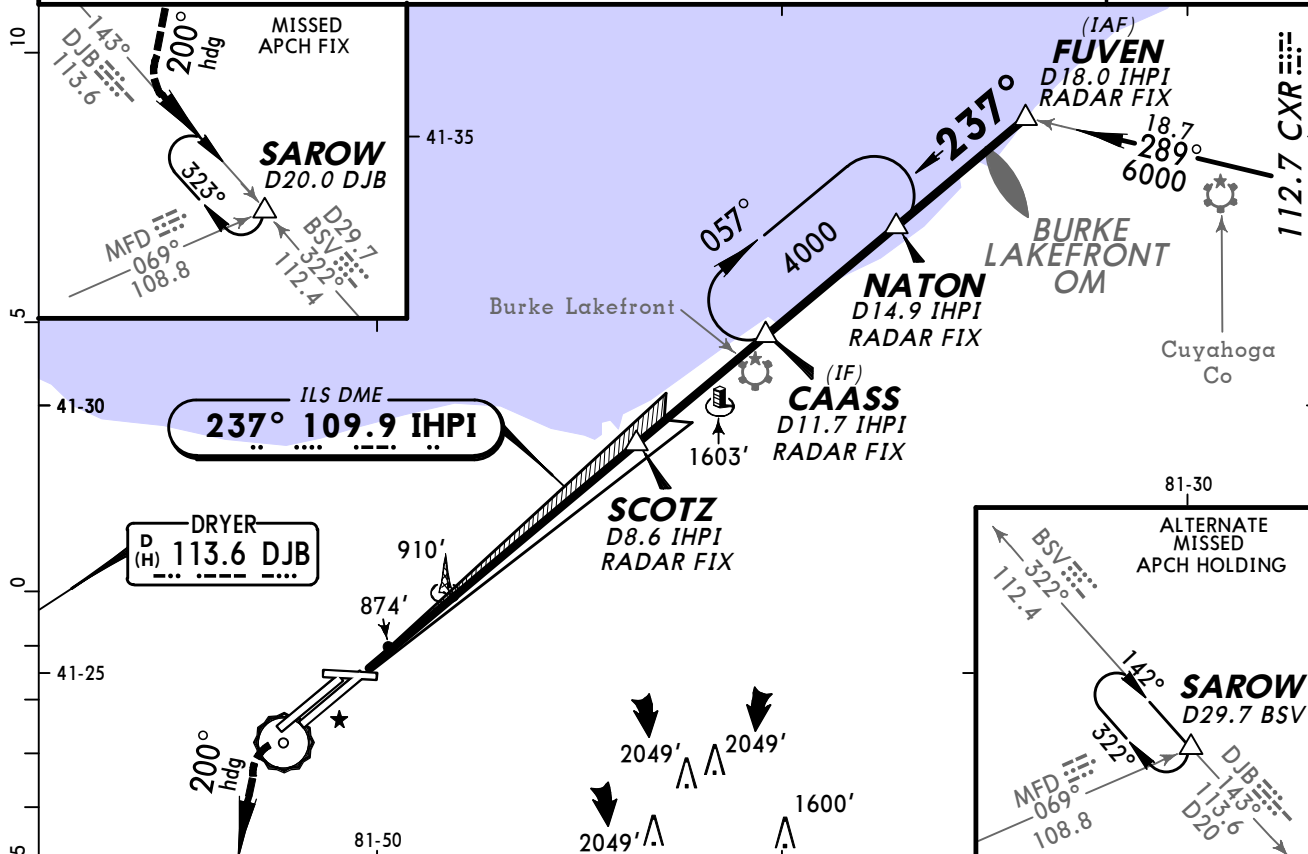
Gnd speed-Kts	70	90	100	120	140	160	MALS	1300'	3000'	200° on hdg and 113.6	DJB R-143
GS	3.00°	372	478	531	637	743	PAPI	↑	LT		
MAP at D1.8 IHPI or SCOTZ to MAP	6.8	5:50	4:32	4:05	3:24	2:55					

STRAIGHT-IN LANDING RWY 24L							SIDESTEP LANDING RWY 24R		CIRCLE-TO-LAND	
ILS				LOC (GS out)			2 MDA(H) 1140' (360')		3	
DA(H) 986' (200')				MDA(H) 1140' (354')						
FULL	TDZ or CL out	RAIL out	ALS out		RAIL out	ALS out	ALS out		Max Kts	MDA(H)
A					RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1		90	1300' (501') - 1
B	RVR 18 or 3/8	RVR 24 or 1/2	RVR 26 or 1/2	RVR 40 or 3/4			1 1/2		120	1320' (521') - 1 1/2
C					RVR 30 or 5/8	RVR 40 or 3/4	2		140	1360' (561') - 2
D									165	

1 RVR 18 with Flight Director or Autopilot or HUD to DA(H).
2 Sidestep maneuver not authorized prior to BLESU.

3 Circling Rwy 10 not authorized at night when VGSI inop.

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LOC IHPI 109.9	Final Apch Crs 237°	GS SCOTZ 3000' (2214')	CAT II ILS RA 100' DA(H)886' (100')
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' on heading 200° and on DJB VOR R-143 to SAROW INT/D20.0 DJB and hold, or as directed by ATC. Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special Aircrew & Aircraft Certification Required. 2. DME or Radar required. 3. CAUTION: Burke Lakefront OM may be received in intermediate segment. 4. Reduced lighting: requires specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.			
Apt Elev 799' Rwy 24L 786' 3100' MSA DJB VOR			

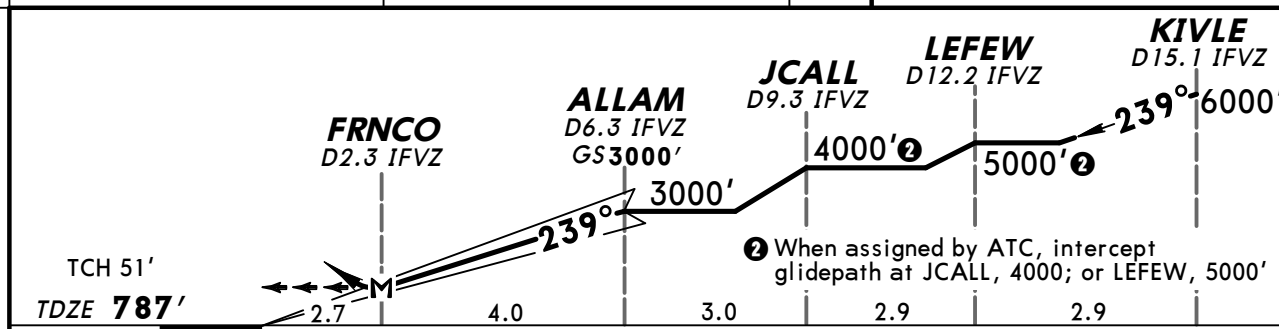
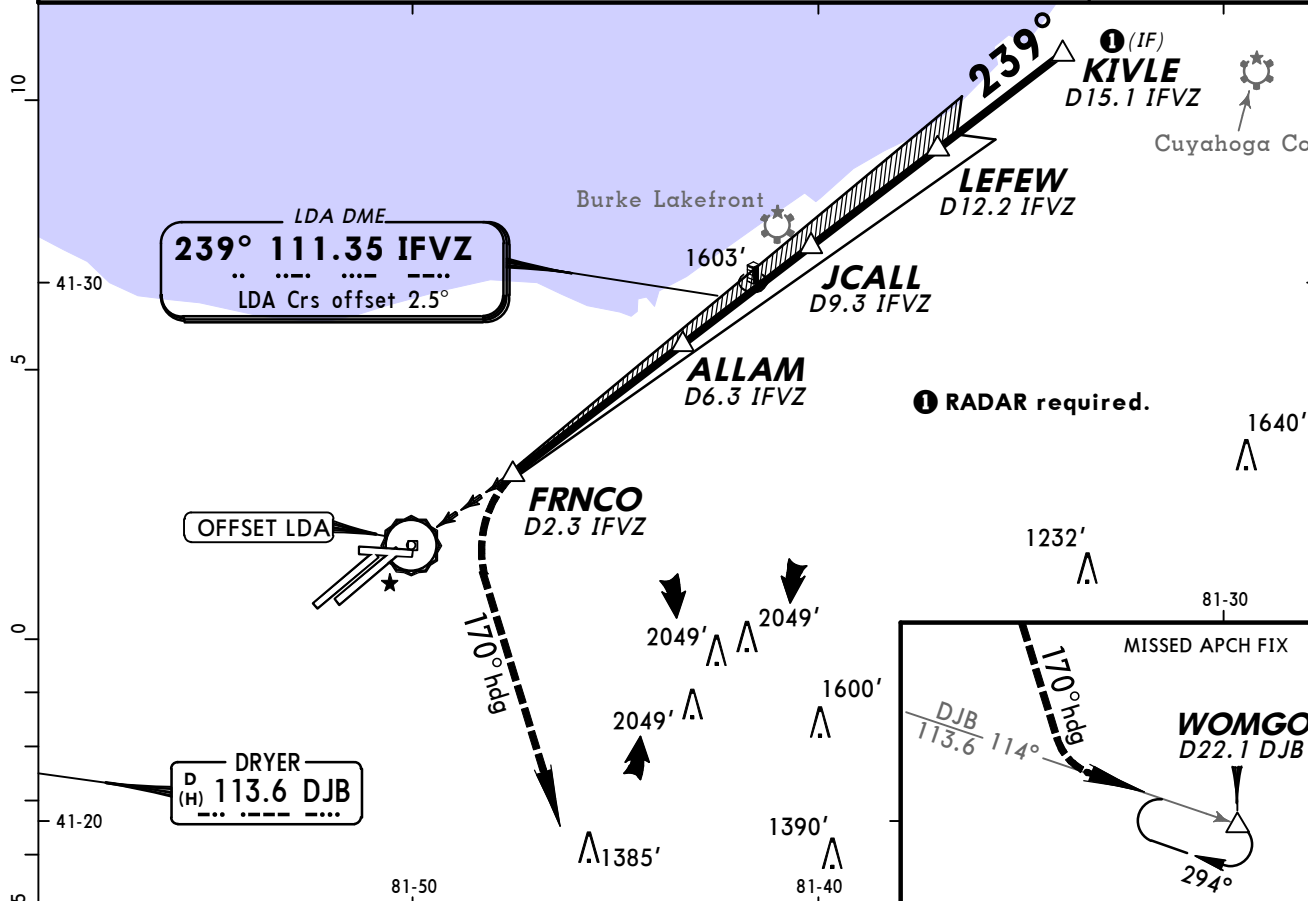


Gnd speed-Kts	70	90	100	120	140	160	MALSR	1300'	3000'	200°	DJB
GS	3.00°	372	478	531	637	849	PAPI	↑	LT	hdg	R-143

STRAIGHT-IN LANDING RWY 24L
CAT II ILS
RA 100'
DA(H) 886' (100')

A	
B	
C	
D	

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LDA IFVZ 111.35	Final Apch Crs 239°	GS ALLAM 3000' (2213')	LDA DME DA(H) 1700' (913')
Apt Elev 799' TDZE 787'			
MISSED APCH: Climbing LEFT turn to 3100' via heading 170° and outbound on DJB VOR R-114 to WOMGO/D22.1 DJB and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Procedure not authorized when glideslope not available. 2. LDA/GLIDESLOPE. 3. Runway 24L and 24R separated by 1241' centerline to centerline.			
3100' MSA DJB VOR			



Gnd speed-Kts	70	90	100	120	140	160	MALSR	3100'	170°	DJB	WOMGO
GS	3.00°	372	478	531	637	743	849	PAPI	via	and	
MAP at FRNCO								LT	hdg	R-114	

STRAIGHT-IN LANDING RWY24L		
LDA DME		
DA(H) 1700' (913')		
FULL	TDZ or CL out	RAIL or ALS out
A		
B	3	
C		
D	NA	

ATTENTION ALL USERS PAGE (AAUP)
LDA PRM RWY 24L**Condensed Briefing Points:**

- When instructed, immediately switch to tower frequency and select the monitor frequency audio.
- Report the ILS traffic in sight as soon as practical and prior to FRNCO
DO NOT PASS
- Remain on the LDA until passing the LDA MAP so as not to penetrate the NTZ.

1. **ATIS.** When the ATIS broadcast advises that simultaneous ILS PRM and LDA PRM approaches are in progress, pilots should brief to fly the LDA PRM approach. If later advised to expect an LDA DME approach, the LDA PRM chart may be used after completing the following briefing items:

- (a) **Minimums and missed approach procedures are unchanged.**
- (b) **Monitor frequency no longer required.**
- (c) **Lower LDA intercept altitudes may be assigned when advised to expect LDA DME 24L approach.**

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 1200 feet (ceiling) and 3 miles (visibility).

2. **Dual VHF Communication required.** To avoid blocked transmissions, each runway will have two frequencies, a primary and a monitor frequency. The tower controller will transmit on both frequencies. The Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the tower controller's frequency, but will listen to both frequencies. Select the monitor frequency audio only when instructed by ATC to contact the tower. The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked. If executing a missed approach at FRNCO, begin the turn as soon as practical.

3. **All "Breakouts" are to be hand flown** to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.

- (a) ATC Directed "Breakouts:" ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1,000 feet required obstruction clearance. The applicable MVA is 2700 feet at Cleveland-Hopkins International Airport.
- (b) Phraseology - "TRAFFIC ALERT": If an aircraft enters the "NO TRANSGRESSION ZONE (NTZ)", the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be: "TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees). CLIMB/DESCEND AND MAINTAIN (altitude)".

4. **Glide Slope Navigation:** Descending on the glide slope ensures compliance with any charted crossing restrictions.

5. **CLE LDA Visual Segment.** If advised that there is traffic on the 24R ILS, pilots may continue past the LDA MAP if:

- a) the ILS traffic is in sight and is expected to remain in sight,
- b) ATC has been advised that "traffic is in sight." (ATC is not required to acknowledge this transmission).
- c) the runway environment is in sight.

Otherwise, execute a missed approach at the LDA MAP. Between the LDA MAP and the runway threshold, pilots are responsible for separating themselves visually from the traffic on the ILS approach, which means maneuvering the aircraft as necessary to avoid the ILS traffic until landing (do not pass), and providing wake turbulence avoidance, if applicable. If visual contact with the ILS traffic is lost, advise ATC as soon as practical and execute the published missed approach unless otherwise instructed by ATC.

Special pilot training required. Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ARTCC as soon as practical, but at least 100 miles from destination.

KCLE/CLE

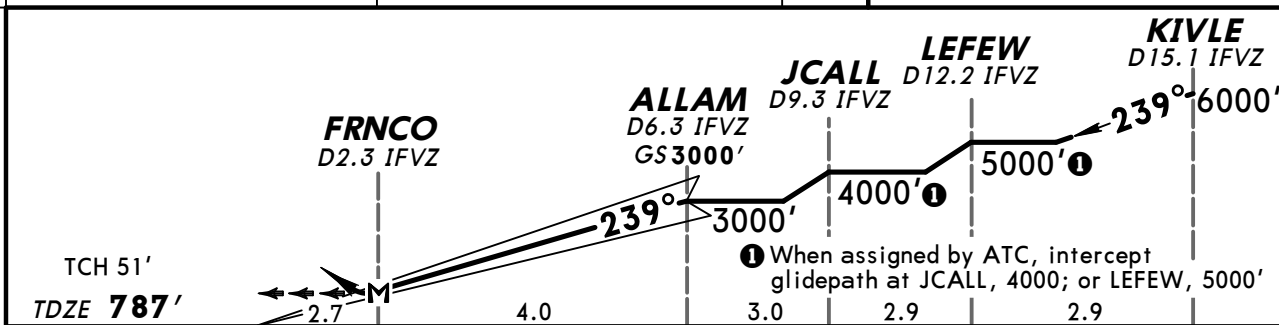
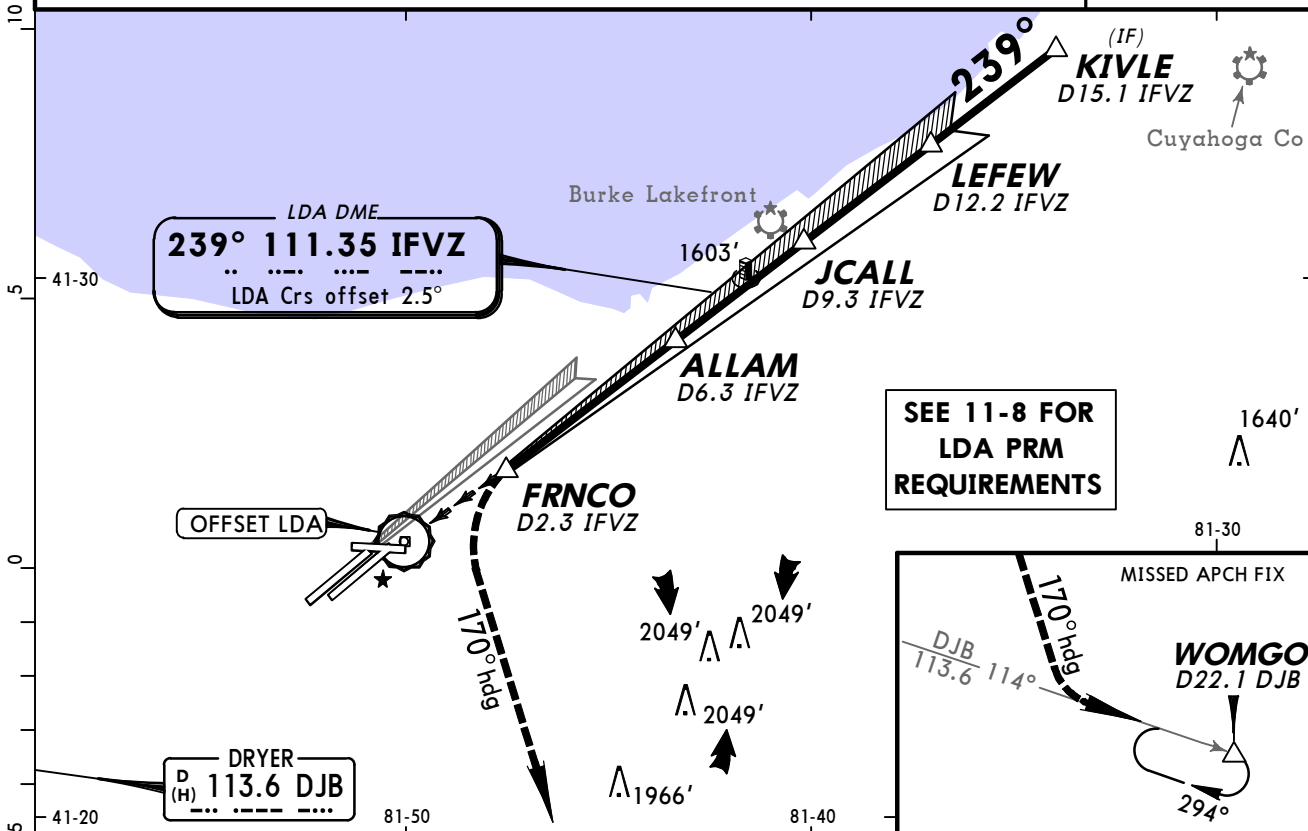
-HOPKINS INTL

4 FEB 11 **11-8A** CAT A, B & C
(SIMULTANEOUS CLOSE PARALLEL)

CLEVELAND, OHIO
LDA PRM Rwy 24L

BRIEFING STRIP™

D-ATIS Arrival	CLEVELAND Approach (R)		CLEVELAND Tower		Ground
127.85	Rwys 6R/24L, 28	124.0	Rwys 6R/24L, 10/28	120.9	All Rwys 121.7
	Rwys 6L/24R, 10	126.55	Rwys 6L/24R	124.5	
			Monitor Frequency 135.87		
LDA IFVZ 111.35	Final Apch Crs 239°	GS ALLAM 3000' (2213')	LDA DA(H) 1700' (913')	Apt Elev 800' TDZE 787'	3100' MSA DJB VOR
MISSED APCH: Climbing LEFT turn to 3100' via heading 170° and outbound on DJB VOR R-114 to WOMGO INT/D22.1 DJB and hold.					
Alt Set: INCHES					



Gnd speed-Kts	70	90	100	120	140	160	MALS R	3100'	170°	DJB	WOMGO
GS	3.00°	377	484	538	646	753	PAPI	via	hdg	and	
MAP at FRNCO								LT		R-114	

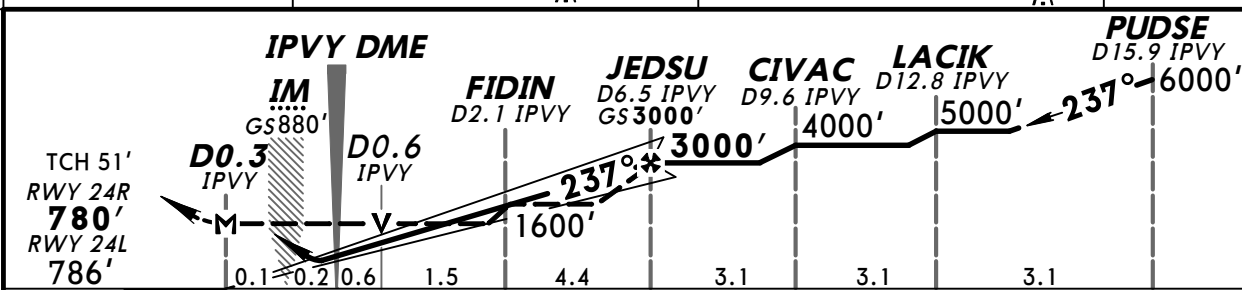
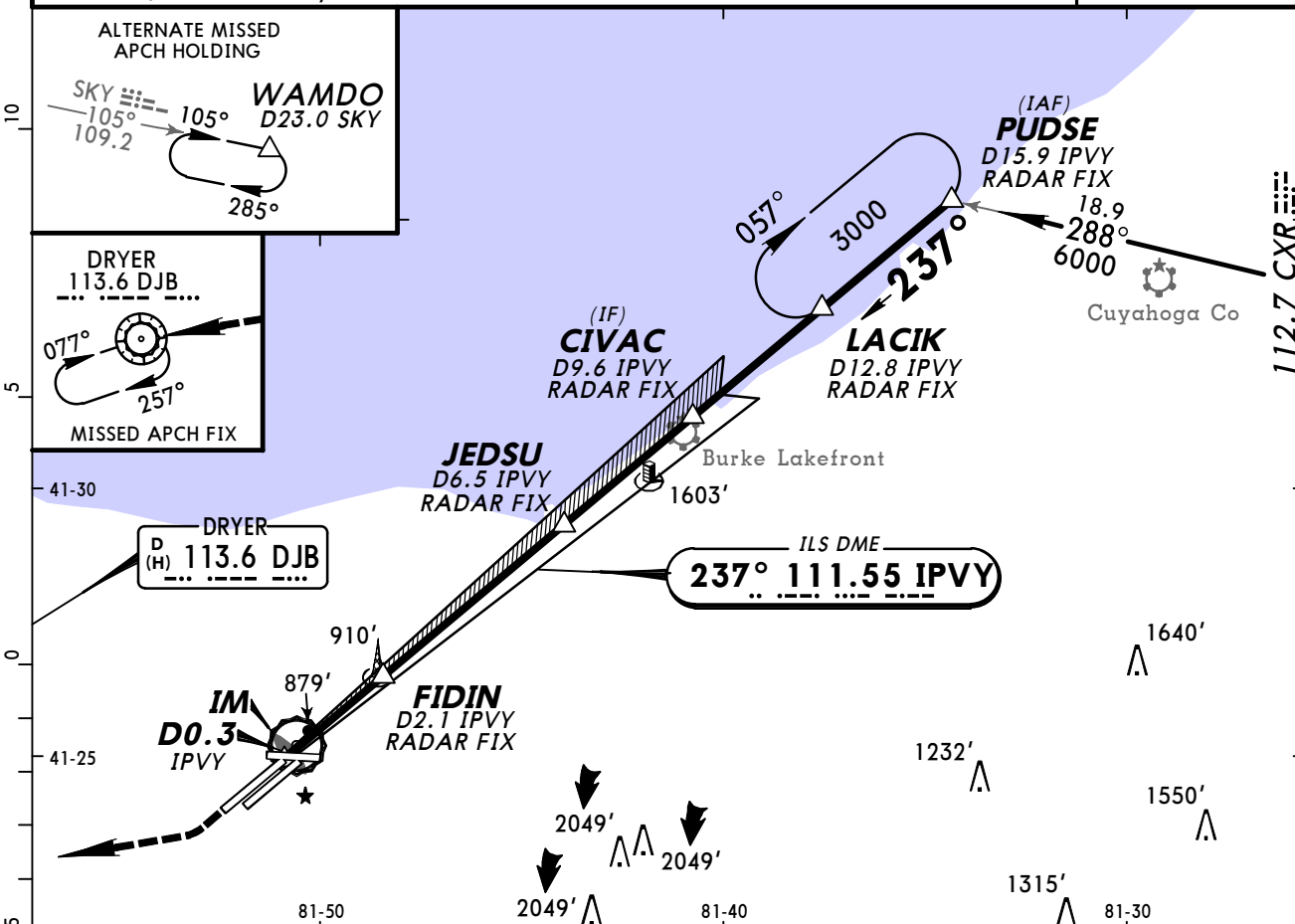
STRAIGHT-IN LANDING RWY 24L	
LDA DA(H) 1700' (913')	RAIL or ALS out
A	
B	3
C	
D	NA

CHANGES: Airport elevation, ground communications.

© JEPPESEN, 2009, 2011. ALL RIGHTS RESERVED.

BRIEFING STRIP™

D-ATIS Arrival 127.85		CLEVELAND Approach (R) Rwys 6L/24R, 10 126.55 Rwys 6R/24L, 28 124.0		CLEVELAND Tower Rwys 6L/24R 124.5 Rwys 6R/24L, 10/28 120.9		Ground Rwys 6L/24R 133.6 Rwys 6R/24L, 10/28 121.7	
LOC IPVY 111.55	Final Apch Crs 237°	GS JEDSU 3000' (2220')	SA CAT I ILS RA 150' DA(H)930' (150')	ILS DA(H) 980' (200')	Apt Elev 799' Rwy 24R 780'	3100' MSA DJB VOR	
MISSED APCH: Climb to 1700' then climbing RIGHT turn to 3000' direct DJB VOR and hold, or as directed by ATC.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special Aircrew and Acft Certification required for Special Auth CAT I ILS. 2. DME required. 3. VGSI and ILS glidepath not coincident. 4. MALSR, PAPI-R on Rwy 24L.							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1700'	3000'	DJB	113.6
GS	3.00°	372	478	531	637	743	PAPI	↑	RT	→	
MAP at D0.3 IPVY or JEDSU to MAP	6.8	5:50	4:32	4:05	3:24	2:55	2:33				

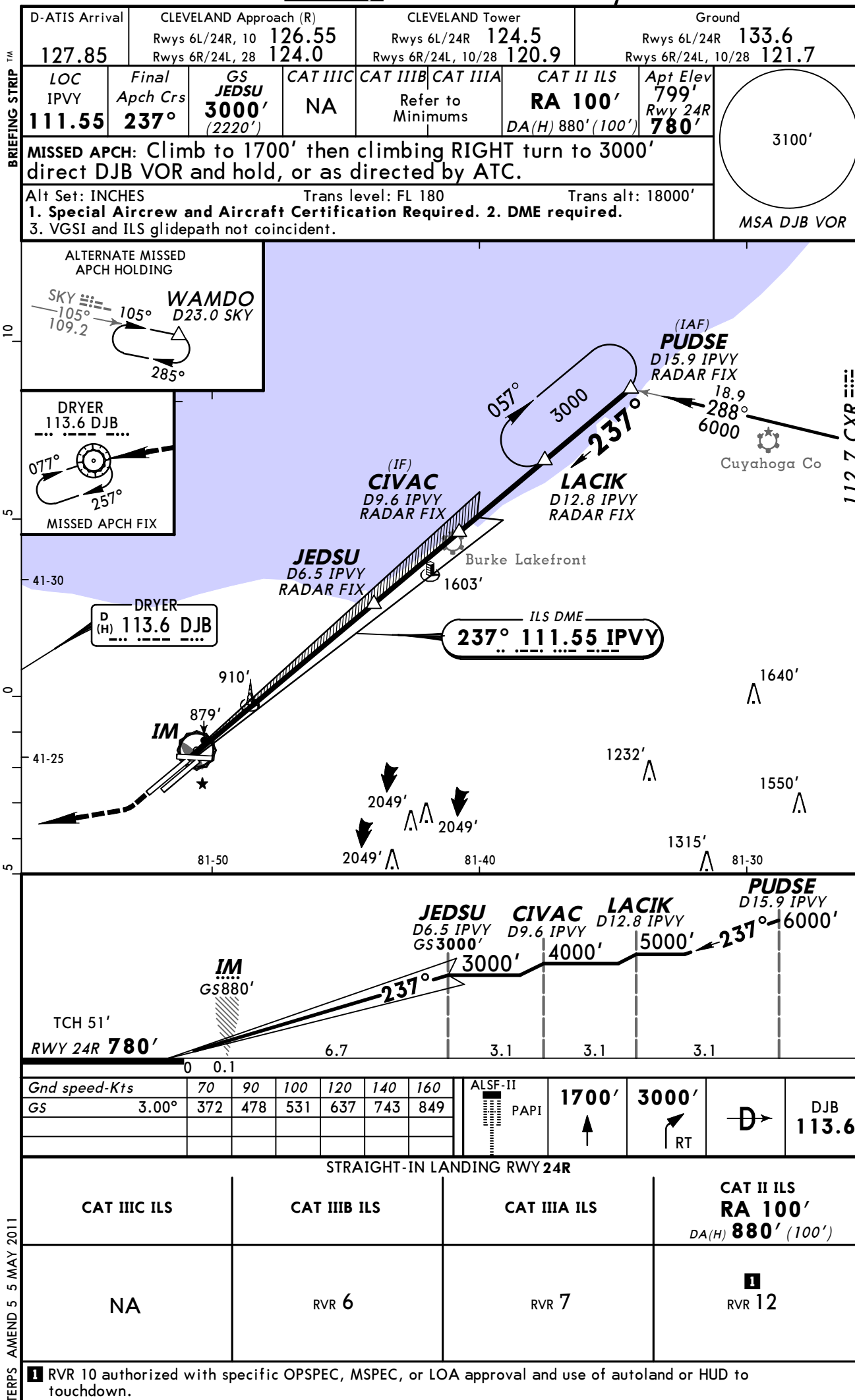
STRAIGHT-IN LANDING RWY 24R				LOC (GS out)		SIDESTEP LANDING RWY 24L	CIRCLE-TO-LAND	
1 SA CAT I ILS RA 150' DA(H) 930' (150')				ILS DA(H) 980' (200')		MDA(H) 1140' (360')	MDA(H) 1280' (494')	Not authorized to Rwy 10 at Night when VGSI inop MDA(H)
FULL				TDZ or CL out	ALS out	ALS out	Max Kts	
A							90	
B							120	1300' (501') - 1
C							140	1320' (521') - 1 1/2
D							165	1360' (561') - 2

1 Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DA(H).

2 RVR 18 with Flight Director or Autopilot or HUD to DA(H).

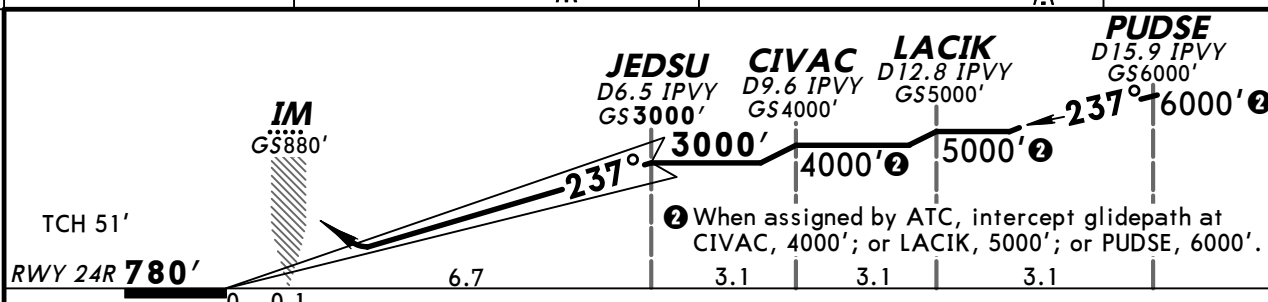
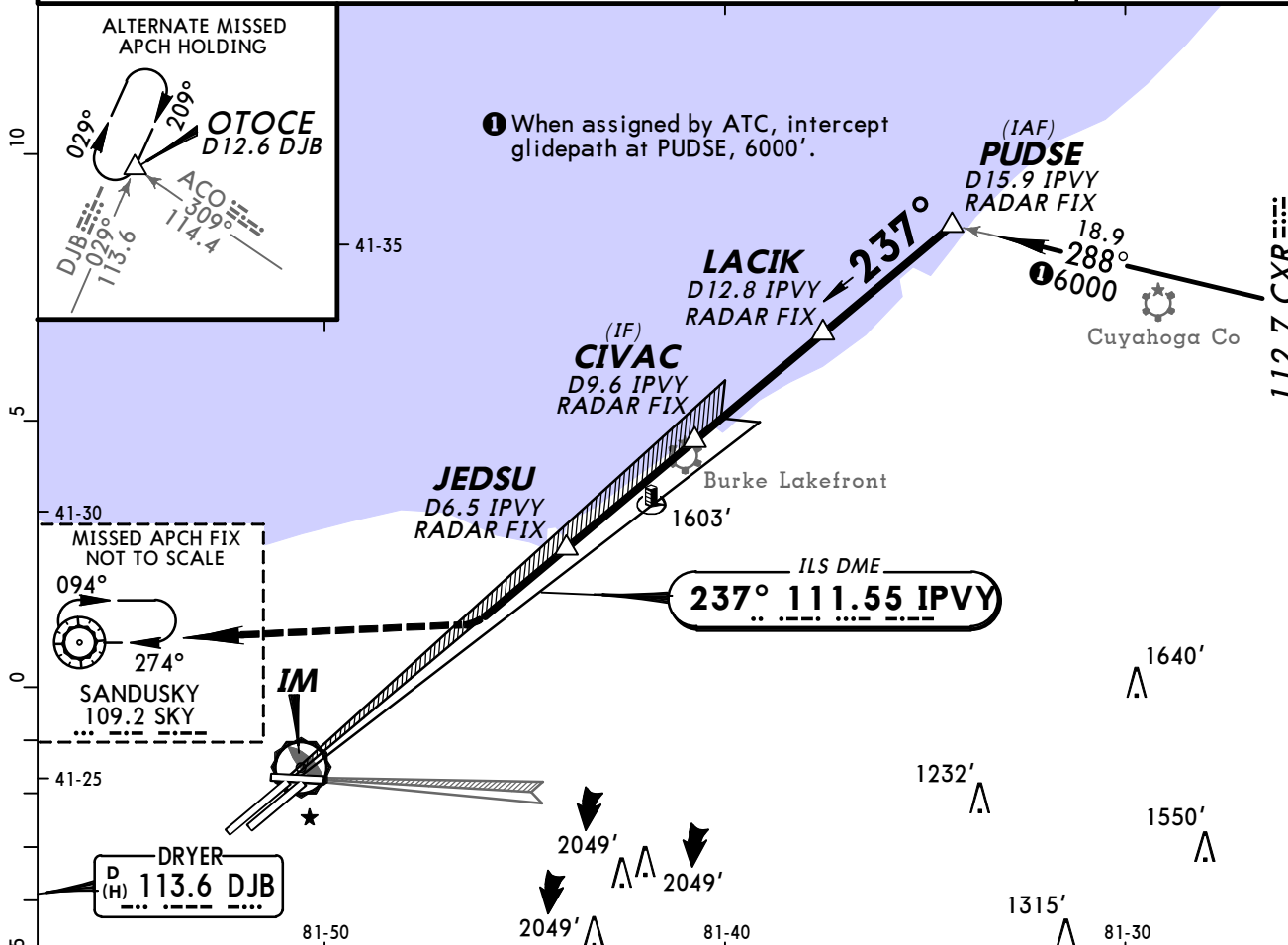
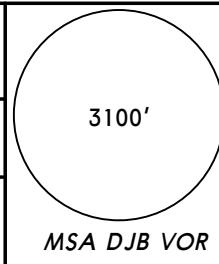
CHANGES: Procedure.

© JEPPESEN, 2002, 2011. ALL RIGHTS RESERVED.



BRIEFING STRIP

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6L/24R, 10 126.55 Rwys 6R/24L, 28 124.0	CLEVELAND Tower Rwys 6L/24R 124.5 Rwys 6R/24L, 10/28 120.9	Ground Rwys 6L/24R 133.6 Rwys 6R/24L, 10/28 121.7
LOC IPVY 111.55	Final Apch Crs 237°	GS JEDSU 3000' (2220')	ILS DA(H) 2240' (1460')
Apt Elev 799' Rwy 24R 780'			
MISSED APCH: Climbing RIGHT turn to 3000' direct SKY VOR and hold, or as directed by ATC.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'			
1. RADAR REQUIRED. 2. Simultaneous converging approach authorized with converging ILS Rwy 28. 3. VGSI and ILS glidepath not coincident. 4. Fly visual to airport.			



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	→	SKY 109.2
GS	3.00°	372	478	531	637	743	PAPI	RT		
MAP at DA										

STRAIGHT-IN LANDING RWY 24R										
ILS										
DA(H) 2240' (1460')										
FULL						ALS out				

A	3
B	
C	
D	

TERPS AMEND 1 5 MAY 2011

**ATTENTION ALL USERS OF ILS PRECISION RUNWAY MONITOR (PRM)
ILS PRM RWY 24R****Condensed Briefing Point:**

- When instructed, immediately switch to the tower frequency and select the monitor frequency audio.

1. **ATIS.** When the ATIS broadcast advises that simultaneous ILS PRM 24R and LDA PRM 24L approaches are in progress, pilots should brief to fly the ILS PRM 24R approach. If later advised to expect an ILS 24R approach, the ILS PRM 24R chart may be used after completing the following briefing items:

- (a) Minimums and missed approach procedures are unchanged.
- (b) Monitor frequency no longer required.
- (c) A lower glideslope intercept altitude may be assigned when advised to expect ILS 24R approach.

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 1200 feet (ceiling) and 3 miles (visibility).

2. **Dual VHF Communication required.** To avoid blocked transmissions, each runway will have two frequencies, a primary and a monitor frequency. The tower controller will transmit on both frequencies. The Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the tower controller's frequency, but will listen to both frequencies. Select the monitor frequency audio only when instructed by ATC to contact the tower. The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked.

3. **All "Breakouts" are to be hand flown** to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.

- (a) ATC Directed "Breakouts:" ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1,000 feet required obstruction clearance. The applicable MVA is 2600 feet at Cleveland-Hopkins International Airport.

- (b) Phraseology - "TRAFFIC ALERT": If an aircraft enters the "NO TRANSGRESSION ZONE (NTZ)", the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:

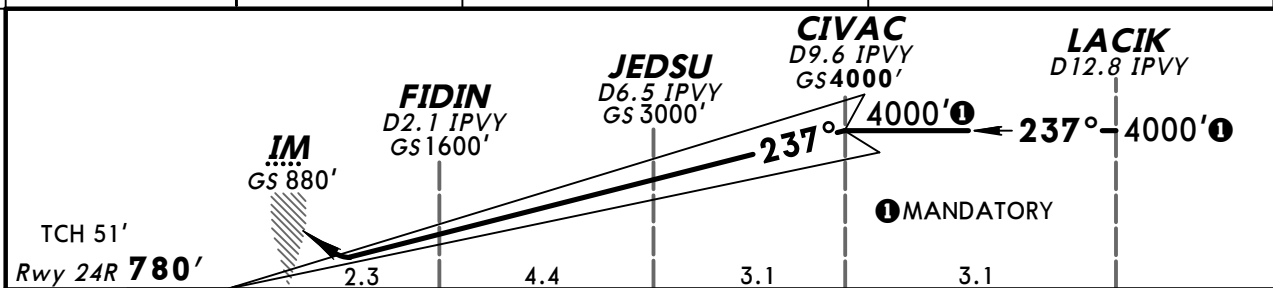
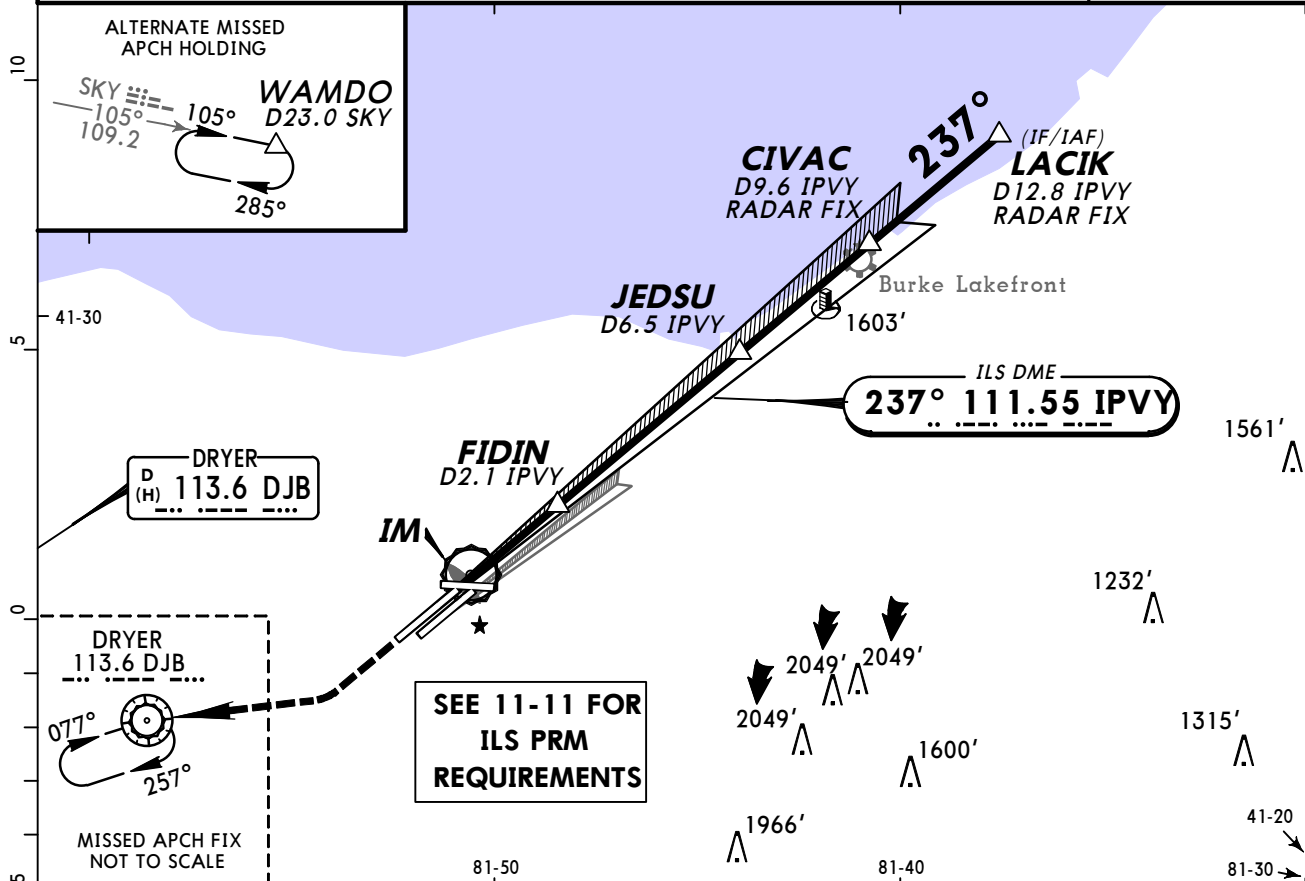
"TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees). CLIMB/DESCEND AND MAINTAIN (altitude)".

4. **LDA Traffic:** While conducting this ILS PRM 24R approach, other aircraft may be conducting the Offset LDA PRM 24L approach. These aircraft will approach from the left-rear and will re-align with 24L after making visual contact with the ILS traffic.

5. **Glide Slope Navigation:** Descent on the glide slope meets any published crossing restriction.

Special pilot training required. Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ARTCC as soon as practical, but at least 100 miles from destination.

BRIEFING STRIP™	D-ATIS Arrival	CLEVELAND Approach (R)		CLEVELAND Tower		Ground
	127.85	Rwys 6L/24R, 10 126.55	Rwys 6R/24L, 28 124.0	Rwys 6L/24R 124.5	Rwys 6R/24L, 10/28 120.9	Rwys 6L/24R 133.6
				Monitor Frequency 118.97		Rwys 6R/24L, 10/28 121.7
	LOC IPVY 111.55	Final Apch Crs 237°	GS CIVAC 4000' (3220')	ILS DA(H) 980' (200')	Apt Elev 799'	
					Rwy 24R 780'	
MISSED APCH: Climb to 1700' then climbing RIGHT turn to 3000' direct DJB VOR and hold, or as directed by ATC.						3100' MSA DJB VOR
Alt Set: INCHES						

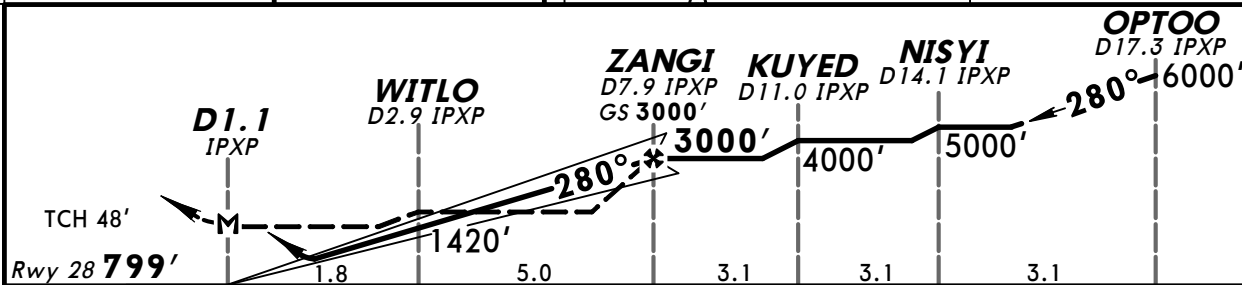
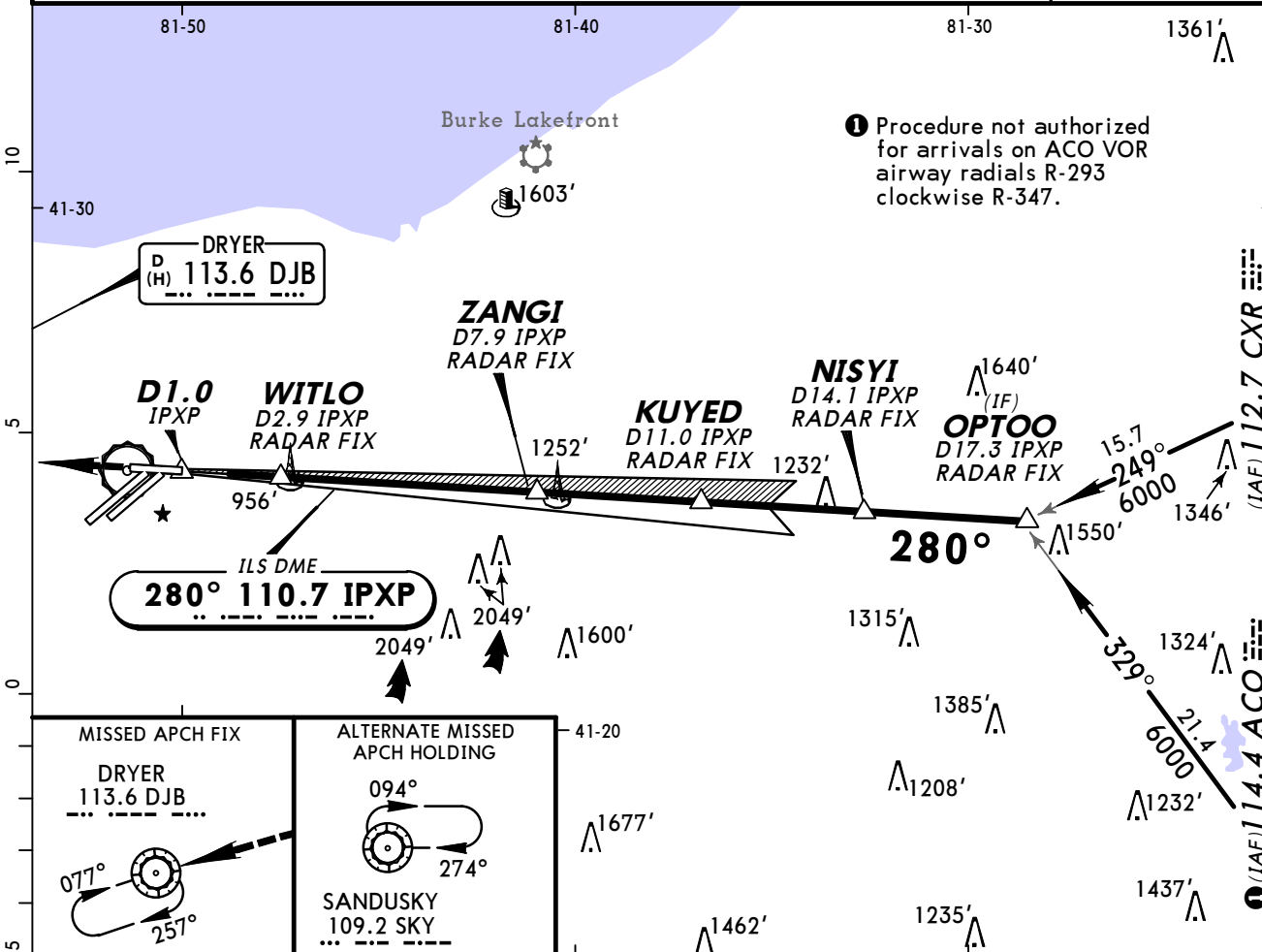


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1700'	3000'	DJB	113.6
GS	3.00°	372	478	531	637	743	PAPI	↑	↖	↗	
MAP at DA											

TERPS STRAIGHT-IN LANDING RWY 24R											
ILS DA(H) 980' (200')											
FULL				TDZ or CL out				ALS out			
A											
B	RVR 18 or 3/8			1 RVR 24 or 1/2			RVR 40 or 3/4				
C											
D											

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

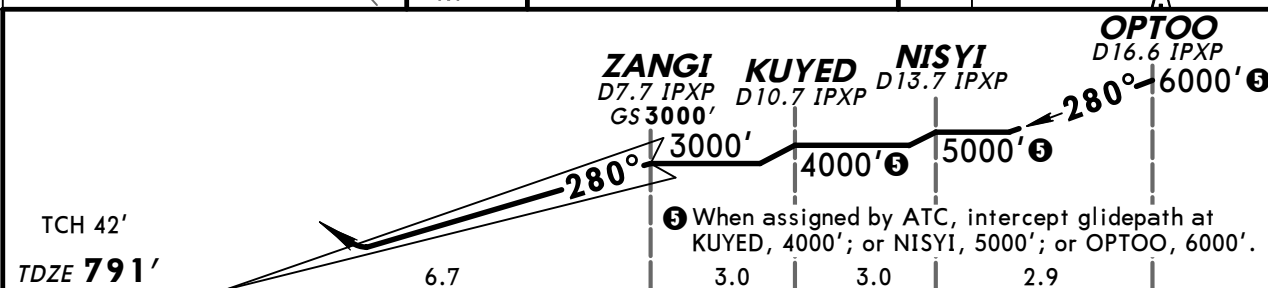
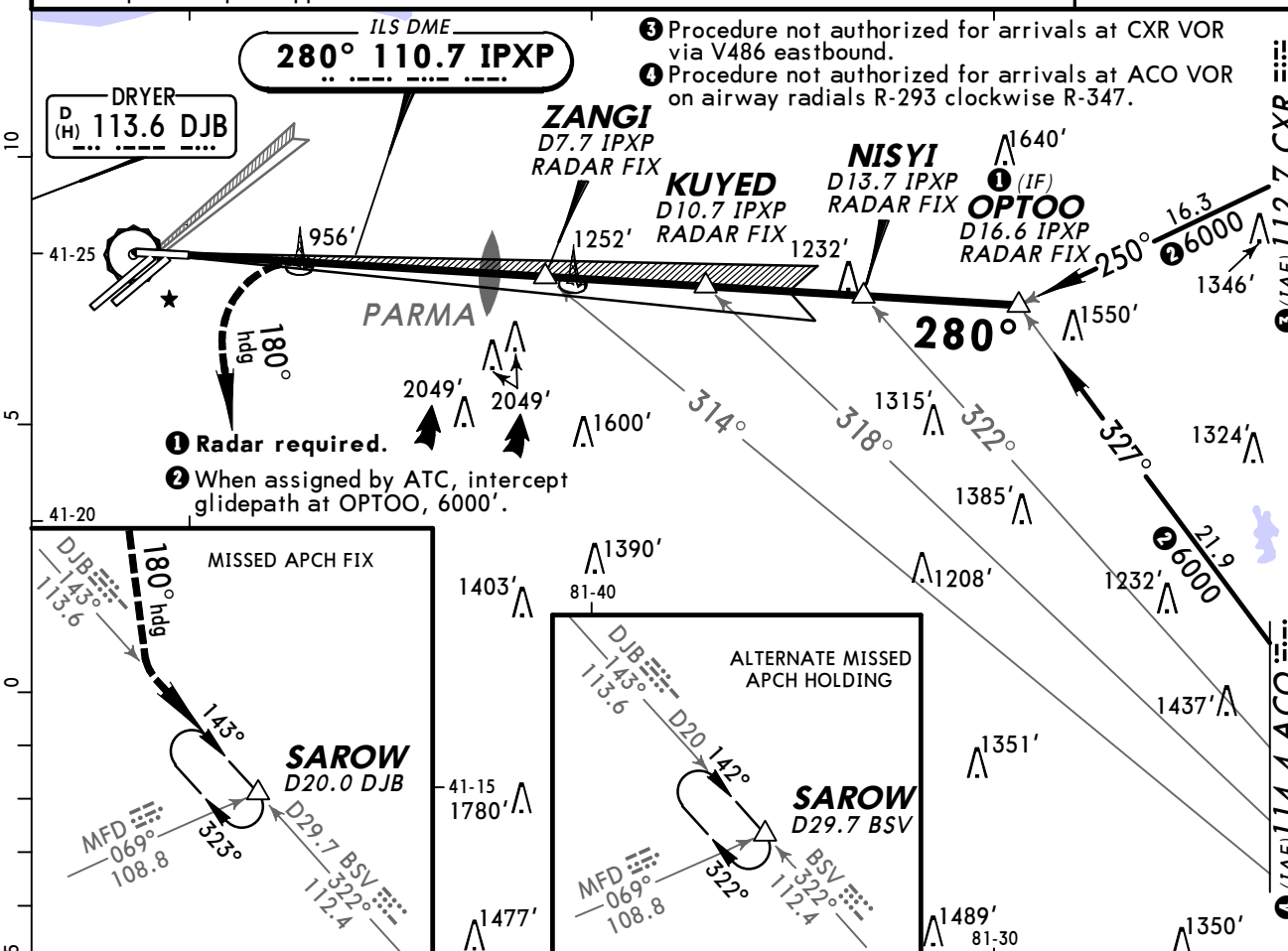
D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LOC IPXP 110.7	Final Apch Crs 280°	GS ZANGI 3000' (2201')	ILS DA(H) 999' (200')
Apt Elev 799' Rwy 28 799'			
MISSED APCH: Climb to 1400' then climbing LEFT turn to 3000' direct DJB VOR and hold, or as directed by ATC.			
Alt Set: INCHES		Trans level: FL 180	Trans alt: 18000'
1. DME or RADAR required.			MSA DJB VOR



Gnd speed-Kts	70	90	100	120	140	160	MALSR	1400'	3000'	DJB	113.6
GS	3.00°	372	478	531	637	743	PAPI	↑	LT	→	
MAP at D1.1 IPXP or ZANGI to MAP	6.8	5:50	4:32	4:05	3:24	2:55	2:33				

TERPS STRAIGHT-IN LANDING RWY 28							CIRCLE-TO-LAND			
ILS		LOC (GS out)					Not Authorized to Rwy 10 at Night when VGSI inop			
DA(H) 999' (200')		MDA(H) 1320' (521') With WITLO		MDA(H) 1420' (621') Without WITLO			With WITLO		Without WITLO	
FULL	RAIL or ALS out		RAIL out	ALS out		RAIL or ALS out	Max Kts	MDA(H)		MDA(H)
A			RVR 40 or 3/4	RVR 55 or 1	RVR 40 or 3/4	RVR 55 or 1	90	1320'(521')-1		1420'(621')-1
B							120			
C	RVR 40 or 3/4		RVR 55 or 1	1 1/4	1 1/2	1 3/8	140	1320'(521')-1 1/2		1420'(621')-1 3/4
D							165	1360'(561')-2		1420'(621')-2

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
LOC IPXP 110.7	Final Apch Crs 280°	GS ZANGI 3000' (2209')	ILS DA(H) 1791' (1000')
Apt Elev 799' TDZE 791'			3100'
MISSED APCH: Climbing LEFT turn to 3000' via 180° heading and outbound via DJB VOR R-143 to SAROW INT/D20.0 DJB and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Simultaneous converging approach authorized with converging ILS Rwy 24R. 2. Autopilot coupled approach not authorized below 1080'.			
			MSA DJB VOR

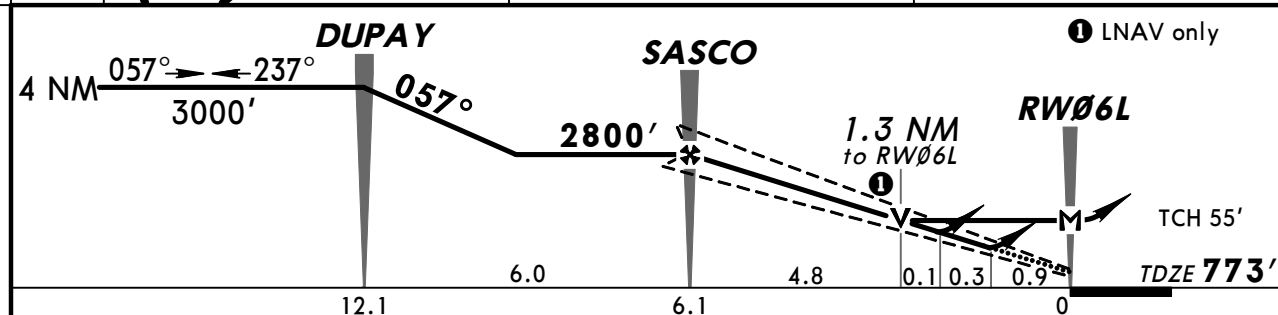
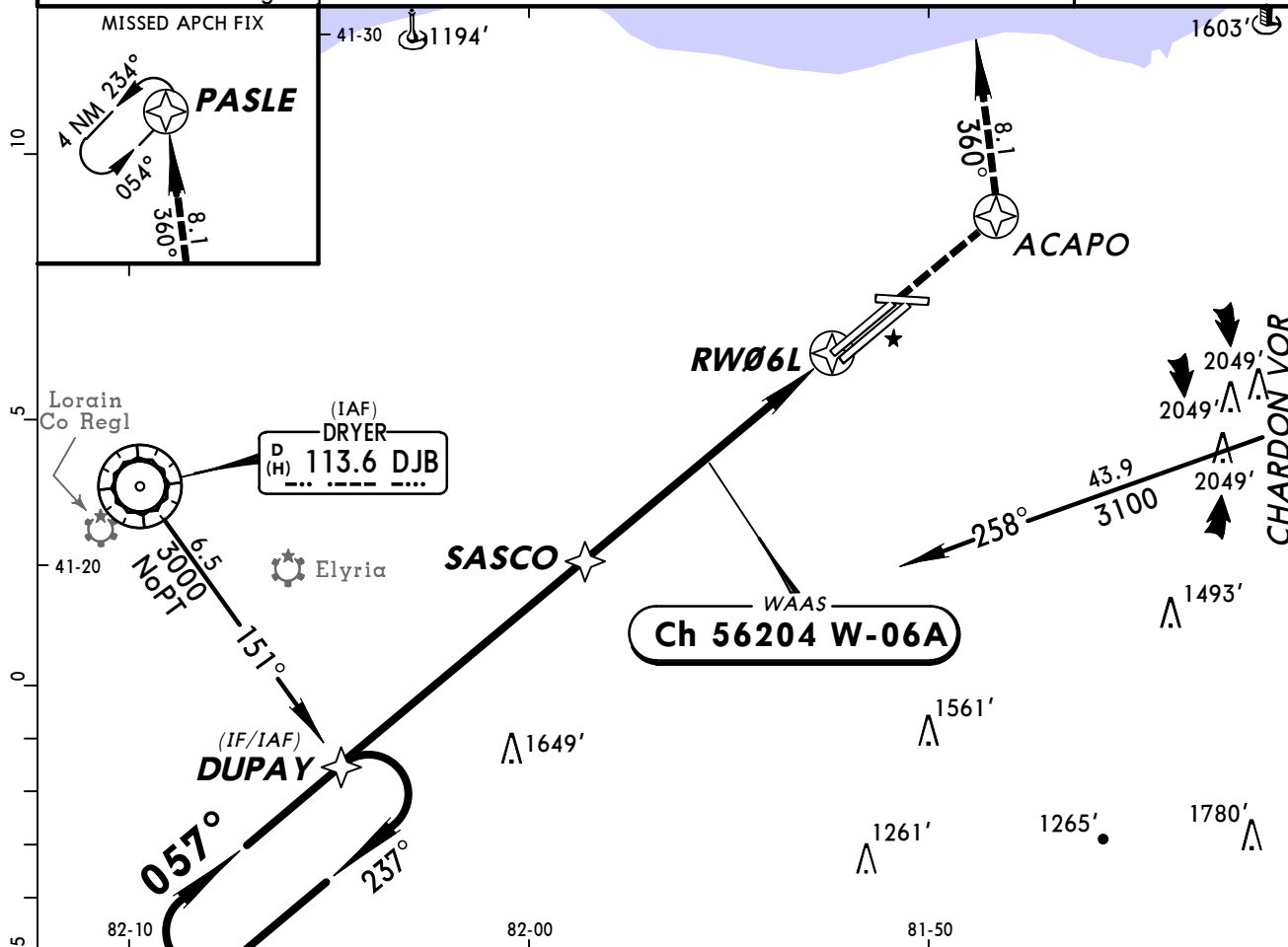


Gnd speed-Kts	70	90	100	120	140	160	MALSR	3000'	via 180° and 113.6	DJB	SAROW
GS	3.00°	372	478	531	637	743	PAPI	LT	hdg	R-143	
MAP at DA											

STRAIGHT-IN LANDING RWY 28											
ILS											
DA(H) 1791' (1000')											
FULL						RAIL or ALS out					

A	2
B	
C	3
D	

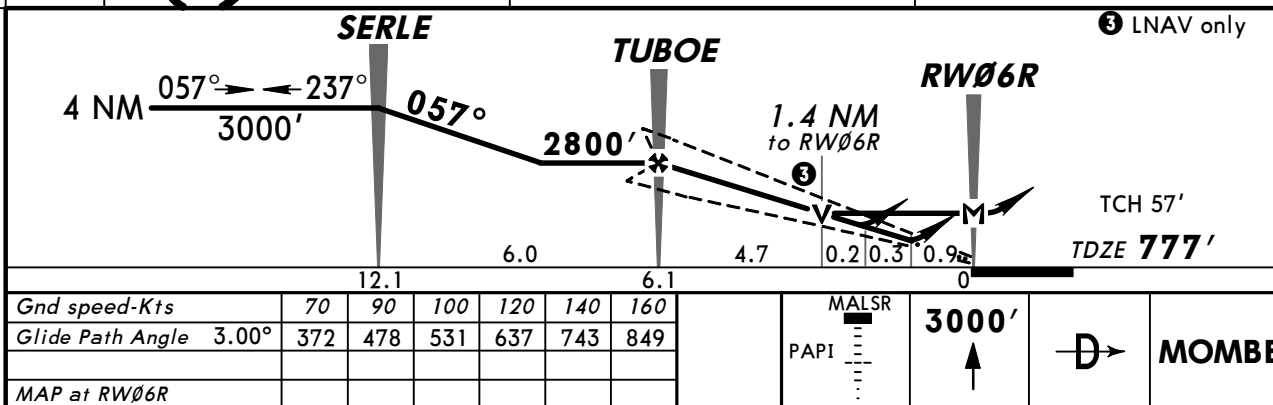
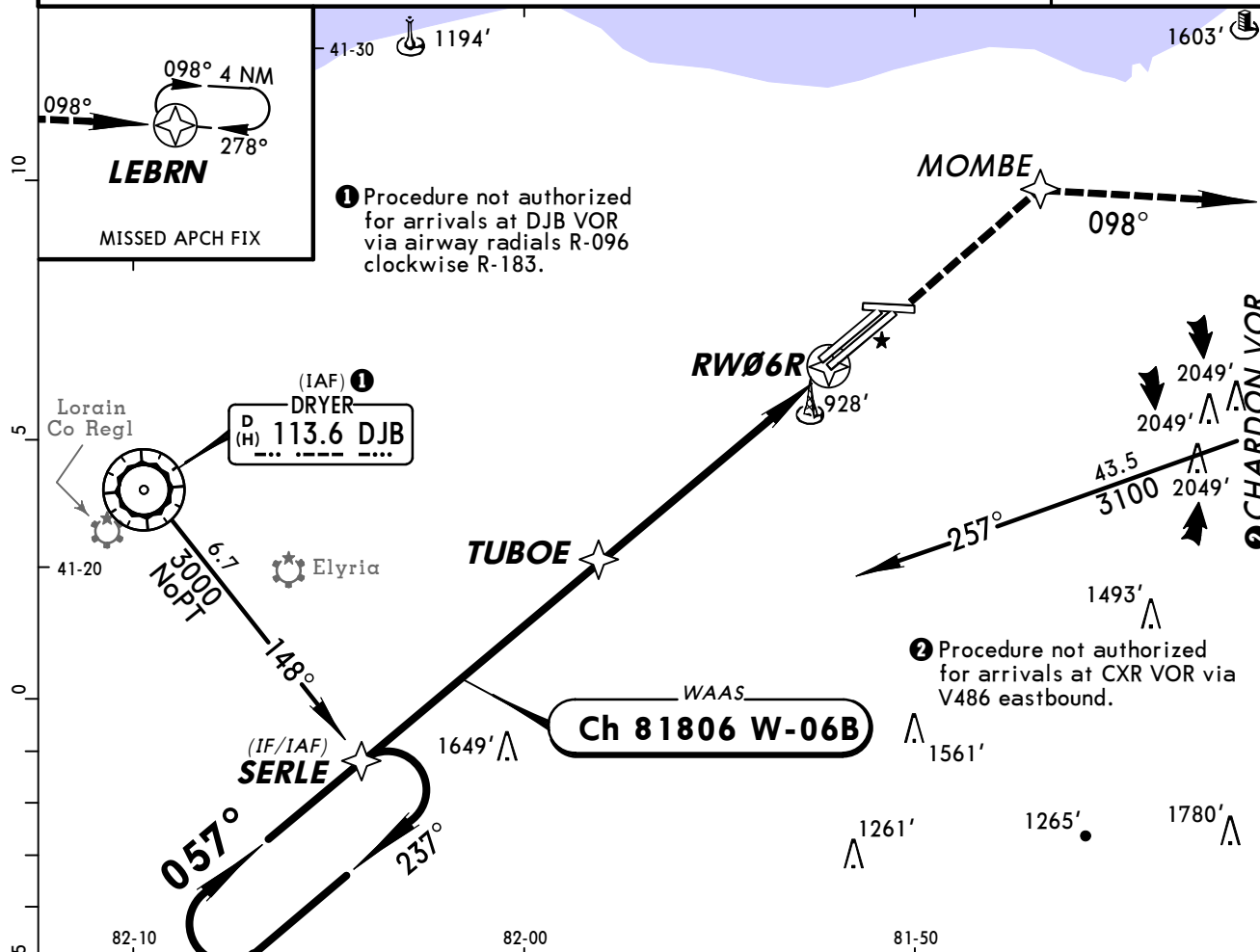
D-ATIS Arrival	CLEVELAND Approach (R)	CLEVELAND Tower	Ground		
Rwys 6L/24R, 10 126.55	Rwys 6L/24R 124.5	Rwys 6L/24R 133.6			
127.85	Rwys 6R/24L, 28 124.0	Rwys 6R/24L, 10/28 120.9	Rwys 6R/24L, 10/28 121.7		
WAAS Ch 56204 W-06A	Final Apch Crs 057°	Minimum Alt SASCO 2800' (2027')	LPV DA(H) 1110' (337')	Apt Elev 791' TDZE 773'	3100' MSA RW06L
MISSED APCH: Climb to 3000' direct ACAPO then via 360° track to PASLE and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'					
1. Baro-VNAV not authorized below -16°C(4°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident.					



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	ACAPO
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI		
MAP at RW06L									

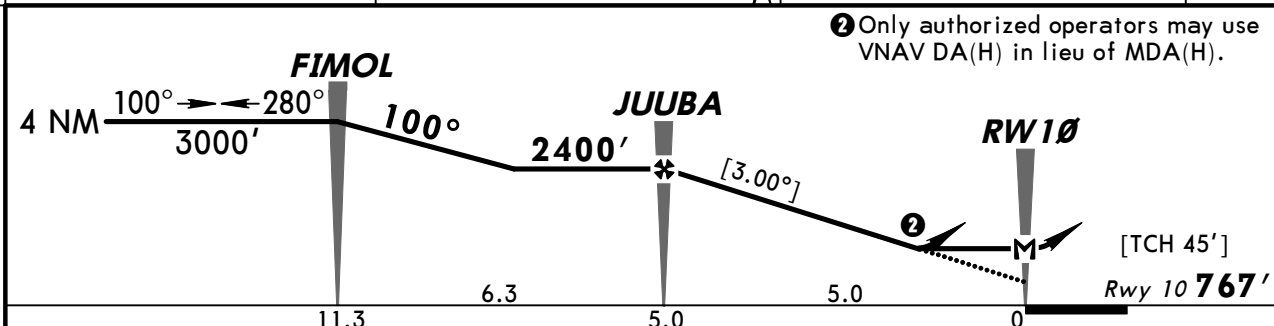
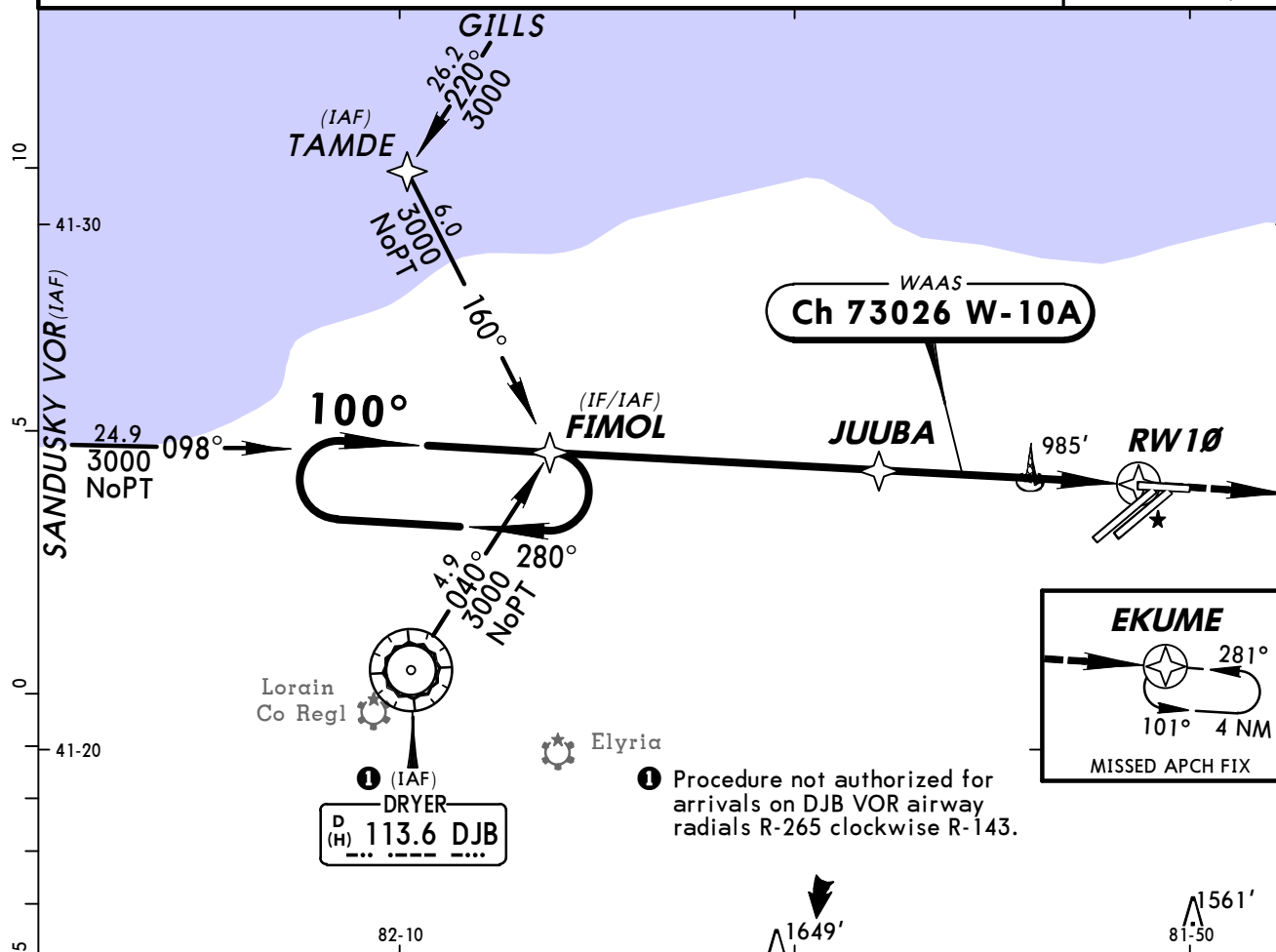
STRAIGHT-IN LANDING RWY 6L				CIRCLE-TO-LAND	
LPV	LNNAV/VNAV	LNNAV		Max Kts	MDA(H)
DA(H) 1110' (337')	DA(H) 1220' (447')	MDA(H) 1240' (467')		90	1300'(509')-1½
ALS out	ALS out	ALS out		120	
RVR 40 or ¾	RVR 50 or 1	1½	RVR 24 or ½	RVR 50 or 1	1320'(529')-1½
			RVR 40 or ¾	RVR 60 or ¼	1380'(589')-2
			RVR 50 or 1	1½	

D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
WAAS Ch 81806 W-06B	Final Apch Crs 057°	Minimum Alt TUBOE 2800' (2023')	LPV DA(H) 1104' (327')
Apt Elev 791' TDZE 777'			
MISSED APCH: Climb to 3000' direct MOMBE and via 098° track to LEBRN and hold. Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 47°C (116°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident.			
3100' MSA RW06R			



STRAIGHT-IN LANDING RWY 6R				CIRCLE-TO-LAND			
LPV DA(H) 1104' (327')		LNAV/VNAV DA(H) 1215' (438')		LNAV MDA(H) 1260' (483')		CIRCLE-TO-LAND	
RAIL or ALS out		RAIL or ALS out		RAIL out	ALS out	Max Kts	MDA(H)
A						90	
B						120	
C	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 50 or 1	1 1/2	RVR 24 or 1/2 RVR 40 or 3/4 RVR 50 or 1	140	1300' (509') - 1
D					1 1/2	165	1320' (529') - 1 1/2 1360' (569') - 2

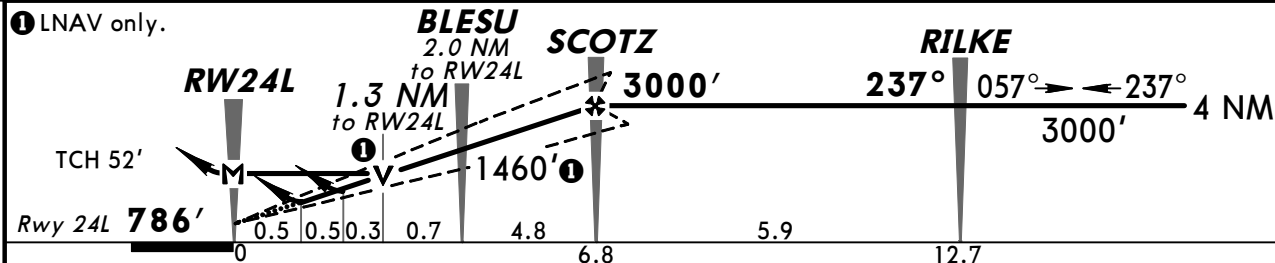
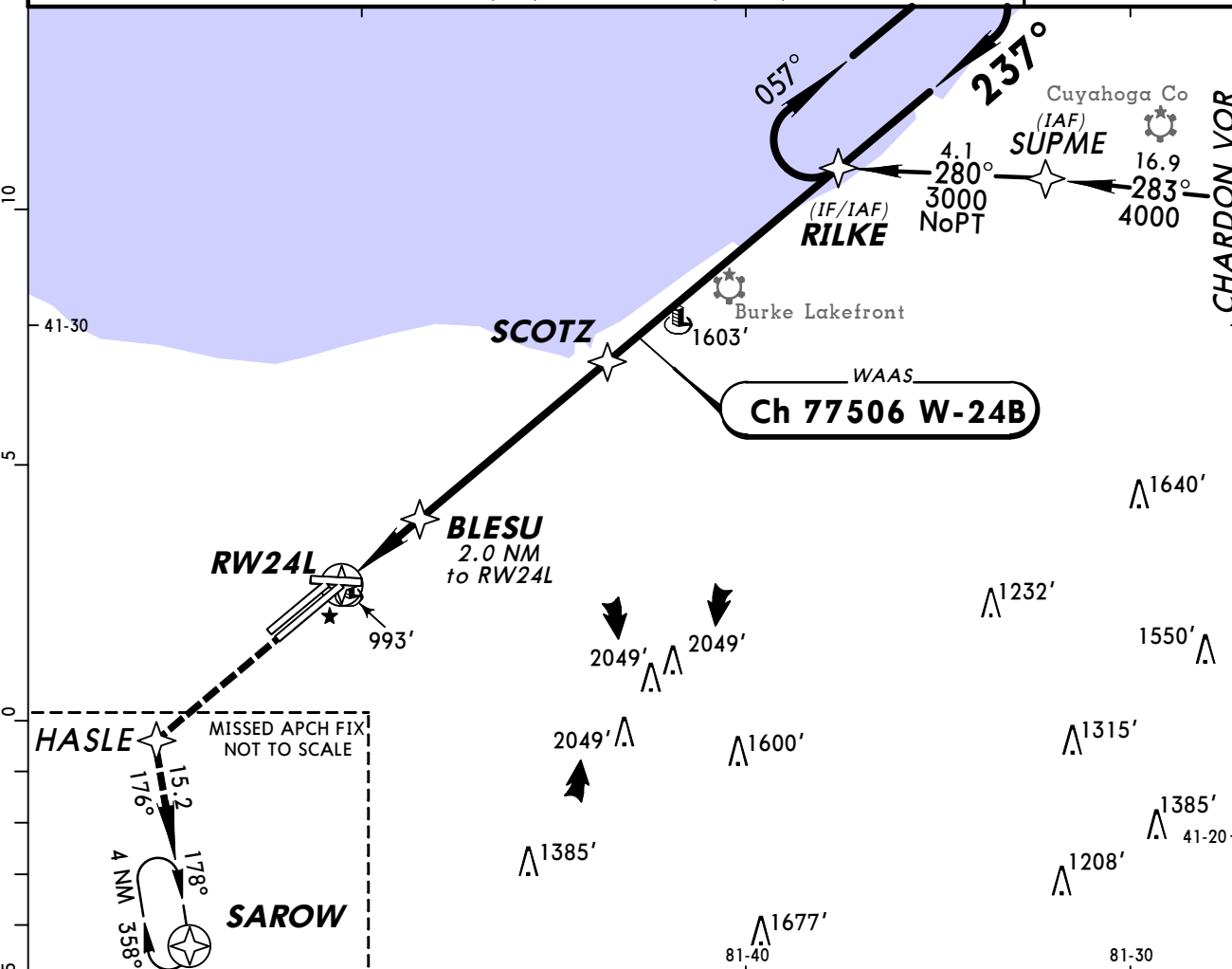
D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6L/24R, 10 126.55 Rwys 6R/24L, 28 124.0	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
WAAS Ch 73026 W-10A	Final Apch Crs 100°	Minimum Alt JUUBA 2400' (1633')	LP MDA(H) 1240' (473')
Apt Elev 799' Rwy 10 767'			
MISSED APCH: Climb to 4000' direct EKUME and hold. Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME/DME RNP-0.30 not authorized. 2. Visibility reduction by helicopters not authorized.			
3100' MSA RW10			



Gnd speed-Kts	70	90	100	120	140	160				
Descent angle [3.00°]	372	478	531	637	743	849				
MAP at RW10										

TERPS STRAIGHT-IN LANDING RWY 10										
LP						LNAV				
MDA(H) 1240' (473')						MDA(H) 1240' (473')				
A	1					1				
B										
C	1 3/8					1 3/8				
D										

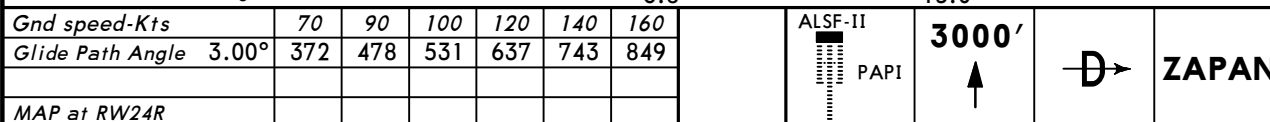
D-ATIS Arrival 127.85	CLEVELAND Approach (R) Rwys 6R/24L, 28 124.0 Rwys 6L/24R, 10 126.55	CLEVELAND Tower Rwys 6R/24L, 10/28 120.9 Rwys 6L/24R 124.5	Ground Rwys 6R/24L, 10/28 121.7 Rwys 6L/24R 133.6
WAAS Ch 77506 W-24B	Final Apch Crs 237°	Minimum Alt SCOTZ 3000' (2214')	LPV DA(H) 986' (200')
Apt Elev 799' Rwy 24L 786'			
MISSED APCH: Climb to 3000' direct HASLE and on 176° track to SAROW and hold.			
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME/DME RNP-0.30 not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 38°C (100°F).			



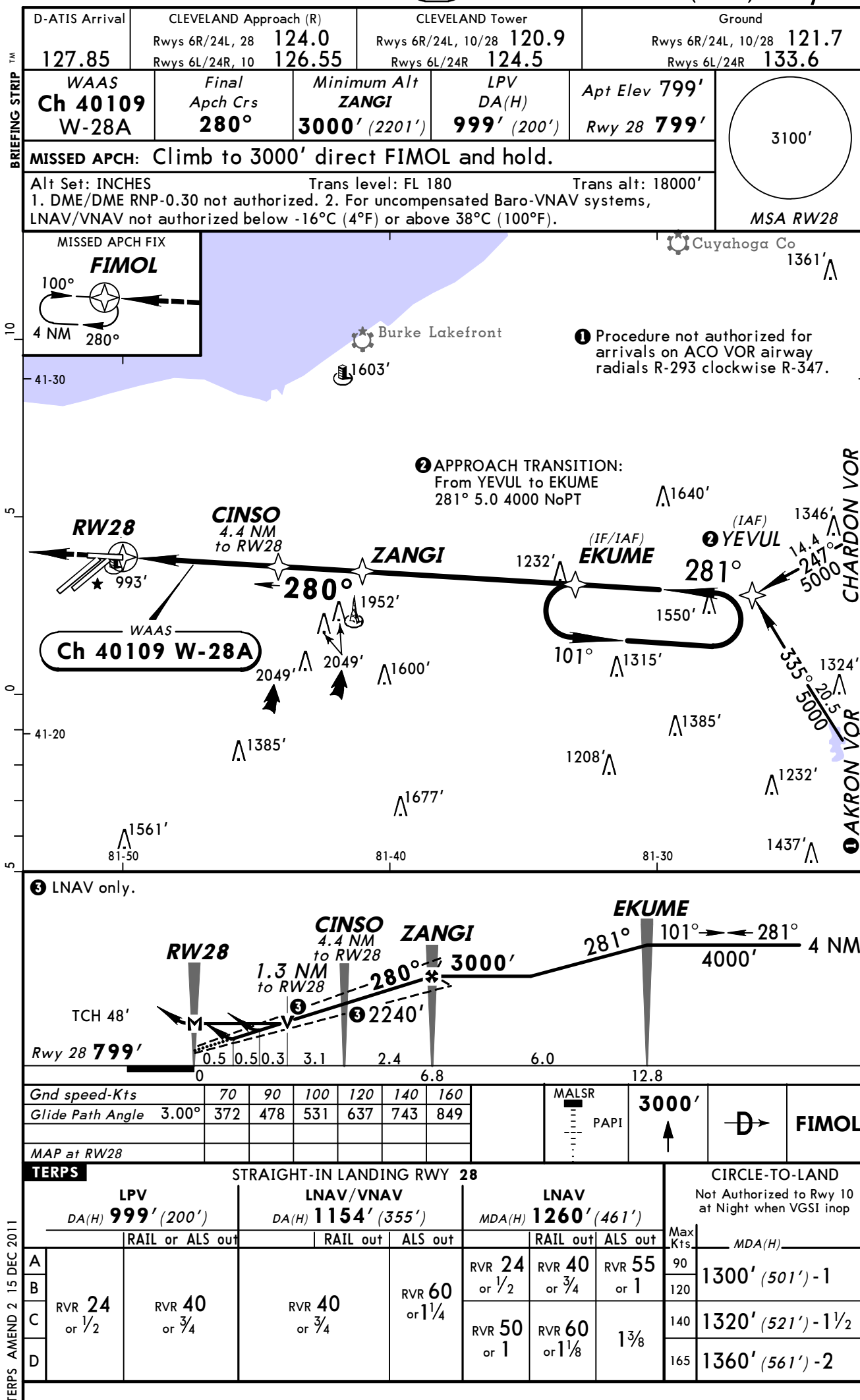
Gnd speed-Kts	70	90	100	120	140	160	MALSR	3000'	D	HASLE
Glide Path Angle	3.00°	372	478	531	637	743	PAPI			
MAP at RW24L										

TERPS				STRAIGHT-IN LANDING RWY 24L				CIRCLE-TO-LAND			
LPV		LNAV/VNAV		LNAV		LNAV		Not authorized to Rwy 10 at Night when VGSi inop			
DA(H) 986' (200')		DA(H) 1154' (368')		MDA(H) 1260' (474')		MDA(H) 1260' (474')					
RAIL out	ALS out	RAIL out	ALS out	RAIL out	ALS out	RAIL out	ALS out	Max Kts	MDA(H)		
A								90		1300' (501') - 1	
B								120		1320' (521') - 1½	
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 40 or 3/4	RVR 60 or 1½		RVR 24 or 1/2	RVR 40 or 3/4	140		1360' (561') - 2	
D						RVR 50 or 1	RVR 60 or 1½	165			

BRIEFING STRIP TM



TERPS		STRAIGHT-IN LANDING RWY 24R						CIRCLE-TO-LAND		
LPV <i>DA(H)</i> 980' (200')		LNAV/VNAV <i>DA(H)</i> 1154' (374')		LNAV <i>MDA(H)</i> 1260' (480')		Not authorized to Rwy 10 at Night when VGSI inop				
ALS out		ALS out		ALS out		Max Kts	<i>MDA(H)</i>			
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 40 or 3/4	RVR 55 or 1	RVR 24 or 1/2	RVR 55 or 1	90	1300' (501') - 1		
B							120			
C							RVR 50 or 1	1 3/8	140	1320' (521') - 1 1/2
D									165	1360' (561') - 2



General Information

Location: Columbus OH USA
IATA Code: CMH
Lat/Long: N39° 59.9' W082° 53.5'
Elevation: 815 ft

Airport Use: Public
Magnetic Variation: 7.0°W
Sectional Chart: Cincinnati

Fuel Types: 100 Octane (LL), 100-130 Octane, Jet A, Jet A-1
Oxygen Types: HP Bottle, LP Bottle
Repair Types: Major Airframe, Major Engine
Customs: Upon Prior Request
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: Yes
Beacon: Yes

Sunrise: 1208 Z
Sunset: 2321 Z,

Runway Information

Runway: 10L
Length x Width: 8000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 815 ft
Lighting: Edge, ALS

Runway: 10R
Length x Width: 10125 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 810 ft
Lighting: Edge, ALS

Runway: 28L
Length x Width: 10125 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 814 ft
Lighting: Edge, ALS

Runway: 28R
Length x Width: 8000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 813 ft
Lighting: Edge, ALS

Communication Information

- ATIS 124.6
- Columbus Tower 132.7
- Columbus Ground Control 121.9
- Columbus Clearance Delivery 126.3
- Columbus Approach Control 132.3 (100°-279°) Secondary
- Columbus Approach Control 125.95 (280°-99°) Initial Contact
- Columbus Approach Control 120.2 (280°-99°) Secondary
- Columbus Approach Control 119.65 Secondary
- Columbus Approach Control 119.15 (100°-279°)
- Columbus Approach Control 118.2 Secondary
- Columbus Approach Control 118.0 Secondary
- Columbus App ARSA 125.95 (280°-99°)
- Columbus App ARSA 119.15 (100°-279°)
- Columbus Departure Control 132.3 (100°-279°) Secondary
- Columbus Departure Control 125.95 (280°-99°)
- Columbus Departure Control 120.2 (280°-99°) Secondary
- Columbus Departure Control 119.65 Secondary
- Columbus Departure Control 119.15 (100°-279°)
- Columbus Departure Control 118.2 Secondary
- Columbus Departure Control 118.0 Secondary
- Port Columbus Intl Unicom 122.95
- Dayton Flight Service Station 122.3 At or above 18000 ft RCO
- Dayton Flight Service Station 122.2 RCO

© JEPPESEN, 2007, 2010. ALL RIGHTS RESERVED.

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

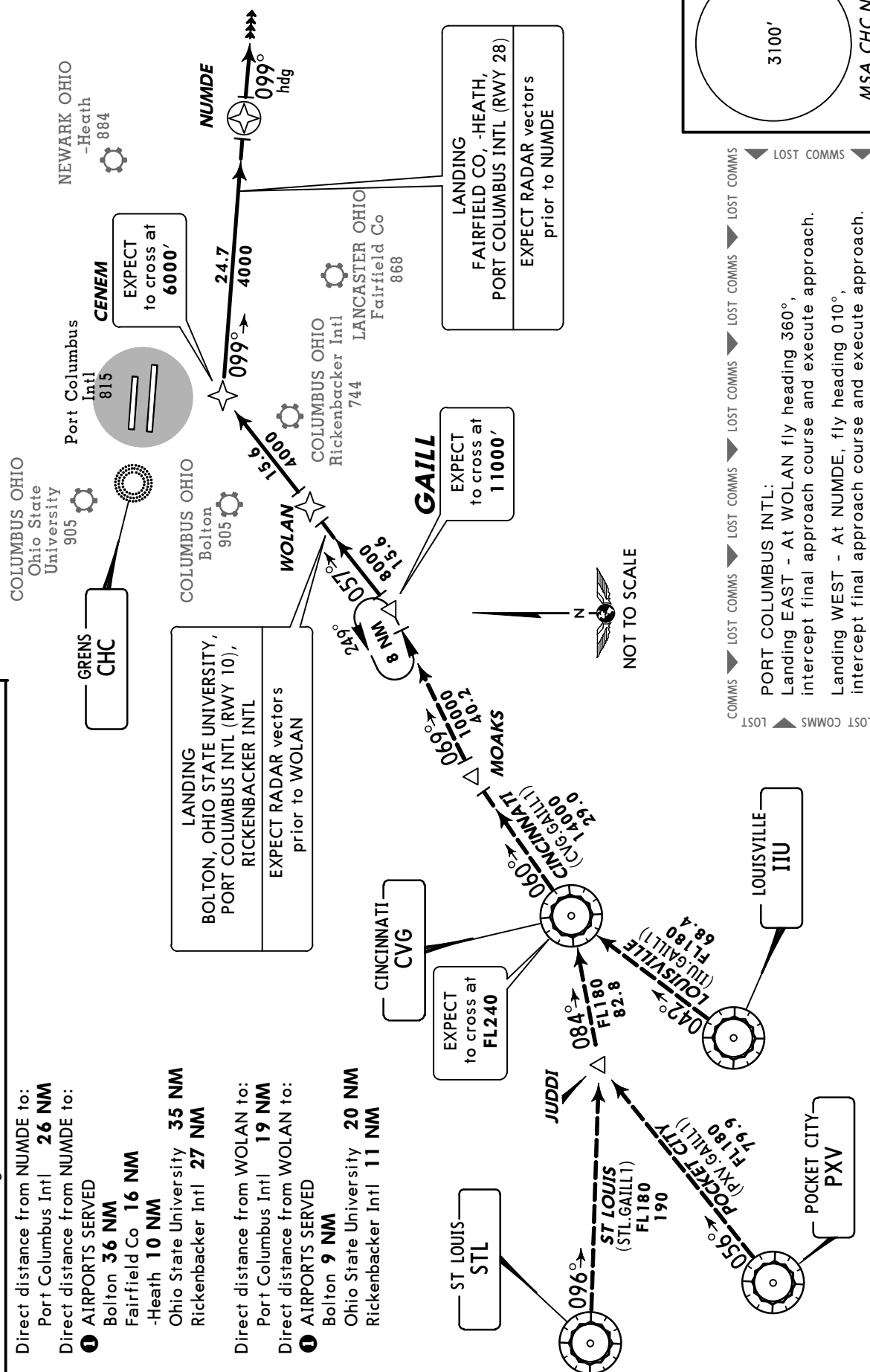
1. DME/DME/IRU or GPS required. 2. RADAR required. 3. RNAV 1.

4. CINCINNATI Transition only for use by Lexington and Louisville terminal area departures, or as assigned by ATC.

5. CINCINNATI, LOUISVILLE, POCKET CITY and ST LOUIS Transitions: for non-GPS equipped aircraft APE, CVG, ROD and ZZV DMEs must be operational. 6. Also Serves **①**

3100'

MSA CHC NDR



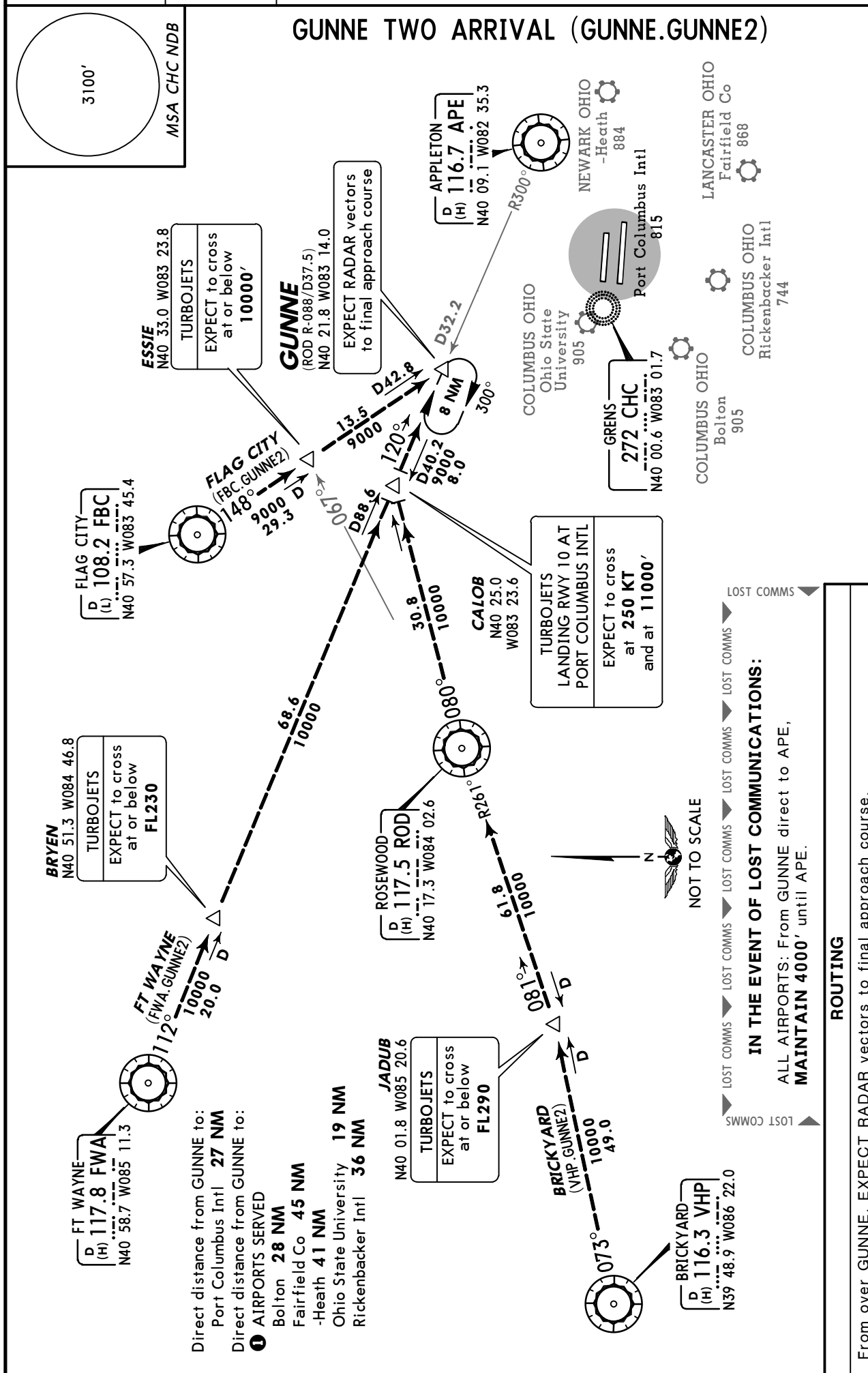
From GAILL via 057° track to WOLAN. Then as depicted to NUMDE, then via 099° heading. EXPECT RADAR vectors.

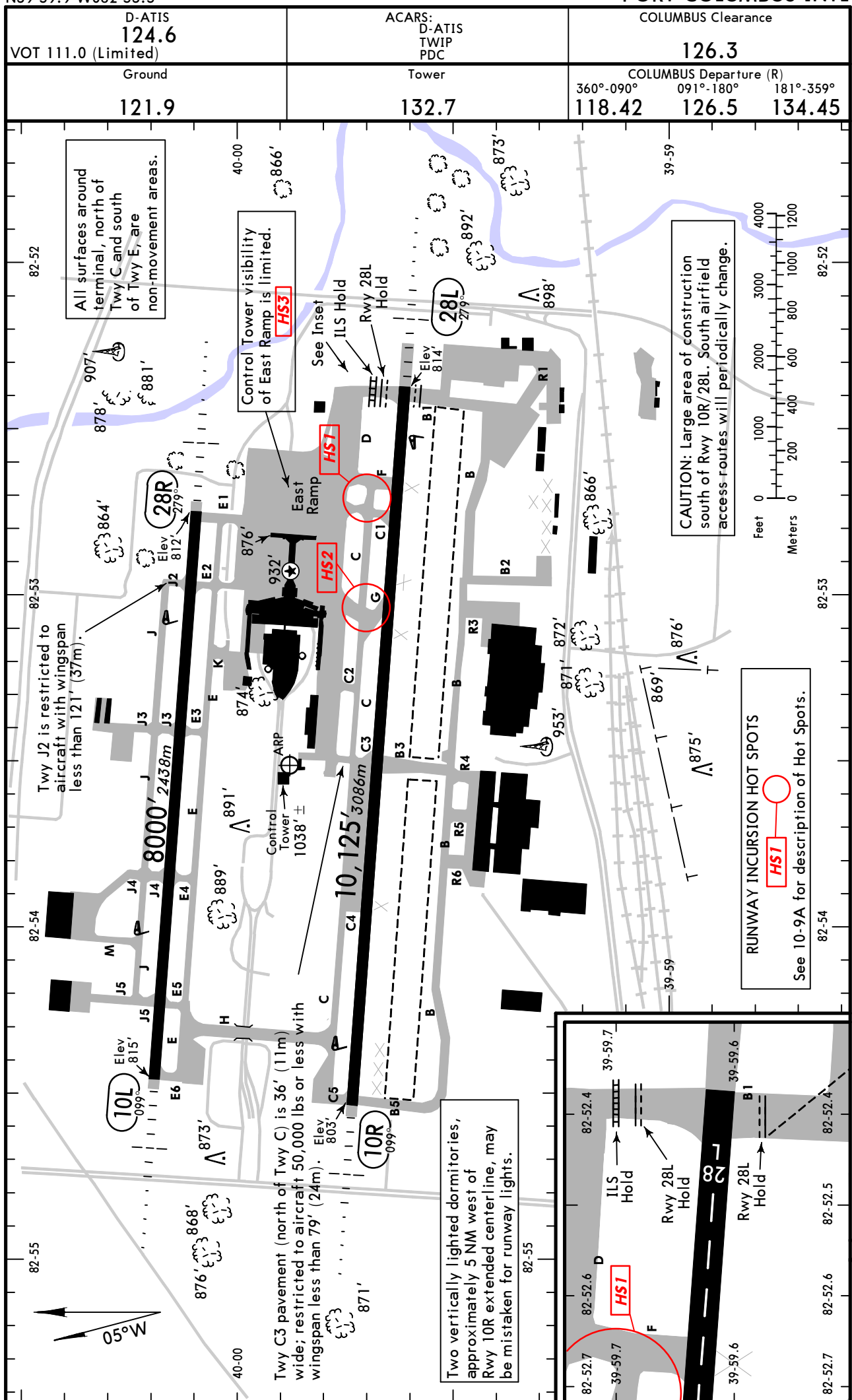
Direct distance from NUMDE to:	
Port Columbus Intl	26 NM
Direct distance from NUMDE to:	
① AIRPORTS SERVED	
Bolton	36 NM
Fairfield Co	16 NM
-Heath	10 NM
Ohio State University	35 NM
Rickenbacker Intl	27 NM
Direct distance from WOLAN to:	
Port Columbus Intl	19 NM
Direct distance from WOLAN to:	
① AIRPORTS SERVED	
Bolton	9 NM
Ohio State University	20 NM
Rickenbacker Intl	11 NM

© JEPPESEN, 2010. ALL RIGHTS RESERVED.

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

1. DME required.
2. Also Serves 





GENERAL

Birds in vicinity of airport.
 Low-level wind shear alert system.
 Terminal Doppler Weather Radar.

ADDITIONAL RUNWAY INFORMATION

ADDITIONAL RUNWAY INFORMATION						USABLE LENGTHS			
RWY						—LANDING BEYOND —		TAKE-OFF	WIDTH
						Threshold	Glide Slope		
10R	HIRL	MALSR	PAPI-R (angle 3.0°)	grooved	RVR		9128' 2782m		150'
28L	HIRL	MALSR		grooved	RVR		9100' 2774m		46m
10L	HIRL	MALSR	PAPI-L (angle 3.0°)	grooved	RVR		7040' 2146m		150'
28R	HIRL	MALSR	PAPI-R (angle 3.0°)	grooved			7042' 2146m		46m

RUNWAY INCURSION HOT SPOTS

For information only, not to be construed as ATC instructions.

- HS1** Taxiway C for Runway 28L terminates at Taxiway F. Aircraft must then turn left to transition to Taxiway D in order to taxi to the approach end, unless an intersection take-off is approved.
- HS2** When arriving Runway 10R, aircraft that exit at Taxiway G are required to make at least a 135 degree turn to clear the runway. Aircraft arriving Runway 28L, either travel westbound on Taxiway C, with possible opposite direction traffic, or make an immediate 90 degree turn to gain access to the ramp. Aircraft taxiing eastbound on Taxiway C must make a slight left turn at Taxiway G to continue taxiing eastbound on Taxiway C.
- HS3** Concourse Bravo is a large expanse of pavement east of the terminal. It is a non-movement area, and is not entirely visible from the Tower. Pilots must remain vigilant for aircraft moving in the gate area and parked aircraft on the ramp.

TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE

Rwys 10R, 28L				Rwys 10L, 28R			
Both RVRs are required & controlling	Adequate Vis Ref	STD		Adequate Vis Ref	STD		
		3 & 4 Eng	1 & 2 Eng		3 & 4 Eng	1 & 2 Eng	
RCLM & HIRL							
TDZ RVR 10 Rollout RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	

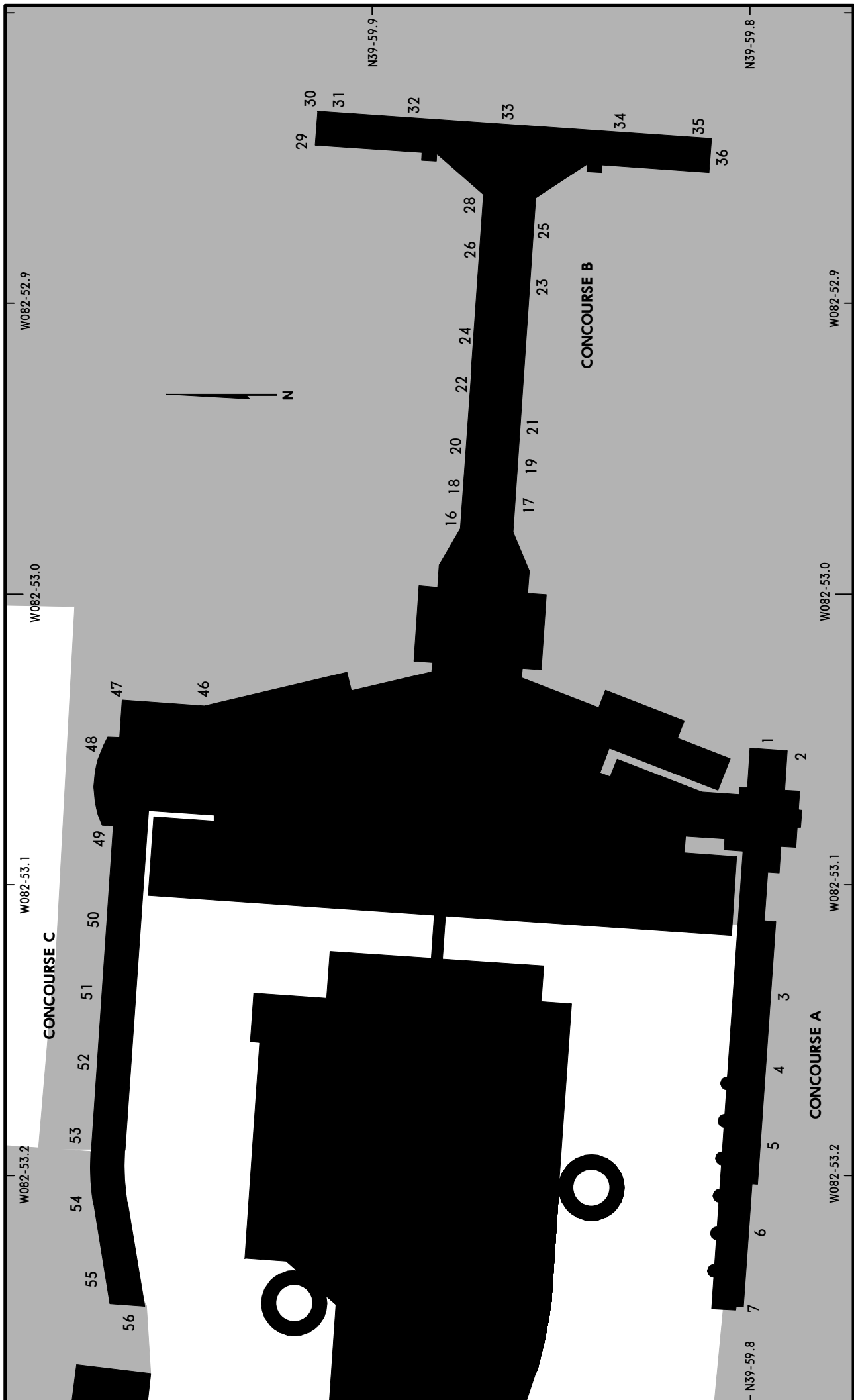
OBSTACLE DP

Runways 28L and 28R, climb heading 279° to 2700' before turning left.

FOR FILING AS ALTERNATE

1 ILS Rwy 10R ILS Rwy 28R		ILS Rwy 28L	ILS Rwy 10L	1 LOC Rwy 10R LOC Rwy 28L LOC Rwy 28R RNAV (GPS) Y Rwy 10L RNAV (RNP) Z Rwy 10L RNAV (GPS) Y Rwy 10R RNAV (RNP) Z Rwy 10R RNAV (GPS) Y Rwy 28L RNAV (RNP) Z Rwy 28L RNAV (GPS) Y Rwy 28R RNAV (RNP) Z Rwy 28R	LOC Rwy 10L
A	600-2	700-2	700-2	800-2	800-2
B					
C					
D			700-2 1/4		800-2 1/4

1 Authorized only when local weather available.



PARKING GATE COORDINATES

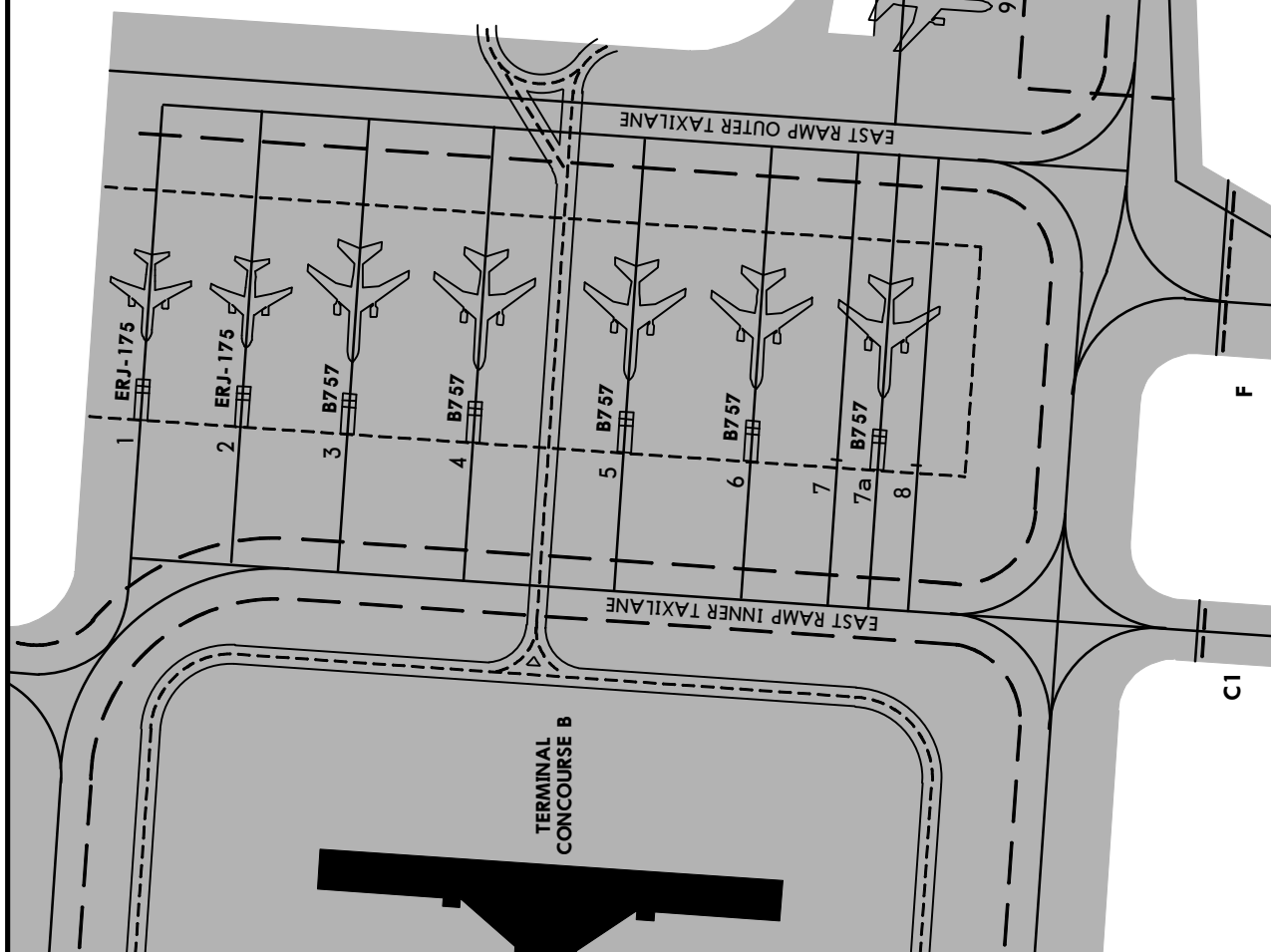
GATE No.	COORDINATES	GATE No.	COORDINATES
CONCOURSE A			
1 thru 3	N39 59.8 W082 53.1		
4 thru 7	N39 59.8 W082 53.2		
CONCOURSE B			
16 thru 19	N39 59.9 W082 53.0		
20 thru 28	N39 59.9 W082 52.9		
29 thru 33	N39 59.9 W082 52.8		
34 thru 36	N39 59.8 W082 52.8		
CONCOURSE C			
46	N39 59.9 W082 53.0		
47, 48	N40 00.0 W082 53.0		
49 thru 51	N40 00.0 W082 53.1		
52 thru 56	N40 00.0 W082 53.2		

GENERAL DE-ICING PROCEDURES

1. Advise ATC prior to pushback if de-icing is required.
2. Advise ATC of your intended de-ice location.
3. If intend to use off gate remote de-ice location and remote pad is in "controlled" mode, contact "DE-ICE PAD CONTROL" on 122.85 prior to pushback. ATIS will state when "De-ice Pad Control" is in active/controlled mode.
4. All aircraft advise GRD CNTRL five min. prior to de-ice completion and state your location (i.e. Gate 36, East ramp line 2, etc.).

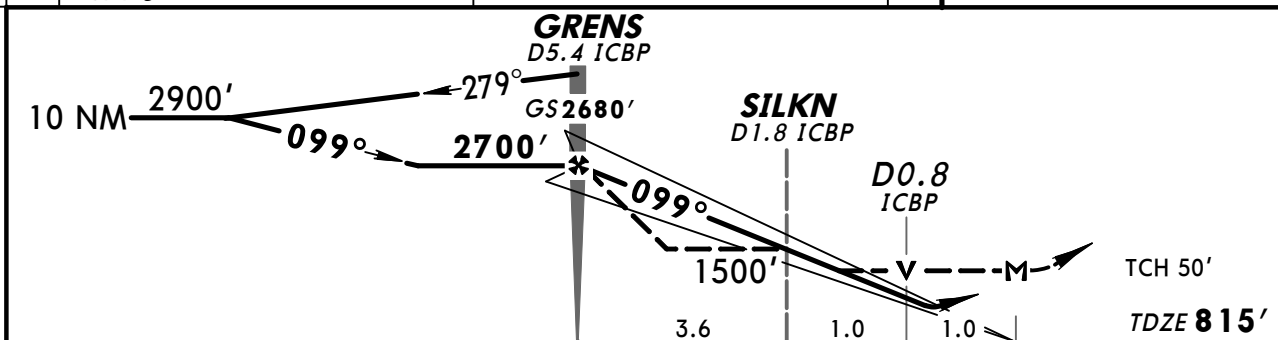
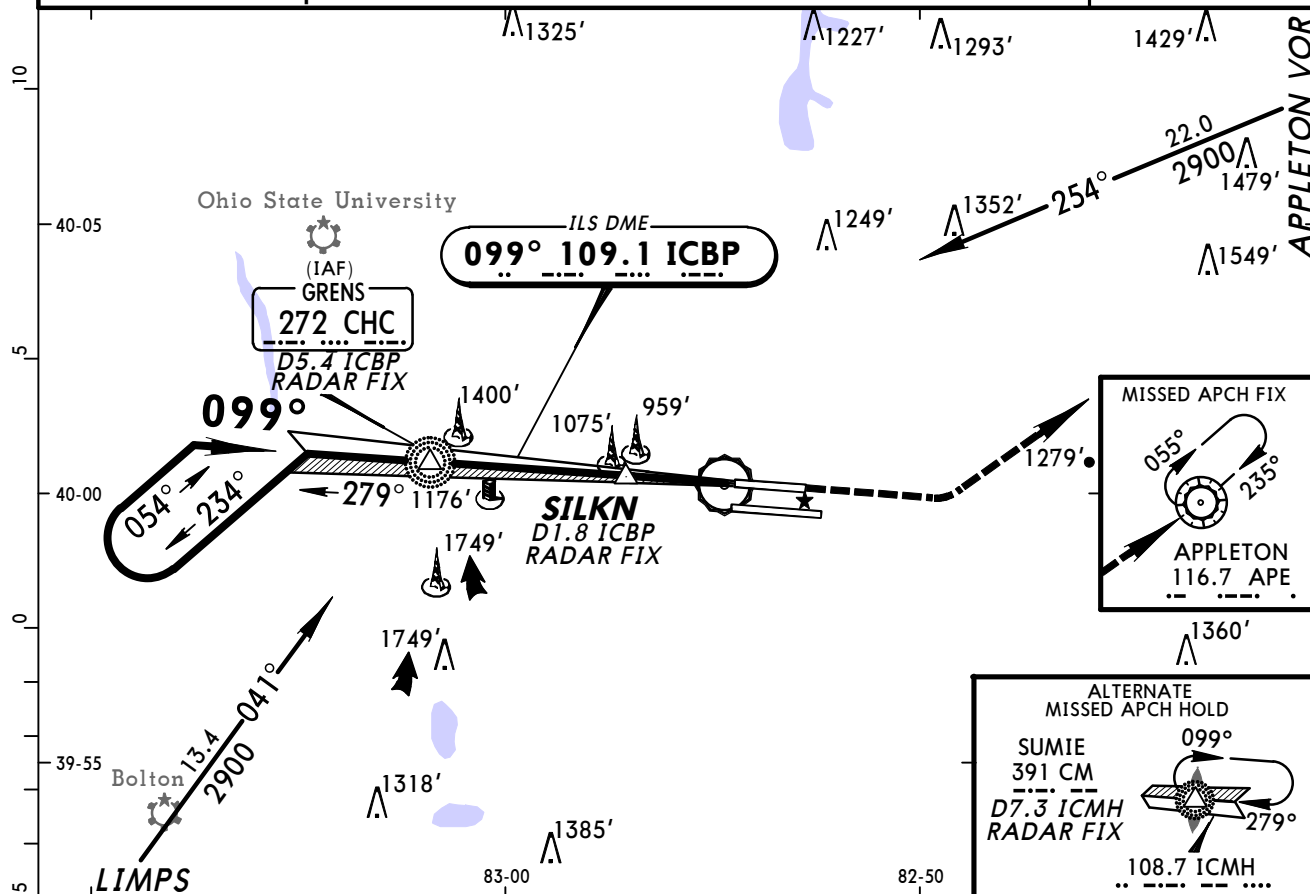
EAST APRON DE-ICING PROCEDURES

1. When "Deice Pad Control" is active; Airport Authority Ops will coordinate deice line assignment, "next in line" queing; and traffic flow into, out of, and through the entire Terminal East Apron using frequency 122.85.
2. Aircraft shall face nose west when parked on the de-icing line unless extreme wind conditions favor a nose east parking position for de-ice ops.
3. Deicing lines are for active de-icing only. Aircraft may be required to leave if holding for numbers, extended waiting for deice truck, etc.
4. Lines 1 & 2 restricted to aircraft wingspan 86' or less for de-ice ops.
5. Lines 3, 4, 5, 6 & 7A restricted to aircraft wingspan 126' or less for de-ice ops.
6. Aircraft wingspans greater than 126' must coordinate with local de-ice provider ops and receive PPR from Airport Authority Ops (614) 239-4003 prior to entering the East Apron.
7. Lines 7 & 8 are spaced for parking, not deice. Line 7A is the de-ice line.
Lines 7 & 8 are restricted to aircraft wingspan 86' or less.
8. DO NOT park in or block East Apron outer taxiway at any time.
DO NOT block taxiway access to taxiways C1, F or D.
9. No deicing is allowed at lines 9, 10, 11, 12, 13 or 14.



BRIEFING STRIP

D-ATIS 124.6		COLUMBUS Approach (R) 360°-090° 091°-180° 181°-359° 118.42 126.5 134.45			COLUMBUS Tower 132.7	Ground 121.9
LOC ICBP 109.1	Final Apch Crs 099°	GS GRENS 2680' (1865')	ILS DA(H) 1015' (200')	Apt Elev 815' TDZE 815'	3100' MSA CHC NDB	
MISSED APCH: Climb to 1400' then climbing LEFT turn to 3000' direct APE VOR and hold.						
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. ADF or RADAR required.						



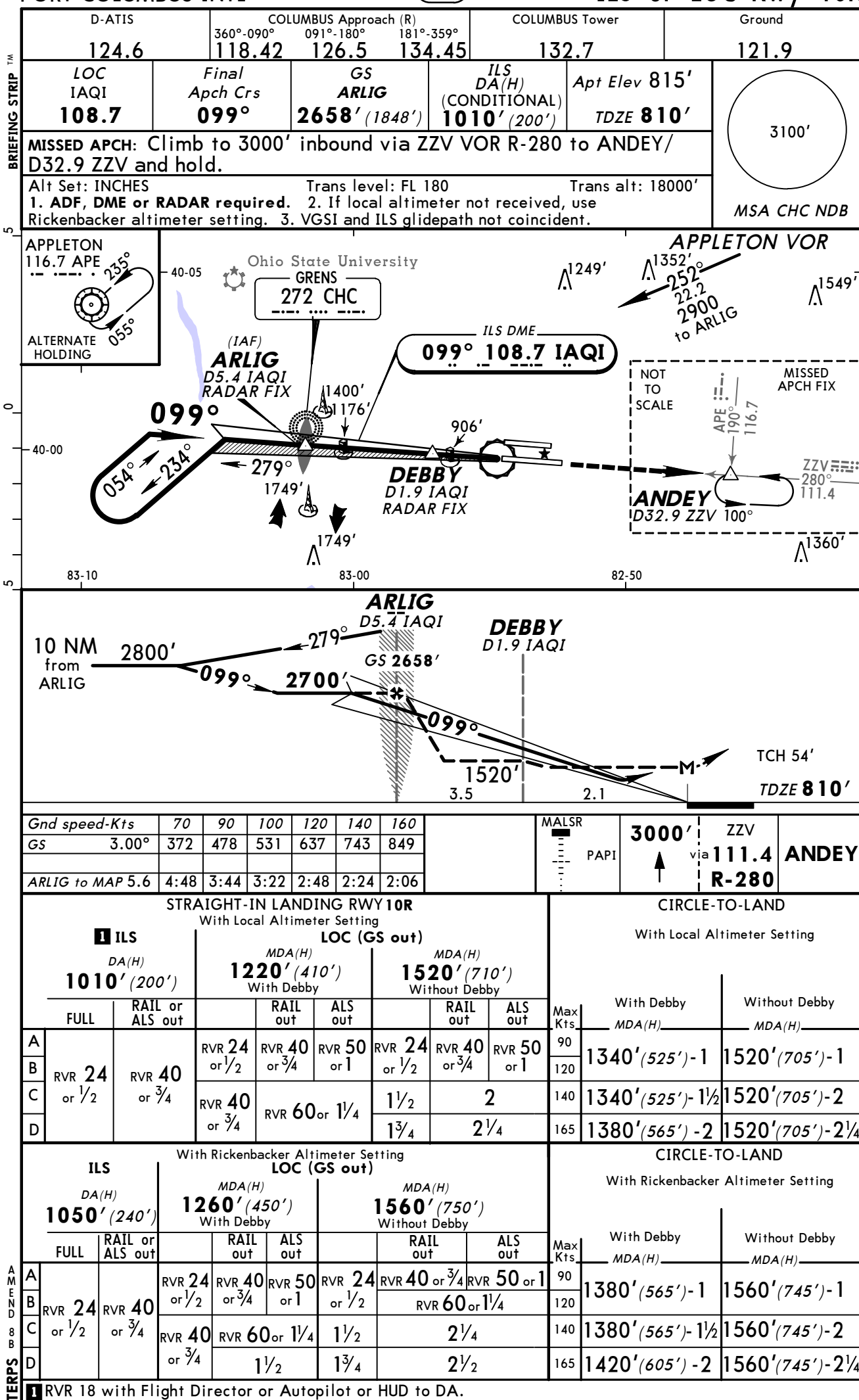
Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI	1400'	3000'	D→ LT	APE 116.7
GS	3.00°	372	478	531	637	743					
NDB to MAP	5.6	4:48	3:44	3:22	2:48	2:24					

STRAIGHT-IN LANDING RWY 10L								CIRCLE-TO-LAND			
ILS DA(H) 1015' (200')		LOC (GS out) MDA(H) 1180' (365') With Silkn			MDA(H) 1500' (685') Without Silkn			With Silkn	Without Silkn		
FULL	RAIL or ALS out		RAIL out	ALS out		RAIL out	ALS out	Max Kts	MDA(H)	MDA(H)	
A								90	1340' (525')-1	1500' (685')-1	
B	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	RVR 24 or 1/2	RVR 40 or 3/4	120	1340' (525')-1	1500' (685')-1	
C						1 1/2	2	140	1340' (525')-1 1/2	1500' (685')-2	
D						1 3/4	2 1/4	165	1380' (565')-2	1500' (685')-2 1/4	

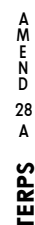
1 RVR 18 with Flight Director or Autopilot or HUD to DA.

CHANGES: Approach frequency, charted obstructions.

© JEPPESEN, 2001, 2011. ALL RIGHTS RESERVED.



BRIEFING STRIP™



STRAIGHT-IN LANDING RWY 28L						CIRCLE-TO-LAND		
I ILS DA(H) 1014' (200')			LOC (GS out) MDA(H) 1420' (606')					
FULL		RAIL or ALS out		RAIL out	ALS out	Max Kts	MDA(H)	
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1420' (605')-1	
B						120		
C				RVR 60 or 1 1/4	1 3/4		140	1420' (605')-1 3/4
D				1 1/2	2		165	1420' (605')-2

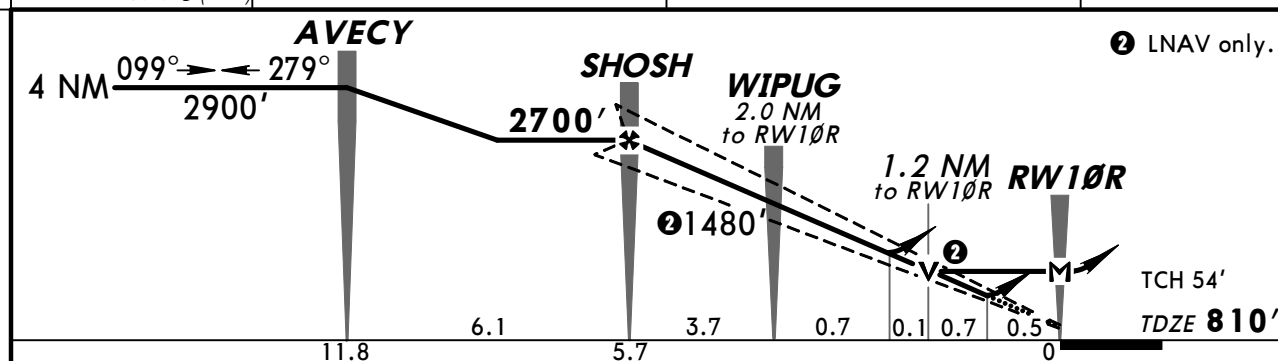
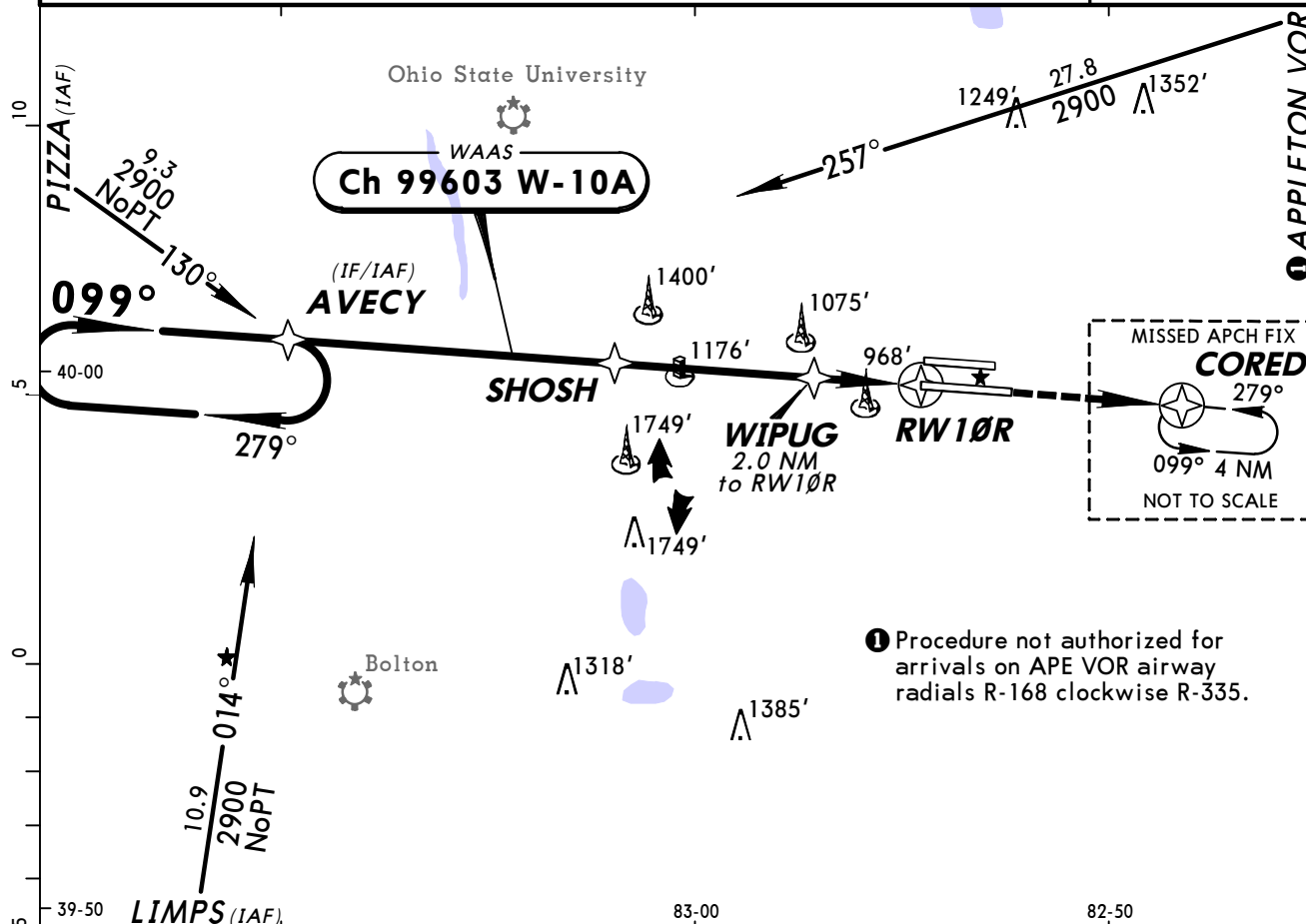
© JEPPESEN, 1999, 2011. ALL RIGHTS RESERVED.

10.

TERPS AMEND 2 23 SEP 2010

© JEPPESEN, 2001, 2011. ALL RIGHTS RESERVED.

D-ATIS 124.6		COLUMBUS Approach (R) 360°-090° 118.42		091°-180° 126.5	181°-359° 134.45	COLUMBUS Tower 132.7	Ground 121.9
WAAS Ch 99603 W-10A		Final Apch Crs 099°	Minimum Alt SHOSH 2700' (1890')	LPV DA(H) 1010' (200')	Apt Elev 815' TDZE 810'		3100' MSA RW10R
MISSED APCH: Climb to 3000' direct CORED and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 47°C (116°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident.							

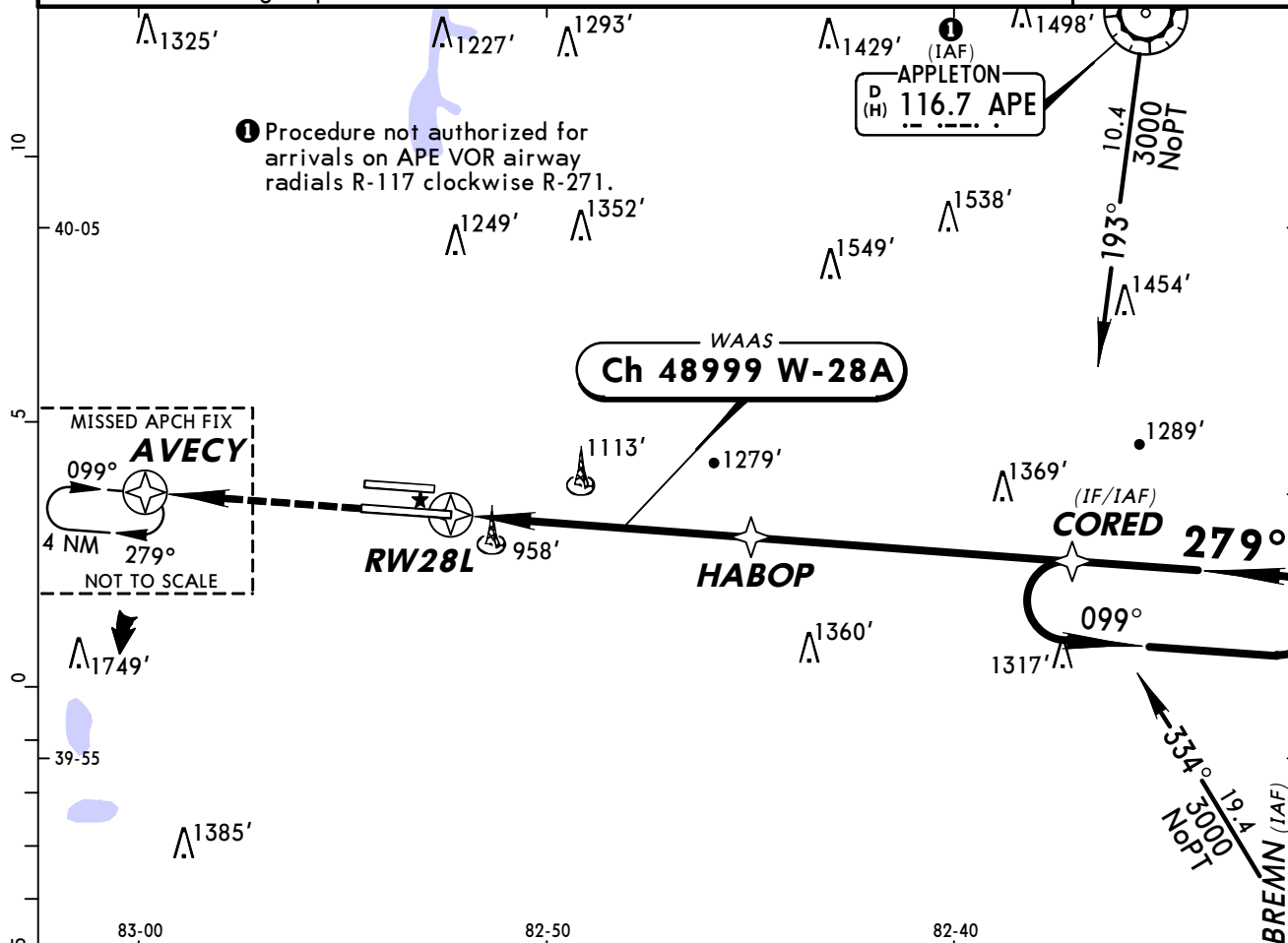


Gnd speed-Kts	70	90	100	120	140	160	MALSR	3000'	PAPI	CORED
Glide Path Angle	3.00°	372	478	531	637	743	849			
MAP at RW10R										

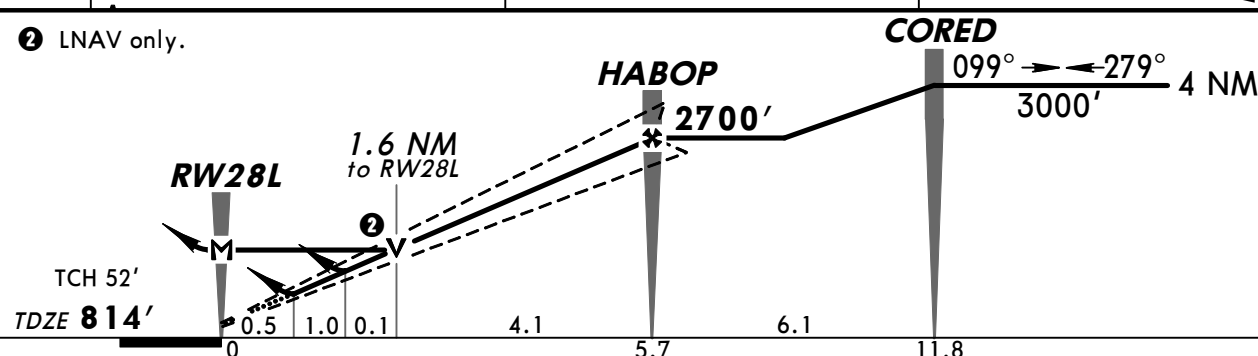
STRAIGHT-IN LANDING RWY 10R										CIRCLE-TO-LAND	
LPV DA(H) 1010' (200')			LNAV/VNAV DA(H) 1268' (458')			LNAV MDA(H) 1240' (430')			Max Kts	MDA(H)	
RAIL or ALS out			RAIL out ALS out			RAIL out ALS out					
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1340' (525') - 1		
B					RVR 40 or 3/4	1 1/4		120			
C					1 1/4		140				
D					1 1/2		165				
1380' (565') - 2											

BRIEFING STRIP

D-ATIS	COLUMBUS Approach (R)			COLUMBUS Tower	Ground
124.6	360°-090° 118.42	091°-180° 126.5	181°-359° 134.45	132.7	121.9
WAAS Ch 48999 W-28A	Final Apch Crs 279°	Minimum Alt HABOP 2700' (1886')	LPV DA(H) 1014' (200')	Apt Elev 815' TDZE 814'	3100' MSA RW28L
MISSED APCH: Climb to 2900' direct AVECY and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'					
1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 47°C (116°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident.					



② LNAV only.

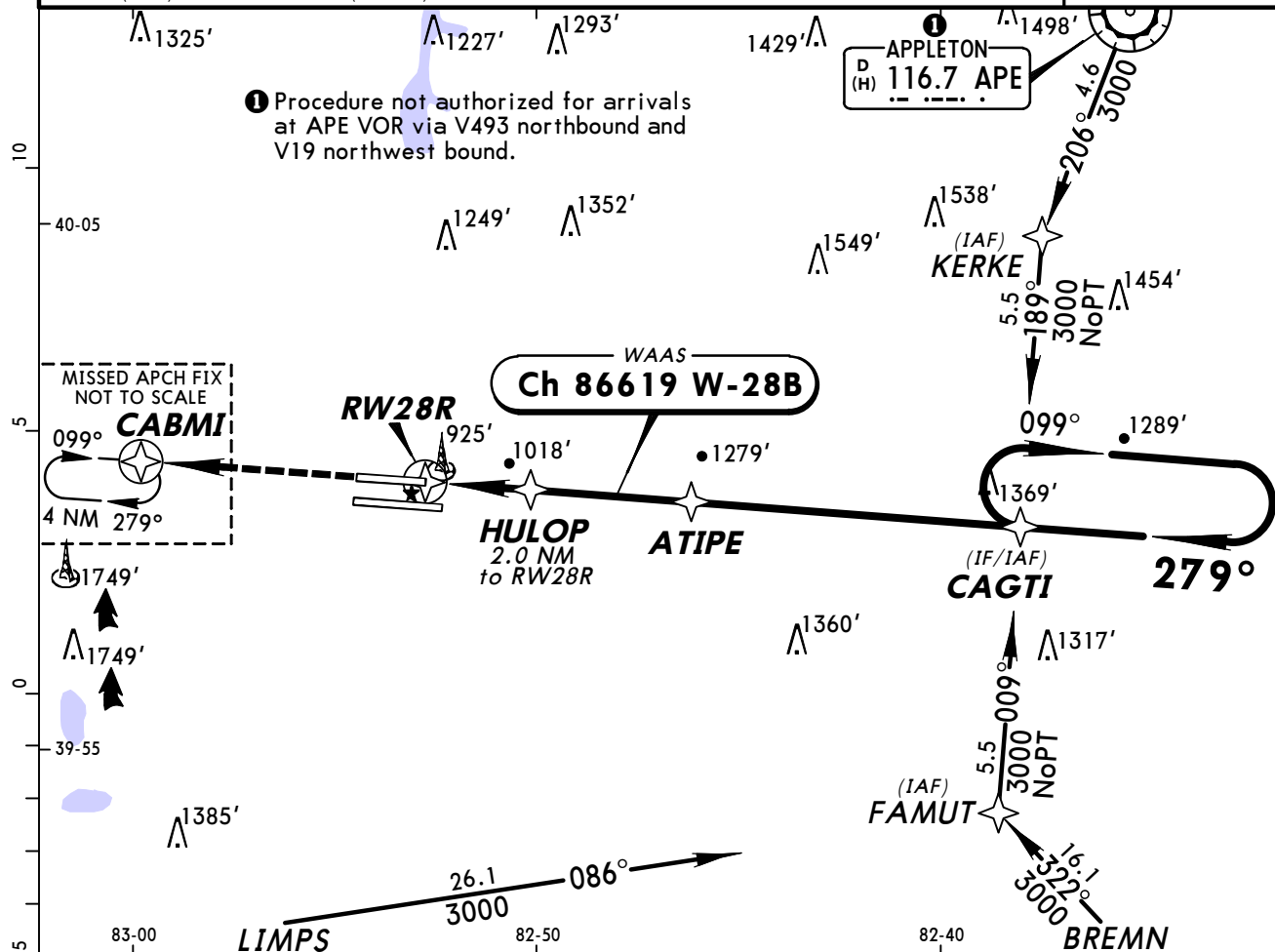


Gnd speed-Kts	70	90	100	120	140	160	MALSR 	2900' 		AVECY
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at RW28L										

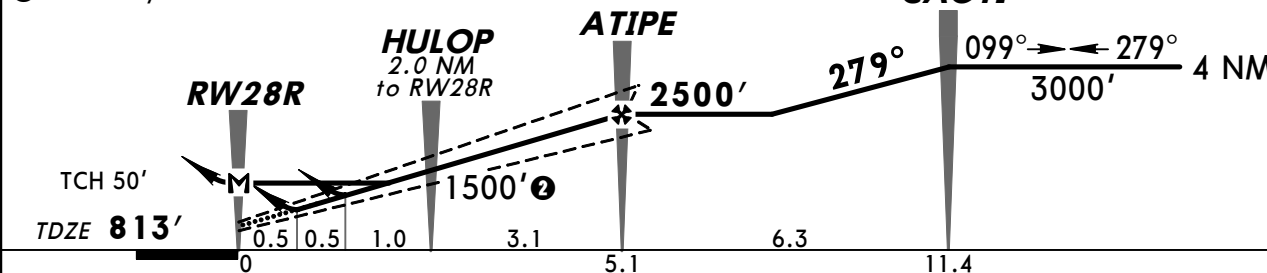
STRAIGHT-IN LANDING RWY 28L										CIRCLE-TO-LAND	
LPV DA(H) 1014' (200')			LNAV/VNAV DA(H) 1341' (527')			LNAV MDA(H) 1380' (566')			Max Kts	MDA(H) _____	
	RAIL or ALS out			RAIL out	ALS out		RAIL out	ALS out			
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 60 or 1 1/4	1 3/4	RVR 24 or 1/2	RVR 40 or 3/4		RVR 50 or 1	90	1380' (565') - 1	
B									120		
C									1 1/2	140	1380' (565') - 1 1/2
D									1 3/4	165	1380' (565') - 2

BRIEFING STRIP

D-ATIS 124.6	COLUMBUS Approach (R) 360°-090° 118.42 091°-180° 126.5 181°-359° 134.45			COLUMBUS Tower 132.7	Ground 121.9
WAAS Ch 86619 W-28B	Final Apch Crs 279°	Minimum Alt ATIFE 2500' (1687')	LPV DA(H) 1013' (200')	Apt Elev 815' TDZE 813'	3100' MSA RW28R
MISSED APCH: Climb to 3000' direct CABMI and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 47°C (116°F). 2. DME/DME RNP-0.30 not authorized.					



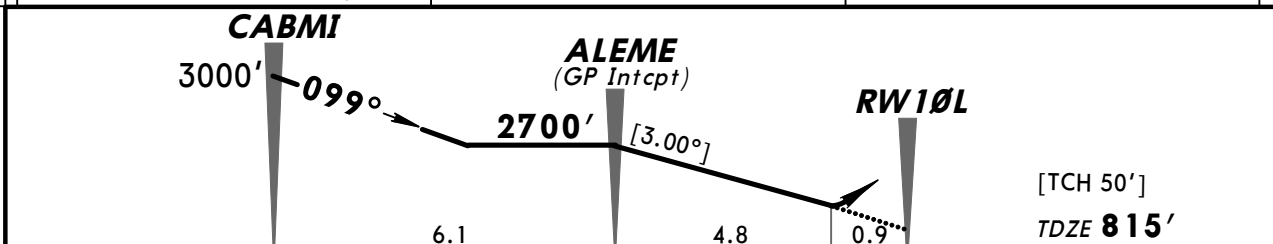
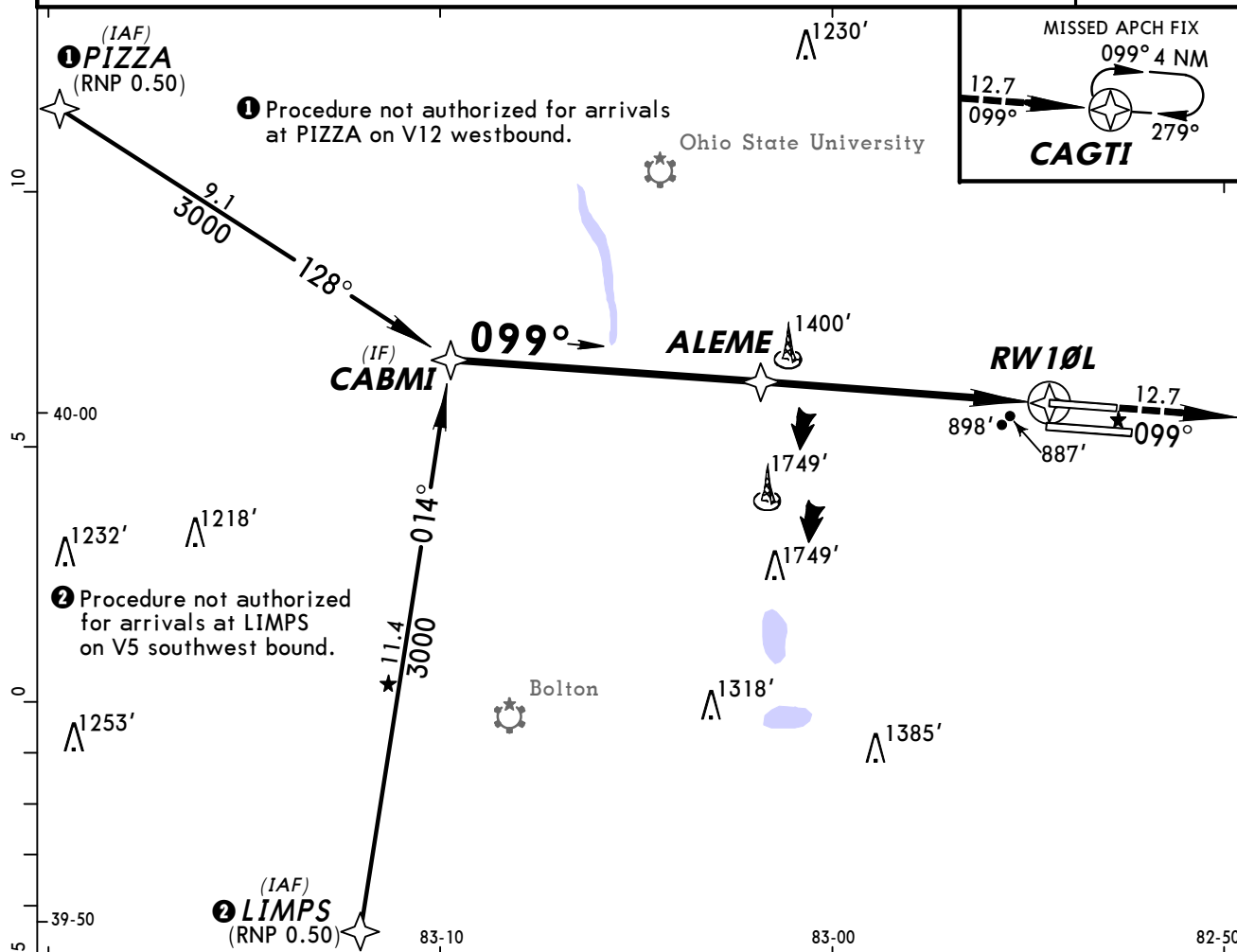
② LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI 3000' → CABMI
Glide Path Angle 3.00°	372	478	531	637	743	849	
MAP at RW28R							

STRAIGHT-IN LANDING RWY 28R				CIRCLE-TO-LAND			
LPV DA(H) 1013' (200')		LNAV/VNAV DA(H) 1175' (362')		LNAV MDA(H) 1420' (607')		Max Kts	MDA(H)
RAIL or ALS out		RAIL or ALS out		RAIL out	ALS out		
A				1/2	3/4	90	1420' (605')-1
B						120	
C	1/2	3/4	3/4	1 1/4	1 3/4	140	1420' (605')-1 3/4
D			1 1/4	1 1/2	2	165	1420' (605')-2

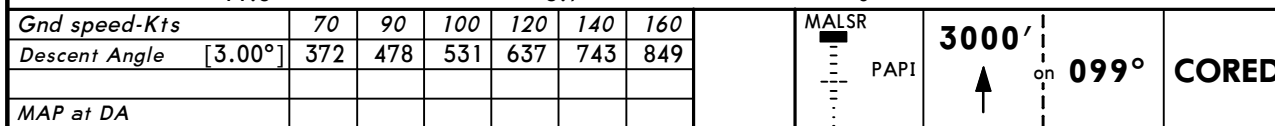
D-ATIS 124.6	360°-090° 118.42	COLUMBUS Approach (R) 091°-180° 126.5	181°-359° 134.45	COLUMBUS Tower 132.7	Ground 121.9
RNAV	Final Apch Crs 099°	Minimum Alt ALEME 2700' (1885')	RNP 0.20 DA(H) 1164' (349')	Apt Elev 815' TDZE 815'	3100'
MISSED APCH: Climb to 3000' on track 099° to CAGTI and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'					
1. AUTHORIZATION REQUIRED. 2. GPS required. 3. For uncompensated Baro-VNAV systems, procedure not authorized below -16°C (1°F) or above 47°C (117°F).					MSA RW10L



Gnd speed-Kts	70	90	100	120	140	160				
Descent Angle [3.00°]	372	478	531	637	743	849				
MAP at DA										

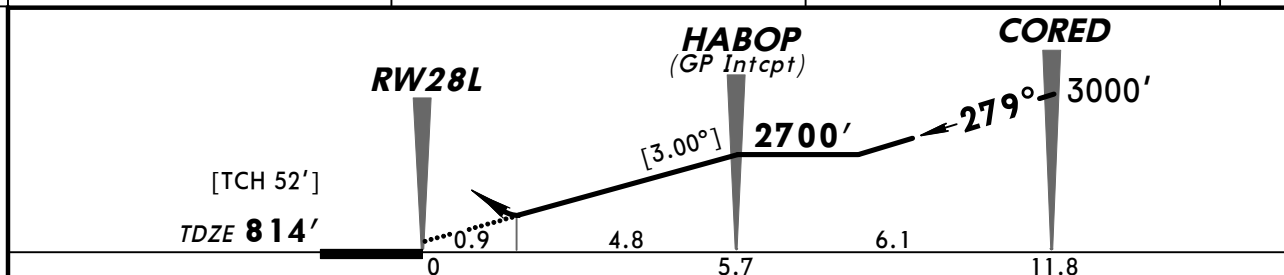
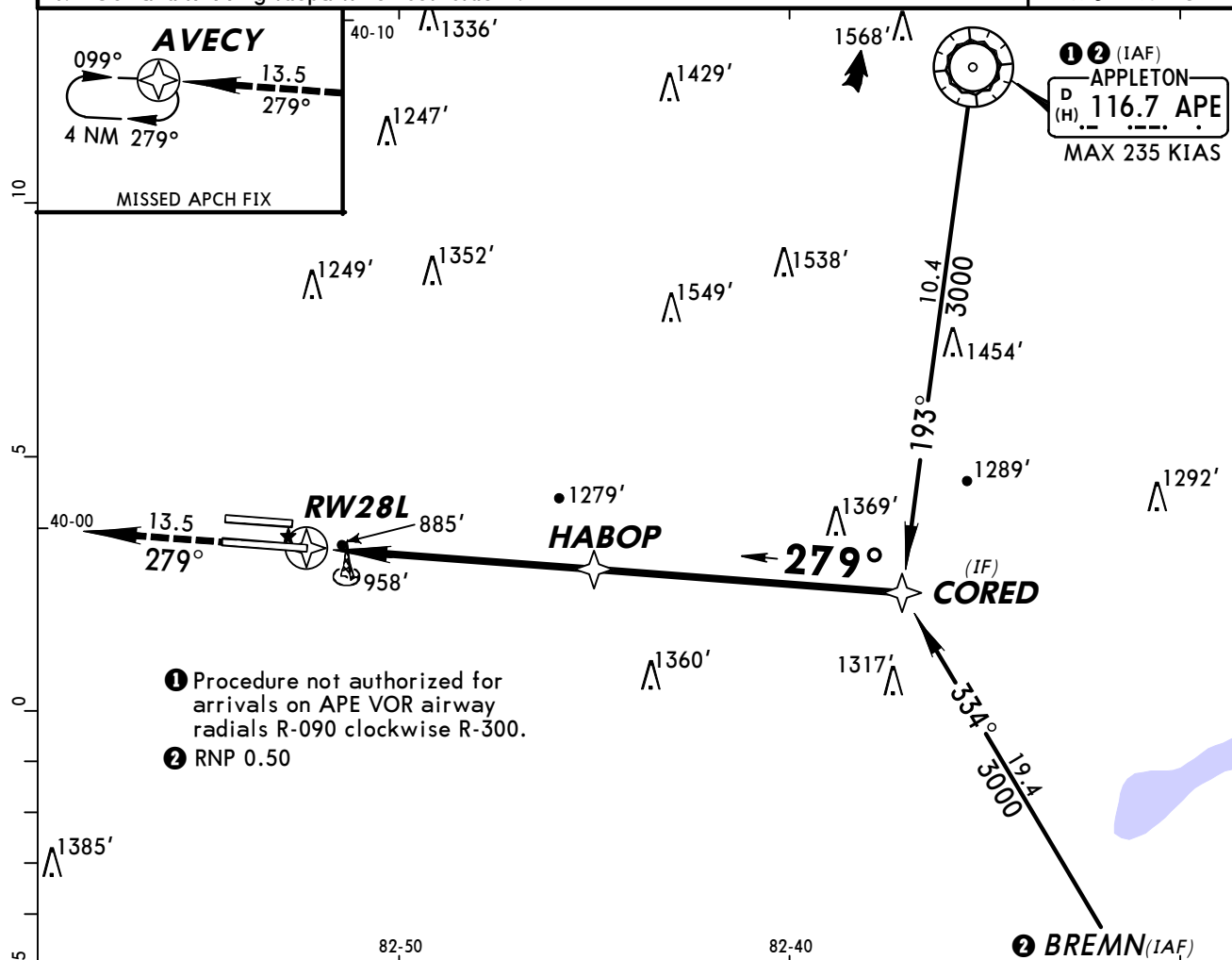
STRAIGHT-IN LANDING RWY 10L			
RNP 0.20 DA(H) 1164' (349')		RNP 0.30 DA(H) 1216' (401')	
RAIL or ALS out		RAIL or ALS out	
A			
B			
C	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 50 or 1
D			1 1/2

BRIEFING STRIP TM

ERPS AMEND 0A 30 JUN 2011

CHANGES: Approach frequency, charted obstructions.

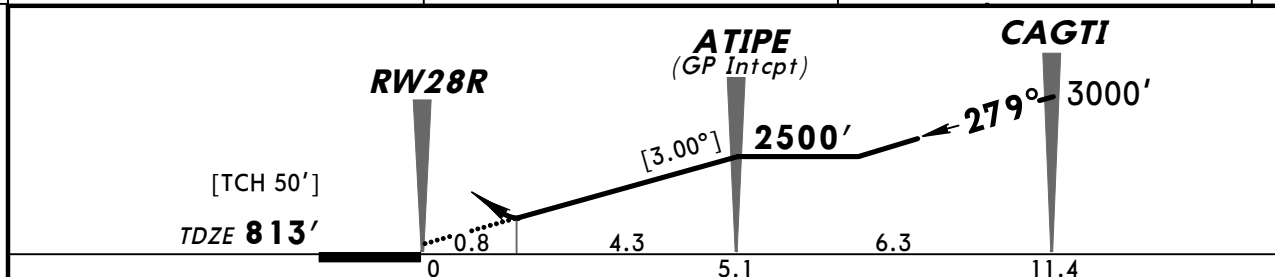
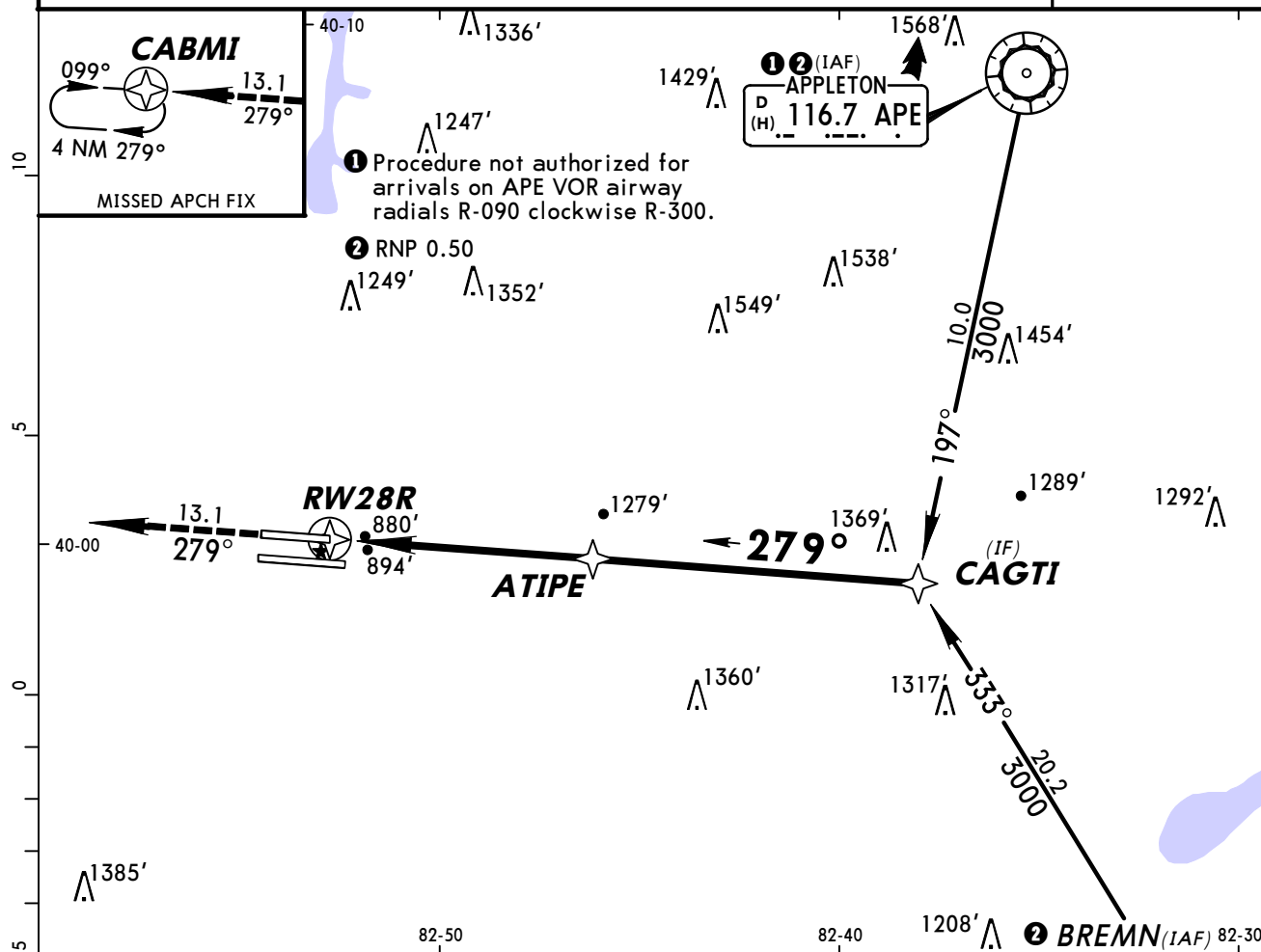
D-ATIS	COLUMBUS Approach (R)			COLUMBUS Tower	Ground
124.6	360°-090° 118.42	091°-180° 126.5	181°-359° 134.45	132.7	121.9
RNAV	Final Apch Crs 279°	Minimum Alt HABOP 2700' (1886')	RNP 0.15 DA(H) 1144' (330')	Apt Elev 815' TDZE 814'	
MISSSED APCH: Climb to 3200' on track 279° to AVECY and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. AUTHORIZATION REQUIRED. 2. GPS required. 3. For uncompensated Baro-VNAV systems, procedure not authorized below -16°C (2°F) or above 47°C (117°F). 4. VGSI and RNAV glidepath not coincident.					
					MSA RW28L



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	 MALSR	 3200'	 on 279°	 AVECY
<i>Descent Angle [3.00°]</i>	372	478	531	637	743	849				
<i>MAP at DA</i>										

STRAIGHT-IN LANDING RWY 28L						
RNP 0.15 DA(H) 1144' (330')		RNP 0.20 DA(H) 1196' (382')		RNP 0.30 DA(H) 1293' (479')		
RAIL or ALS out		RAIL or ALS out		RAIL or ALS out		
A	RVR 40 or $\frac{3}{4}$	RVR 60 or $1\frac{1}{4}$	RVR 40 or $\frac{3}{4}$	RVR 60 or $1\frac{1}{4}$	RVR 60 or $1\frac{1}{4}$	$1\frac{3}{4}$
B						
C						
D						

D-ATIS	COLUMBUS Approach (R)			COLUMBUS Tower	Ground
124.6	360°-090° 118.42	091°-180° 126.5	181°-359° 134.45	132.7	121.9
RNAV	Final Apch Crs 279°	Minimum Alt ATIME 2500' (1687')	RNP 0.11 DA(H) 1131' (318')	Apt Elev 815' TDZE 813'	
MISSED APCH: Climb to 3000' on track 279° to CABMI and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. AUTHORIZATION REQUIRED. 2. GPS required. 3. For uncompensated Baro-VNAV systems, procedure not authorized below -16°C (1°F) or above 47°C (117°F).					
					MSA RW28R



<i>Gnd speed-Kts</i>	70	90	100	120	140	160		3000' 	on 279°	CABM
<i>Descent Angle</i> [3.00°]	372	478	531	637	743	849				
<i>MAP at DA</i>										

STRAIGHT-IN LANDING RWY 28R			
RNP 0.11 DA(H) 1131' (318')		RNP 0.30 DA(H) 1194' (381')	
	RAIL or ALS out		RAIL or ALS out
A	3/4	1	3/4
B			
C			
D			
			1 1/4

General Information

Location: Cincinnati OH USA
IATA Code: CVG
Lat/Long: N39° 02.9' W084° 40.1'
Elevation: 896 ft

Airport Use: Public
Magnetic Variation: 5.4 °W
Sectional Chart: St Louis

Fuel Types: 100 Octane (LL), Jet A
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: 1215 Z
Sunset: 2329 Z,

Runway Information

Runway: 09
Length x Width: 12000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 883 ft
Lighting: Edge, ALS, Centerline

Runway: 18C
Length x Width: 11000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 875 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 18L
Length x Width: 10000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 889 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 18R
Length x Width: 8000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 868 ft
Lighting: Edge, ALS

Runway: 27

Length x Width: 12000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 875 ft
Lighting: Edge, ALS, Centerline

Runway: 36C
Length x Width: 11000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 851 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 36L
Length x Width: 8000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 873 ft
Lighting: Edge, ALS

Runway: 36R
Length x Width: 10000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 896 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

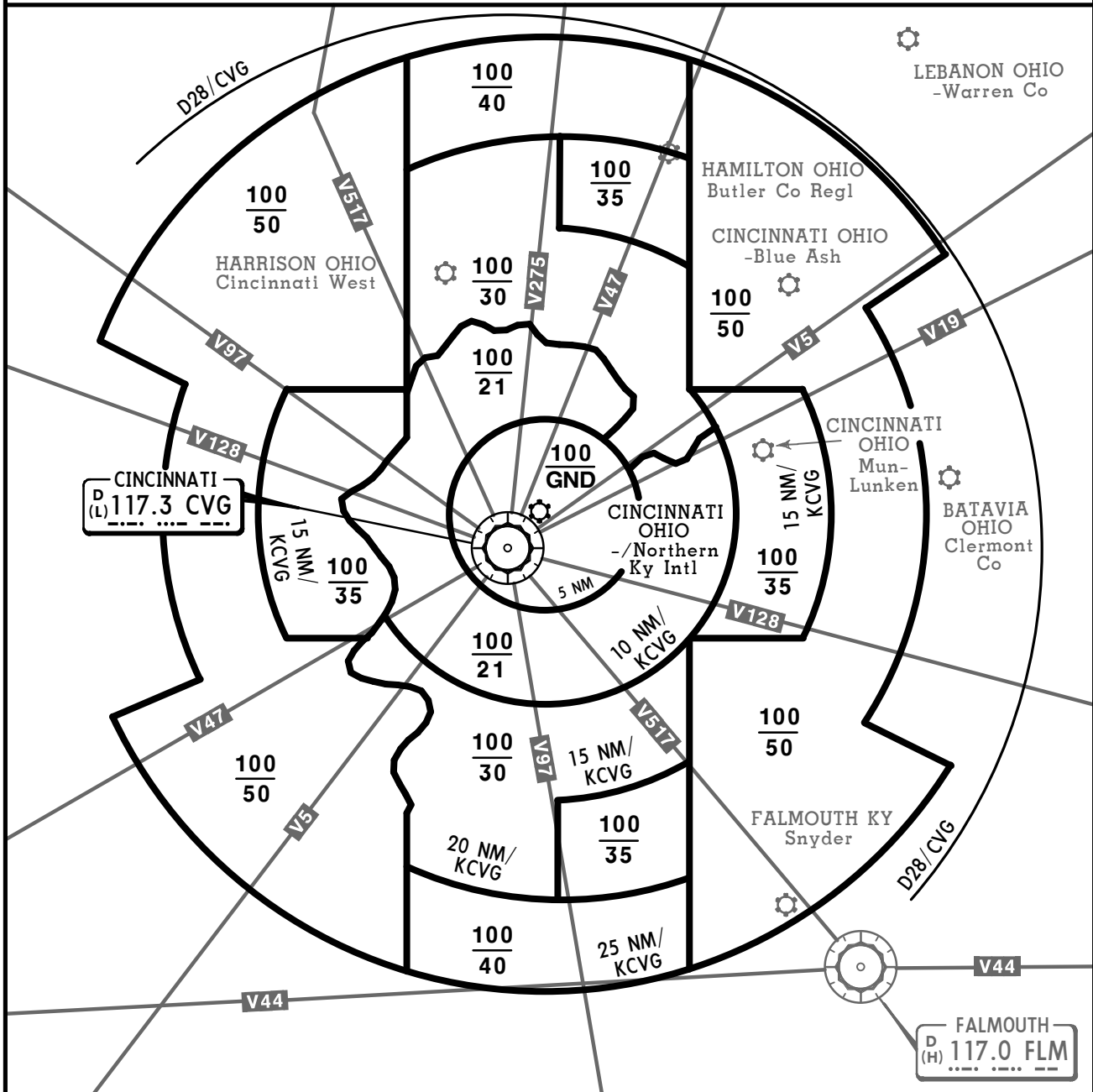
ATIS 135.3 Departure Service
ATIS 134.375 Arrival Service
Cincinnati Tower 118.975
Cincinnati Tower 118.3
Cincinnati Tower 133.325
Cincinnati Ground Control 121.7
Cincinnati Ground Control 121.3
Cincinnati Clearance Delivery 127.175
Cincinnati Approach Control 123.875 (270°-89°) Arrival Service
Cincinnati Approach Control 119.7 (90°-269°) Arrival Service
Cincinnati Approach Control 121.0 Secondary
Cincinnati App TCA 123.875 (270°-89°) Arrival Service
Cincinnati App TCA 128.7 (181°-360°) Departure Service
Cincinnati App TCA 119.7 (90°-269°) Arrival Service
Cincinnati App TCA 126.65 (1°-180°) Departure Service
Cincinnati Departure Control 128.7 (181°-360°) Departure Service
Cincinnati Departure Control 126.65 (1°-180°) Departure Service
Cincinnati Departure Control 121.0 Secondary
Cincinnati/Northern Ky IN Unicom 122.95
Louisville Flight Service Station 122.1 RCO
Louisville Flight Service Station 117.3 RCO

CINCINNATI CLASS B AIRSPACE

CLASS B AIRSPACE VFR COMMUNICATIONS

Cincinnati App
(090°-269°) 119.7
(270°-089°) 123.87

Cincinnati Dep
(001°-180°) 126.65
(181°-360°) 128.7



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

FLIGHT PROCEDURES

IFR Flights-Aircraft operating within the Cincinnati Class B Airspace must be operated in accordance with ATC clearances and instructions.

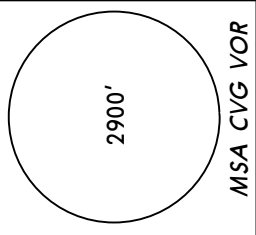
VFR Flights-

1. Arriving aircraft should contact the appropriate approach control on specified frequencies and in relation to geographic fixes shown on the accompanying chart. Although arriving aircraft may be operating beneath the floor of the Class B Airspace on initial contact, communications should be established with approach control in relation to the points indicated for sequencing and spacing purposes.
2. Aircraft departing the primary airport are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B Airspace. Aircraft departing from other than the primary airport whose route of flight would penetrate the Class B Airspace should give this information to ATC on the appropriate frequencies.
3. Aircraft desiring to transit the Class B Airspace must obtain an ATC clearance to enter the Class B Airspace and will be handled on an ATC workload permitting basis.

D-ATIS
Arrival
134.37

Apt Elev
See Graphic

Alt set: INCHES Trans level: FL180 Trans alt: 18000'
1. DME required.
2. RADAR required.
3. ECB not a transition, for holding only as assigned by ATC.



BRUSH ONE ARRIVAL (BRUSH.BRUSH1)

Direct distance from CVG to:
Cincinnati/Northern Kentucky Intl **3 NM**
Direct distance from GAVNN to:
Cincinnati/Northern Kentucky Intl **43 NM**

HAMILTON OHIO
Butler Co Regl
633

CINCINNATI OHIO
Cincinnati Mun-Lunken
483

Cincinnati/Northern
Kentucky Intl
896

BATAVIA OHIO
Clermont Co
843

GAVNN
N38 36.9 W083 55.5

EXPECT vectors to final approach course after GAVNN	TURBOJETS EXPECT clearance to cross at 10000'	NON-TURBOJETS EXPECT clearance to cross at 9000'
---	---	--

TAPIE
N38 54.7 W084 30.0

CINCINNATI
D 117.3 CVG
N39 01.0 W084 42.2

FALMOUTH KY
Snyder
899

MAX 230 KT
127°

BRUSH
N38 22.0
W083 27.3

NEWCOMBE
D 110.4 ECB
N38 09.5 W082 54.6

JAYKB
N38 38.8
W082 25.8

HENDERSON
FL180
HNN BRUSH1
D 254

HENDERSON
D 115.9 HNN
N38 45.2 W082 01.6

COLNS
FL180
COLNS BRUSH1
D 270

COLNS
D 46
N38 50.4
W079 11.8

J134
D 134
N38 51.3 W078 12.3

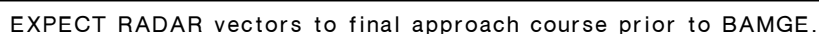
MARTINSBURG
D 112.1 MRB
N39 23.1 W077 50.9

LINDEN
D 114.3 LDN
N38 51.3 W078 12.3

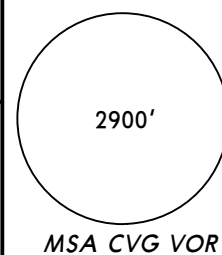
ROUTING

From over BRUSH, via CVG R-127 to GAVNN, then via CVG R-127 to TAPIE, then via CVG R-127 to CVG. EXPECT vectors to final approach course after GAVNN.

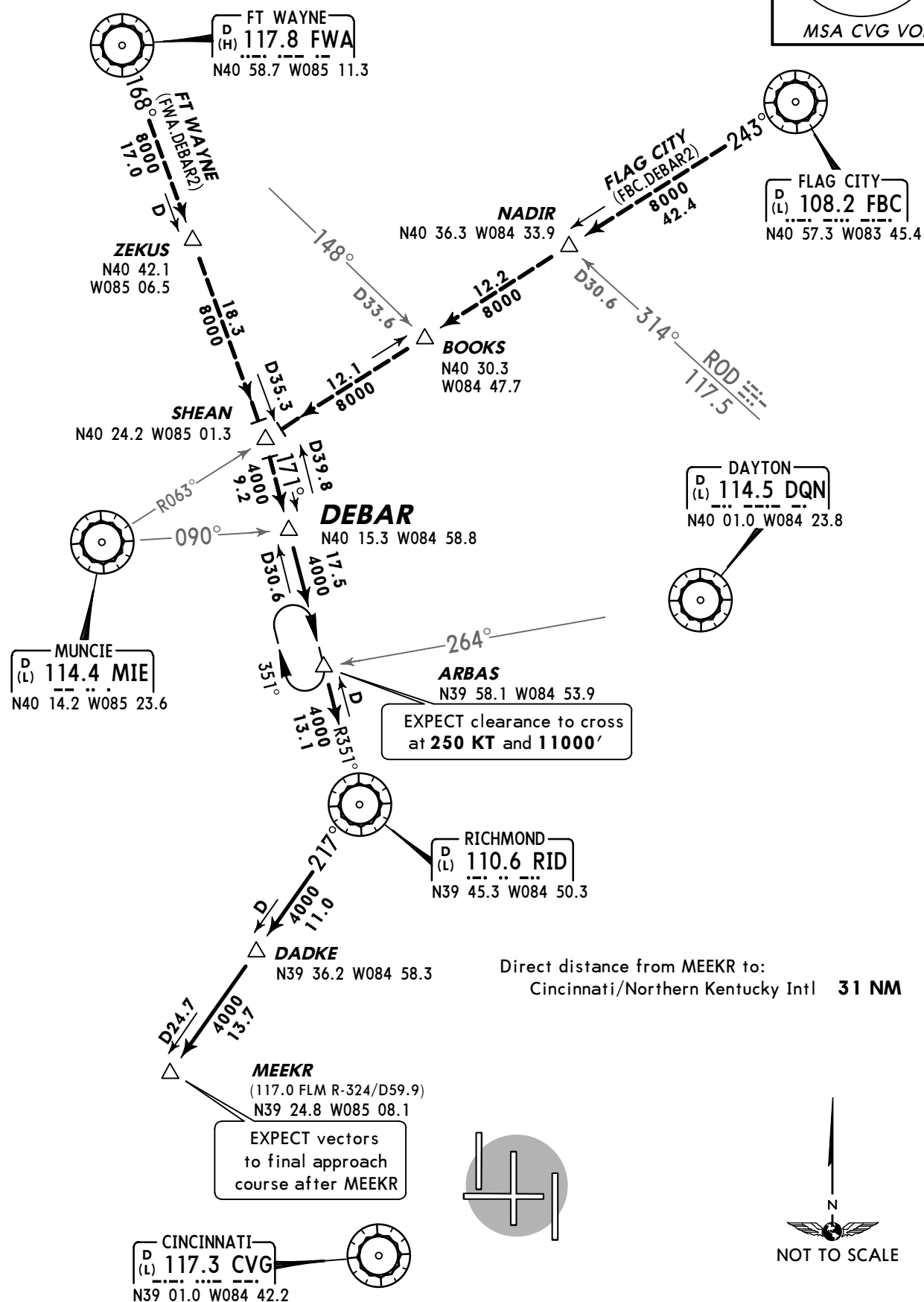
4. DANVILLE transition for use by Chicago and Milwaukee metropolitan departures only, and ATC use as assigned.



MSA CVG VOR

D-ATIS
Arrival
134.37Apt Elev
896'Alt set: INCHES
Trans level: FL180 Trans alt: 18000'
DME required.

DEBAR TWO ARRIVAL (DEBAR.DEBAR2)



D-ATIS
Arrival
134.37

Apt Elev
896'

Alt set: INCHES Trans level: FL180 Trans alt: 18000'
1. DME/DME/IRU or GPS required.
2. RADAR required.
3. RNAV 1.
4. ECB not a transition, for holding only as assigned by ATC.

GAVNN FOUR RNAV ARRIVAL (GAVNN.GAVNN4)

ROUTING

From over GAVNN, on track 308° to KNEDY, then as depicted to OGIRE.

LANDING

NORTH, EAST, WEST
EXPECT RADAR vectors to final approach course prior to AAJAY.

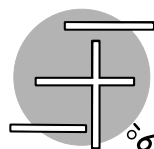
SOUTH
EXPECT RADAR vectors to final approach course prior to OGIRE.

At OGIRE fly heading 270°, **MAINTAIN 6000'**. Intercept and execute Rwy 18L ILS approach. If unable, proceed direct to CVG and hold, **MAINTAIN 6000'**.
At KNEDY fly heading 270°, **MAINTAIN 6000'**. Intercept and execute Rwy 36R ILS approach. If unable, proceed direct to CVG and hold, **MAINTAIN 6000'**.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

LANDING SOUTH
EXPECT RADAR vectors to final approach course prior to OGIRE

BACAS



GAVNN
TURBOJET
EXPECT to cross at 10000'
NON-TURBOJET
EXPECT to cross at 9000'

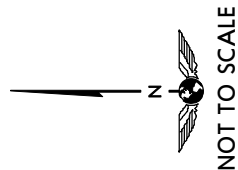
LANDING NORTH, EAST, WEST
EXPECT RADAR vectors to final approach course prior to AAJAY

Direct distance from AAJAY to:
Cincinnati/Northern Kentucky Intl 9 NM
Direct distance from OGIRE to:
Cincinnati/Northern Kentucky Intl 23 NM

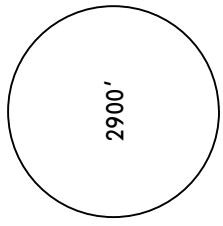
HENDERSON
HNN

HENDERSON
(HNN.GAVNN)
FL180 89.6
FL180 43.3
COLNS
FL180 43.3
COLNS
FL180 43.3

NEWCOMBE
ECB



BRUSH



MSA CVG VOR

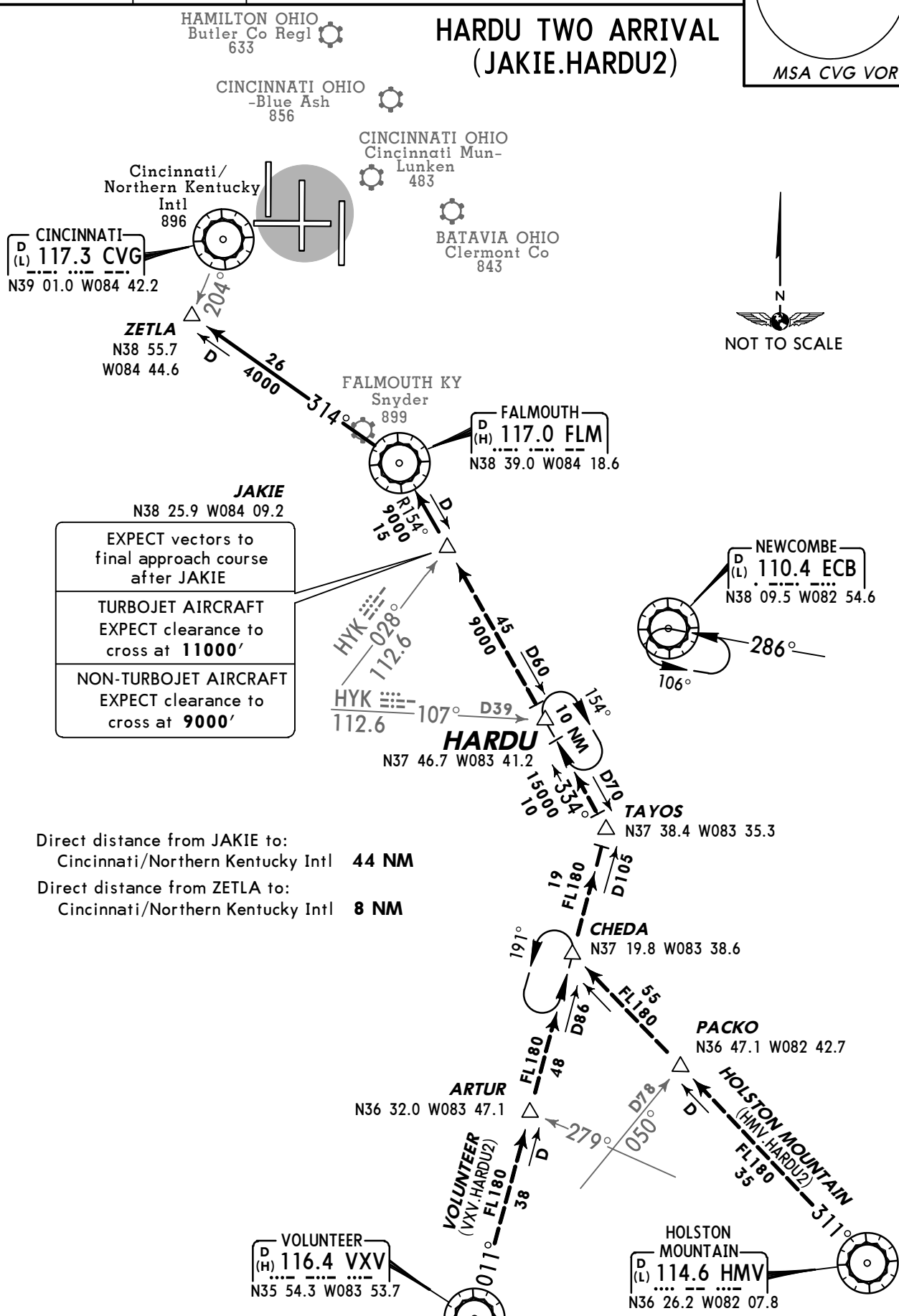
2900'

NOT TO SCALE



2900'

MSA CVG VOR

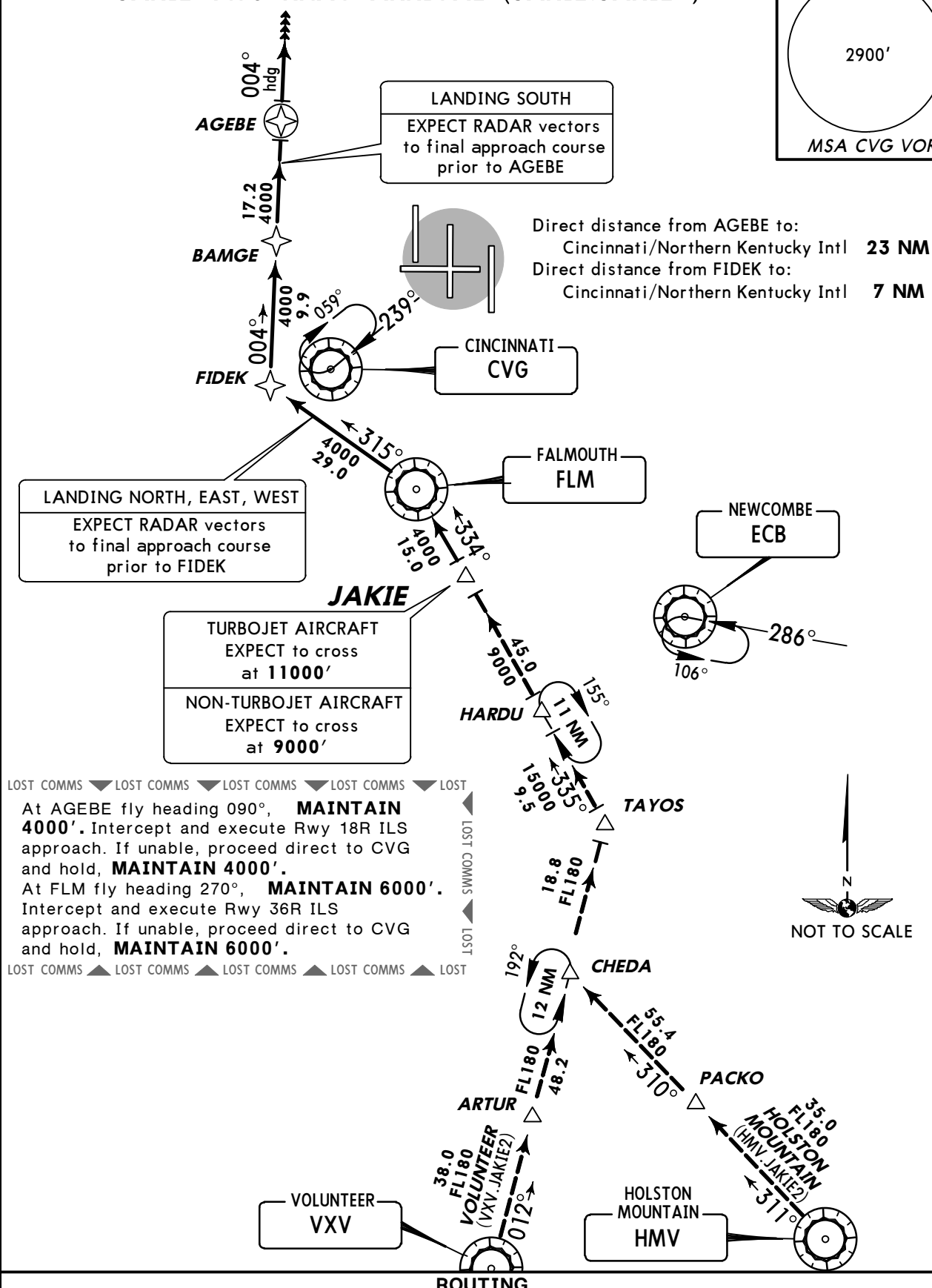


From over JAKIE, via FLM R-154 to FLM, then via FLM R-314 to ZETLA. EXPECT vectors to final approach course after JAKIE.

4. ECB not a transition, for holding only as assigned by ATC.

2900'

MSA CVG VOR



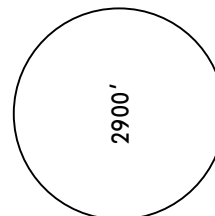
From over JAKIE, on track 334° to FLM, then as depicted to AGEBE.

EXPECT RADAR vectors to final approach course prior to AGEBE.

D-ATIS
Arrival
134.37

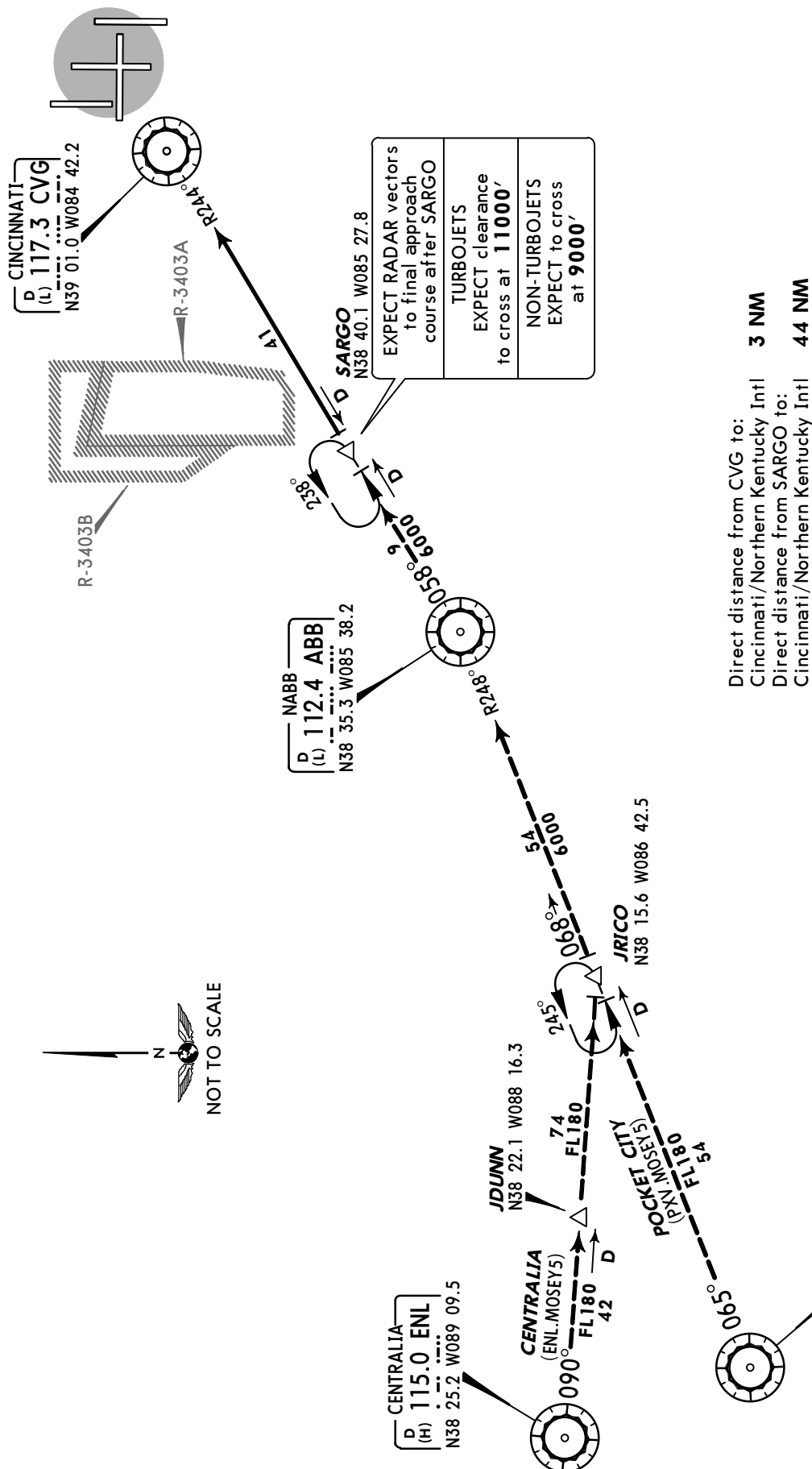
Apt Elev
896'

Alt set: INCHES
Trans level: FL180 Trans alt: 18000'
DME required for CENTRALIA transition.



MSA CVG VOR

MOSEY FIVE ARRIVAL (MOSEY.MOSEY5)



ROUTING

From over SARGO, via ABB R-058 and CVG R-244 to CVG.
EXPECT RADAR vectors to final approach course after SARGO.

ROUTING		2900' MSA CVG VOR
From over SARGO, on track 065° to TYOTA, then as depicted to AGEBE.		
LANDING		
NORTH, EAST, WEST	EXPECT RADAR vectors to final approach course prior to FIDEK.	
SOUTH	EXPECT RADAR vectors to final approach course prior to AGEBE.	

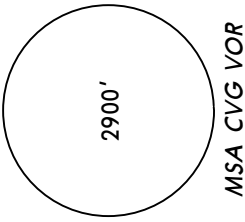
Direct distance from AGEBE to:
Cincinnati/Northern Kentucky Intl **23 NM**

Direct distance from FIDEK to:
Cincinnati/Northern Kentucky Intl **7 NM**

D-ATIS Arrival
134.37

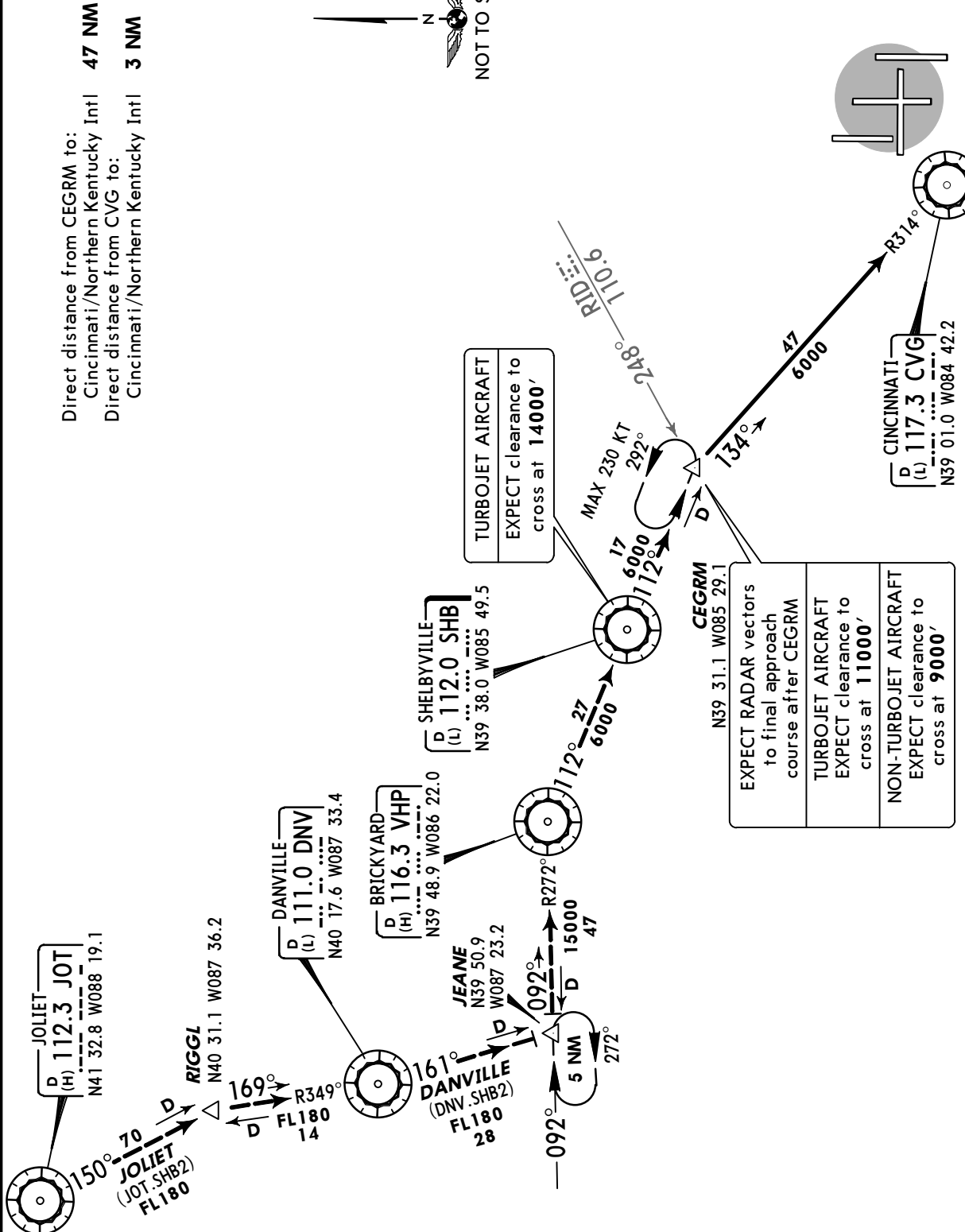
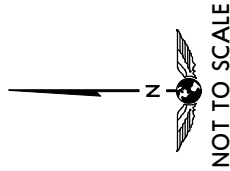
Apt Elev
896'

Alt set: INCHES Trans level: FL180 Trans alt: 18000'
DANVILLE transition for use by Chicago and Milwaukee
metropolitan departures and ATC use as assigned.



SHELBYVILLE TWO ARRIVAL (CEGRM.SHB2)

Direct distance from CEGRM to:
Cincinnati/Northern Kentucky Intl **47 NM**
Direct distance from CVG to:
Cincinnati/Northern Kentucky Intl **3 NM**



ROUTING

From over CEGRM, via CVG R-314 to CVG. EXPECT RADAR vectors to final approach course after CEGRM.

D-ATIS
Arrival
134.37

Apt Elev
896'

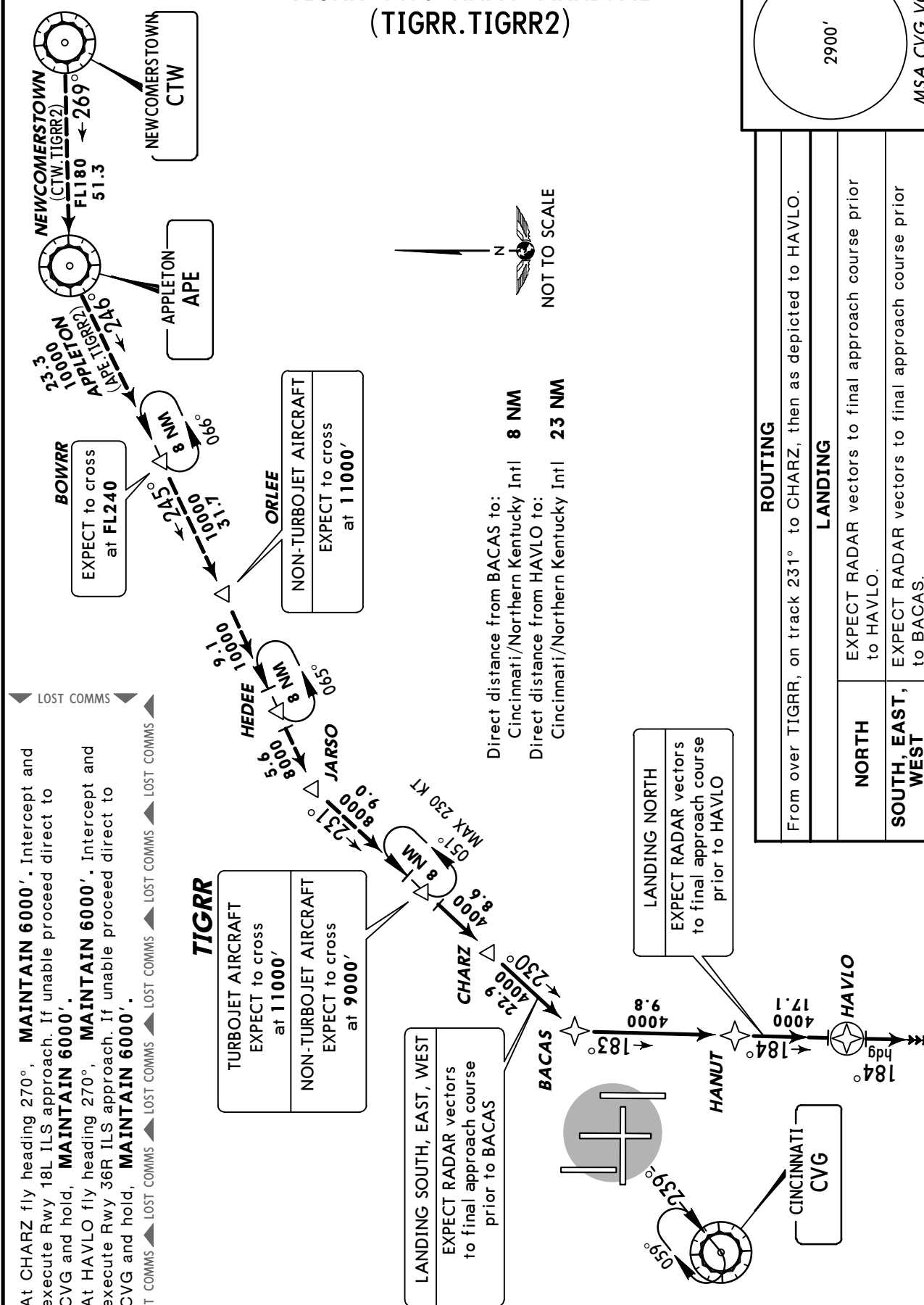
Alt set: INCHES Trans level: FL180 Trans alt: 18000'

1. DME/DME/IRU or GPS required.

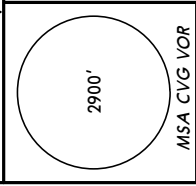
2. RADAR required. 3. RNAV 1.

4. APPLETON transition only for use by overseas flights, or, aircraft from the Cleveland/Akron-Canton/Pittsburgh terminal areas with filed altitudes at or below FL220.

TIGRR TWO RNAV ARRIVAL (TIGRR.TIGRR2)

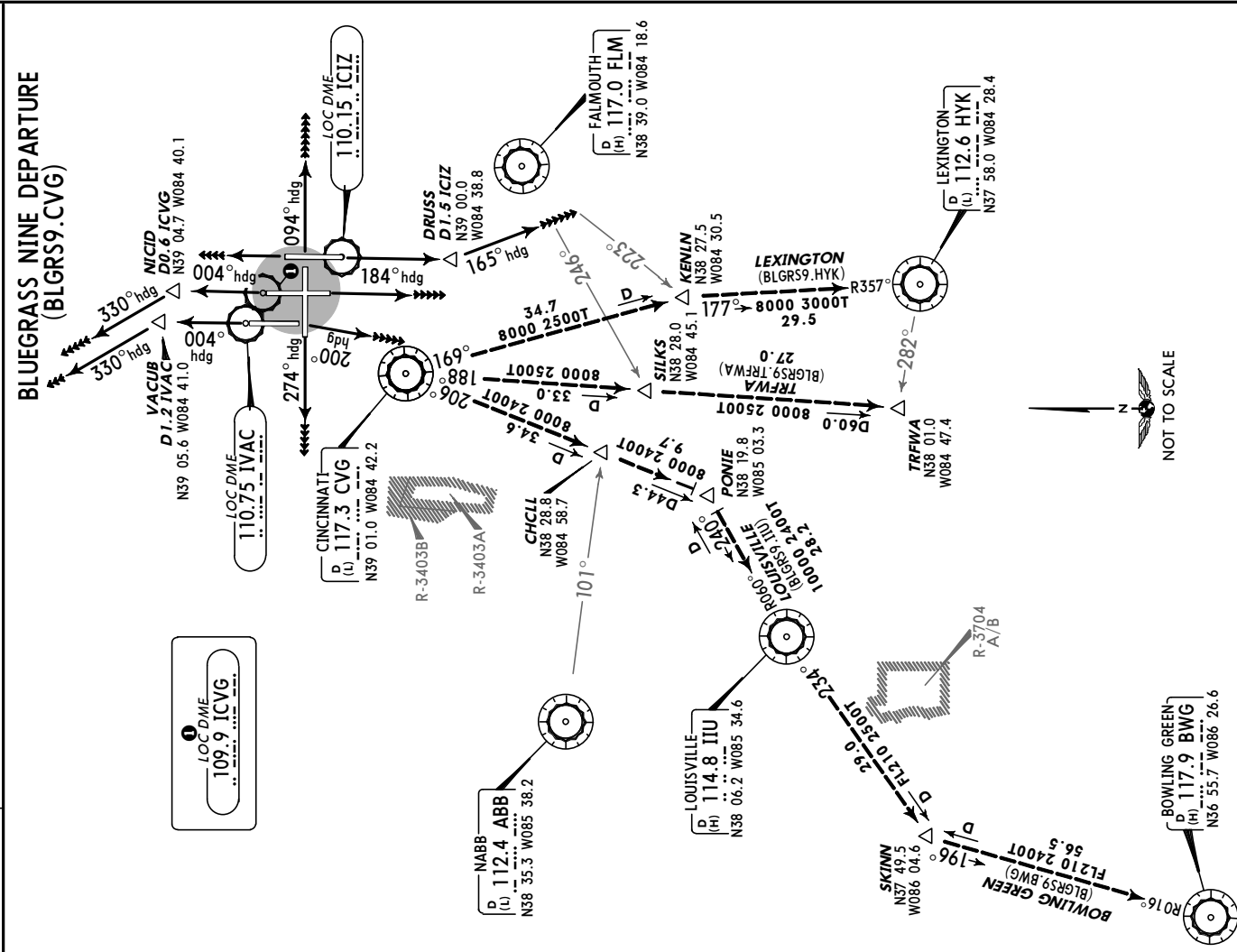


CINCINNATI Departure (R)	Apt Elev 896'	Trans level: FL 180	Trans alt: 18000'
001°-180° 126.65	181°-360° 128.7		



1. RADAR required.
2. Rws 18L, 36L/C: DME required.
3. Appropriate departure frequency will be assigned by ATC.
4. Turbojets accelerate to 250 KT until reaching 10000', if unable, advise ATC.

BLUEGRASS NINE DEPARTURE
(BLGRS9.CVG)



Direct distance from Cincinnati/
Northern Kentucky Intl to:
CVG 3 NM

OBSTACLES

Rwy 9: Trees beginning 4562' from DER, 900' LEFT of centerline, up to 94' AGL/1003' MSL. Trees 3385' from DER, 1117' RIGHT of centerline, 59' AGL/988' MSL.
Rwy 18C: Trees beginning 1882' from DER, 834' LEFT of centerline, up to 75' AGL/974' MSL. Trees 3473' from DER, 904' RIGHT of centerline, up to 70' AGL/929' MSL.
Rwy 18R: Trees beginning 3221' from DER, 895' LEFT of centerline, up to 85' AGL/964' MSL.
Rwy 36C: Trees beginning 956' from DER, 613' RIGHT of centerline, up to 94' AGL/963' MSL.
Rwy 36R: Light pole 1476' from DER, 813' LEFT of centerline, 47' AGL/926' MSL. Trees 1602' from DER, 754' RIGHT of centerline, up to 59' AGL/938' MSL.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rws 9, 18C/R, 27: Standard (or lower than standard, if authorized).

Rws 18L, 36L/C: Standard (or lower than standard, if authorized) with the following minimum climb requirements:
Rwy 18L: ATC climb of 240' per NM to 1300'.
Rwy 36L: ATC climb of 292' per NM to 1300'.
Rwy 36C: ATC climb of 500' per NM to 1300'.

Rwy	75	100	150	200	250	300
Gnd speed-KT	300	400	600	800	1000	1200
240' per NM	365	487	730	973	1217	1460
292' per NM	625	833	1250	1667	2083	2500

Rwy	INITIAL CLIMB	ALTITUDE
9	Climb via heading 094° or as assigned.	
18L	Climb via heading 184° until D1.5 SOUTH of ICIZ, then turn LEFT heading 165°.	
18C	Climb via heading 184° or as assigned.	
18R	Turn RIGHT heading 200°.	
27	Climb via heading 274° or as assigned.	
36L	Climb via heading 004° until D1.2 NORTH of IVAC, then turn LEFT heading 330°.	TURBOJET AIRCRAFT: MAINTAIN 6000' ALL OTHER AIRCRAFT: MAINTAIN 4000'
36C	Climb via heading 004° until D0.6 NORTH of ICVG, then turn LEFT heading 330°.	
36R	Climb via heading 004° or as assigned.	
ROUTING		
EXPECT RADAR vectors to transition or filed/assigned route. EXPECT clearance to requested altitude/flight level 10 minutes after departure.		

CHANGES: Departure frequency sectors, obstacles, initial climb text, procedure renumbered.

CVG RNAV SID ADVISORY NOTICE

1. If unable to accept the RNAV SID clearance, notify Clearance Delivery. Runway assignment will be issued by Cincinnati Ground Control. Flight crews should immediately verify the taxi runway with the anticipated runway programmed in the FMS.
2. When issued taxi clearance, pilots must verify the correct departure runway, RNAV SID, initial waypoint and en route transition are loaded in your FMS. Pay particular attention if a runway change has occurred after commencing taxi procedures and make necessary changes in accordance with company guidance and procedures. Aircraft equipped with electronic navigation map displays verify that the aircraft symbol relative to the runway symbol and lateral track agrees with the departure clearance. After takeoff, unless instructed to fly a heading by the tower, engage lateral navigation flight guidance as soon as practical and fly the departure precisely.
3. ATC will provide aircrew executing an RNAV SID an advisory to verify the correct first waypoint is programmed in the FMS. Verification shall occur (prior to issuing takeoff clearance) using the following phraseology:

“(Aircraft Identification), Verify first waypoint, (Waypoint Name)”

EXAMPLE: “COMAIR 123, Verify first waypoint FLOEE”

NOTE: This advisory is issued to assist pilots in confirming the correct procedure is loaded in the FMS. The pilot is expected to acknowledge the query as he/she would any other ATC communication. It is not a challenge-and-reply advisory and a specific readback is not required unless the aircrew require further clarification.

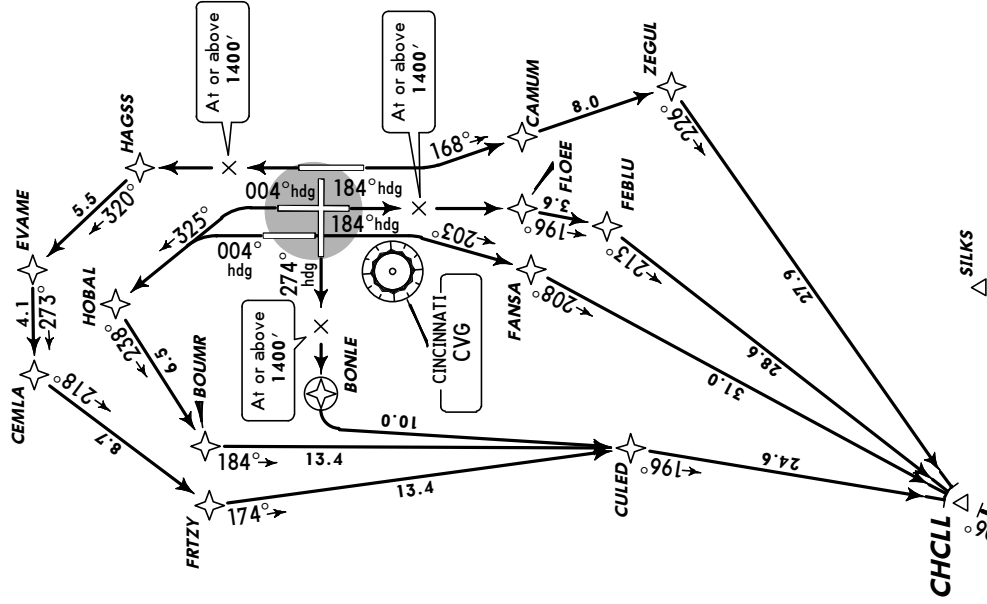
4. Before takeoff ensure that the correct departure runway, RNAV SID, initial waypoint and en route transition are loaded in your FMS. Pay particular attention if a runway change has occurred. Aircraft equipped with electronic navigation map displays verify that the aircraft symbol relative to the runway symbol and lateral track agrees with the departure clearance. After takeoff, unless instructed to fly a heading by the tower, engage lateral navigation flight guidance as soon as practical and fly the departure precisely.

NOTE: If unable to comply with the RNAV SID, contact ATC prior to takeoff and request an amended clearance.

5. Parallel RNAV departures must not encroach on the airspace between extended parallel runway centerlines without specific ATC clearance. Manually intervene if necessary to stay on track to avoid transgressing in the direction of a parallel track. After takeoff, continue to reference the navigation chart for correct FMS waypoint sequencing and navigation.

NOTE: If unable to comply with the SID profile, either laterally or vertically, immediately notify ATC.

CINNINNATI Departure (R)	
001°-180°	181°-360°
126.65	128.7



Rwy 180C: Trees beginning 182' from DER, 834' LEFT of centerline, up to 75' AGL/974' MSL. Trees 3473' from DER, 904' RIGHT of centerline, up to 70' AGL/929' MSL.

Rwy 18R: Trees beginning 3221' from DER, 895' LEFT of centerline, up to 85' AGL/964' MSL.

Rwy 36C: Trees beginning 956' from DER, 613' RIGHT of centerline, up to 94' AGL/963' MSL.

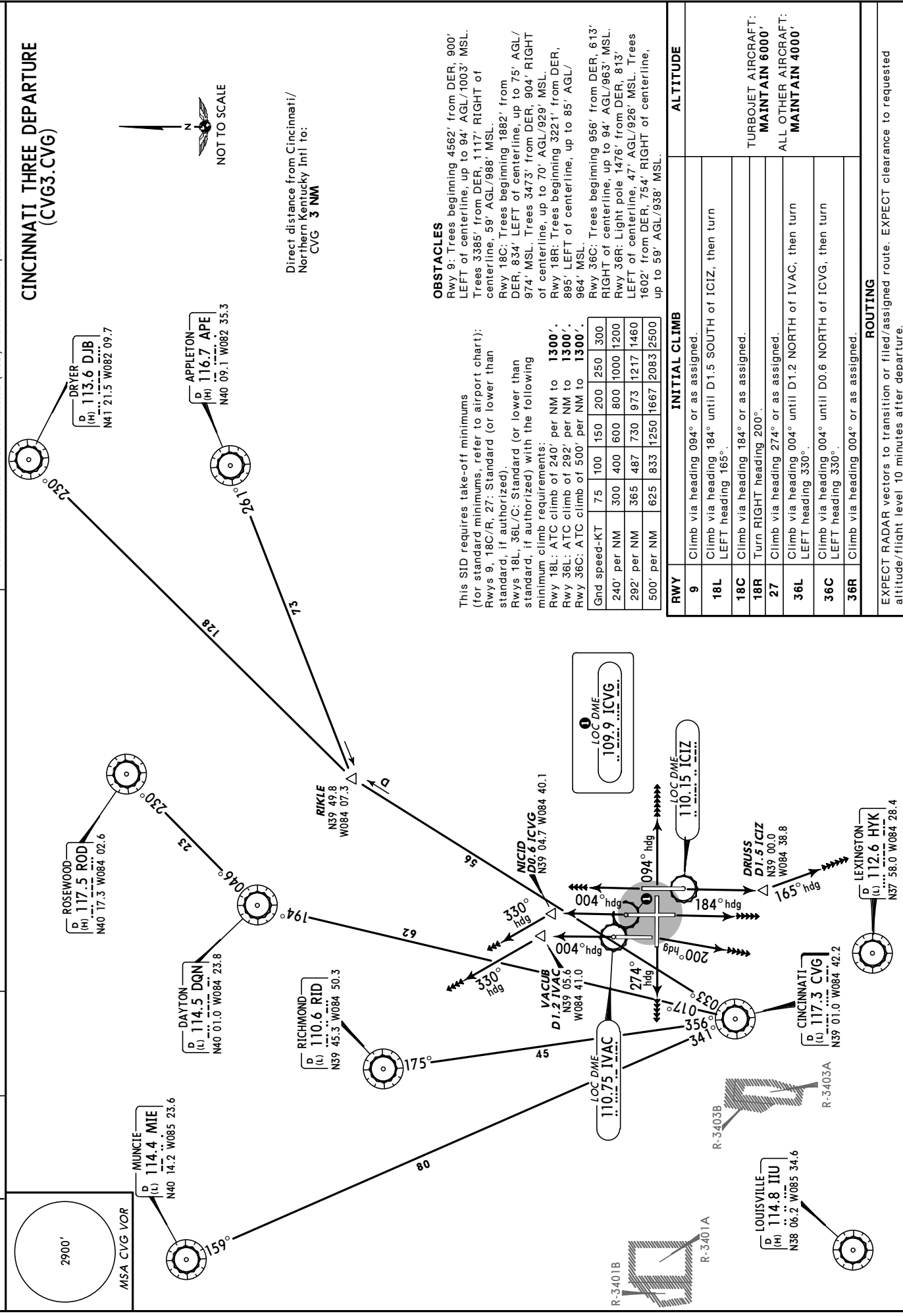
Rwy 36R: Light pole 1476' from DER, 813' LEFT of centerline, 47' AGL/926' MSL. Trees 1802' from DER, 754' RIGHT of centerline, up to 59' AGL/938' MSL.

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

KENLN

EXPECT clearance to filed altitude within 10 minutes after departure.

© JEPPESEN, 2008, 2011. ALL RIGHTS RESERVED



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

4. Transponder code will be issued via PDC or Cincinnati Clearance Delivery.
5. YORK Transition limited to aircraft filed at or below FL220.
6. If unable to accept climb rates, advise ATC on initial contact.
7. Accelerate to 250 KT, if unable, advise ATC.

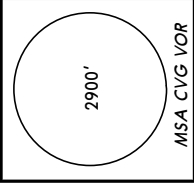
CINCINNATI Departure (R)

001°-180° 181°-360°

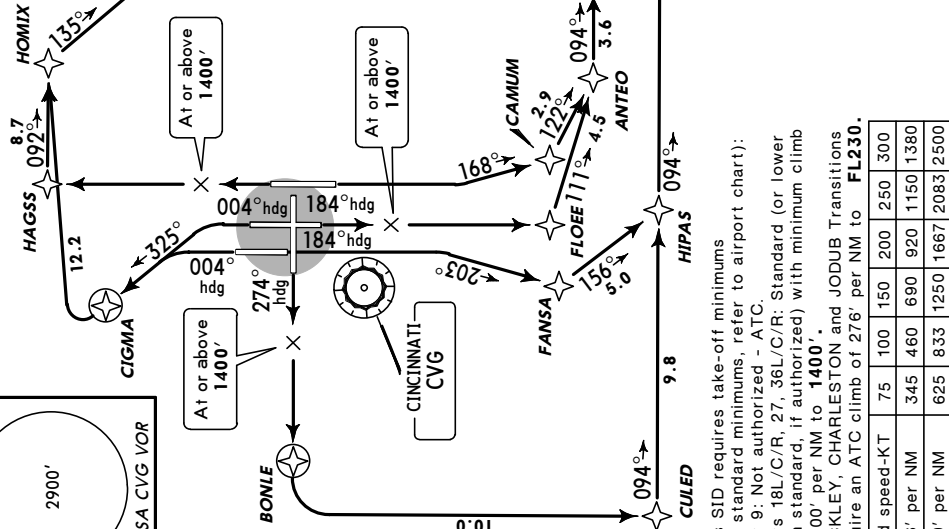
126.65 128.7

Apt Elev
896'

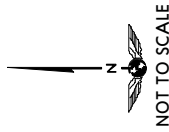
Trans level: FL180
Trans alt: 18000'



GIPL FOUR RNAV DEPARTURE (GIPL4.GIPL)



Direct distance from Cincinnati/
Northern Kentucky Intl
(Rwy 18L) to: CAMUM 6 NM
(Rwy 18C) to: FLOEE 6 NM
(Rwy 18R) to: FANSFA 6 NM
(Rwy 27) to: BONLE 8 NM
(Rws 36L/C) to: CIGMA 6 NM
(Rwy 36R) to: HAGSS 7 NM



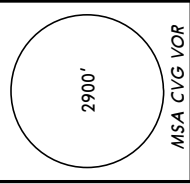
This SID requires take-off minimums
(for standard minimums, refer to airport chart);
Rwy 9: Not authorized - ATC.
Rws 18L/C/R, 27, 36L/C/R: Standard (or lower
than standard, if authorized) with minimum climb
of 500' per NM to 1400'.
BECKLEY, CHARLESTON and JODUB Transitions
require an ATC climb of 276' per NM to FL230.

Grd speed-KT	75	100	150	200	250	300
276' per NM	345	460	690	920	1150	1380
500' per NM	625	833	1250	1667	2083	2500

RWY	INITIAL CLIMB	ALTITUDE
18L	Climb heading 184° to intercept course 168° to CAMUM, then on depicted route to GIPLE.	
18C	Climb heading 184° to 1400', then direct FLOEE, then on depicted route to GIPLE.	
18R	Climb heading 184° to intercept course 203° to FANSFA, then on depicted route to GIPLE.	
27	Climb heading 274° to 1400', then direct BONLE, then LEFT turn direct CULED, then LEFT turn on track 094° to HIPAS, then on depicted route to GIPLE.	TURBOJET AIRCRAFT: MAINTAIN 6000' ALL OTHER AIRCRAFT: MAINTAIN 4000'
36L/C	Climb heading 004° to intercept course 325° to CIGMA, then RIGHT turn direct HOMIX, then on depicted route to GIPLE.	
36R	Climb heading 004° to 1400', then direct HAGSS, then on depicted route to GIPLE.	
ROUTING		
EXPECT clearance to filed altitude within 10 minutes after departure.		

OBSTACLES
 Rwy 18C: Trees beginning 1882' from DER, 834' LEFT of centerline, up to 75' AGL/974' MSL. Trees 3473' from DER, 904' RIGHT of centerline, up to 70' AGL/929' MSL.
 Rwy 18R: Trees beginning 3221' from DER, 895' LEFT of centerline, up to 85' AGL/964' MSL.
 Rwy 36C: Trees beginning 956' from DER, 613' RIGHT of centerline, up to 94' AGL/963' MSL.
 Rwy 36R: Light pole 1476' from DER, 813' LEFT of centerline, 47' AGL/926' MSL. Trees 1602' from DER, 754' RIGHT of centerline, up to 59' AGL/938' MSL.

CINCINNATI Departure (R)	Apt Elev	Trans level: FL180	1. DME/DME/IRU or GPS required.
001°-180° 181°-360° 126.65 128.7	896'	Trans alt: 18000'	2. RADAR required.
			3. RNAV 1.

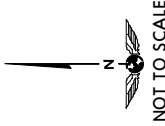


4. Transponder code will be issued via PDC or Cincinnati Clearance Delivery.
5. If unable to accept climb rates, advise ATC on initial contact.
6. Accelerate to 250 KT, if unable, advise ATC.

JBNCH FOUR RNAV DEPARTURE
(JBNCH4.JBNCH)



Direct distance from Cincinnati/
Northern Kentucky Intl
(Rwy 18L) to: CAMUM 6 NM
(Rwy 18C) to: FLOEE 6 NM
(Rwy 18R) to: FANSA 6 NM
(Rwy 27) to: BONLE 8 NM
(Rwys 36L/C) to: CIGMA 6 NM
(Rwy 36R) to: HAGSS 7 NM



OBSTACLES

Rwy 18C: Trees beginning 1882' from DER, 834' LEFT of centerline, up to 75' AGL/974' MSL. Trees 3473' from DER, 904' RIGHT of centerline, up to 70' AGL/929' MSL.
Rwy 18R: Trees beginning 3221' from DER, 895' LEFT of centerline, up to 85' AGL/964' MSL.
Rwy 36C: Trees beginning 956' from DER, 613' RIGHT of centerline, up to 94' AGL/963' MSL.
Rwy 36R: Light pole 1476' from DER, 813' LEFT of centerline, 47' AGL/926' MSL. Trees 1602' from DER, 754' RIGHT of centerline, up to 59' AGL/938' MSL.

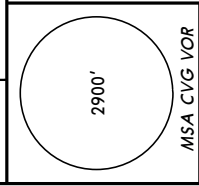
This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwy 9: Not authorized - ATC.
Rwys 18L/C/R: 27, 36L/C/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 1400'.

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

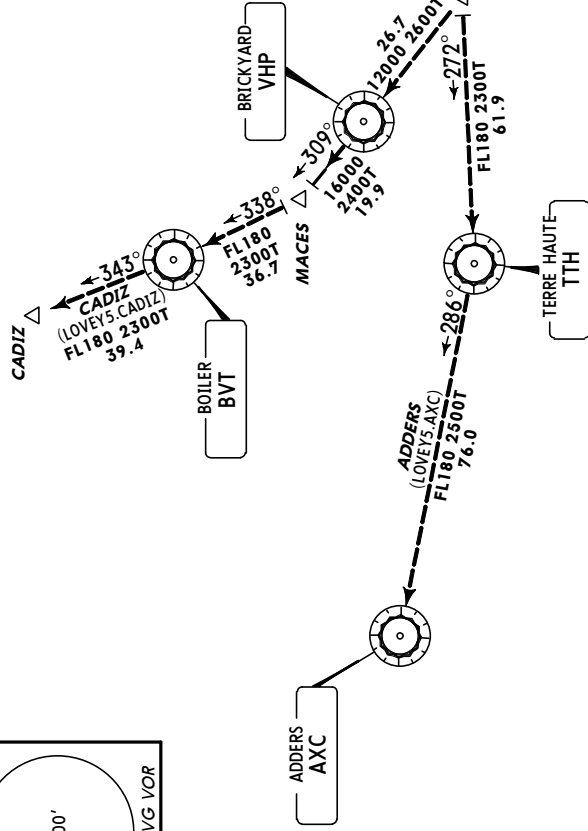
RWY	INITIAL CLIMB	ALTITUDE
18L	Climb heading 184° to intercept course 168° to CAMUM, then on depicted route to JBNCH.	TURBOJET AIRCRAFT: MAINTAIN 6000' ALL OTHER AIRCRAFT: MAINTAIN 4000'
18C	Climb heading 184° to 1400', then direct FLOEE, then on depicted route to JBNCH.	
18R	Climb heading 184° to intercept course 203° to FANSA, then on depicted route to JBNCH.	
27	Climb heading 274° to 1400', then direct BONLE, then RIGHT turn direct to JBNCH.	
36L/C	Climb heading 004° to intercept course 325° to CIGMA, then on depicted route to JBNCH.	
36R	Climb heading 004° to 1400', then direct HAGSS, then on depicted route to JBNCH.	
ROUTING		
EXPECT clearance to filed altitude within 10 minutes after departure.		

CHANGES: Procedure renumbered, initial climb text, GPS note deleted.

CINCINNATI Departure (R)	Apt Elev	Trans level: FL180 Trans alt: 18000'	1. DME/DME/IRU or GPS required. 2. RADAR required. 3. RNAV 1.	4. Transponder code will be issued via PDC or Cincinnati Clearance Delivery. 5. For turbojets only. 6. If unable to accept climb rates, advise ATC on initial contact. 7. Accelerate to 250 KT, if unable, advise ATC.
001°-180° 181°-360° 126.65 128.7	896'			



LOVEY FIVE RNAV DEPARTURE
(LOVEY5.LOVEY)



Direct distance from Cincinnati/
Northern Kentucky Intl
(Rwy 18L) to: CAMUM 6 NM
(Rwy 18C) to: FLOEE 6 NM
(Rwy 18R) to: FANSA 6 NM
(Rwy 27) to: BONLE 8 NM
(Rwys 36L/C) to: HOBAL 8 NM
(Rwy 36R) to: HAGSS 7 NM

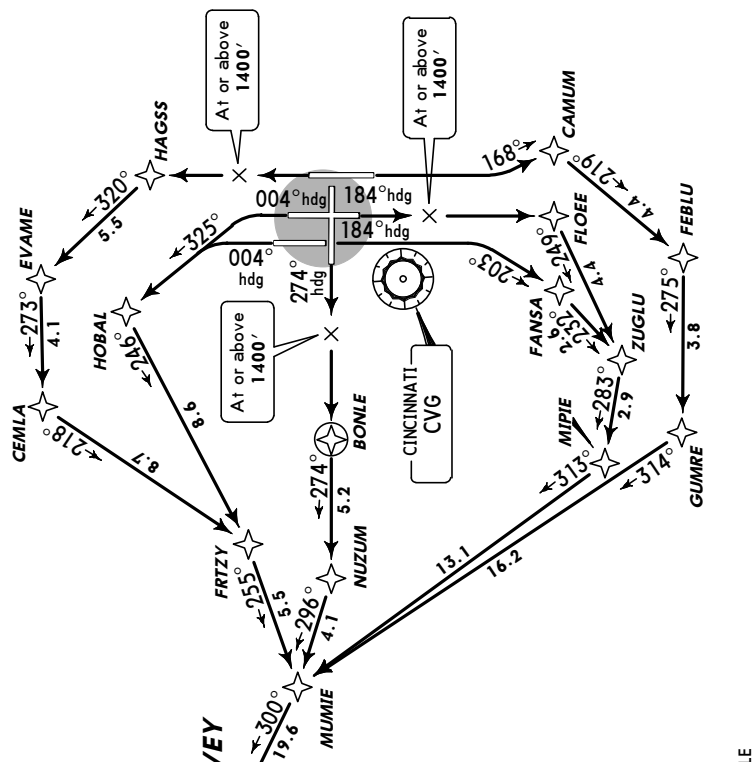
OBSTACLES
Rwy 18C: Trees beginning 1882' from DER, 834' AGL/974' MSL. Trees up to 75' AGL/974' MSL. Trees 3473' from DER, 904' RIGHT of centerline, up to 70' AGL/929' MSL.
Rwy 18R: Trees beginning 3221' from DER, 895' LEFT of centerline, up to 85' AGL/964' MSL.
Rwy 36C: Trees beginning 956' from DER, 613' RIGHT of centerline, up to 94' AGL/963' MSL.
Rwy 36R: Light pole 1476' from DER, 813' LEFT of centerline, 47' AGL/926' MSL. Trees 1602' from DER, 754' RIGHT of centerline, up to 59' AGL/938' MSL.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwy 9: Not authorized - ATC.
Rwys 18L/C/R, 27, 36L/C/R: Standard (or lower than standard, if authorized) with minimum climb of 500' per NM to 1400'.

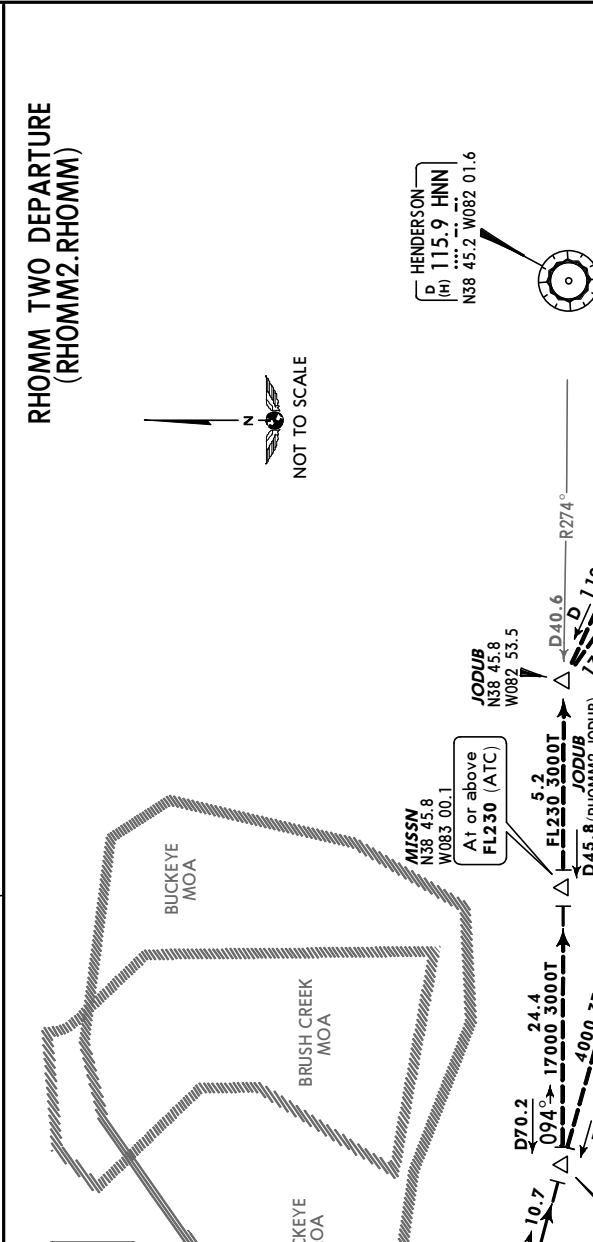
Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

RWY	INITIAL CLIMB	ALTITUDE
18L	Climb heading 184° to intercept course 168° to CAMUM, then on depicted route to MUMIE.	MAINTAIN 6000'
18C	Climb heading 184° to 1400', then direct FLOEE, then on depicted route to MUMIE.	
18R	Climb heading 184° to intercept course 203° to FANSA, then on depicted route to MUMIE.	
27	Climb heading 274° to 1400', then direct BONLE, then on depicted route to MUMIE.	
36L/C	Climb heading 004° to intercept course 325° to HOBAL, then on depicted route to MUMIE.	
36R	Climb heading 004° to 1400', then direct HAGSS, then on depicted route to MUMIE.	

ROUTING	
At MUMIE, on depicted route to LOVEY. EXPECT clearance to filed altitude within 10 minutes after departure.	



2. **nwys 10L, 30L/C. DME required.**
3. Appropriate departure frequency will be assigned by ATC.
4. Turboprops accelerate to 250 KT until reaching 10000', if unable, advise ATC.
5. YORK Transition is limited to aircraft filed at or below FL220.



EL230 (A TC)

Direct distance from Cincinnati/
Northern Kentucky Intl to:
CVG 3 NM

EXPECT RADAR vectors to CVG R-109, then via C

© IEPPESEN 2005 2011 ALL RIGHTS RESERVED

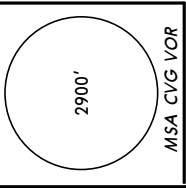
CINCINNATI Departure (R)
001°-180° | 181°-360°
126.65 | 128.7

Apt Elev
896'

Trans level: FL180
Trans alt: 18000'

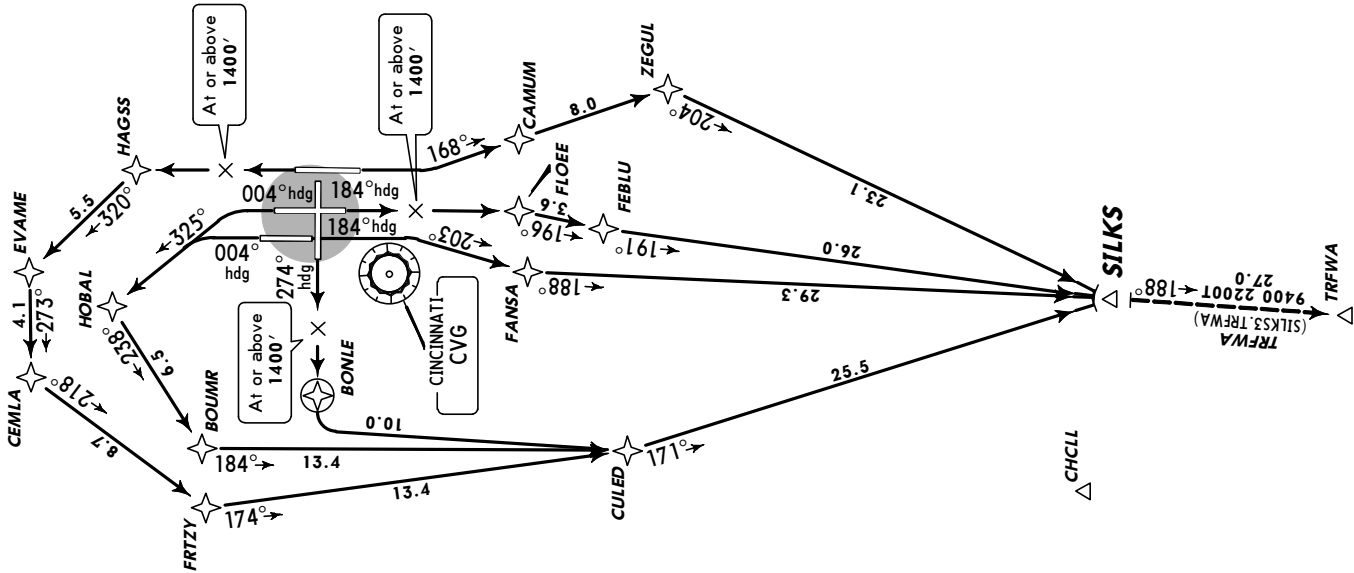
1. DME/DME/IRU or GPS required.
2. RADAR required.
3. RNAV 1.

4. Transponder code will be issued via PDC or Cincinnati Clearance Delivery.
5. If unable to accept climb rates, advise ATC on initial contact.
6. Accelerate to 250 KT, if unable, advise ATC.



SILKS THREE RNAV DEPARTURE

(SILKS3.SILKS)



Direct distance from Cincinnati/
Northern Kentucky Intl
(Rwy 18L) to: CAMUM **6 NM**
(Rwy 18C) to: FLOEE **6 NM**
(Rwy 18R) to: FANSA **6 NM**
(Rwy 27) to: BONLE **8 NM**
(Rwys 36L/C) to: HOBAL **8 NM**
(Rwy 36R) to: HAGSS **7 NM**

OBSTACLES

Rwy 18C: Trees beginning 1882'
from DER, 834' LEFT of centerline,
up to 75' AGL/974' MSL. Trees
3473' from DER, 904' RIGHT of
centerline, up to 70' AGL/929' MSL.
Rwy 18R: Trees beginning 3221'
from DER, 895' LEFT of centerline,
up to 85' AGL/964' MSL.
Rwy 36C: Trees beginning 956'
from DER, 613' RIGHT of centerline,
up to 94' AGL/963' MSL.
Rwy 36R: Light pole 1476' from DER,
813' LEFT of centerline,
47' AGL/926' MSL. Trees 1602' from
DER, 754' RIGHT of centerline,
up to 59' AGL/938' MSL.

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwy 9: Not authorized - ATC.
Rwys 18L/C/R, 27, 36L/C/R: Standard (or lower
than standard, if authorized) with minimum climb
of 500' per NM to **1400'**.

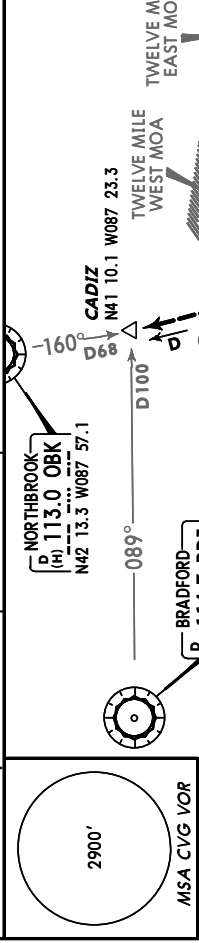
Gnd speed-KT	75	100	150	200	250	300
500' per NM	625	833	1250	1667	2083	2500

RWY	INITIAL CLIMB	ALTITUDE
18L	Climb heading 184° to intercept course 168° to CAMUM, then on depicted route to SILKS.	
18C	Climb heading 184° to 1400' , then direct FLOEE, then on depicted route to SILKS.	
18R	Climb heading 184° to intercept course 203° to FANSA, then on depicted route to SILKS.	
27	Climb heading 274° to 1400' , then direct BONLE, then LEFT turn direct CULED, then on depicted route to SILKS.	TURBOJET AIRCRAFT: MAINTAIN 6000'
36L/C	Climb heading 004° to intercept course 325° to HOBAL, then on depicted route to SILKS.	ALL OTHER AIRCRAFT: MAINTAIN 4000'
36R	Climb heading 004° to 1400' , then direct HAGSS, then on depicted route to SILKS.	
ROUTING		

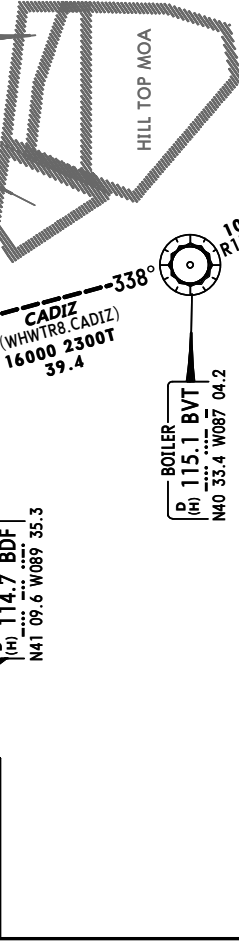
EXPECT clearance to filed altitude within 10 minutes after departure.

CINCINNATI Departure (R)	Apt Elev 896'	Trans level: FL 180	Trans alt: 18000'
001°-180° 126.65	181°-360° 128.7		

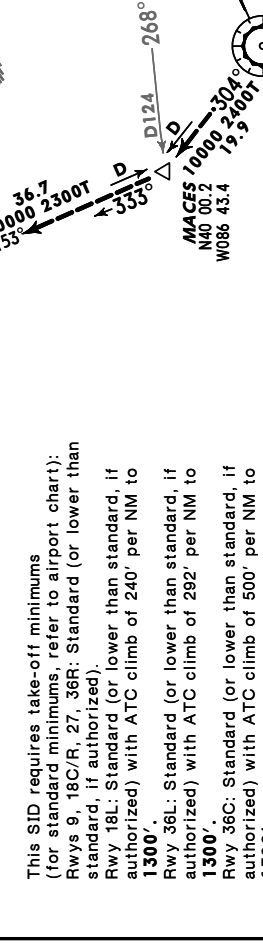
1. RADAR required.
2. DME required.
3. Appropriate departure frequency will be issued by ATC.
4. Turbojets accelerate to 250 KT until reaching 10000', if unable, advise ATC.



WHITEWATER EIGHT DEPARTURE
(WHWTR8.ZABAL)



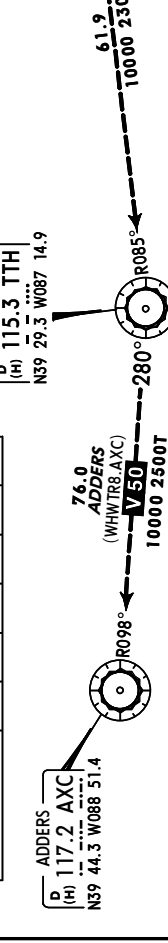
OBSTACLES
Rwy 9: Trees beginning 4562' from DER, 900' LEFT of centerline, up to 94' AGL/1003' MSL.
Trees 3385' from DER, 1117' RIGHT of centerline, up to 59' AGL/988' MSL.
Rwy 18C: Trees beginning 1882' from DER, 834' LEFT of centerline, up to 75' AGL/974' MSL.
Trees 3473' from DER, 904' RIGHT of centerline, up to 70' AGL/929' MSL.
Rwy 18R: Trees beginning 3221' from DER, 895' LEFT of centerline, up to 85' AGL/964' MSL.
Rwy 36C: Trees beginning 956' from DER, 613' RIGHT of centerline, up to 94' AGL/963' MSL.
Rwy 36R: Light pole 1476' from DER, 813' LEFT of centerline, 47' AGL/926' MSL.
Trees 1602' from DER, 754' RIGHT of centerline, up to 59' AGL/938' MSL.



This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 9, 18C/R, 27, 36R: Standard (or lower than standard, if authorized).
Rwy 18L: Standard (or lower than standard, if authorized) with ATC climb of 240' per NM to 1300'.
Rwy 36L: Standard (or lower than standard, if authorized) with ATC climb of 292' per NM to 1300'.
Rwy 36C: Standard (or lower than standard, if authorized) with ATC climb of 500' per NM to 1300'.

Gnd speed-KT	75	100	150	200	250	300
240' per NM	300	400	600	800	1000	1200
292' per NM	365	487	730	973	1217	1460
500' per NM	625	833	1250	1667	2083	2500

Direct distance from Cincinnati/
Northern Kentucky Intl to:
CVG 3 NM



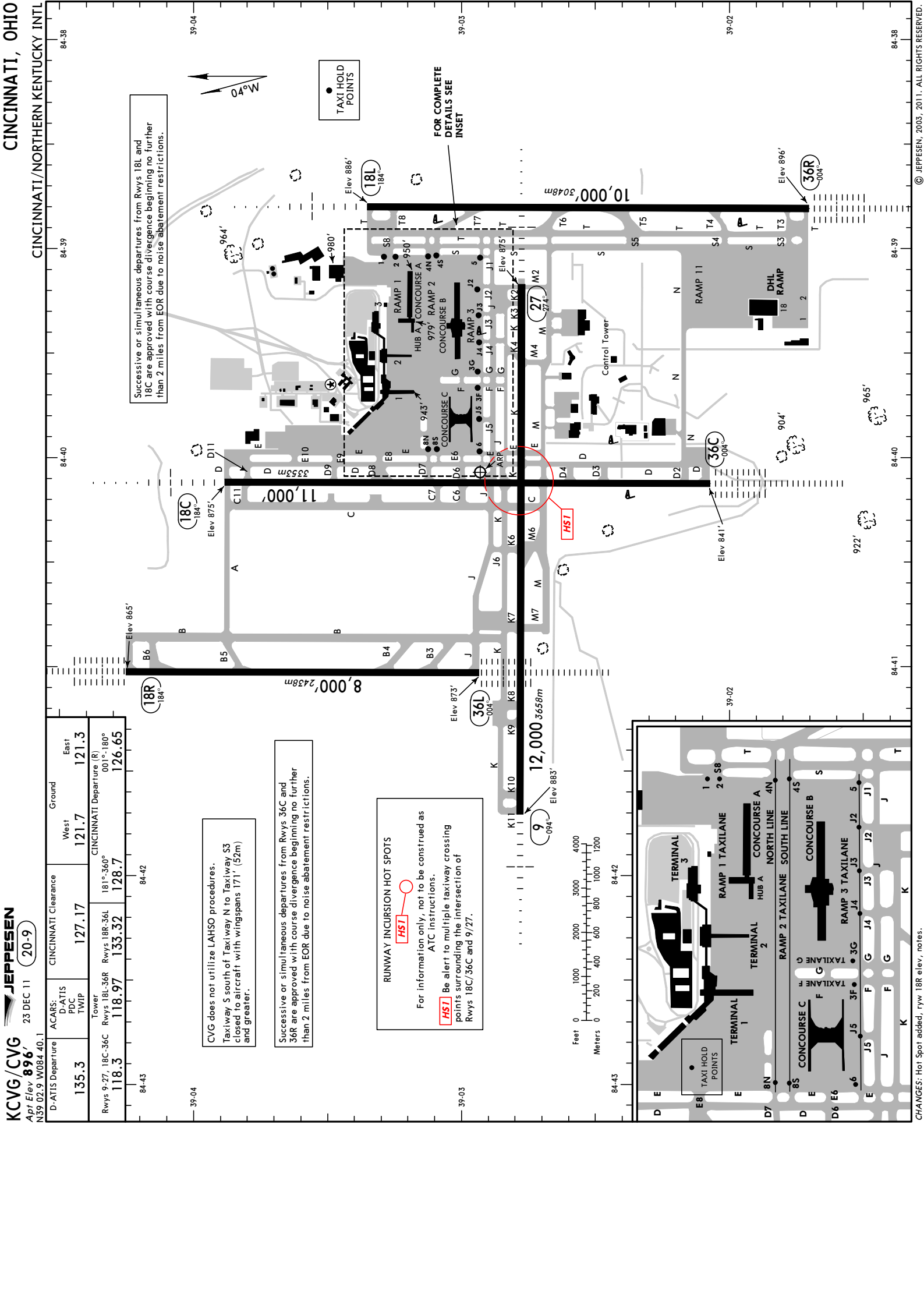
ADDERS
(H) 117.2 AXC
N39 44.3 W088 51.4

RWY	INITIAL CLIMB	ALTITUDE
9	Climb heading 094° or as assigned by ATC.	
18L	Climb heading 184° until 1.5 DME SOUTH of ICIZ, then turn LEFT heading 165°.	
18C	Climb heading 184° or as assigned by ATC.	
18R	Climbing RIGHT turn heading 200°.	
27	Climb heading 274° or as assigned by ATC.	
36L	Climb heading 004° until 1.2 DME NORTH of IVAC, then turn LEFT heading 330°.	
36C	Climb heading 004° until 0.6 DME NORTH of ICVG, then turn LEFT heading 330°.	
36R	Climb heading 004° or as assigned by ATC.	

ROUTING
EXPECT RADAR vectors to CVG R-294, then via CVG R-294 to LOVEY/D35.0 CVG, then via VHP R-128 to ZABAL/D26.7 VHP, then via transition or assigned route. EXPECT clearance to filed altitude within 10 minutes after departure.



CHANGES: Procedure renumbered, DECATUR renamed ADDERS, departure frequency sectors.



GENERAL

Low-level wind shear alert system.
Terminal Doppler Weather Radar.

ADDITIONAL RUNWAY INFORMATION

RWY		LANDING	USABLE LENGTHS		TAKE-OFF	WIDTH
			Threshold	BEYOND Glide Slope		
9	HIRL CL MALSR ① PAPI-L grooved RVR	② 11880' 3621m	② 10767' 3282m			150' 46m
27	HIRL CL MALSR VASI-L grooved RVR		10825' 3299m			

① Angle 3.00°

② Last 120' (37m) of Rwy 9 not usable for landing.

18L	HIRL CL MALSR TDZ ① PAPI-L grooved RVR		8970' 2734m			150' 46m
36R	HIRL CL ALSF-II TDZ ① PAPI-R grooved RVR		8930' 2722m			

① Angle 3.00°

18C	HIRL CL MALSR TDZ VASI-R grooved RVR		9944' 3031m			150' 46m
36C	HIRL CL ALSF-II TDZ PAPI-L grooved RVR		9875' 3010m			

③ Maximum GWT for DC-10 & L-1011 is 510,000 lbs.

18R	HIRL CL ALSF-II TDZ grooved RVR		6859' 2091m			150' 46m
36L	HIRL CL ALSF-II TDZ grooved RVR		6944' 2117m			

TAKE-OFF**Rwys 18L/C/R, 36L/C/R**

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			

Rwys 9, 27

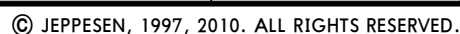
Both RVRs are required and controlling.		Adequate Vis Ref	STD	
CL & HIRL	CL, or RCLM & HIRL		3 & 4 Eng	1 & 2 Eng
TDZ RVR 5	TDZ RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1
Rollout RVR 5	Rollout RVR 10			

FOR FILING AS ALTERNATE

ILS Rwy 9	ILS Rwy 27	LOC Rwy 9	LOC Rwy 27	RNAV (GPS) Y Rwy 9	RNAV (GPS) Z Rwy 9
ILS Rwy 18L	ILS Rwy 36L	LOC Rwy 18L	LOC Rwy 36L	RNAV (GPS) Y Rwy 27	RNAV (GPS) Z Rwy 27
ILS Rwy 18C	ILS Rwy 36C	LOC Rwy 18C	LOC Rwy 36C	RNAV (GPS) Y Rwy 18L	RNAV (GPS) Z Rwy 18L
ILS Rwy 18R	ILS Rwy 36R	LOC Rwy 18R	LOC Rwy 36R	RNAV (GPS) Y Rwy 18C	RNAV (GPS) Z Rwy 18C
				RNAV (GPS) Y Rwy 18R	RNAV (GPS) Z Rwy 18R
				RNAV (GPS) Y Rwy 36L	RNAV (GPS) Z Rwy 36L
				RNAV (GPS) Y Rwy 36C	RNAV (GPS) Z Rwy 36C
				RNAV (GPS) Y Rwy 36R	RNAV (GPS) Z Rwy 36R

A	600-2	800-2	800-2	NA
B				
C				
D	700-2			

A
M
E
N
D
1



COORDINATES

N39 03.2 W084 39.7

N39 03.2 W084 39.5

NO₂ 33.2 West 37.1

N39 03.2 W084 39.1

N39 03.0 W084 39.2

N39 03.0 W084 39.8

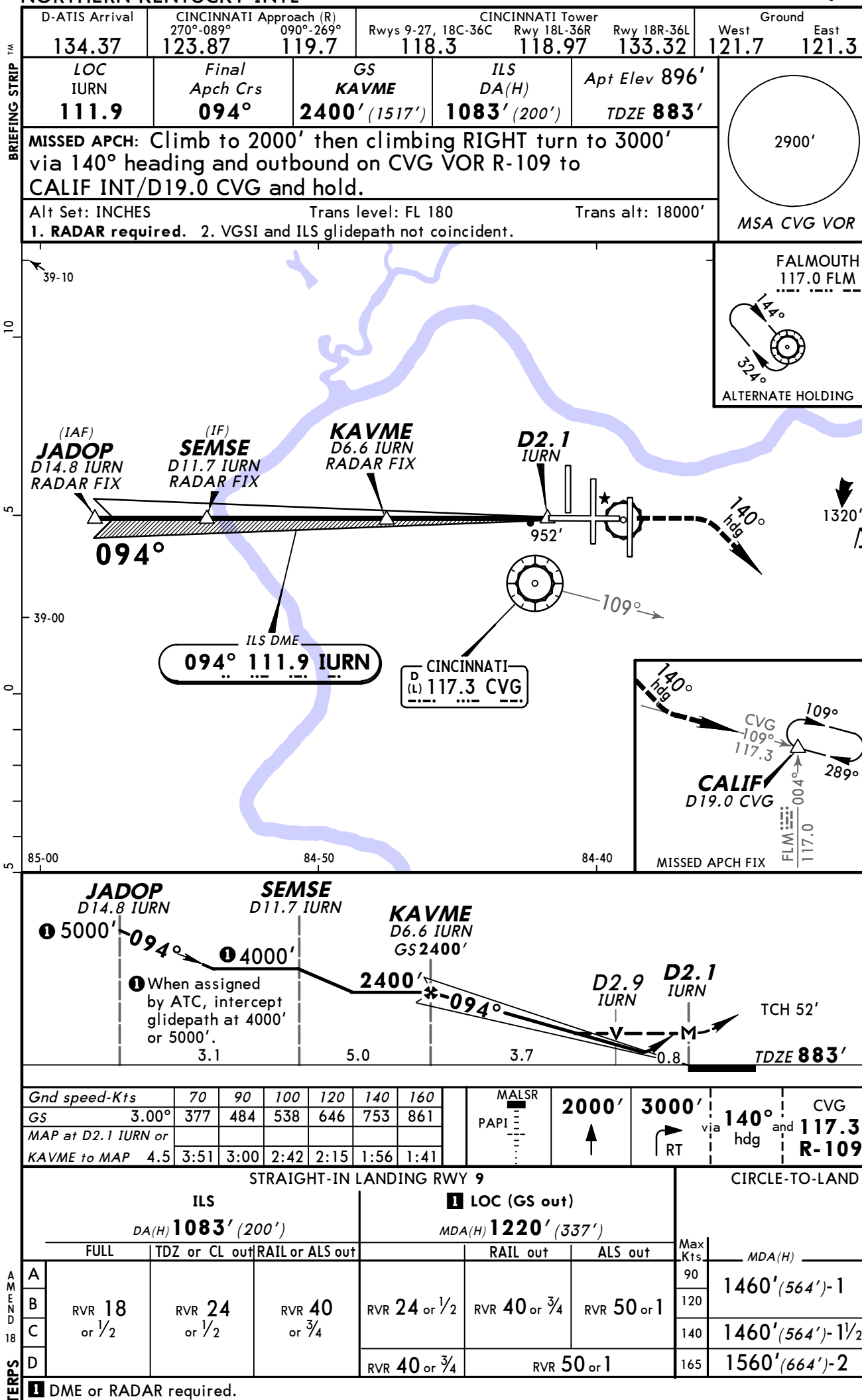
N39 03.0 W084 39.9

N39 03.0 W084 39.7

KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

18 SEP 09 (21-1)

CINCINNATI, OHIO
ILS or LOC Rwy 9

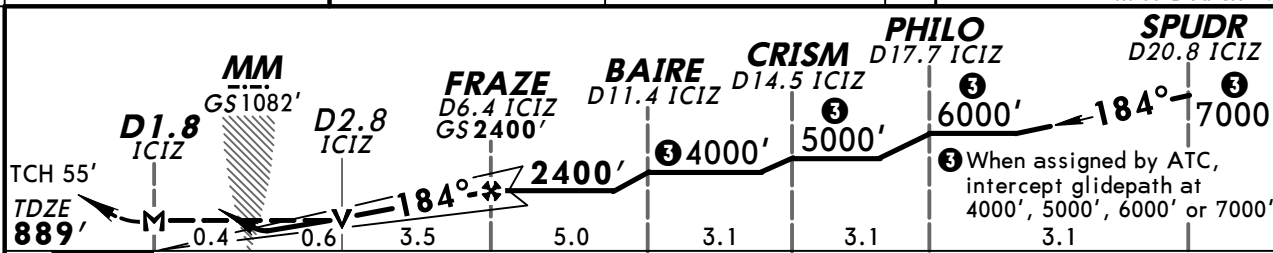
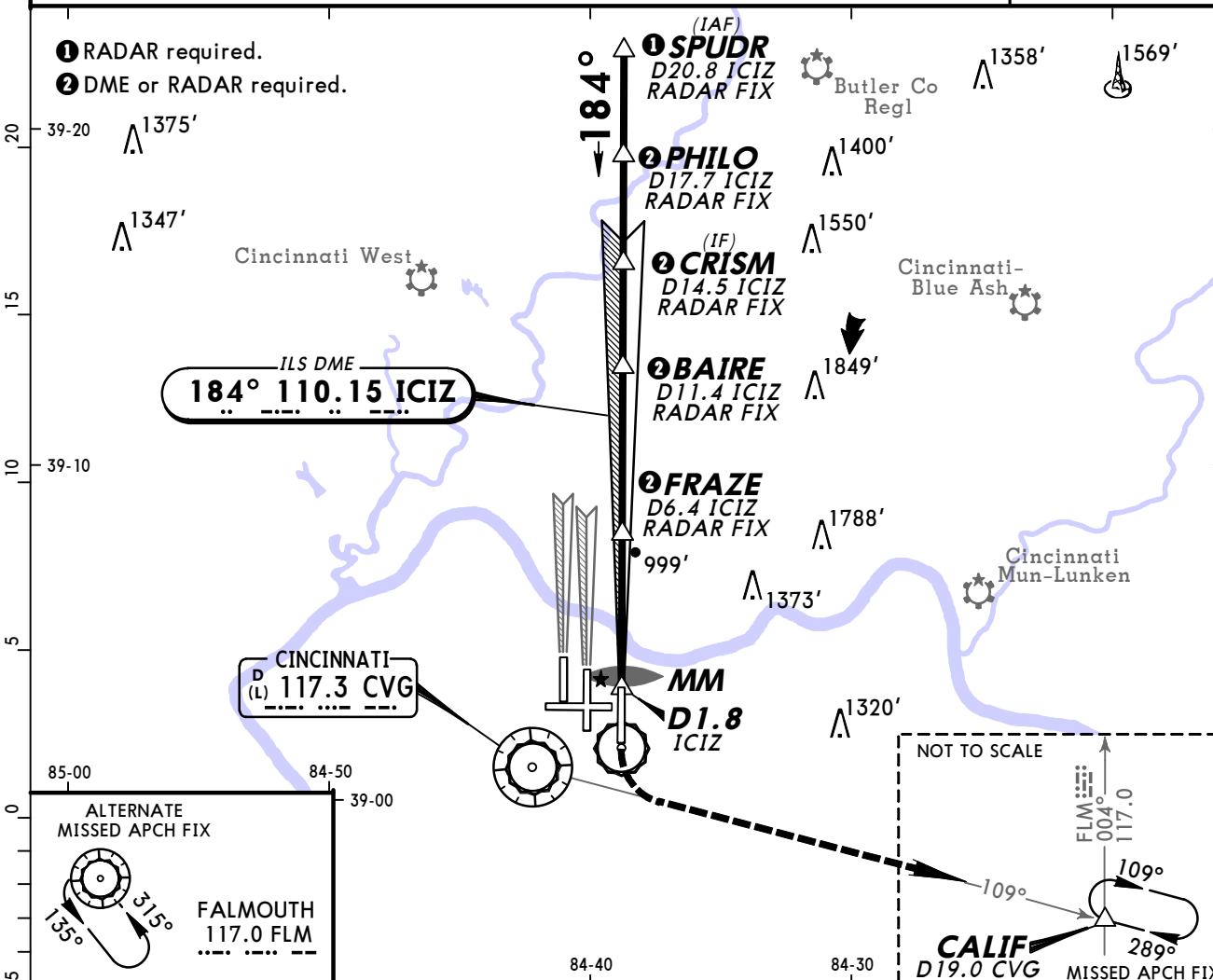


KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

18 SEP 09 (21-2)

CINCINNATI, OHIO
ILS or LOC Rwy 18L

BRIEFING STRIP™	D-ATIS Arrival	CINCINNATI Approach (R) 270°-089° 090°-269°		Rwy 18L-36R	CINCINNATI Tower Rwys 9-27, 18C-36C	Rwy 18R-36L	West	Ground	East
	134.37	123.87	119.7	118.97	118.3	133.32	121.7		121.3
	LOC ICIZ	Final Apch Crs	GS FRAZE	ILS DA(H)	Apt Elev 896'		2900' MSA CVG VOR		
	110.15	184°	2400' (1511')	1089' (200')	TDZE 889'				
	MISSED APCH: Climb to 1500' then climbing LEFT turn to 3000' outbound via CVG VOR R-109 to CALIF INT/D19.0 CVG and hold.								
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'					
1. VGSi and ILS glidepath not coincident. 2. Simultaneous approaches authorized with Rwy 18C and 18R. 3. LOC procedure not authorized during simultaneous operations.									



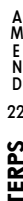
Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI 1500' 3000' CVG via 117.3 CALIF R-109	
GS	3.00°	377	484	538	646	753		
MAP at D1.8 ICIZ or FRAZE to MAP	4.5	3:51	3:00	2:42	2:15	1:56		

STRAIGHT-IN LANDING RWY 18L			CIRCLE-TO-LAND		
ILS DA(H) 1089' (200')			LOC (GS out) MDA(H) 1260' (371')		
FULL	TDZ or CL out	RAIL or ALS out	RAIL out	ALS out	Max Kts
A					90
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 1/2	RVR 50 or 1	120
C					140
D			RVR 40 or 3/4	RVR 60 or 1/4	165
					MDA(H)
					1460' (564')-1
					1460' (564')-1 1/2
					1560' (664')-2

CHANGES: Lighting.

© JEPPESEN, 1997, 2009. ALL RIGHTS RESERVED.

BRIEFING STRIP™

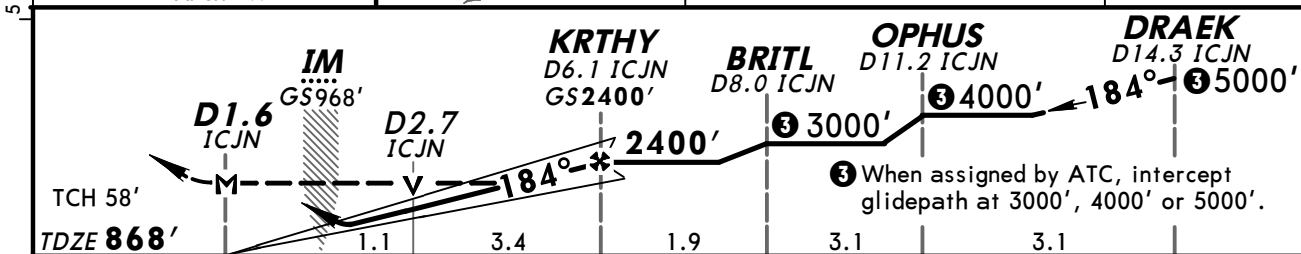
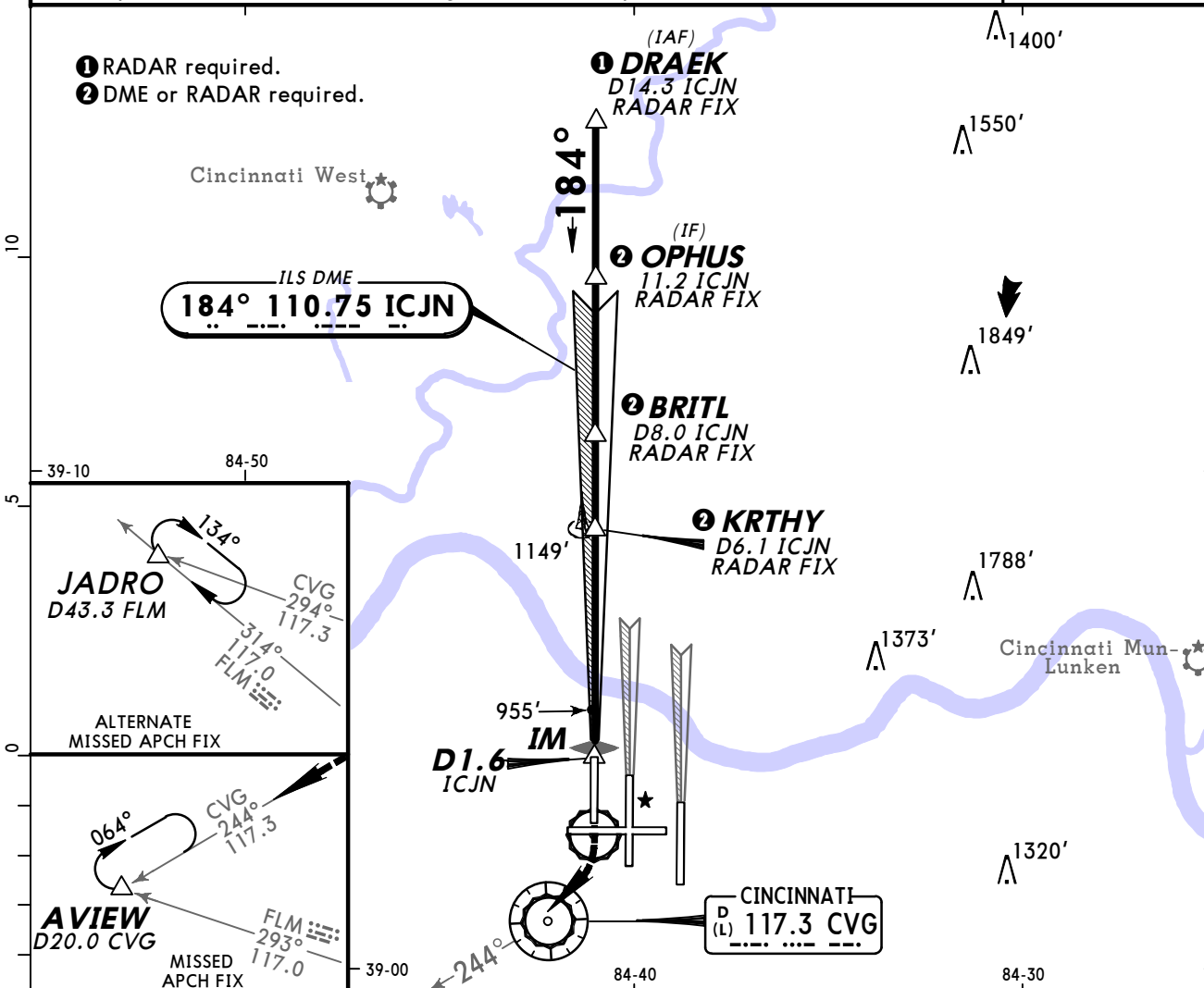
TERPS
AMEND
22TERPS
AMEND
22

KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

JEPPesen
12 DEC 08 (21-4)

CINCINNATI, OHIO
ILS or LOC Rwy 18R

D-ATIS Arrival	CINCINNATI Approach (R)	Rwy 18R-36L	CINCINNATI Tower	Ground
134.37	270°-089° 123.87 090°-269° 119.7	133.32	Rwy 18L-36R 118.97 Rwys 9-27, 18C-36C 118.3	West 121.7 East 121.3
LOC ICJN 110.75	Final Apch Crs 184°	GS KRTHY 2400' (1532')	ILS DA(H) 1068' (200')	Apt Elev 896' TDZE 868'
MISSED APCH: Climb to 1300' then climbing RIGHT turn to 3000' via CVG VOR R-244 to AVIEW INT/D20.0 CVG and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. Simultaneous approach authorized with Rwy 18C and 18L. 2. LOC procedure not authorized during simultaneous operations.				
2900' MSA CVG VOR				



TERPS	Full	TDZ or CL out	ALS out	Max Kts	MDA(H)
A				90	1460' (564')-1
B				120	1460' (564')-1 1/2
C				140	1460' (564')-1 1/2
D				165	1560' (664')-2

STRAIGHT-IN LANDING RWY 18R			CIRCLE-TO-LAND		
ILS			LOC (GS out)		
DA(H) 1068' (200')			MDA(H) 1300' (432')		
FULL	TDZ or CL out	ALS out	FULL	TDZ or CL out	ALS out
RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	RVR 60 or 1/4
			RVR 40 or 3/4	RVR 60 or 1/4	RVR 50 or 1
			RVR 50 or 1	1 1/2	1 1/2

CHANGES: Communications.

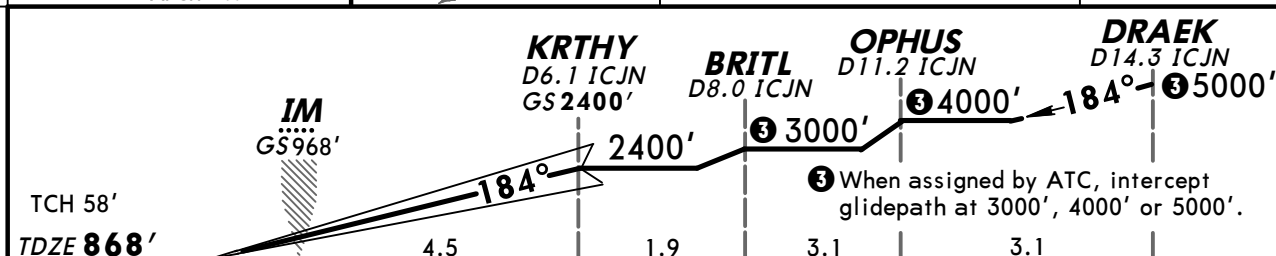
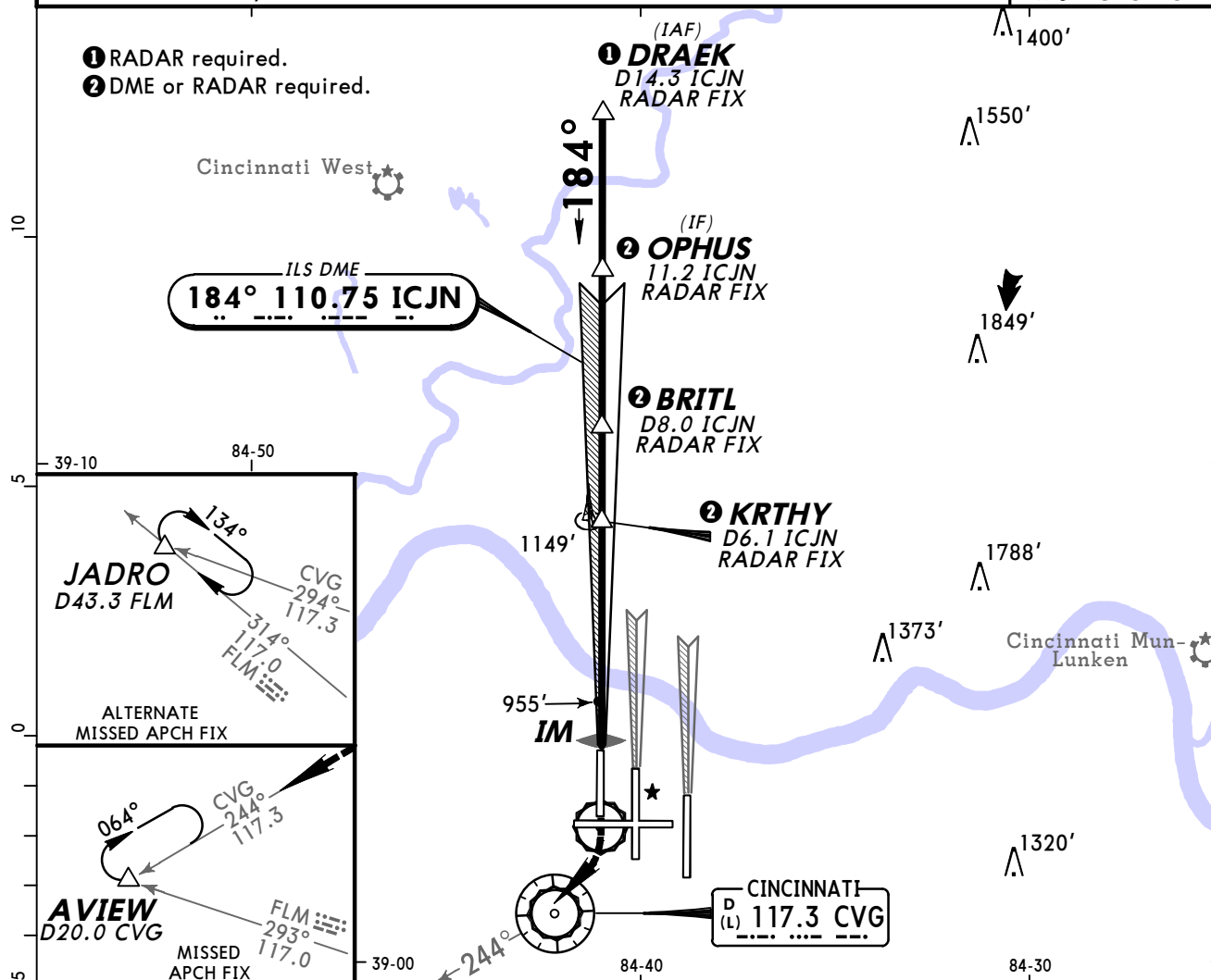
© JEPPesen, 2005, 2008. ALL RIGHTS RESERVED.

KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

JEPPESSEN
12 DEC 08 (21-4A)

CINCINNATI, OHIO
ILS Rwy 18R CAT II

D-ATIS Arrival	CINCINNATI Approach (R)	Rwy 18R-36L	CINCINNATI Tower	Ground
134.37	270°-089° 123.87 090°-269° 119.7	133.32	Rwy 18L-36R 118.97 Rwys 9-27, 18C-36C 118.3	West 121.7 East 121.3
LOC ICJN 110.75	Final Apch Crs 184°	GS KRTHY 2400' (1532')	CAT II RA 113' DA(H) 968' (100')	Apt Elev 896' TDZE 868'
MISSED APCH: Climb to 1300' then climbing RIGHT turn to 3000' via CVG VOR R-244 to AVIEW INT/D20.0 CVG and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special Aircrew & Acft Certification Required. 2. Simultaneous approach authorized with Rwy 18C and 18L.				
				2900'
				MSA CVG VOR



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1300'	3000'	CVG	AVIEW
GS	3.00°	377	484	538	646	753	861	↑	RT	via 117.3 R-244	

STRAIGHT-IN LANDING RWY 18R

CAT II ILS
RA 113'

DA(H) 968' (100')

RVR 12

KCVG/CVG

CINCINNATI/ NORTHERN KENTUCKY INTL

12 DEC 08 (21-5)

CINCINNATI, OHIO

ILS or LOC Rwy 27

BRIEFING STRIP

D-ATIS Arrival

134.37

CINCINNATI Approach (R)

270°-089° 090°-269°

123.87 119.7

Rwys 9-27, 18C-36C

118.3

Rwy 18L-36R

118.97

Rwy 18R-36L

133.32

Ground

West East

121.7 121.3

LOC

IJDP

108.7

Final

Apch Crs

274°

GS

WEGDA

2400' (1525')

ILS

DA(H)

1075' (200')

Apt Elev 896'

TDZE 875'

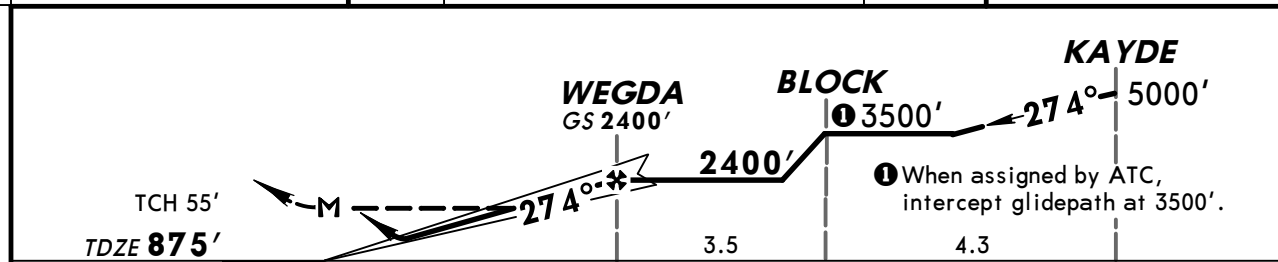
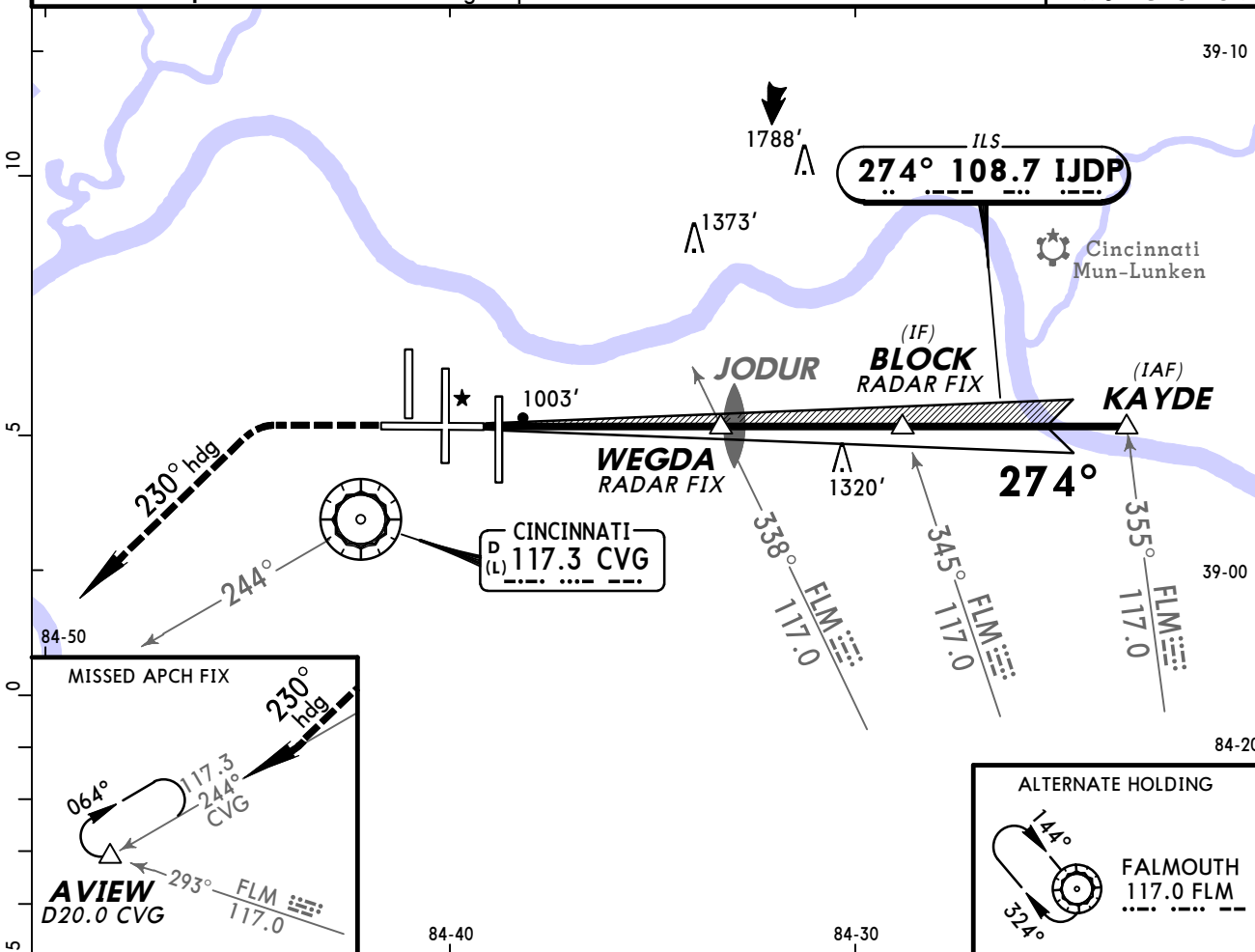
MISSED APCH: Climb to 2000' then climbing LEFT turn to 3000' via heading 230° and CVG VOR R-244 to AVIEW INT/D20.0 CVG and hold.

Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'

1. RADAR required. 2. VGSI and ILS glidepath not coincident.

2900'

MSA CVG VOR



Gnd speed-Kts	70	90	100	120	140	160	MALS	2000'	3000'	via	230°	and	117.3
GS	3.00°	377	484	538	646	753	861	VASI	↑	LT	hdg	R-244	
WEGDA to MAP	4.6	3:57	3:04	2:46	2:18	1:58	1:43						

STRAIGHT-IN LANDING RWY 27						CIRCLE-TO-LAND	
ILS DA(H) 1075' (200')			LOC (GS out) MDA(H) 1420' (545')			Max Kts	MDA(H)
FULL	RAIL or ALS out		RAIL out	ALS out		90	1460' (564') - 1
A			RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	120	1460' (564') - 1 1/2
B						140	1560' (664') - 2
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2		165	
D			RVR 60 or 1 1/4	1 3/4			

CHANGES: Communications.

© JEPPESEN, 1997, 2008. ALL RIGHTS RESERVED.

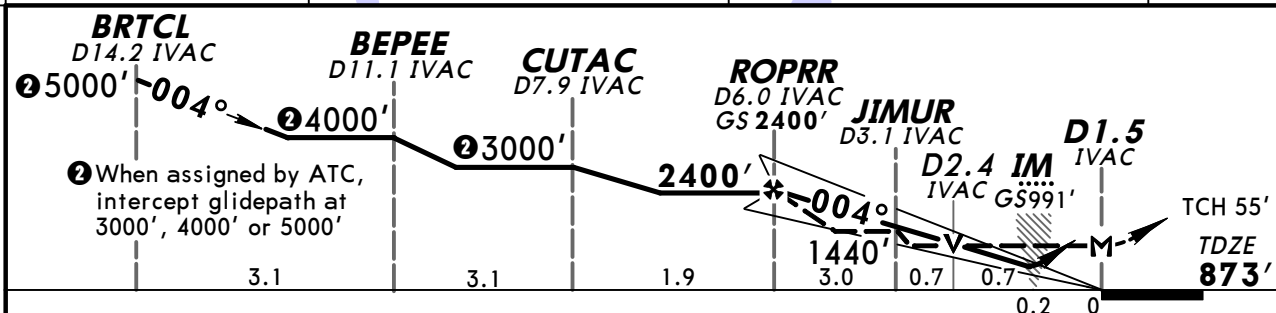
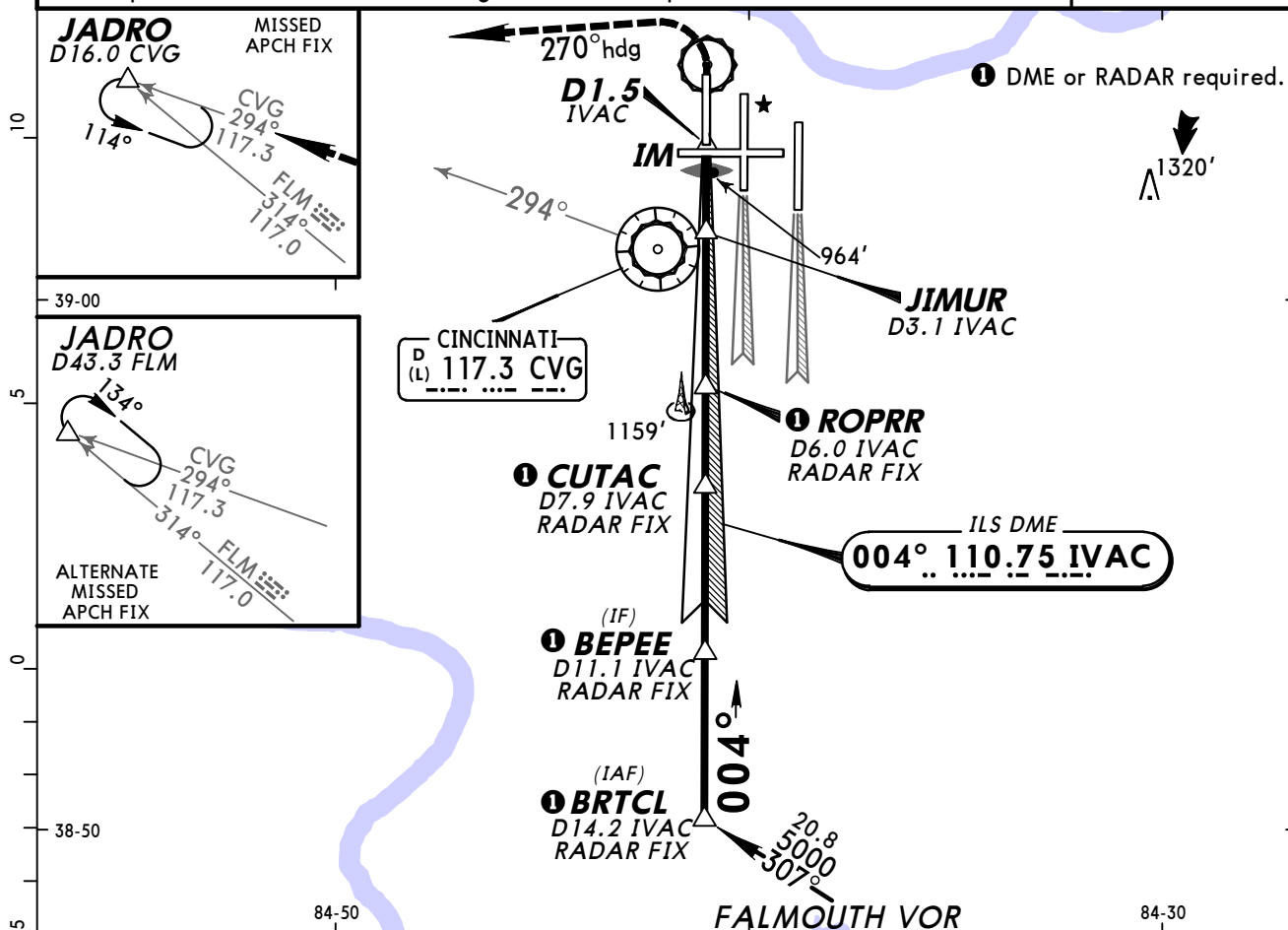
KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

JEPPesen
12 DEC 08 (21-6)

CINCINNATI, OHIO
ILS or LOC Rwy 36L

BRIEFING STRIP™

D-ATIS Arrival	CINCINNATI Approach (R) 270°-089° 090°-269°		Rwy 18R-36L	CINCINNATI Tower Rwys 9-27, 18C-36C Rwy 18L-36R		Ground West East	
134.37	123.87	119.7	133.32	118.3	118.97	121.7	121.3
LOC IVAC 110.75	Final Apch Crs 004°	GS ROPRR 2400' (1527')	ILS DA(H) 1073' (200')	Apt Elev 896' TDZE 873'		2900' MSA CVG VOR	
MISSED APCH: Climb to 1300' then climbing LEFT turn to 3000' via 270° heading and CVG VOR R-294 to JADRO/D16.0 CVG and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. DME required. 2. Simultaneous approach authorized with Rwys 36C and 36R. 3. LOC procedure not authorized during simultaneous operations.							



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II	1300'	3000'	270°	CVG	JADRO
GS	3.00°	377	484	538	646	753	861	↑	LT	hdg	117.3	R-294
MAP at D1.5 IVAC or ROPRR to MAP	4.6	3:57	3:04	2:46	2:18	1:58	1:43					

ILS				LOC (GS out)				CIRCLE-TO-LAND			
DA(H) 1073' (200')				MDA(H) 1220' (347') With Jimur				MDA(H) 1440' (567') Without Jimur			
FULL	TDZ or CL out	ALS out		ALS out		ALS out		Max Kts		MDA(H)	
A								90		1460' (564') - 1	
B								120		1460' (564') - 1 1/2	
C	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	RVR 24 or 1/2	RVR 50 or 1	140		1460' (564') - 1 1/2	
D				RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 60 or 1 1/4	1 3/4	165		1560' (664') - 2	

CHANGES: Communications.

© JEPPESEN, 2005, 2008. ALL RIGHTS RESERVED.

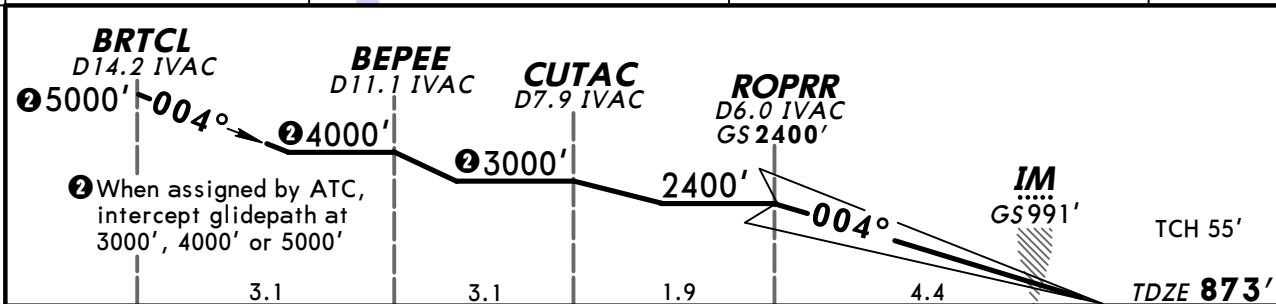
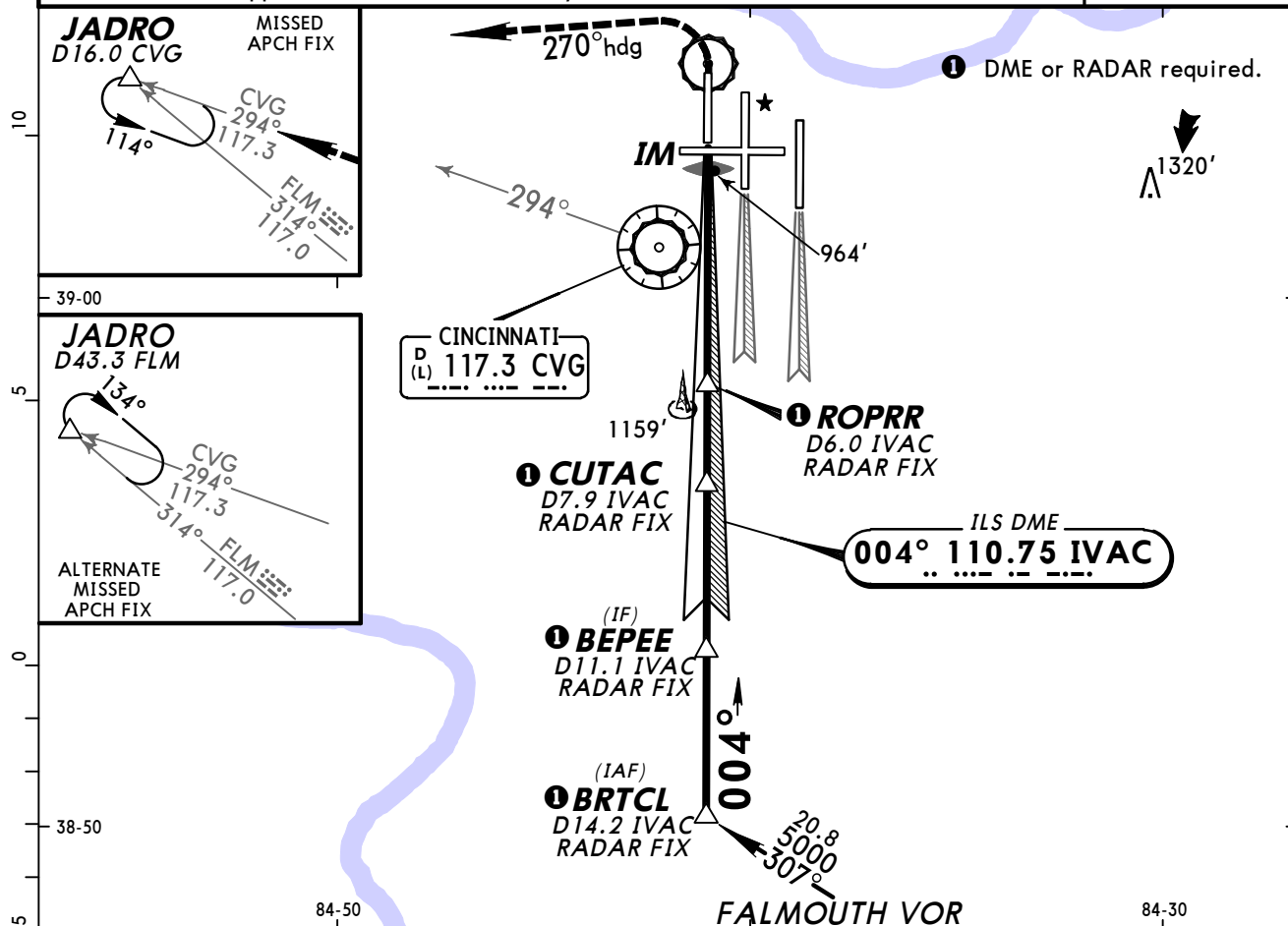
KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

12 DEC 08 (21-6A)

CINCINNATI, OHIO
ILS Rwy 36L CAT II

BRIEFING STRIP™

D-ATIS Arrival		CINCINNATI Approach (R)		CINCINNATI Tower		Ground	
270°-089°		090°-269°		Rwys 9-27, 18C-36C		WestEast	
134.37		123.87119.7		133.32118.3		118.97121.7121.3	
LOC IVAC		Final Apch Crs		CAT II RA 98'		Apt Elev 896'	
110.75		004°		2400' (1527') ROPRR		DA(H) 973' (100') TDZE 873'	
MISSED APCH: Climb to 1300' then climbing LEFT turn to 3000' via 270° heading and CVG VOR R-294 to JADRO/D16.0 CVG and hold.							2900' MSA CVG VOR
Alt Set: INCHESTrans level: FL 180Trans alt: 18000'							
1. Special Aircrew & Acft Certification Required. 2. DME required. 3. Simultaneous approach authorized with Rwys 36C and 36R.							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1300'	3000'	270°	CVG	JADRO
GS	3.00°	377	484	538	646	753	861	↑	LT	via hdg	117.3	R-294

STRAIGHT-IN LANDING RWY 36L

CAT II ILS
RA 98'
DA(H) **973'** (100')

RVR 12

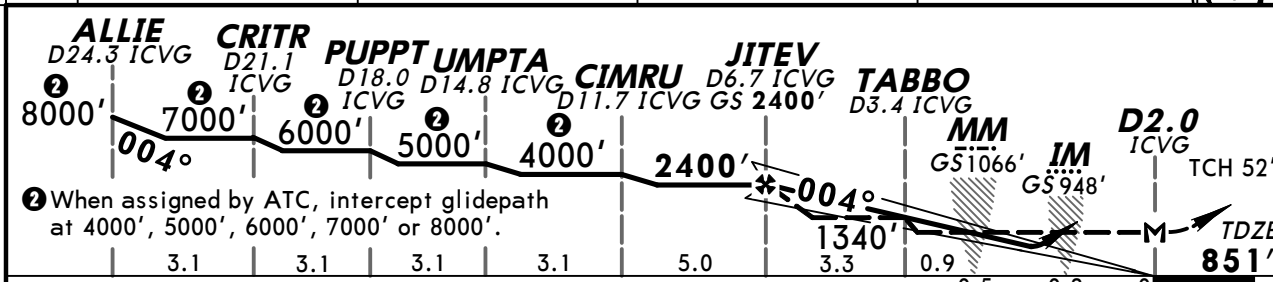
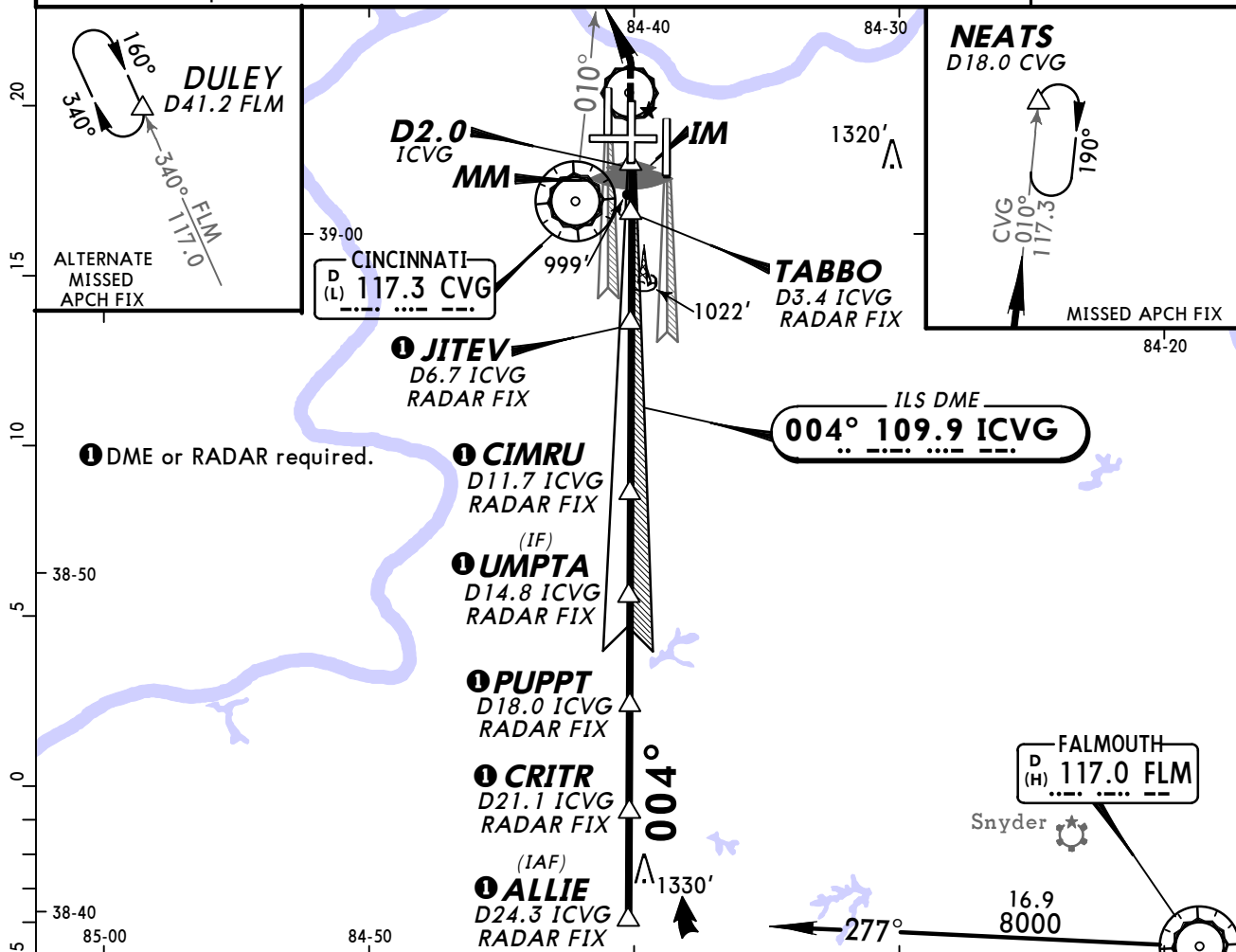
TERPS

KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

12 DEC 08 (21-7)

CINCINNATI, OHIO
ILS or LOC Rwy 36C

D-ATIS Arrival 134.37	CINCINNATI Approach (R) 270°-089° 090°-269° 123.87 119.7	Rwys 9-27, 18C-36C 118.3	CINCINNATI Tower Rwy 18L-36R Rwy 18R-36L 118.97 133.32	Ground West East 121.7 121.3
LOC ICVG 109.9	Final Apch Crs 004°	GS JITEV 2400' (1549')	ILS DA(H) 1051' (200')	Apt Elev 896' TDZE 851'
MISSED APCH: Climb to 1500' then climbing LEFT turn to 3000' via CVG VOR R-010 to NEATS/D18.0 CVG and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME required. 2. VGSI and ILS glidepath not coincident. 3. Simultaneous approach authorized with Rwys 36L and 36R. 4. LOC procedure not authorized during simultaneous operations.				
2900' MSA CVG VOR				



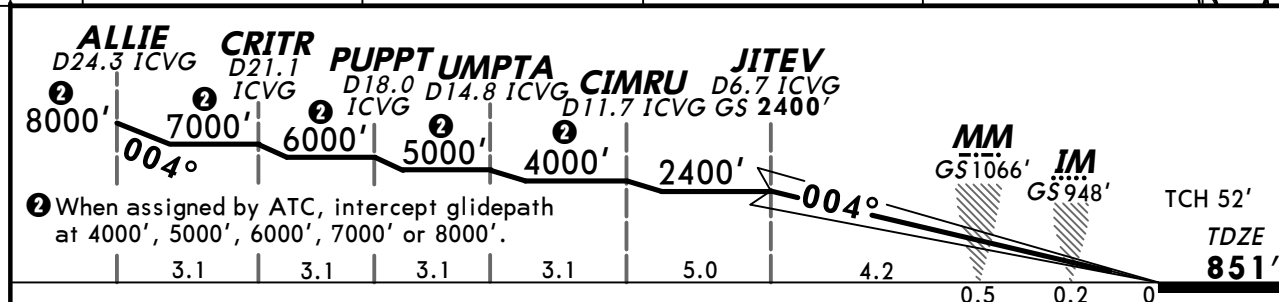
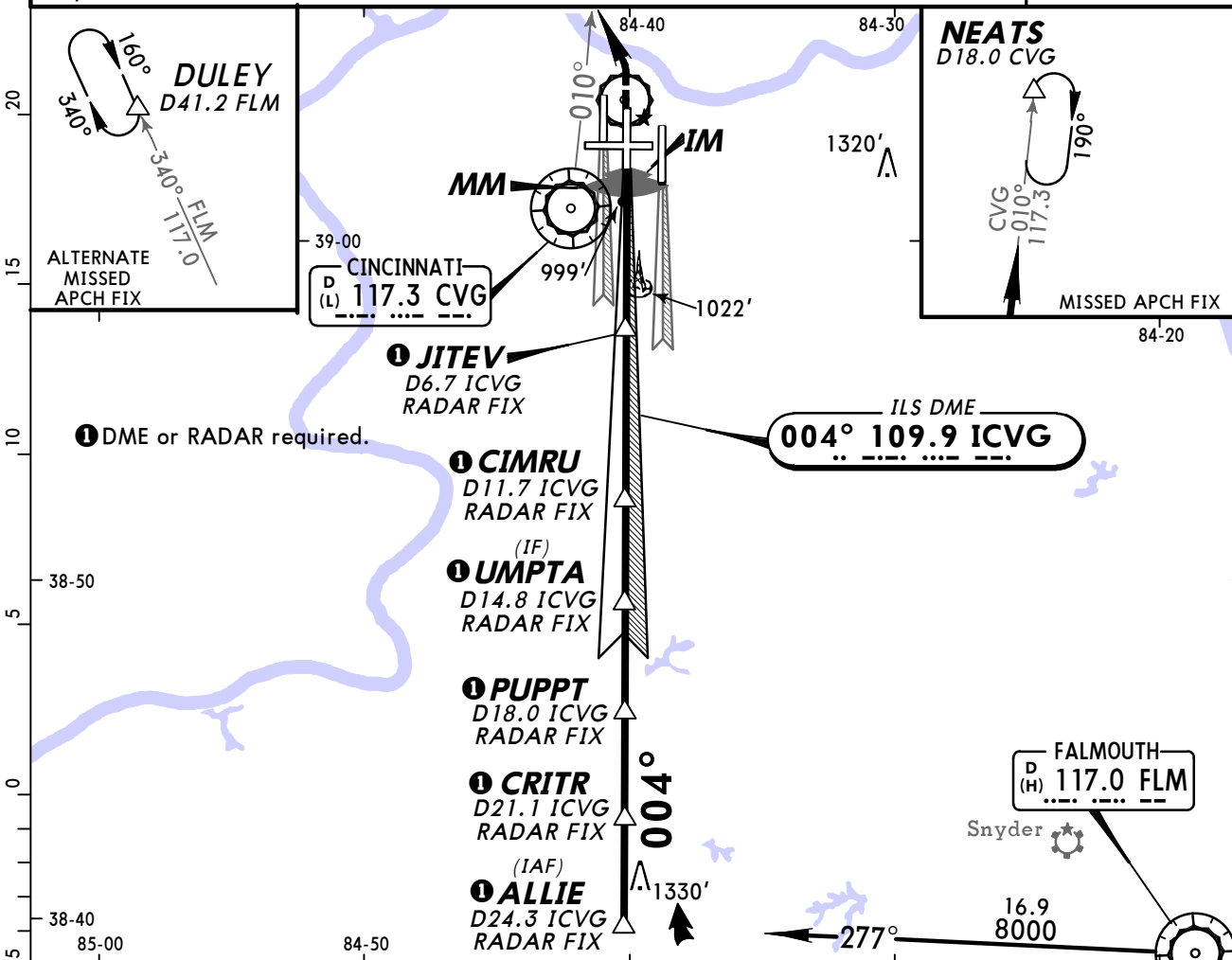
Gnd speed-Kts	70	90	100	120	140	160	ALS II	1500'	3000'	CVG	NEATS
GS	3.00°	377	484	538	646	753	861	PAPI	LT	117.3	R-010
MAP at D2.0 ICVG or JITEV to MAP	4.7	4:02	3:08	2:49	2:21	2:01	1:46				

ILS			STRAIGHT-IN LANDING RWY 36C				CIRCLE-TO-LAND	
DA(H) 1051' (200')			MDA(H) 1260' (409')		LOC (GS out) MDA(H) 1340' (489')		Max Kts	
FULL			With Tabbo		Without Tabbo		MDA(H)	
ALS out			ALS out		ALS out			
A	RVR 18	RVR 24	RVR 24	RVR 50	RVR 24 or 1/2	RVR 50 or 1	90	1460' (564') - 1
B	or 1/2	or 1/2	or 1/2	or 1			120	
C			RVR 40	RVR 60	RVR 40 or 3/4	RVR 60 or 1/4	140	1460' (564') - 1 1/2
D			or 3/4	or 1/4	RVR 50 or 1	1 1/2	165	1560' (664') - 2

CHANGES: Communications.

© JEPPESEN, 1997, 2008. ALL RIGHTS RESERVED.

D-ATIS Arrival	CINCINNATI Approach (R)		CINCINNATI Tower			Ground	
134.37	270°-089°	090°-269°	Rwys 9-27, 18C-36C	Rwy 18L-36R	Rwy 18R-36L	West	East
123.87	119.7	118.3	118.97	133.32	121.7	121.3	
LOC ICVG 109.9	Final Apch Crs 004°	GS JITEV 2400' (1549')	CAT IIIC NA	CAT IIIB Refer to Minimums	CAT IIIA RA 134' DA(H)951'(100')	Apt Elev 896' TDZE 851'	
MISSED APCH: Climb to 1500' then climbing LEFT turn to 3000' via CVG VOR R-010 to NEATS/D18.0 and hold.							2900'
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Special Aircrew & Acft Certification Required. 2. DME required. 3. VGSI and ILS glidepath not coincident. 4. Simultaneous approach authorized with Rwys 36L and 36R.							MSA CVG VOR



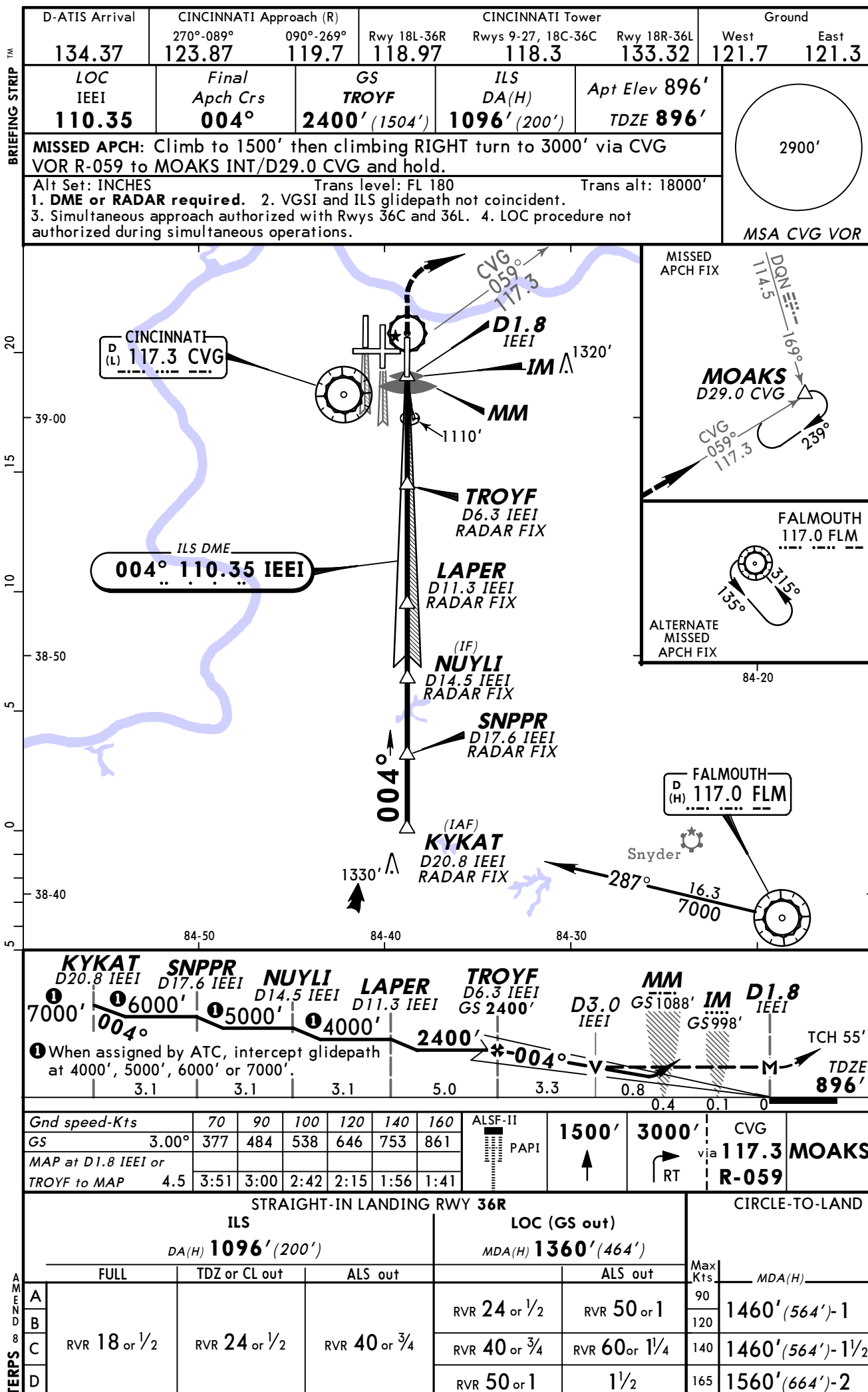
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1500'	3000'	CVG	
GS	3.00°	377	484	538	646	753	861	PAPI	↑	via	117.3
									LT		NEATS
											R-010

STRAIGHT-IN LANDING RWY 36C			
CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 134' DA(H) 951'(100')
NA	RVR 6	RVR 7	RVR 12

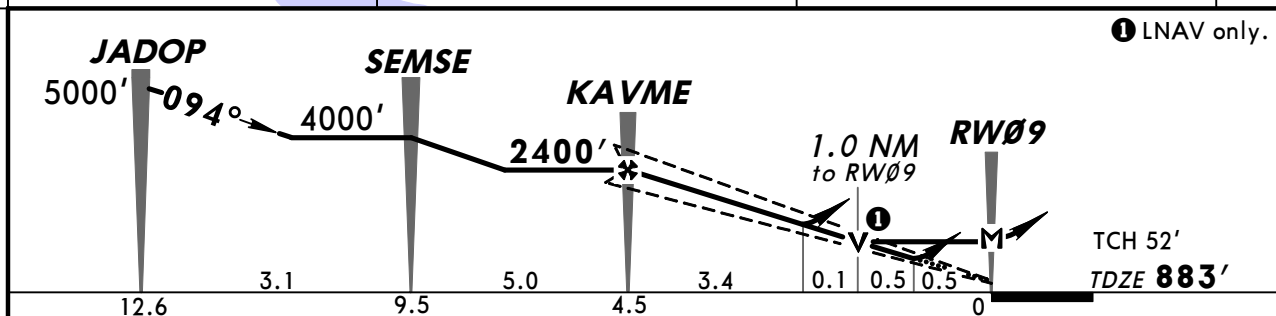
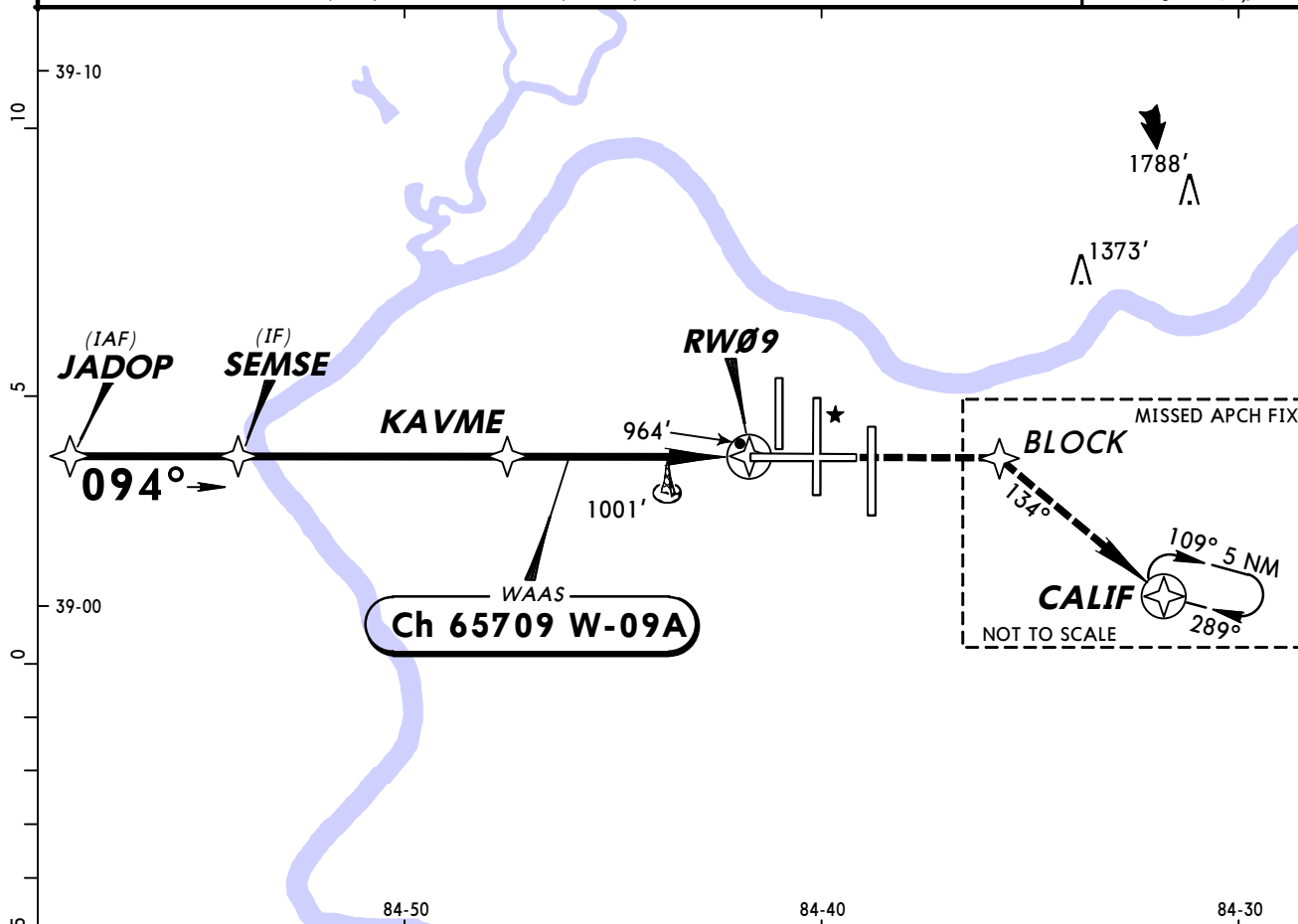
KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

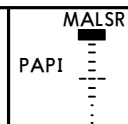
12 DEC 08 (21-8)

CINCINNATI, OHIO
ILS or LOC Rwy 36R



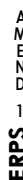
BRIEFING STRIP™	D-ATIS Arrival	CINCINNATI Approach (R)		CINCINNATI Tower			Ground	
		270°-089°	090°-269°	Rwys 9-27, 18C-36C	Rwy 18L-36R	Rwy 18R-36L	West	East
	134.37	123.87	119.7	118.3	118.97	133.32	121.7	121.3
	WAAS Ch 65709 W-09A	Final Apch Crs 094°	Minimum Alt KAVME 2400' (1517')	LPV DA(H) 1083' (200')	Apt Elev 896' TDZE 883'		3000' MSA RW09	
	MISSED APCH: Climb to 3000' direct BLOCK and via 134° track to CALIF and hold.							
Alt Set: INCHES								



Gnd speed-Kts	70	90	100	120	140	160		3000' ↑		BLOCK
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at RW09										

STRAIGHT-IN LANDING RWY 9								CIRCLE-TO-LAND		
LPV DA(H) 1083' (200')		LNAV/VNAV DA(H) 1297' (414')		LNAV MDA(H) 1260' (377')			Max Kts	MDA(H)		
RAIL or ALS out		RAIL or ALS out		RAIL out		ALS out				
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1460' (564')-1	
B								120		
C									140	1460' (564')- 1 1/2
D								RVR 50 or 1	RVR 60 or 1 1/4	

BRIEFING STRIP™



STRAIGHT-IN LANDING RWY 18L										CIRCLE-TO-LAND	
LPV <i>DA(H)</i> 1089' (200')			LNAV/VNAV <i>DA(H)</i> 1395' (506')		LNAV <i>MDA(H)</i> 1360' (471')			Max Kts			
RAIL or ALS out		RAIL or ALS out		RAIL out	ALS out	<i>MDA(H)</i>					
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 60 or 1 1/4	1 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1460' (564') - 1		
B								120			
C								140		1460' (564') - 1 1/2	
D								165			

BRIEFING STRIP™

MAP at RW18CTERPS
AMEND
1

KCVG/CVG CINCINNATI/ NORTHERN KENTUCKY INTL

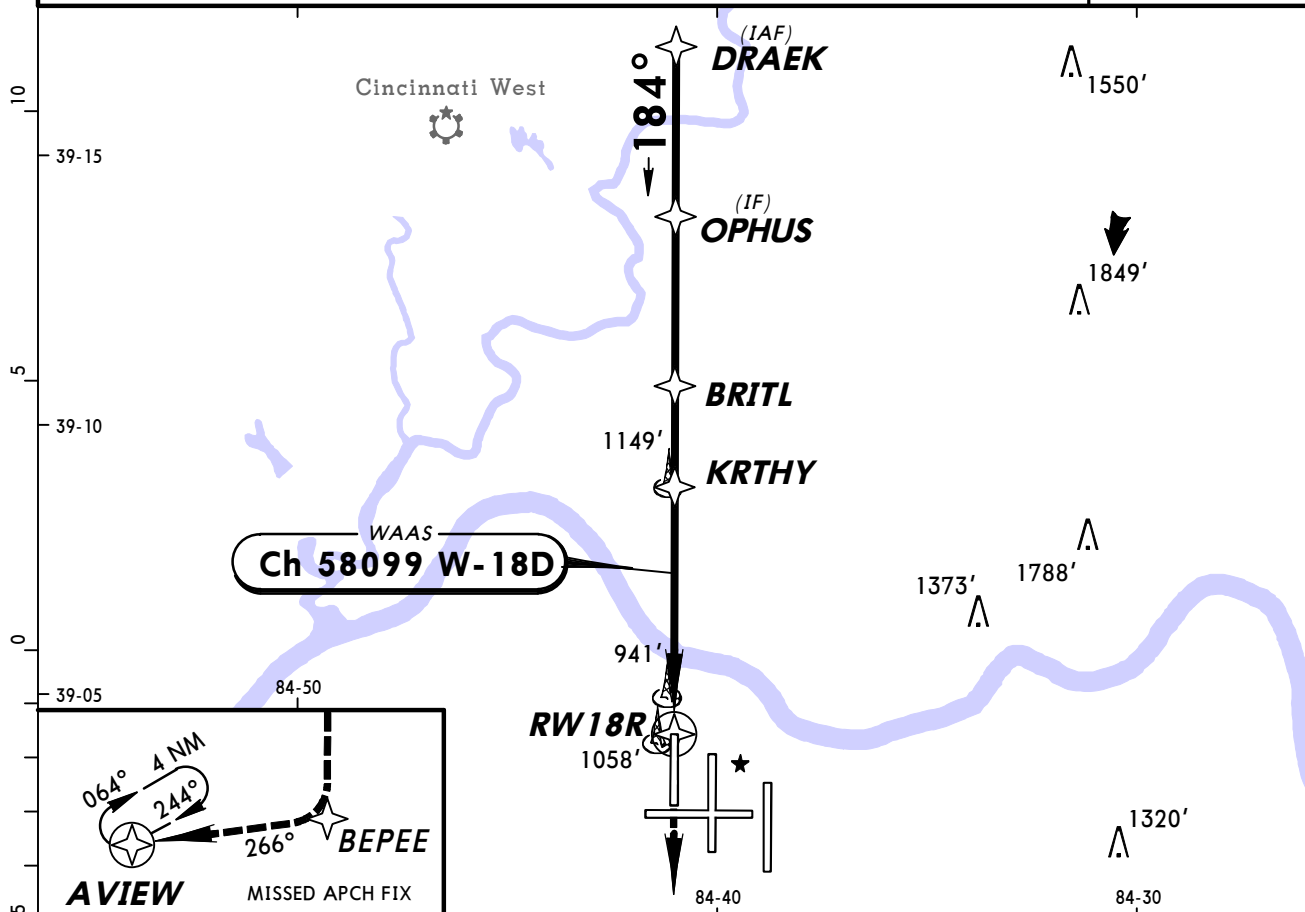
12 DEC 08

(22-4)

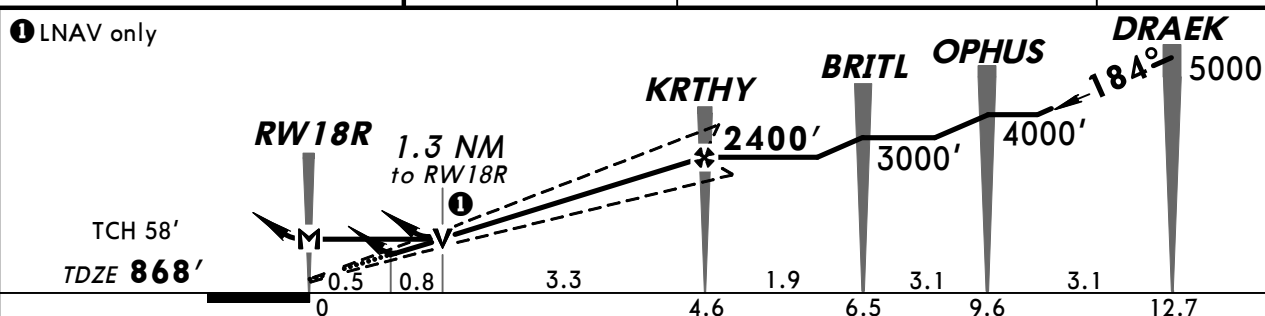
CINCINNATI, OHIO
RNAV (GPS) Y Rwy 18R

BRIEFING STRIP™

D-ATIS Arrival	CINCINNATI Approach (R)		CINCINNATI Tower			Ground	
	270°-089°	090°-269°	Rwy 18R-36L	Rwy 18L-36R	Rwys 9-27, 18C-36C	West	East
134.37	123.87	119.7	133.32	118.97	118.3	121.7	121.3
WAAS CH 58099 W-18D	Final Apch Crs 184°	Minimum Alt KRTHY 2400'(1532')	LPV DA(H) 1068'(200')	Apt Elev 896' TDZE 868'		3000' MSA RW18R	
MISSED APCH: Climb to 3000' direct BEPEE and via 266° track to AVIEW 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 -16°C (4°F) or above 47°C (116°F). 3. DME/DME RNP-0.3 not authorized.							



① LNAV only



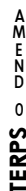
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II
---------------	----	----	-----	-----	-----	-----	---

STRAIGHT-IN LANDING RWY 18R					CIRCLE-TO-LAND		
LPV DA(H) 1068' (200')		LNAV/VNAV DA(H) 1321' (453')		LNAV MDA(H) 1320' (452')			
ALS out		ALS out		ALS out	Max Kts	MDA(H)	
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2	90	1460' (564') - 1	
					120	1460' (564') - 1 1/2	
					140	1460' (564') - 1 1/2	
B	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2	165	1560' (664') - 2	

CHANGES: Communications.

© JEPPESEN, 2005, 2008. ALL RIGHTS RESERVED.

BRIEFING STRIP TM

TERPS
0
AMEND 0

STRAIGHT-IN LANDING RWY 27										CIRCLE-TO-LAND	
LPV <i>DA(H)</i> 1075' (200')			LNAV/VNAV <i>DA(H)</i> 1349' (474')		LNAV <i>MDA(H)</i> 1420' (545')			Max Kts	<i>MDA(H)</i>		
RAIL or ALS out			RAIL or ALS out		RAIL out ALS out			90 120	1460'(564')-1		
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 60 or 1 1/4	1 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	140	1460'(564')-1 1/2		
B								165	1560'(664')-2		
C					RVR 50 or 1			1 1/2	140	1460'(564')-1 1/2	
D					RVR 60 or 1 1/4			1 3/4	165	1560'(664')-2	

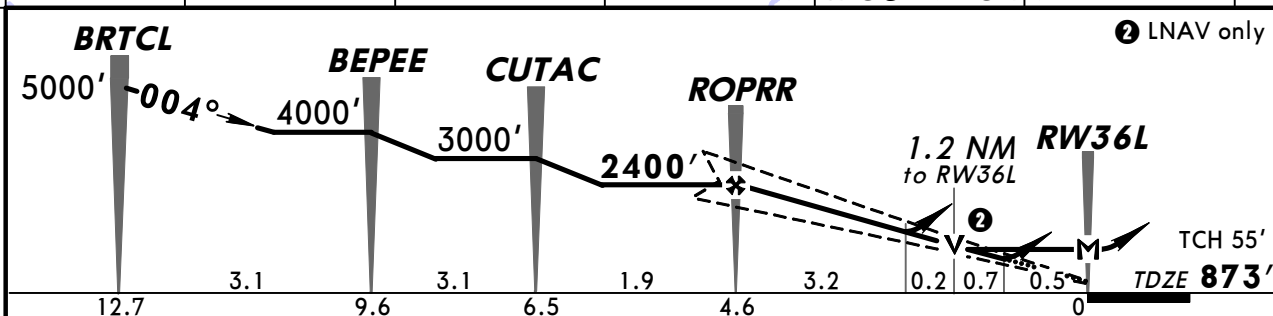
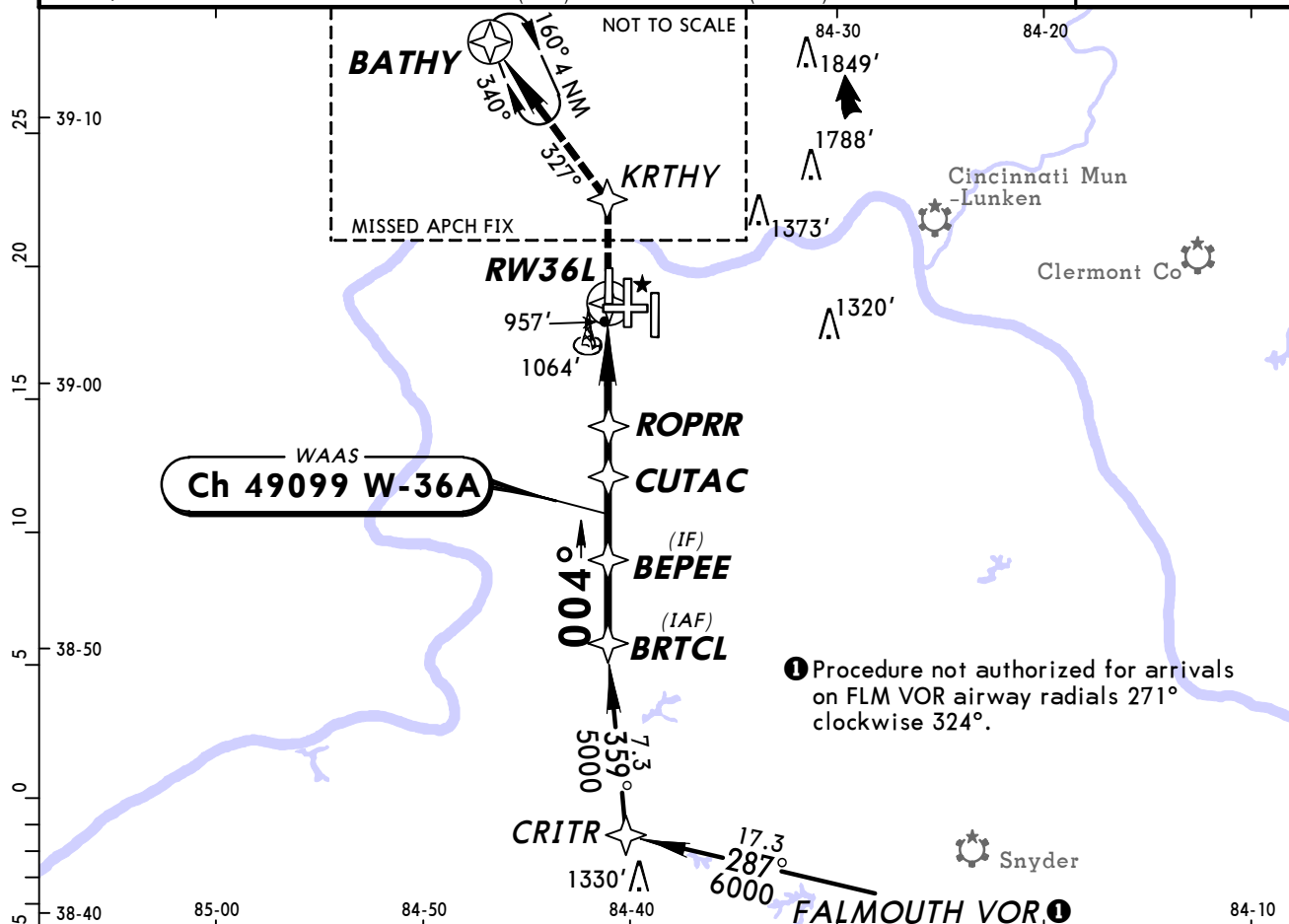
KCVG/CVG
CINCINNATI/
NORTHERN KENTUCKY INTL

12 DEC 08 (22-6)

CINCINNATI, OHIO
RNAV (GPS) Y Rwy 36L

BRIEFING STRIP™

D-ATIS Arrival	CINCINNATI Approach (R)		CINCINNATI Tower			Ground	
134.37	270°-089° 123.87	090°-269° 119.7	Rwy 18R-36L 133.32	Rwys 9-27, 18C-36C 118.3	Rwy 18L-36R 118.97	West 121.7	East 121.3
WAAS Ch 49099 W-36A	Final Apch Crs 004°	Minimum Alt ROPRR 2400'(1527')	LPV DA(H) 1073'(200')	Apt Elev 896' TDZE 873'		3000' MSA RW36L	
MISSED APCH: Climb to 3000' direct KRTHY and via 327° track to BATHY and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME/DME RNP-0.3 not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 47°C (116°F).							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	D	KRTHY
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at RW36L										

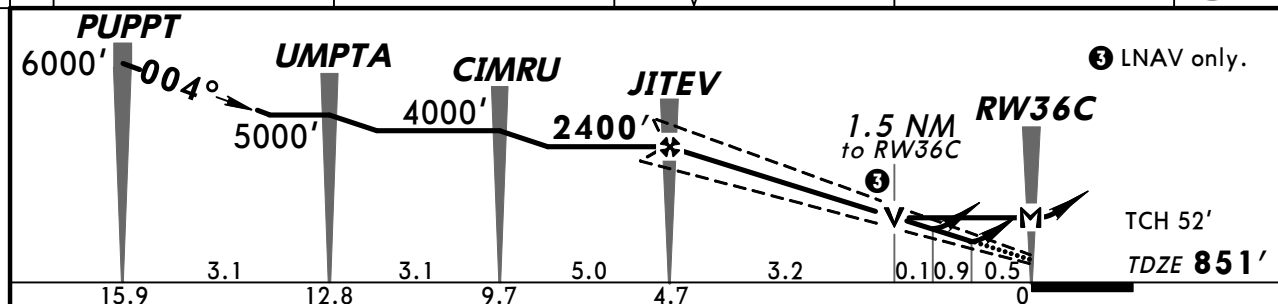
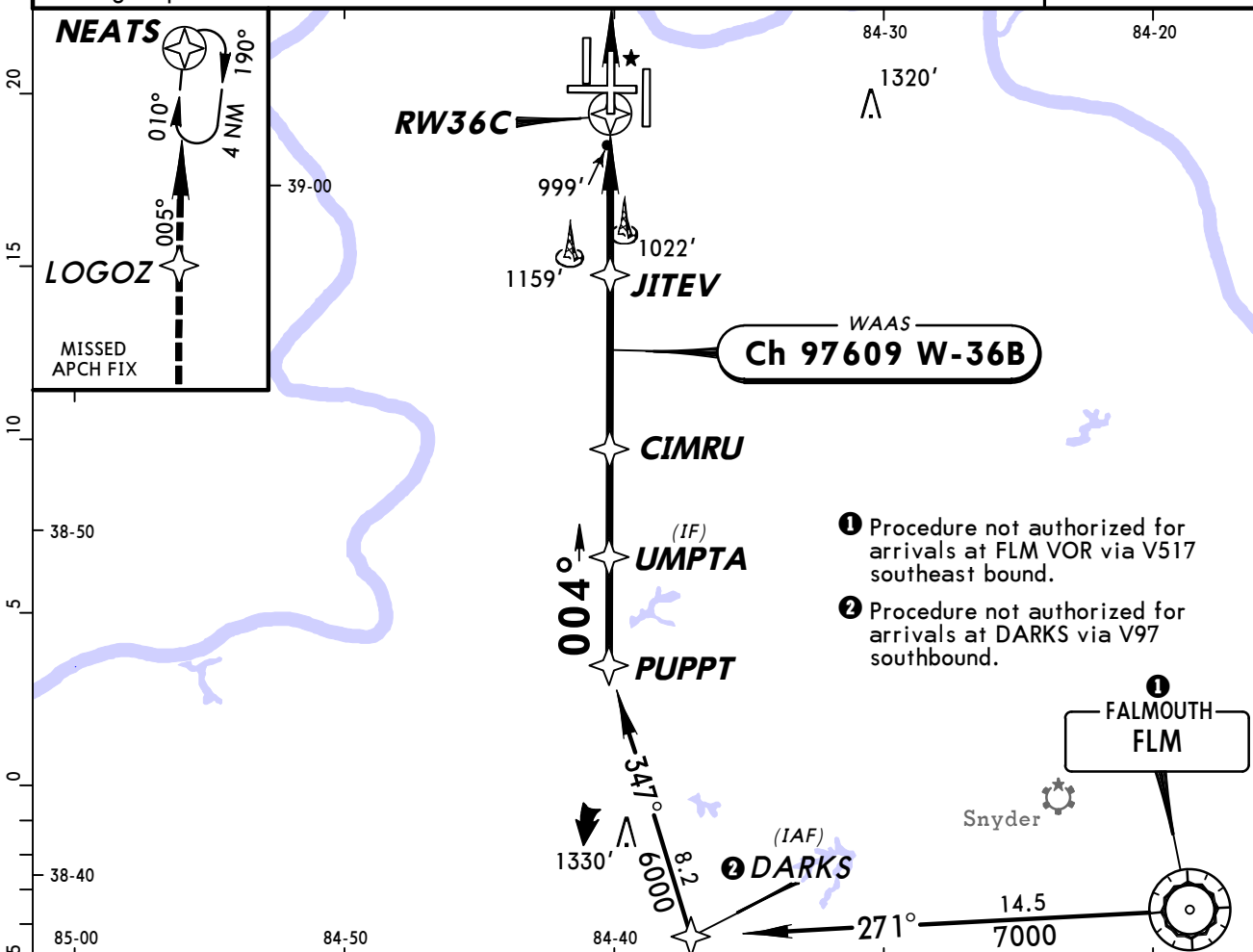
STRAIGHT-IN LANDING RWY 36L				CIRCLE-TO-LAND			
LPV DA(H) 1073' (200')		LNAV/VNAV DA(H) 1383' (510')		LNAV MDA(H) 1300' (427')		Max Kts	
ALS out		ALS out		ALS out		MDA(H)	
A						90	1460' (564') - 1
B	RVR 24	RVR 40	RVR 60	RVR 24 or 1/2	RVR 50 or 1	120	1460' (564') - 1 1/2
C	or 1/2	or 3/4	or 1 1/4	RVR 40 or 3/4	1 1/4	140	1560' (664') - 2
D				RVR 50 or 1	1 1/2	165	

CHANGES: Communications.

© JEPPESEN, 2005, 2008. ALL RIGHTS RESERVED.

BRIEFING STRIP

D-ATIS Arrival	CINCINNATI Approach (R)		CINCINNATI Tower			Ground	
270°-089° 134.37	090°-269° 123.87	119.7	Rwys 9-27, 18C-36C 118.3	Rwy 18L-36R 118.97	Rwy 18R-36L 133.32	West 121.7	East 121.3
WAAS Ch 97609 W-36B	Final Apch Crs 004°	Minimum Alt JITEV 2400' (1549')	LPV DA(H) 1051' (200')	Apt Elev 896' TDZE 851'		3000' MSA RW36C	
MISSED APCH: Climb to 3000' direct LOGOZ and via 005° track to NEATS and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 47°C (116°F). 2. DME/DME RNP-0.3 not authorized. 3. VGSI and RNAV glidepath not coincident.							

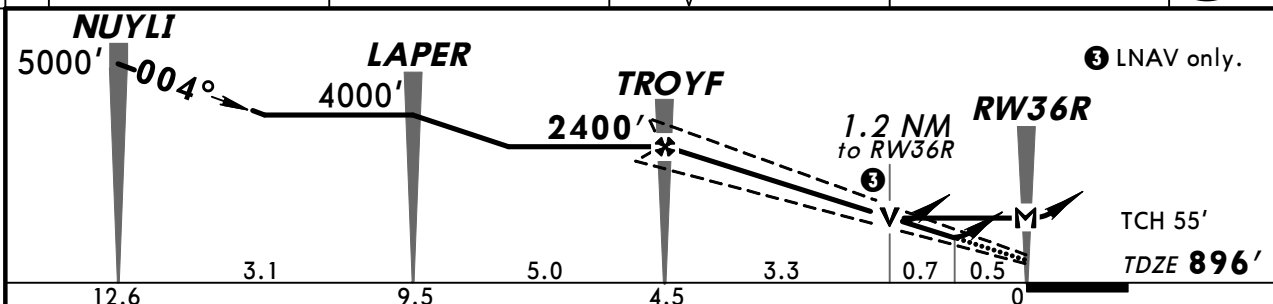
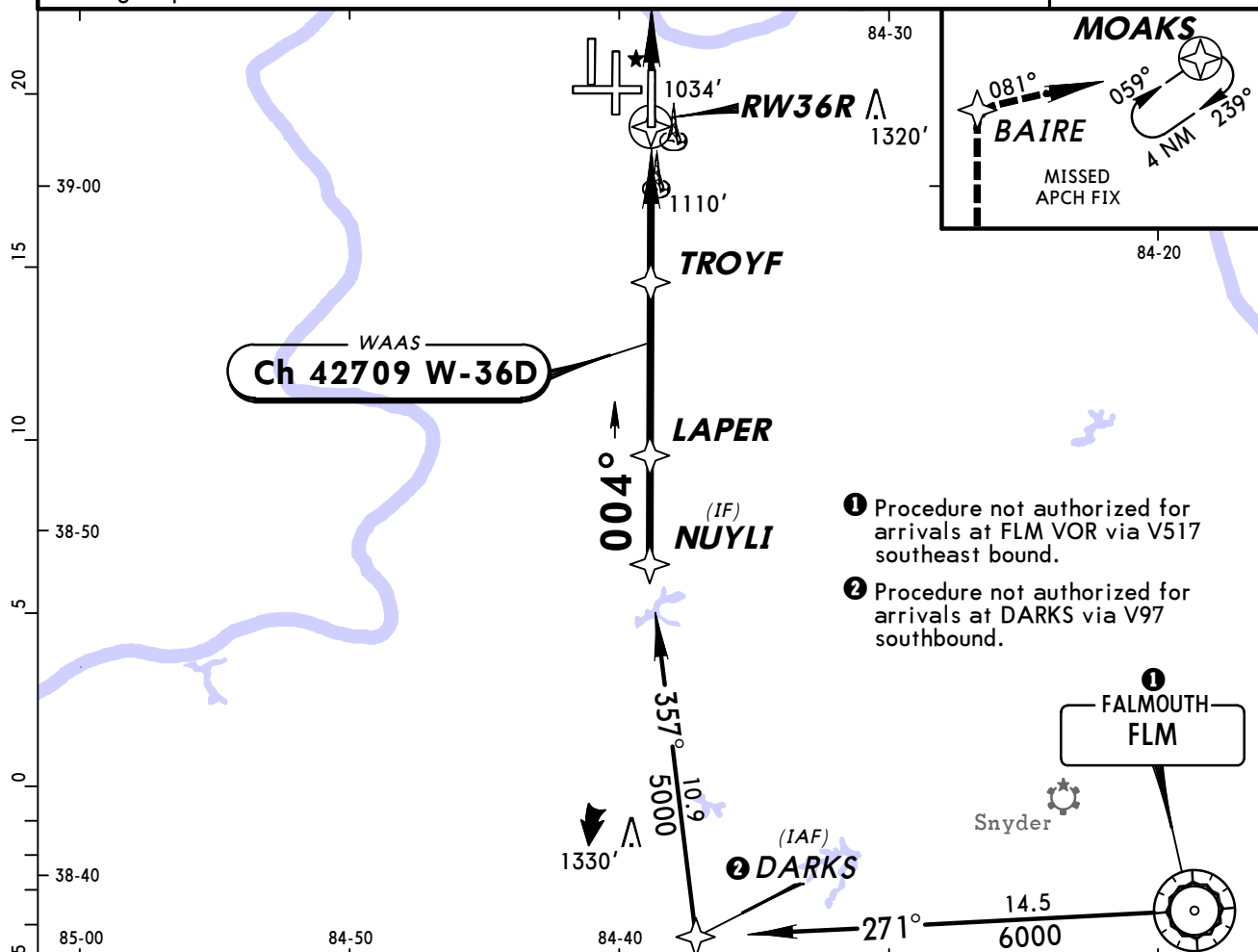


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 3000' ↕ → LOGOZ
Glide Path Angle 3.00°	372	478	531	637	743	849	
MAP at RW36C							

STRAIGHT-IN LANDING RWY 36C				CIRCLE-TO-LAND			
LPV DA(H) 1051' (200')		LNAV/VNAV DA(H) 1347' (496')		LNAV MDA(H) 1400' (549')		Max Kts	
RAIL or ALS out		RAIL or ALS out		RAIL out	ALS out	90	1460' (564') - 1
A				RVR 24 or 1/2	RVR 40 or 3/4	120	
B				RVR 50 or 1	1 1/2	140	1460' (564') - 1 1/2
C				RVR 60 or 1 1/4	1 3/4	165	1560' (664') - 2
D							

BRIEFING STRIP™

D-ATIS Arrival	CINCINNATI Approach (R)		CINCINNATI Tower			Ground	
270°-089°	090°-269°	Rwy 18L-36R	Rwys 9-27, 18C-36C	Rwy 18R-36L	West	East	
134.37	123.87	119.7	118.97	118.3	133.32	121.7	121.3
WAAS Ch 42709 W-36D	<i>Final</i> <i>Apch Crs</i> 004°	<i>Minimum Alt</i> TROYF 2400' (1504')	<i>LPV</i> <i>DA(H)</i> 1096' (200')	<i>Apt Elev 896'</i> <i>TDZE 896'</i>		3000' MSA RW36R	
MISSED APCH: Climb to 3000' direct BAIRE and via 081° track to MOAKS and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 47°C (116°F). 2. DME/DME RNP-0.3 not authorized. 3. VGSI and RNAV glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	ALSFI-II	3000'	D	BAIRE
Glide Path Angle	3.00°	372	478	531	637	743	PAPI			
MAP at RW36R										

STRAIGHT-IN LANDING RWY 36R				CIRCLE-TO-LAND			
LPV DA(H) 1096' (200')		LNAV/VNAV DA(H) 1340' (444')		LNAV MDA(H) 1360' (464')		CIRCLE-TO-LAND	
RAIL or ALS out		RAIL or ALS out		RAIL out	ALS out	Max Kts	MDA(H)
A				RVR 24 or 1/2	RVR 40 or 3/4	90	1460' (564')-1
B				RVR 40 or 3/4	RVR 60 or 1 1/4	120	1460' (564')-1 1/2
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2	1 1/2	140	1460' (564')-1 1/2
D				RVR 50 or 1	1 1/2	165	1560' (664')-2

KCVG/CVG
CINCINNATI/
NORTHERN KENTUCKY INTL

22 JUL 11

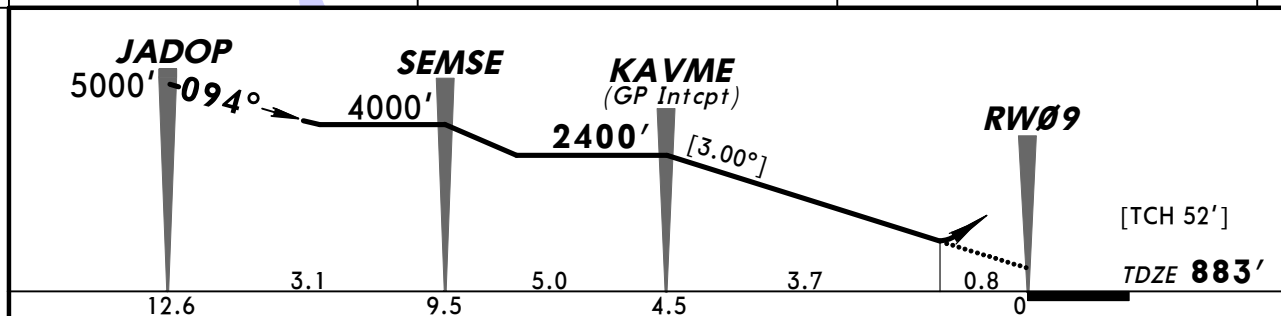
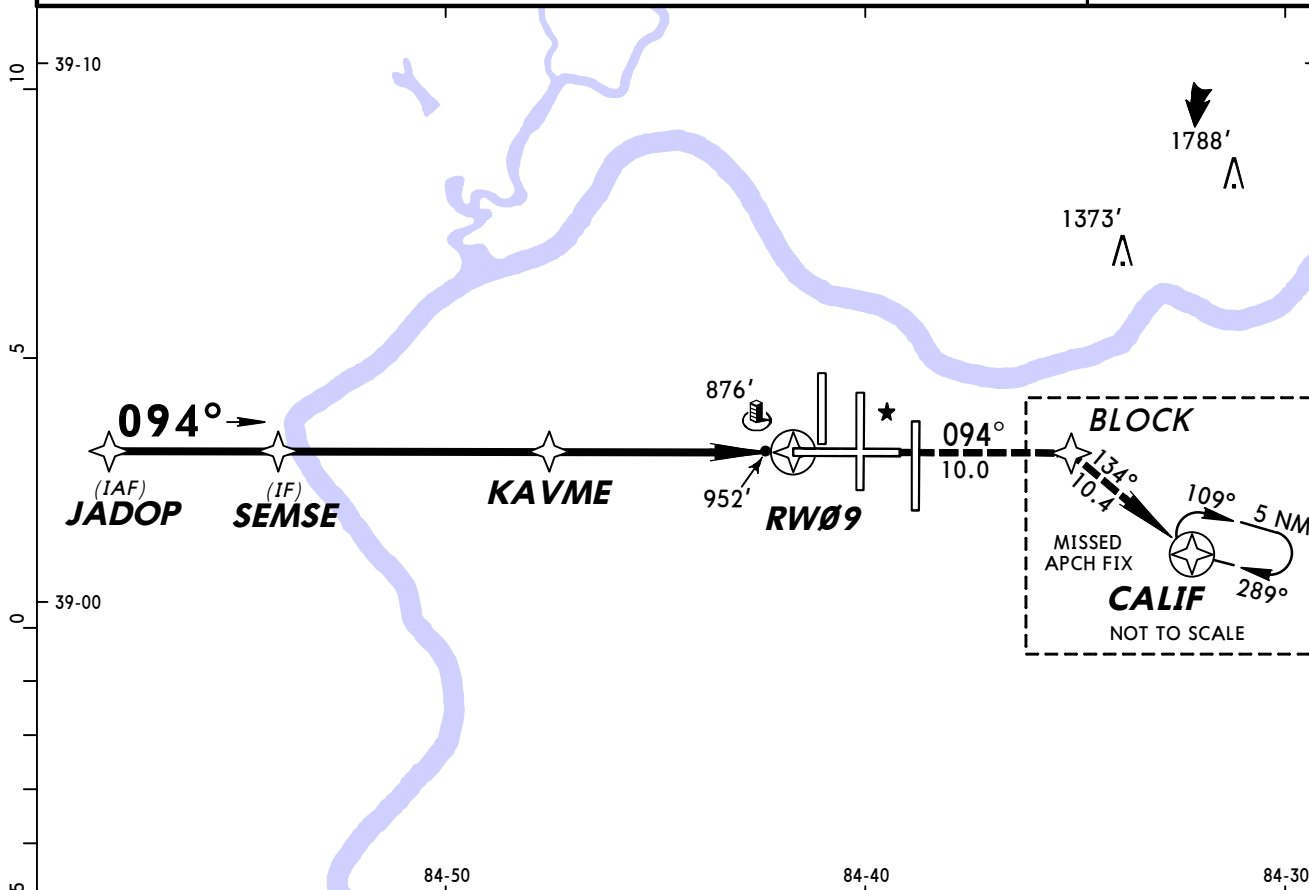
(22-20)

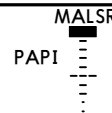
JEPPESSEN

CINCINNATI, OHIO
RNAV (RNP) Z Rwy 9

BRIEFING STRIP™

D-ATIS Arrival	CINCINNATI Approach (R) 270°-089° 090°-269°		CINCINNATI Tower Rwys 9-27, 18C-36C Rwy 18L-36R Rwy 18R-36L			Ground West East	
134.37	123.87	119.7	118.3	118.97	133.32	121.7	121.3
RNAV	Final Apch Crs 094°	Minimum Alt KAVME 2400' (1517')	RNP 0.18 DA(H) 1199' (316')		Apt Elev 896' TDZE 883'	3000' MSA RW09	
MISSED APCH: Climb to 3000' via 094° track to BLOCK and via 134° track to CALIF and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. AUTHORIZATION REQUIRED. 2. GPS required. 3. RADAR required. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -16°C (4°F) or above 47°C (116°F). 5. VGSI and RNAV glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160		3000'	via 094°	BLOCK
Descent angle [3.00°]	372	478	531	637	743	849				
MAP at DA										

STRAIGHT-IN LANDING RWY 9					
RNP 0.18			RNP 0.30		
DA(H) 1199' (316')			DA(H) 1233' (350')		
		RAIL out	ALS out		
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	RVR 40 or 3/4	RVR 60 or 1 1/4
B					
C		RVR 50 or 1			
D					

TERPS AMEND 0A 28 JUL 2011

CHANGES: Procedure authorization note.

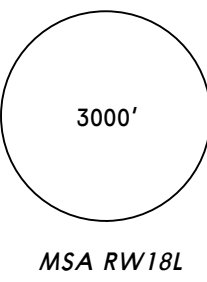
© JEPPESSEN, 2008, 2011. ALL RIGHTS RESERVED.

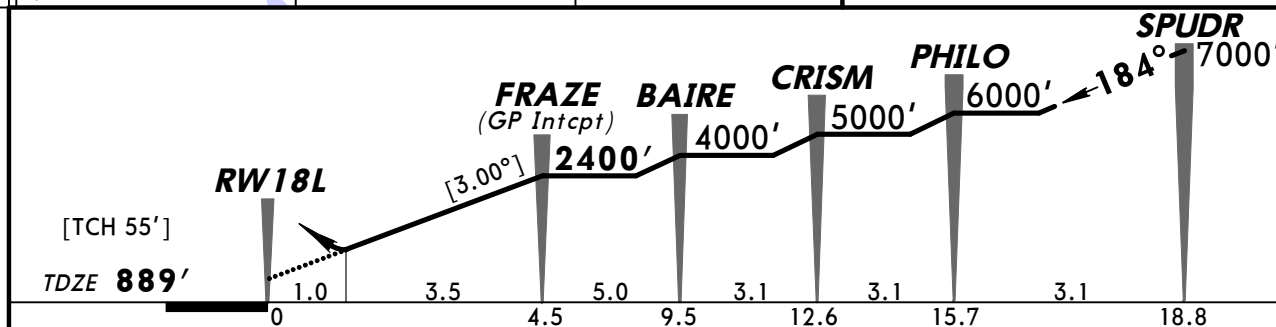
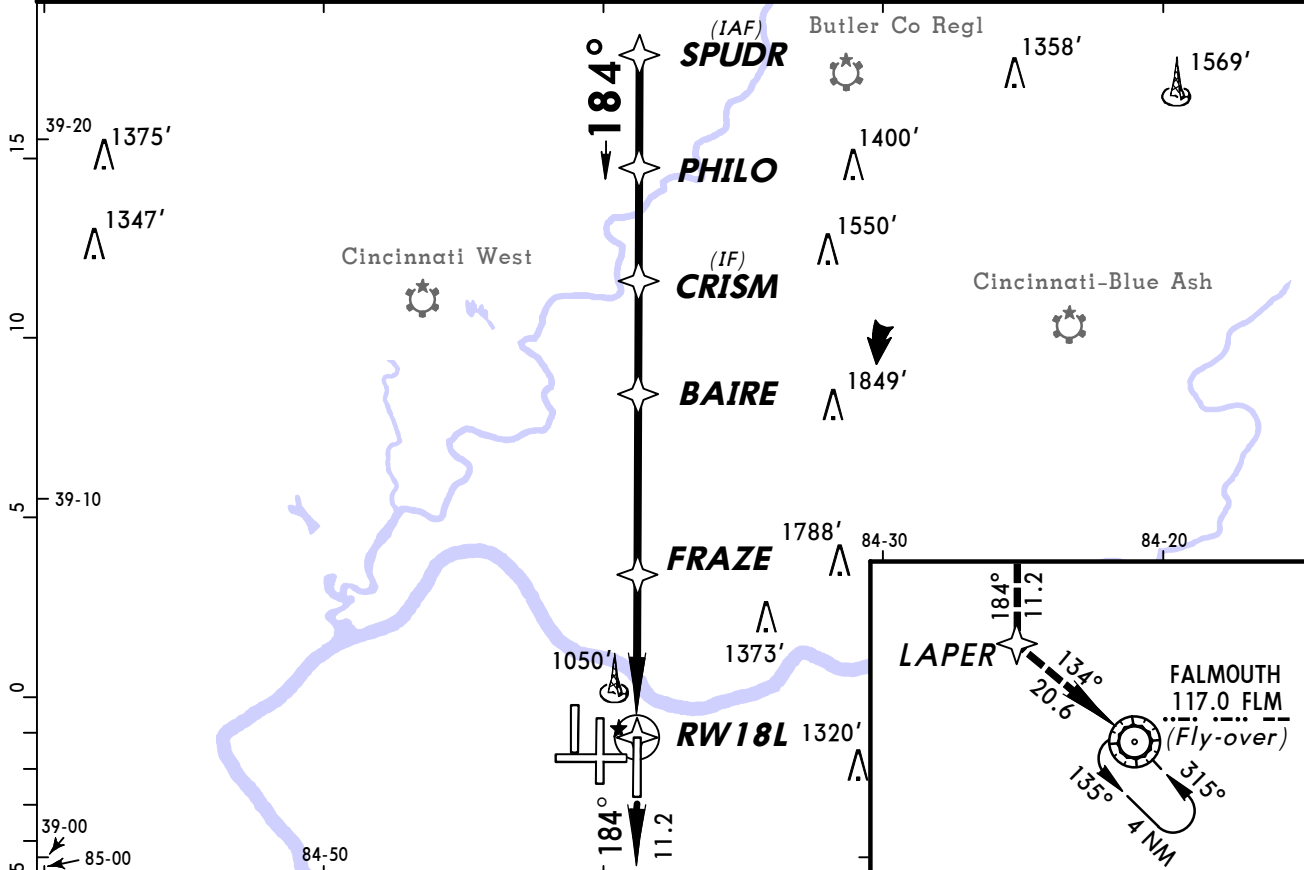
KCVG/CVG
CINCINNATI/
NORTHERN KENTUCKY INTL

22 JUL 11

22-21

CINCINNATI, OHIO
RNAV (RNP) Z Rwy 18L

D-ATIS Arrival 134.37	CINCINNATI Approach (R) 270°-089° 123.87	090°-269° 119.7	Rwy 18L-36R 118.97	CINCINNATI Tower Rwys 9-27, 18C-36C 118.3	Rwy 18R-36L 133.32	Ground West 121.7	East 121.3
RNAV	Final Apch Crs 184°	Minimum Alt FRAZE 2400' (1511')	RNP 0.21 DA(H) 1272' (383')	Apt Elev 896' TDZE 889'			
MISSED APCH: Climb to 3000' via 184° track to LAPER and via 134° track to FLM VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. AUTHORIZATION REQUIRED. 2. GPS required. 3. RADAR required. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -16°C (4°F) or above 47°C (116°F). 5. Visibility reduction by helicopters not authorized. 6. VGSI and RNAV glidepath not coincident.							



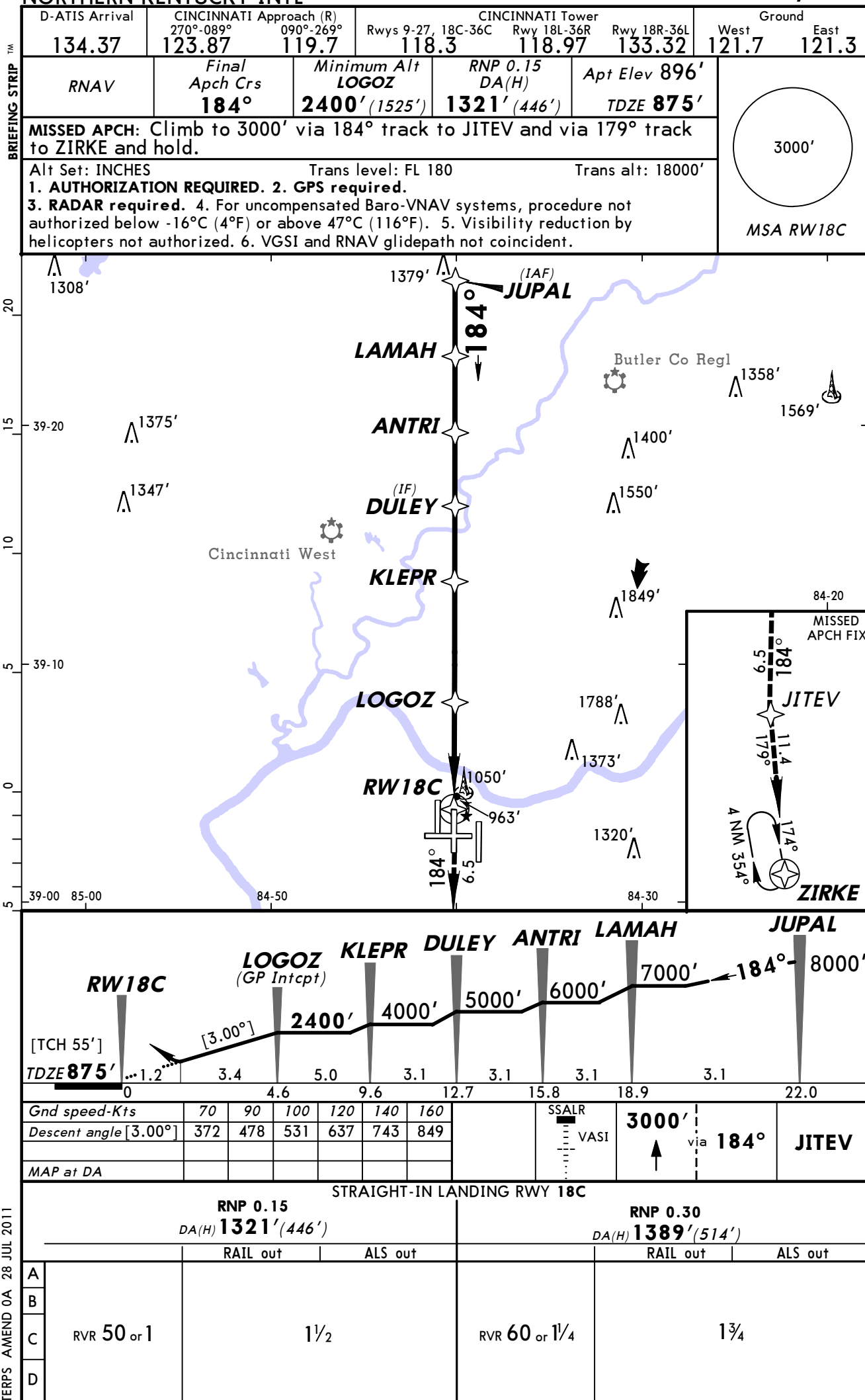
Gnd speed-Kts	70	90	100	120	140	160	MALSR		3000'	via 184°	LAPER
Descent angle [3.00°]	372	478	531	637	743	849	PAPI				
MAP at DA											

STRAIGHT-IN LANDING RWY 18L					
RNP 0.21 DA(H) 1272' (383')		RNP 0.25 DA(H) 1283' (394')		RNP 0.30 DA(H) 1472' (583')	
RAIL or ALS out		RAIL or ALS out		RAIL or ALS out	
A					
B					
C	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 50 or 1	RVR 60 or 1 1/4	1 1/2
D					2

TERPS AMEND 0A 28 JUL 2011

CHANGES: Procedure authorization note.

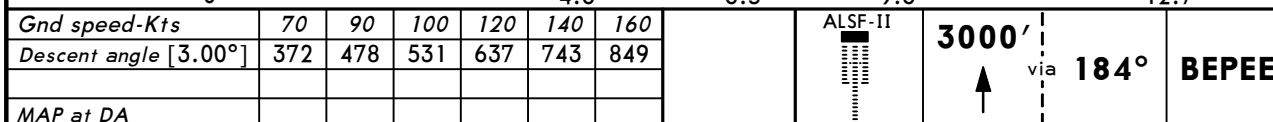
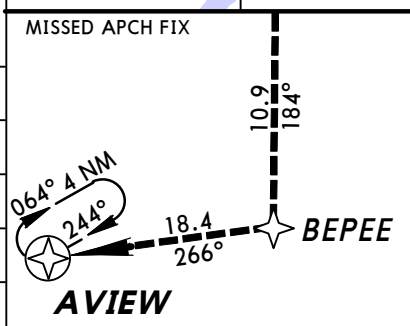
© JEPPESEN, 2008, 2011. ALL RIGHTS RESERVED.



CINCINNATI, OHIO
RNAV (RNP) Z Rwy 18R



3000'



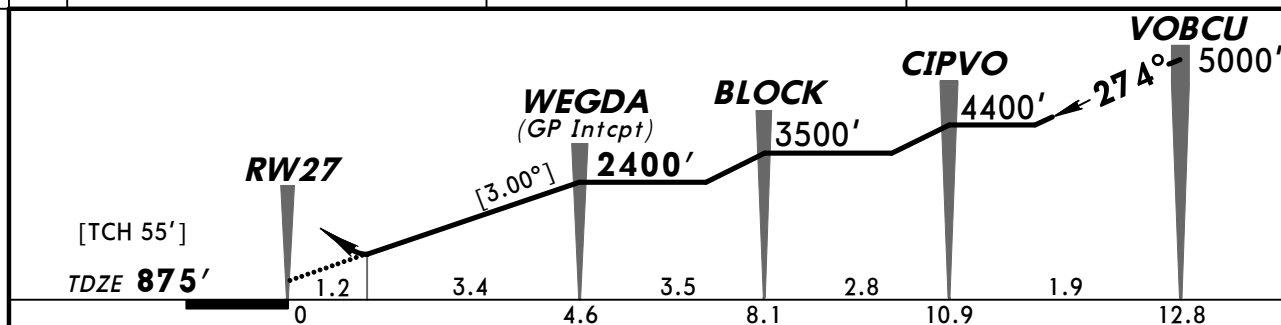
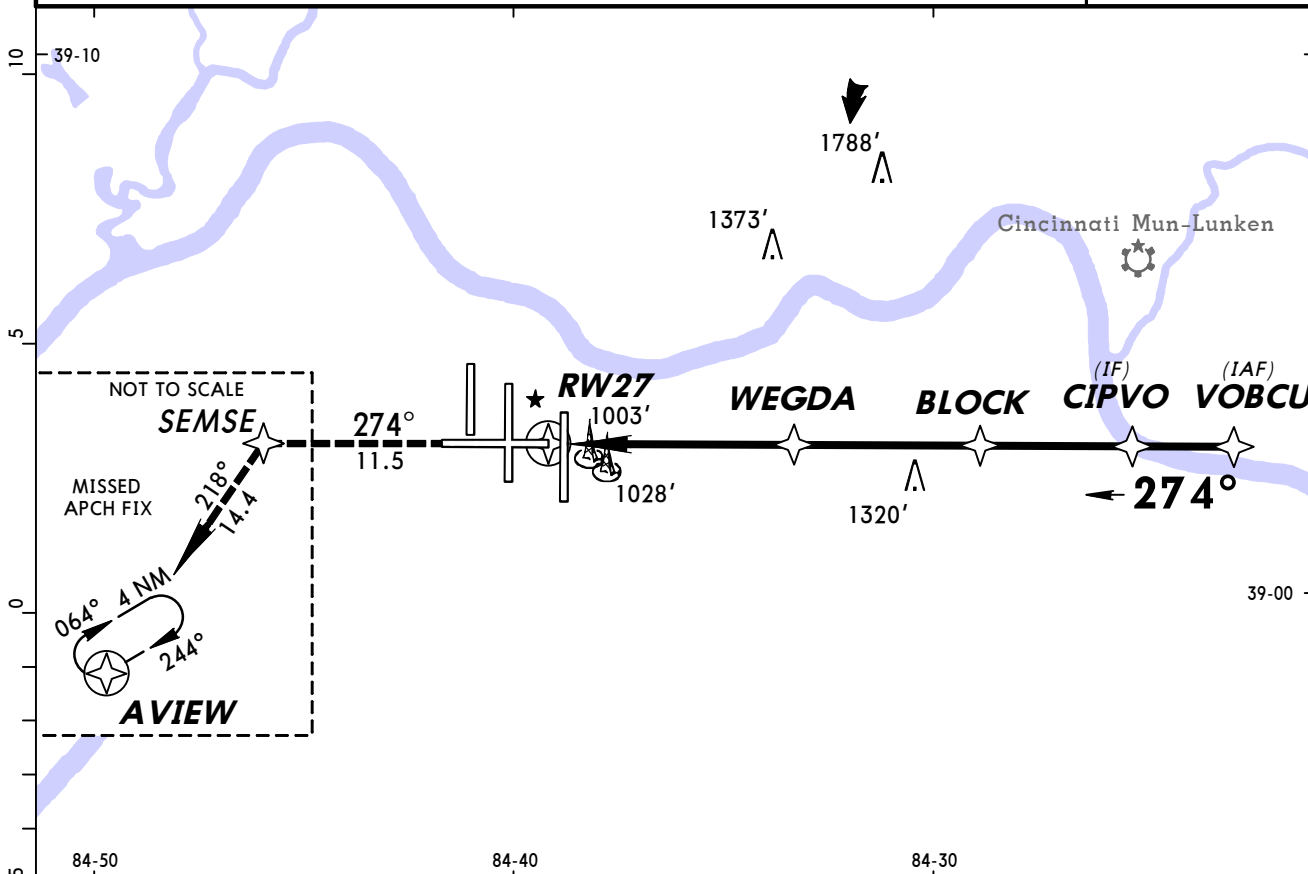
RNP 0.30
DA(H) **1281'(413')**

ALS out

© JEPPESEN, 2008, 2011. ALL RIGHTS RESERVED.

BRIEFING STRIP™

D-ATIS Arrival	CINCINNATI Approach (R) 270°-089° 090°-269°		CINCINNATI Tower Rwys 9-27, 18C-36C Rwy 18L-36R Rwy 18R-36L			Ground West	East
134.37	123.87	119.7	118.3	118.97	133.32	121.7	121.3
RNAV	Final Apch Crs 274°	Minimum Alt WEGDA 2400' (1525')	RNP 0.15 DA(H) 1296' (421')	Apt Elev 896' TDZE 875'		3000' MSA RW27	
MISSED APCH: Climb to 3000' via 274° track to SEMSE and via 218° track to AVIEW and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. AUTHORIZATION REQUIRED. 2. GPS required. 3. RADAR required. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -16°C (4°F) or above 47°C (116°F). 5. Visibility reduction by helicopters not authorized. 6. VGSI and RNAV glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	MALSR	3000'	VIA 274°	SEMSE
Descent angle [3.00°]	372	478	531	637	743	849	VASI			
MAP at DA										

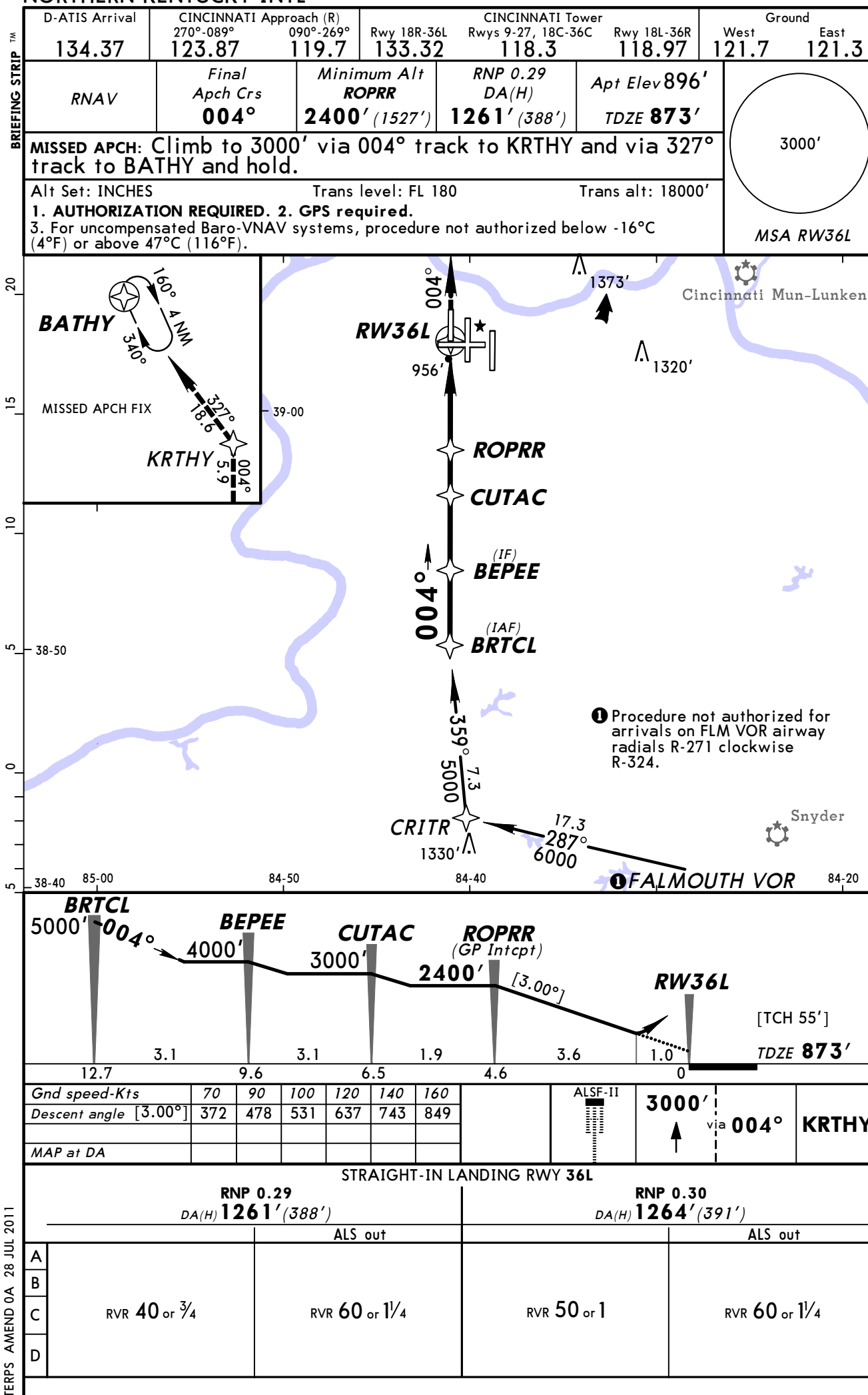
STRAIGHT-IN LANDING RWY 27						
RNP 0.15		RNP 0.23		RNP 0.30		
DA(H) 1296' (421')		DA(H) 1378' (503')		DA(H) 1445' (570')		
RAIL or ALS out		RAIL or ALS out		RAIL or ALS out		
A	RVR 50 or 1	1½	RVR 60 or 1¼	1¾	1½	2
B						
C						
D						

KCVG/CVG
CINCINNATI/
NORTHERN KENTUCKY INTL

22 JUL 11

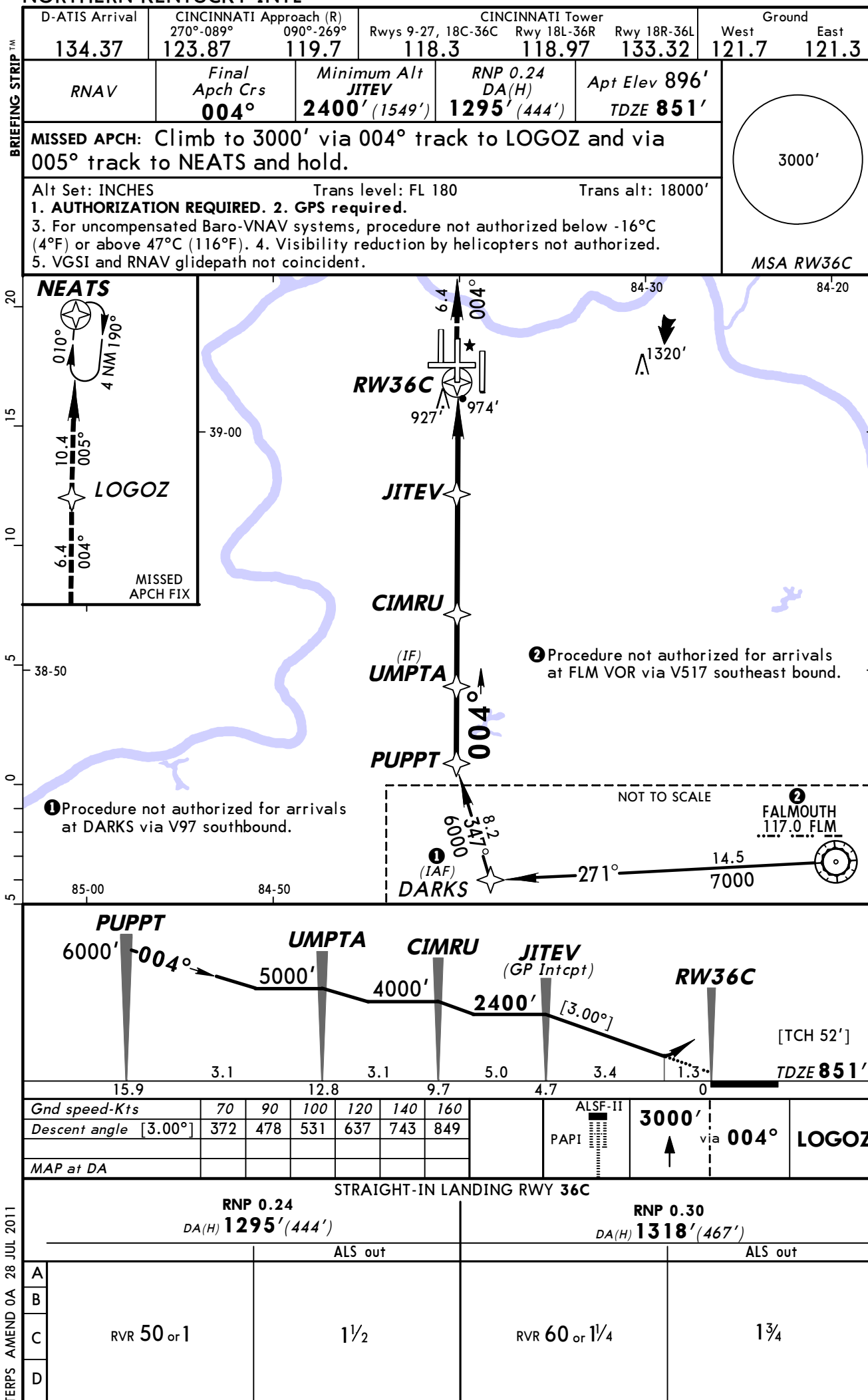
(22-25)

CINCINNATI, OHIO
RNAV (RNP) Z Rwy 36L



CHANGES: Procedure authorization note.

© JEPPESEN, 2008, 2011. ALL RIGHTS RESERVED.



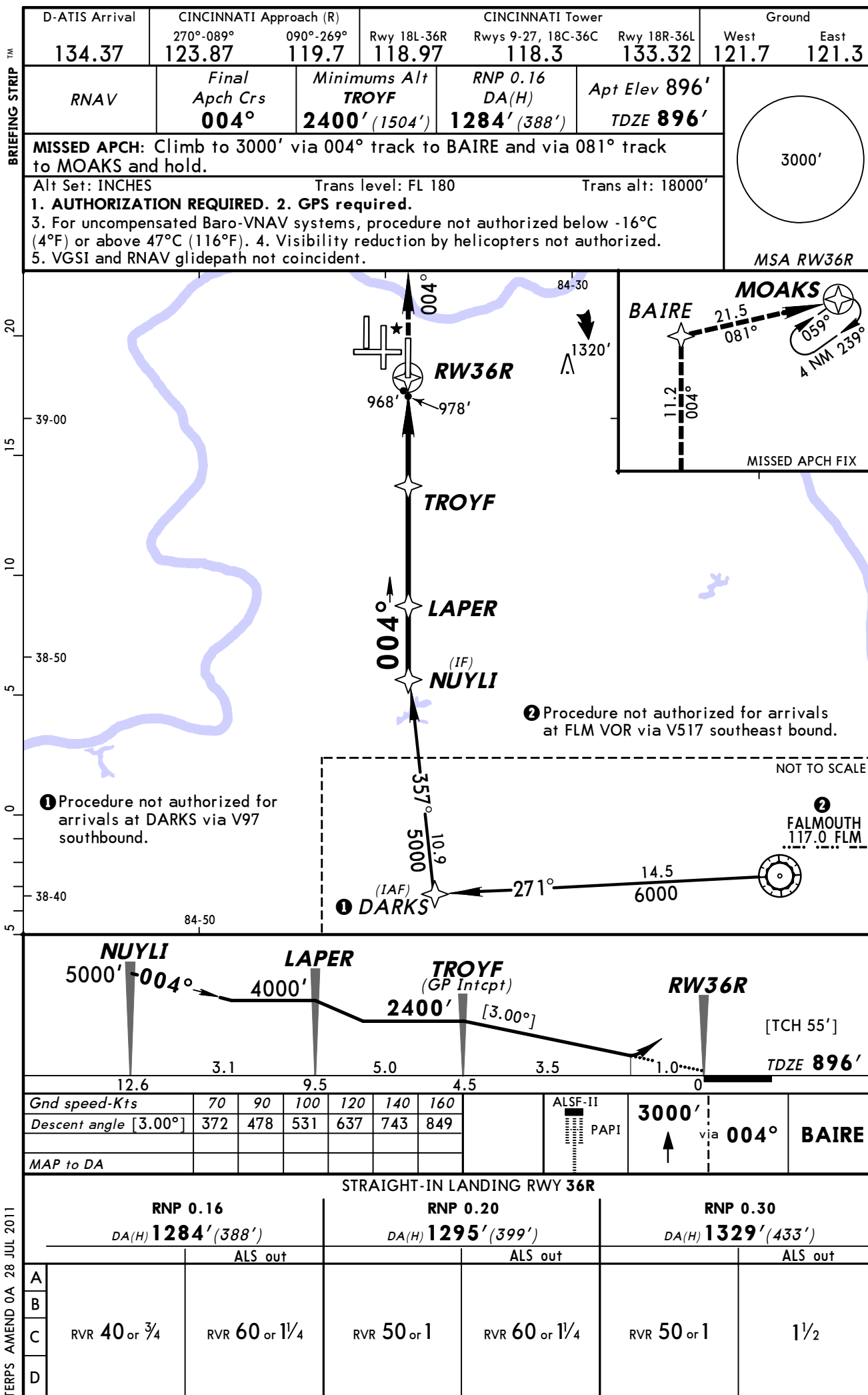
KCVG/CVG

CINCINNATI/
NORTHERN KENTUCKY INTL

22 JUL 11

(22-27)

CINCINNATI, OHIO
RNAV (RNP) Z Rwy 36R



General Information

Location: Dayton OH USA
IATA Code: DAY
Lat/Long: N39° 54.1' W084° 13.2'
Elevation: 1009 ft

Airport Use: Public
Magnetic Variation: 5.9°W
Sectional Chart: St Louis

Fuel Types: 100-130 Octane, Jet A
Oxygen Types: High Pressure
Repair Types: Major Airframe, Major Engine
Customs: Upon Prior Request
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: No
Beacon: Yes

Sunrise: 1214 Z
Sunset: 2326 Z,

Runway Information

Runway: 06L
Length x Width: 10900 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 998 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 06R
Length x Width: 7285 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 1007 ft
Lighting: Edge, REIL

Runway: 18
Length x Width: 8502 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 995 ft
Lighting: Edge, ALS

Runway: 24L
Length x Width: 7285 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 1006 ft
Lighting: Edge, ALS

Runway: 24R
Length x Width: 10900 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 997 ft
Lighting: Edge, ALS, Centerline

Runway: 36
Length x Width: 8502 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1008 ft
Lighting: Edge

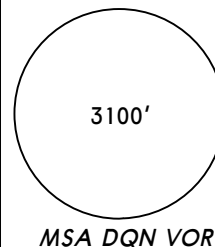
Communication Information

ATIS 125.8
Dayton Tower 119.9
Dayton Ground Control 121.9
Dayton Clearance Delivery 121.75
Columbus Approach Control 134.45 (181°-359°)
Columbus Approach Control 118.85 (91°-180°) Secondary
Columbus Approach Control 118.425 (360°-90°) Initial Contact
Columbus App ARSA 134.45 (181°-359°)
Columbus App ARSA 126.5 (91°-180°)
Columbus App ARSA 118.85 (91°-180°)
Columbus App ARSA 118.425 (360°-90°)
Columbus Departure Control 134.45 (181°-359°)
Columbus Departure Control 118.85 (91°-180°) Secondary
Columbus Departure Control 118.425 (360°-90°) Initial Contact
Cox-Dayton Intl Unicom 122.95
Dayton Flight Service Station 122.1 RCO
Dayton Flight Service Station 114.5 RCO

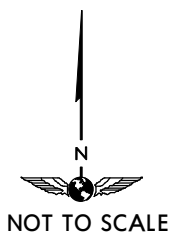
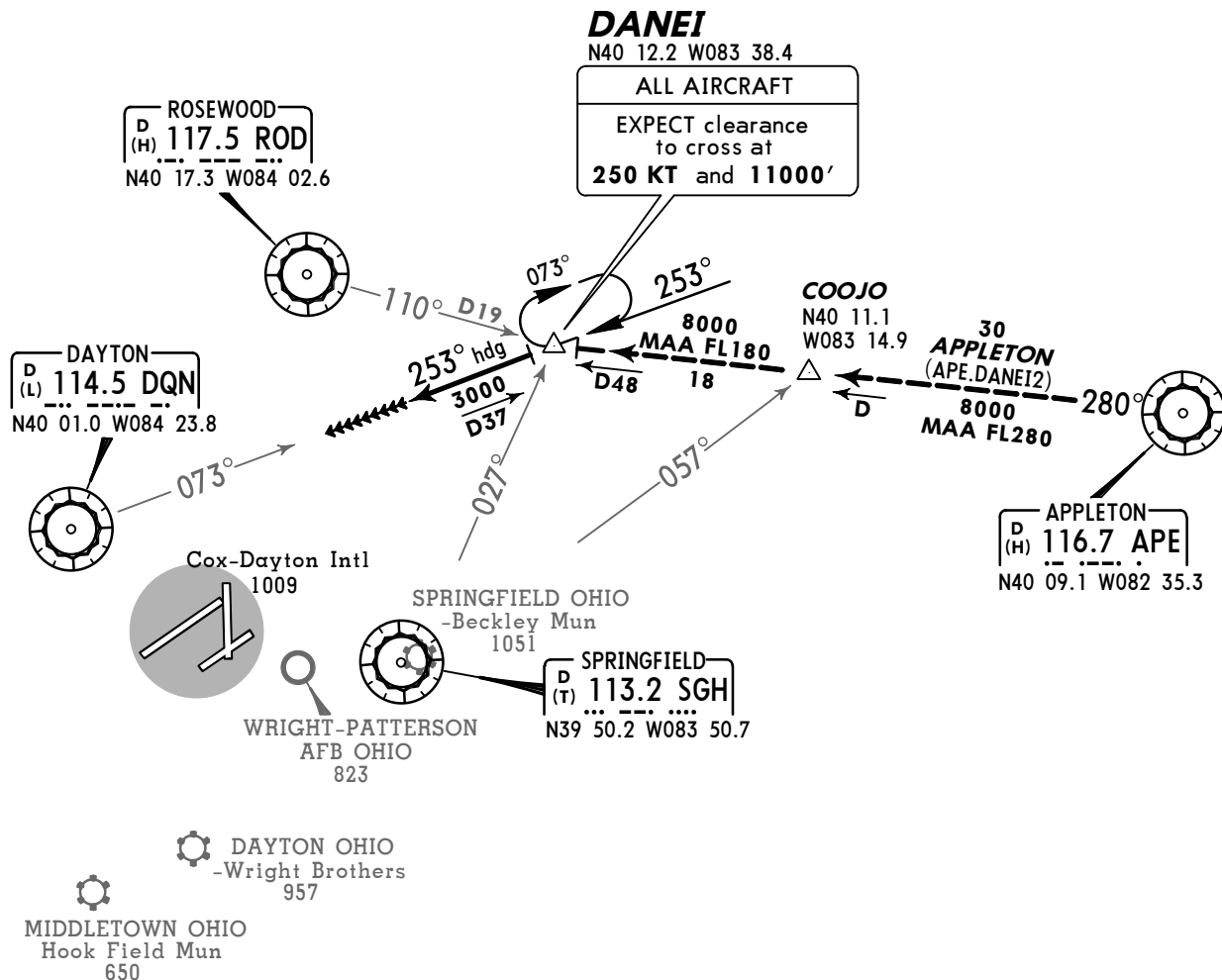
COX-DAYTON INTL
ATIS
125.8

Apt Elev
See graphic

Alt Set: INCHES
Trans level: FL180 Trans alt: 18000'
1. RADAR required. 2. Also Serves **①**



DANEI TWO ARRIVAL (DANEI.DANEI2)



Direct distance from DANEI to:

Cox-Dayton Intl **32 NM**

① AIRPORTS SERVED

Dayton-Wright Brothers **46 NM**

Hook Field Mun **53 NM**

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

In the event of lost communications:
At DANEI, proceed direct to DQN.
MAINTAIN 3000' until DQN.

LOST COMMS

ROUTING

From over DANEI via heading 253°. EXPECT RADAR vectors to final approach course.

ATIS
125.8

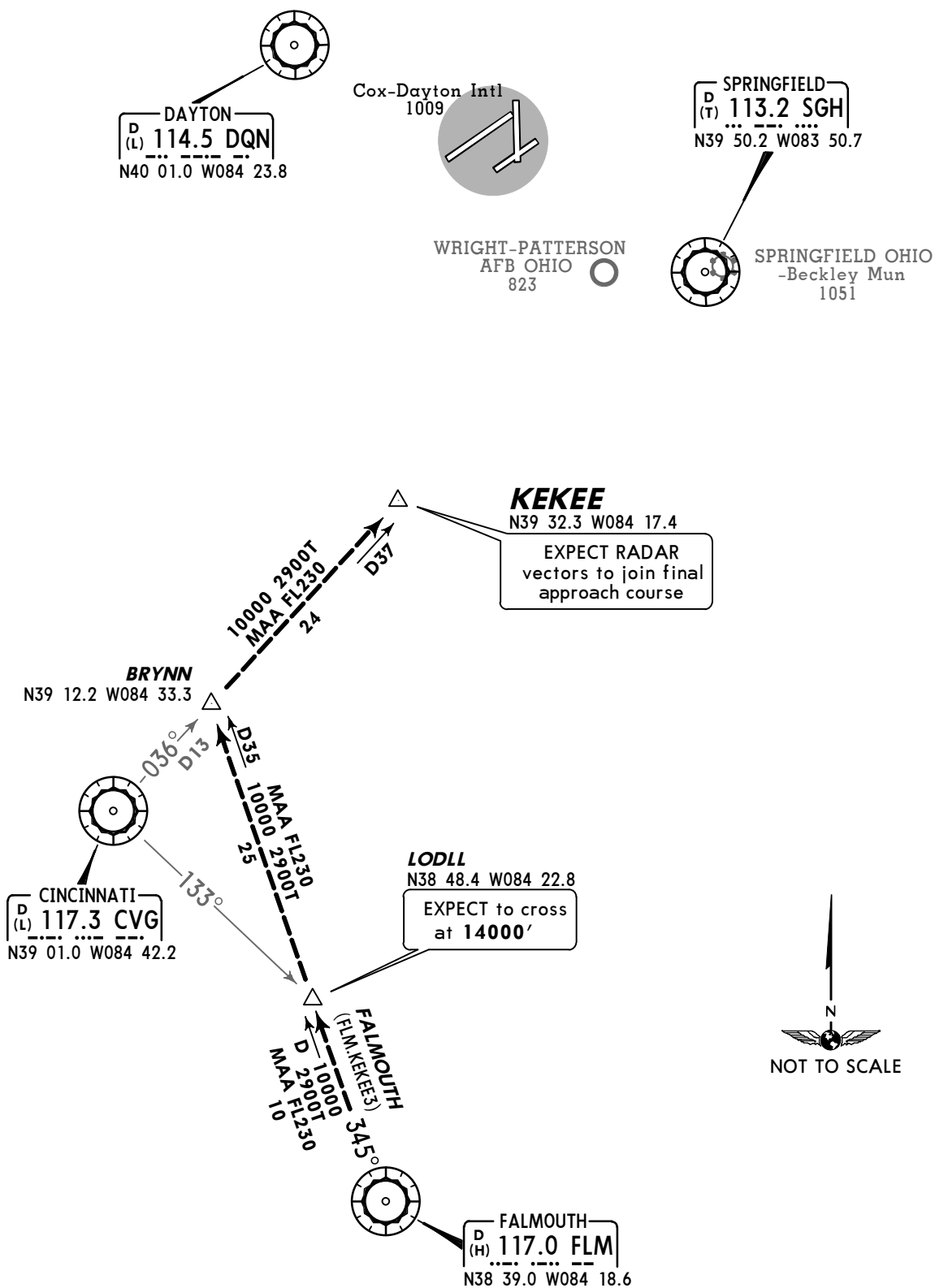
Apt Elev
See graphic

Alt Set: INCHES
Trans level: FL180 Trans alt: 18000'
DME or RADAR required.

3100'

MSA DQN VOR

KEKEE THREE ARRIVAL (KEKEE.KEKEE3)



Direct distance from KEKEE to:
Cox-Dayton Intl **22 NM**

ROUTING

From over KEKEE, EXPECT RADAR vectors to join final approach course.

DAYTON Departure (R)

360°-090° | 091°-180° | 181°-359°
118.42 | 126.5 | 134.45

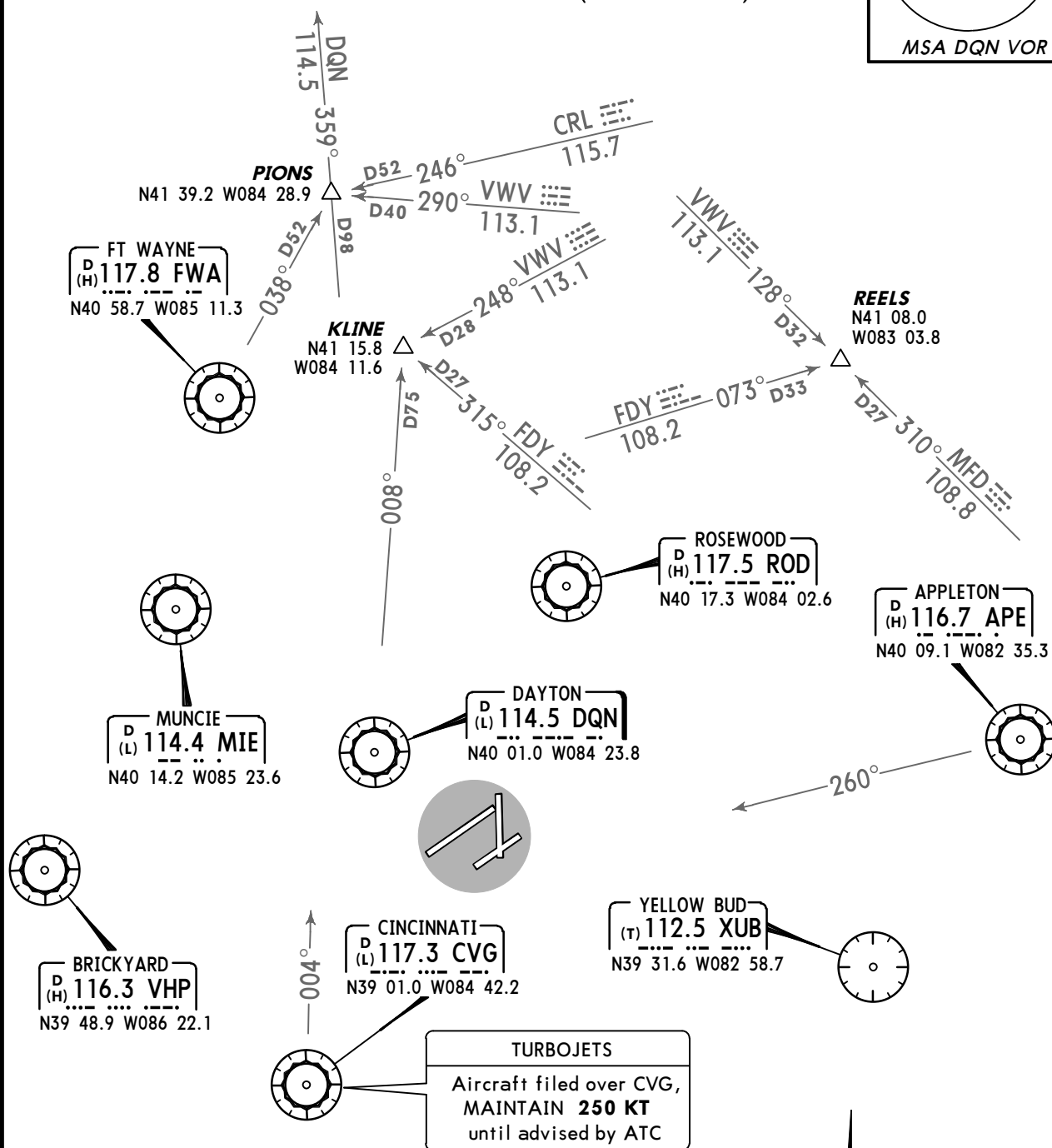
Apt Elev
1009'

Trans level: FL 180 Trans alt: 18000'
Appropriate departure control
frequency will be assigned by ATC.

3100'

MSA DQN VOR

DAYTON FOUR DEPARTURE (DAY4.DAY)

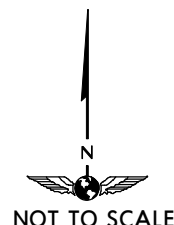


This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwys 6L/R, 24L/R, 36: Standard (or lower than standard, if authorized).
Rwy 18: 300-1 or standard (or lower than standard, if authorized) with minimum climb gradient of 250' per NM to **1300'**.

Gnd speed-KT	75	100	150	200	250	300
250' per NM	313	417	625	833	1042	1250

OBSTACLES

Rwy 18: Multiple tanks 4224' from DER, 1417' LEFT of centerline, 173' AGL/1163' MSL.



INITIAL CLIMB

Climb runway heading or as assigned for vectors to join filed route. EXPECT clearance to requested altitude/flight level 10 minutes after departure.

ALTITUDE

MAINTAIN 5000'
or filed altitude if lower

ROUTING

Aircraft filed over CVG, EXPECT vectors to intercept CVG R-004.
Aircraft filed over APE, EXPECT vectors to intercept APE R-260.

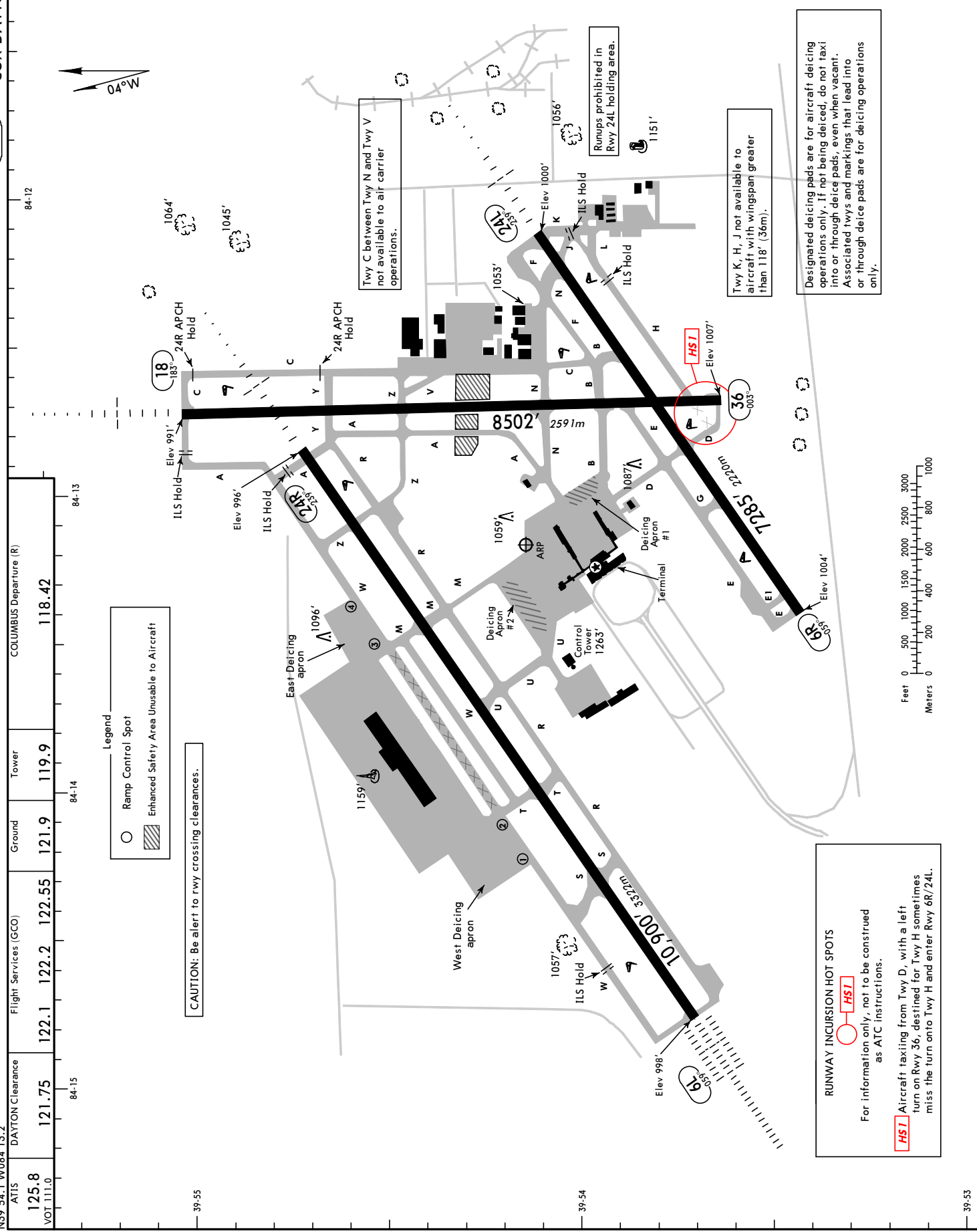
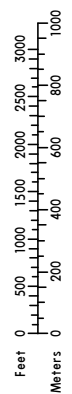
ATIS	DAYTON Clearance	Flight Services (GCO)	Ground	Tower	COLUMBUS Departure (R)
125.8 VOT 111.0	121.75	122.1 122.2 122.55	121.9	119.9	118.42

Legend

- Ramp Control Spot
- ▨ Enhanced Safety Area Unusable to Aircraft

CAUTION: Be alert to rwy crossing clearances.

RUNWAY INCURSION HOT SPOTS
For information only, not to be construed as ATC instructions.
HS1 Aircraft taxiing from Twy D, with a left turn on Rwy 36, destined for Twy H sometimes miss the turn onto Twy H and enter Rwy 6R/24L.



GENERAL

Terminal Doppler Weather Radar.

Deer, coyotes, birds and waterfowl on and in vicinity of airport.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		LANDING BEYOND	Threshold		
6L	HIRL CL ALSF-II TDZ ① PAPI-L grooved RVR				150'
24R	HIRL CL MALSR VASI-L grooved RVR				46m

① Angle 3.00°.

6R	HIRL REIL ② PAPI-L grooved	③		④	150'
24L	HIRL MALSR ② PAPI-L grooved RVR		6385' 1946m		

② Angle 3.00°.

③ Last 285' unavailable for landing.

④ Last 285' unavailable for take-off.

18	HIRL MALSR grooved RVR		7527' 2294m		150'
36	HIRL VASI-L grooved				46m

TAKE-OFF

Rwys 6L, 24R

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			

Rwys 6R, 24L, 36

Rwy 18

Adequate Vis Ref	STD		With Min climb of 290' /NM to 1300'			Other
	3 & 4 Eng	1 & 2 Eng	Adequate Vis Ref	STD		
				3 & 4 Eng	1 & 2 Eng	
RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	300-1

FOR FILING AS ALTERNATE

ILS Rwy 6L
ILS Rwy 18
ILS Rwy 24L
ILS Rwy 24RLOC Rwy 6L
LOC Rwy 18
LOC Rwy 24L
LOC Rwy 24R
NDB Rwy 6RRNAV (GPS) Rwy 6L
RNAV (GPS) Rwy 6R
RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 24L
RNAV (GPS) Rwy 24R
RNAV (GPS) Rwy 36

A

B

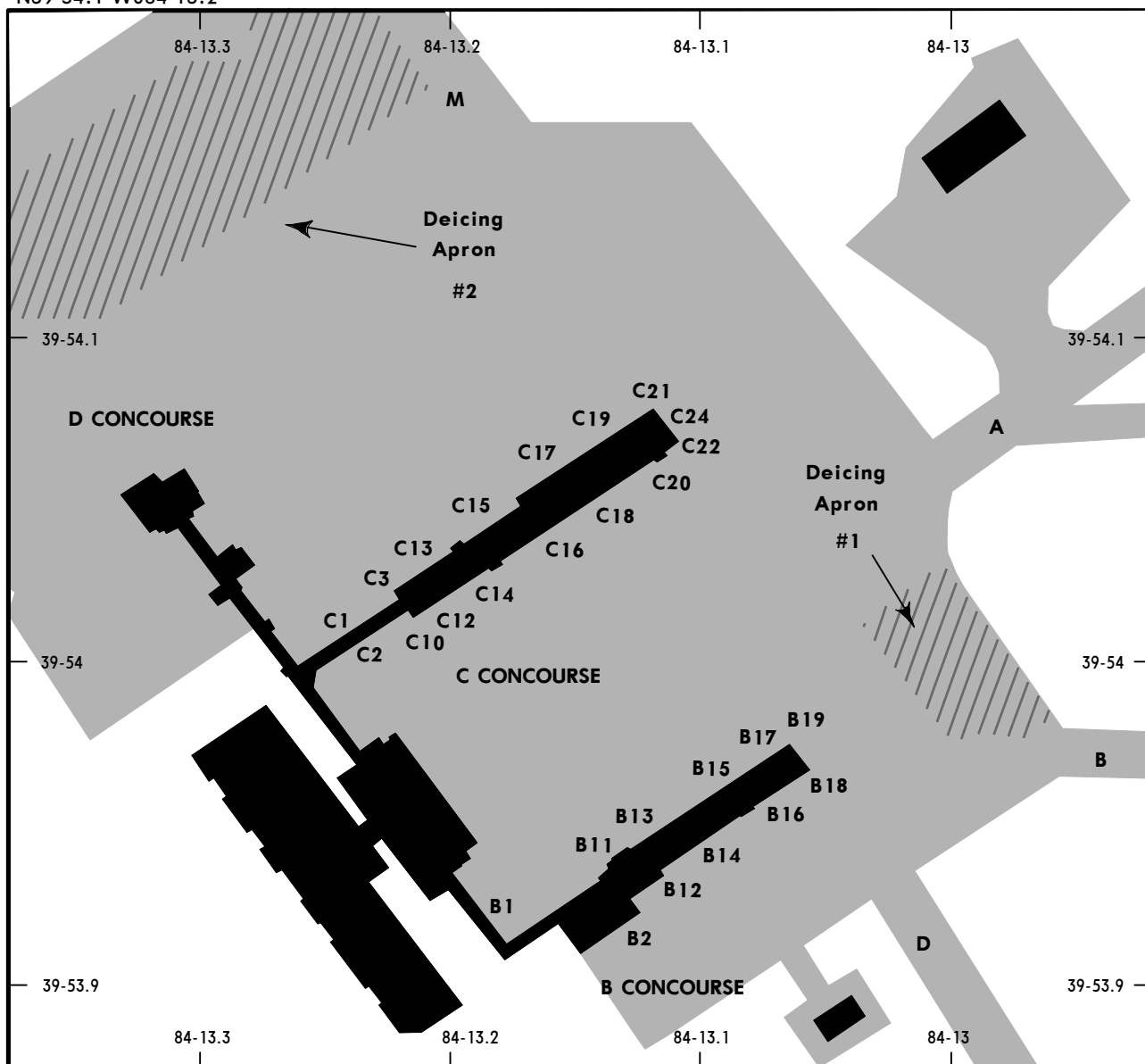
C

D

600-2

800-2

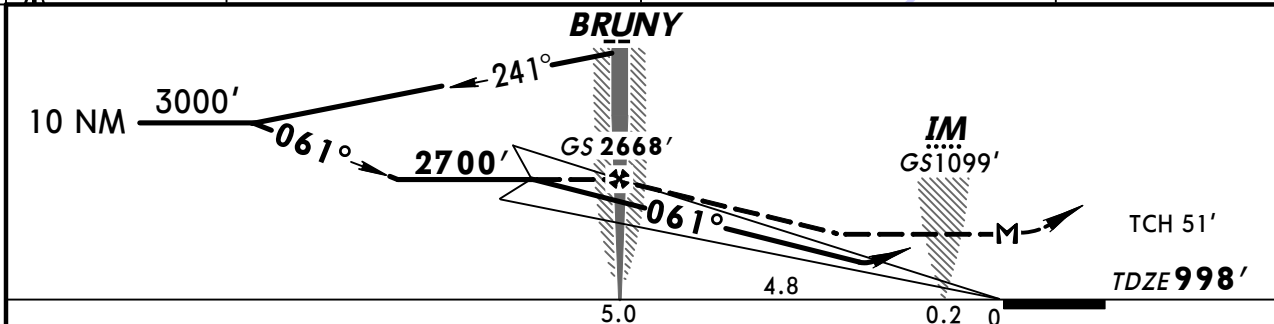
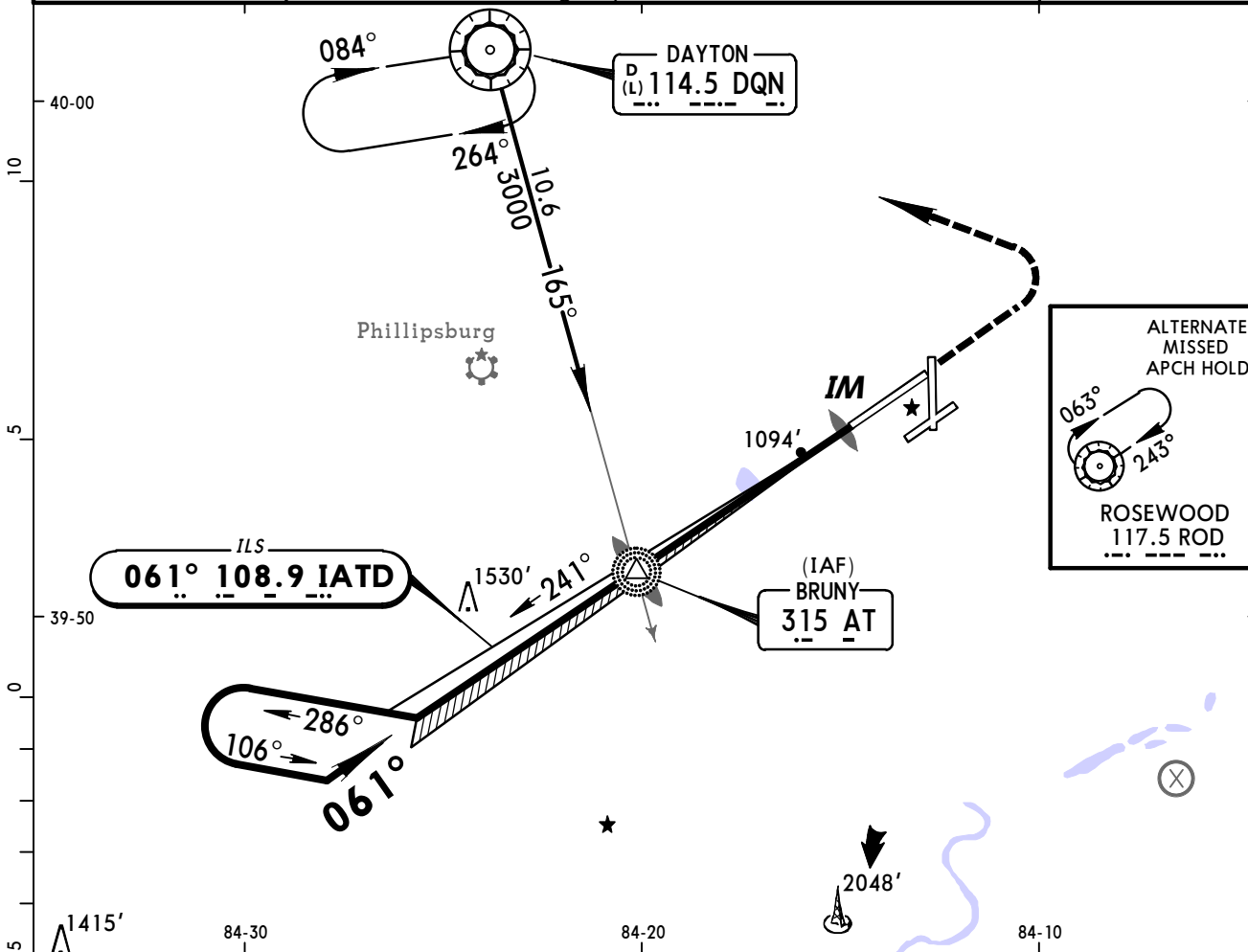
A
M
E
N
D
3



PARKING GATE COORDINATES

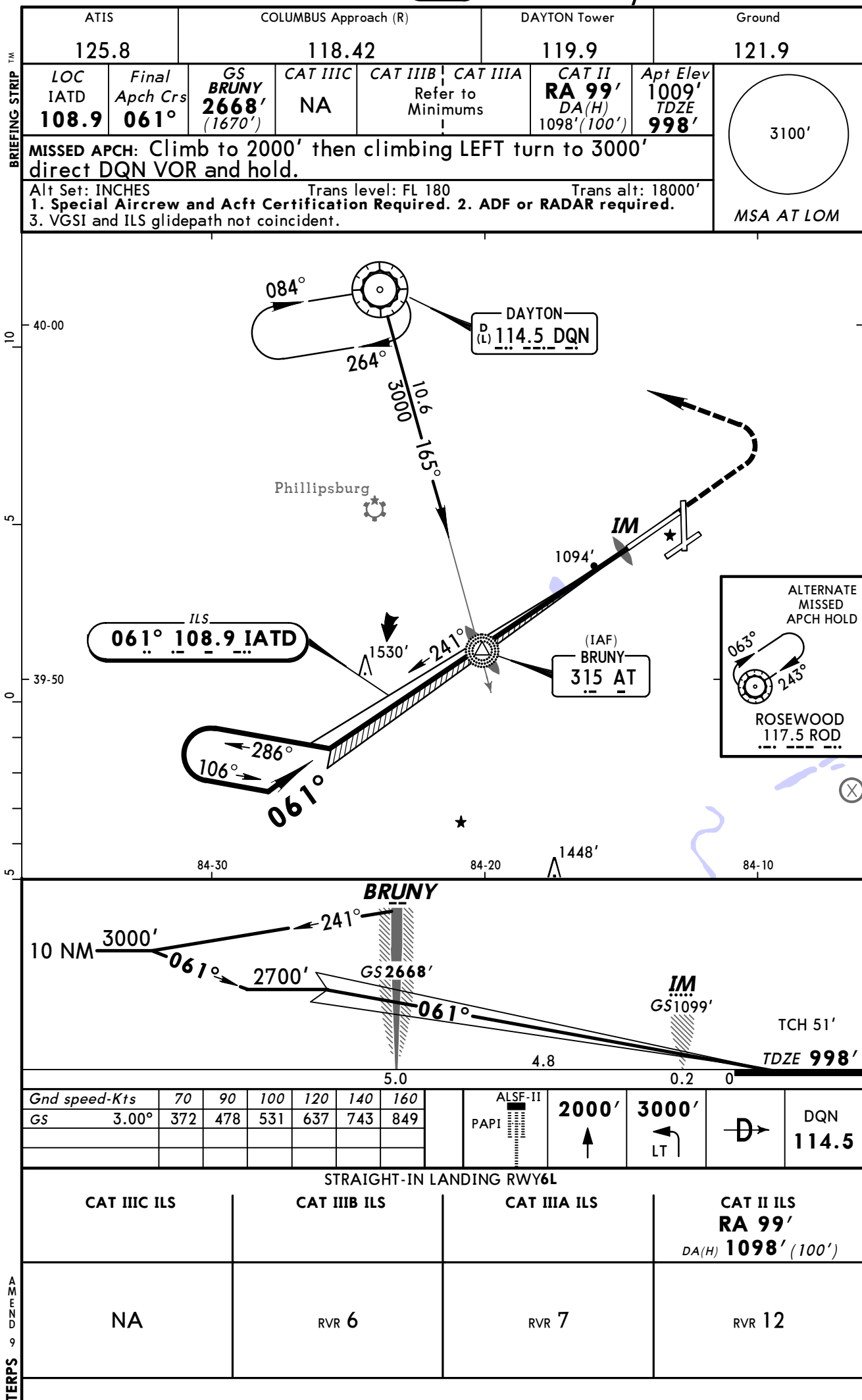
GATE No.	COORDINATES
B CONCOURSE	
B1	N39 53.9 W084 13.2
B2	N39 53.9 W084 13.1
B11 thru B14	N39 53.9 W084 13.1
B15 thru B19	N39 54.0 W084 13.1
C CONCOURSE	
C1 thru C3	N39 54.0 W084 13.2
C10	N39 54.0 W084 13.2
C12 thru C16	N39 54.0 W084 13.2
C17	N39 54.1 W084 13.2
C18 thru C22	N39 54.1 W084 13.1
C24	N39 54.1 W084 13.1

BRIEFING STRIP™	ATIS	COLUMBUS Approach (R)			DAYTON Tower	Ground
	125.8	118.42			119.9	121.9
	LOC IATD	Final Apch Crs	GS BRUNY	ILS DA(H)	Apt Elev 1009'	3100'
	108.9	061°	2668' (1670')	1198' (200')	TDZE 998'	
	MISSED APCH: Climb to 2000' then climbing LEFT turn to 3000' direct DQN VOR and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'						
1. ADF or RADAR required. 2. VGSI and ILS glidepath not coincident.						
MSA AT LOM						



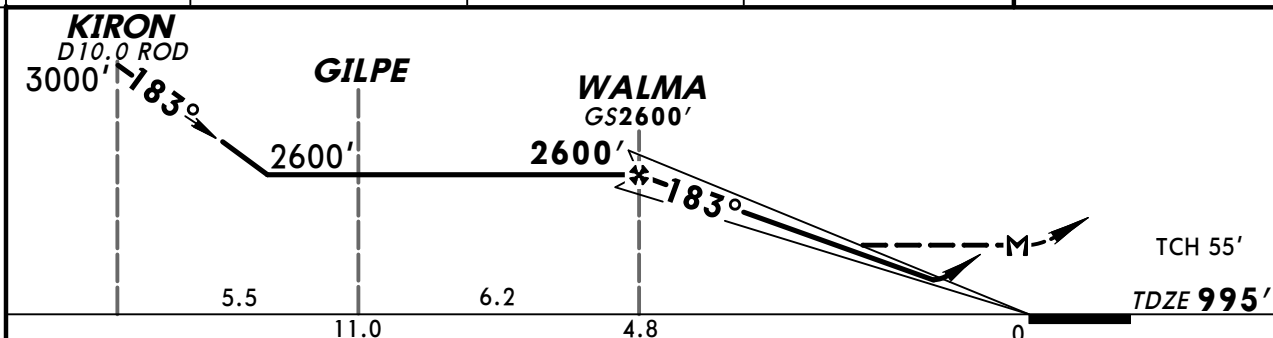
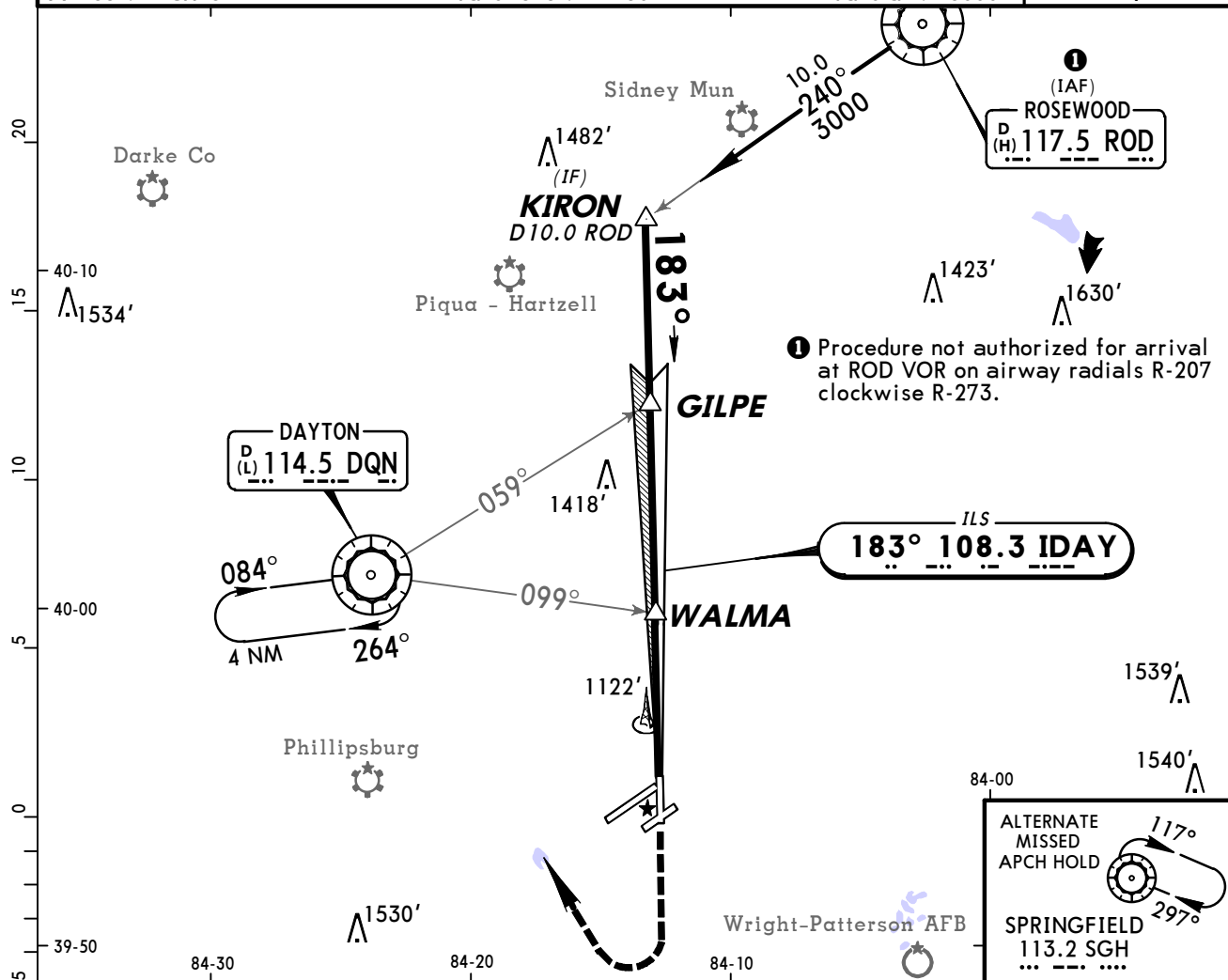
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	2000'	3000'	DQN
GS	3.00°	372	478	531	637	743	PAPI	↑	LT	114.5
BRUNY to MAP 5.0	4:17	3:20	3:00	2:30	2:09	1:53				

STRAIGHT-IN LANDING RWY6L					CIRCLE-TO-LAND	
ILS DA(H) 1198' (200')			LOC (GS out) MDA(H) 1380' (382')		Max Kts	MDA(H)
FULL	TDZ or CL out	ALS out	ALS out		90	1560' (551')-1
A					120	
B					140	1560' (551')-1½
C	RVR 18 or ½	RVR 24 or ½	RVR 40 or ¾	RVR 24 or ½	165	1560' (551')-2
D				RVR 40 or ¾		



BRIEFING STRIP™

ATIS		COLUMBUS Approach (R)		DAYTON Tower		Ground
125.8		118.42		119.9		121.9
LOC IDAY 108.3	Final Apch Crs 183°	GS WALMA 2600' (1605')	ILS DA(H) 1195' (200')	Apt Elev 1009' TDZE 995'	3100'	
MISSED APCH: Climb to 3100' then RIGHT turn direct DQN VOR and hold.						
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		MSA DQN VOR



Gnd speed-Kts	70	90	100	120	140	160	MALSR	3100'	RT	DQN
GS	3.00°	372	478	531	637	743	849			114.5
WALMA to MAP	4.8	4:07	3:12	2:53	2:24	2:03	1:48			

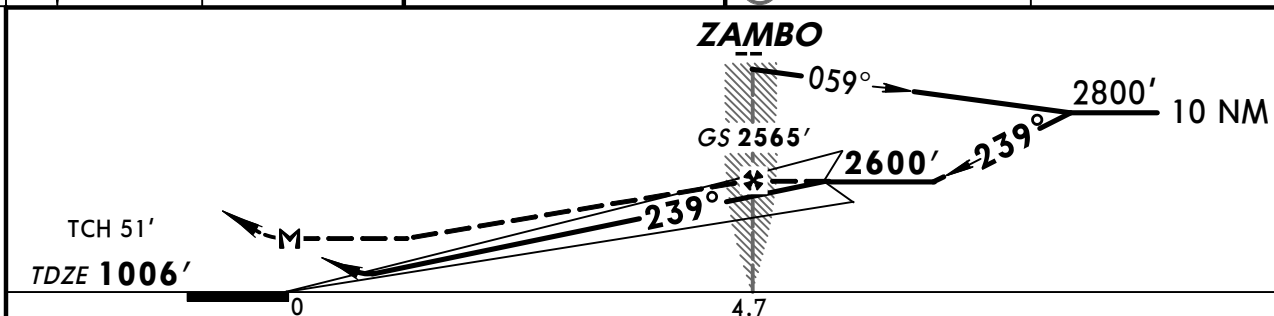
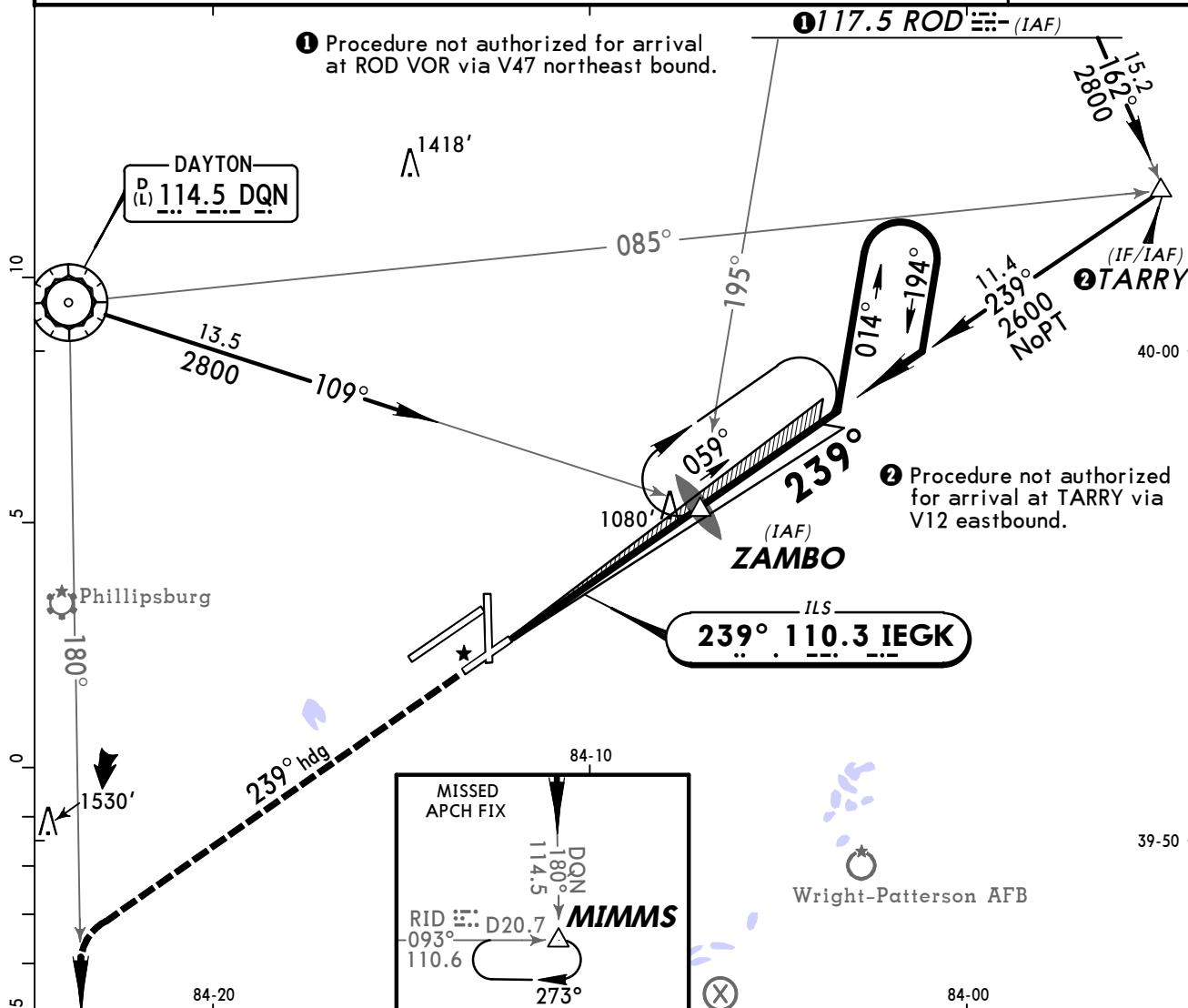
STRAIGHT-IN LANDING RWY18					CIRCLE-TO-LAND	
ILS			LOC (GS out)			
DA(H) 1195' (200')			MDA(H) 1380' (385')			
FULL	RAIL or ALS out		RAIL out	ALS out	Max Kts	MDA(H)
A					90	1560' (551') - 1
B	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 40 or 3/4	120	1560' (551') - 1
C					140	1560' (551') - 1 1/2
D			RVR 40 or 3/4	RVR 60 or 1 1/4	165	1560' (551') - 2

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

CHANGES: IDAY frequency, IDAY DME decommissioned.

© JEPPESSEN, 2001, 2012. ALL RIGHTS RESERVED.

BRIEFING STRIP TM	ATIS 125.8		COLUMBUS Approach (R) 118.42		DAYTON Tower 119.9		Ground 121.9	
	LOC IEGK 110.3	Final Apch Crs 239°	GS ZAMBO 2565' (1559')	ILS DA(H) 1206' (200')	Apt Elev 1009' TDZE 1006'		3100' MSA DQN VOR	
	MISSED APCH: Climb to 3000' via 239° heading and outbound on DQN VOR R-180 to MIMMS INT and hold.							
	Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			



Gnd speed-Kts	70	90	100	120	140	160	MALSR	3000'	239°	DQN	
GS	3.00°	372	478	531	637	743	PAPI	↑	hdg	114.5	MIMMS
ZAMBO to MAP 4.7	4:02	3:08	2:49	2:21	2:01	1:46				R-180	

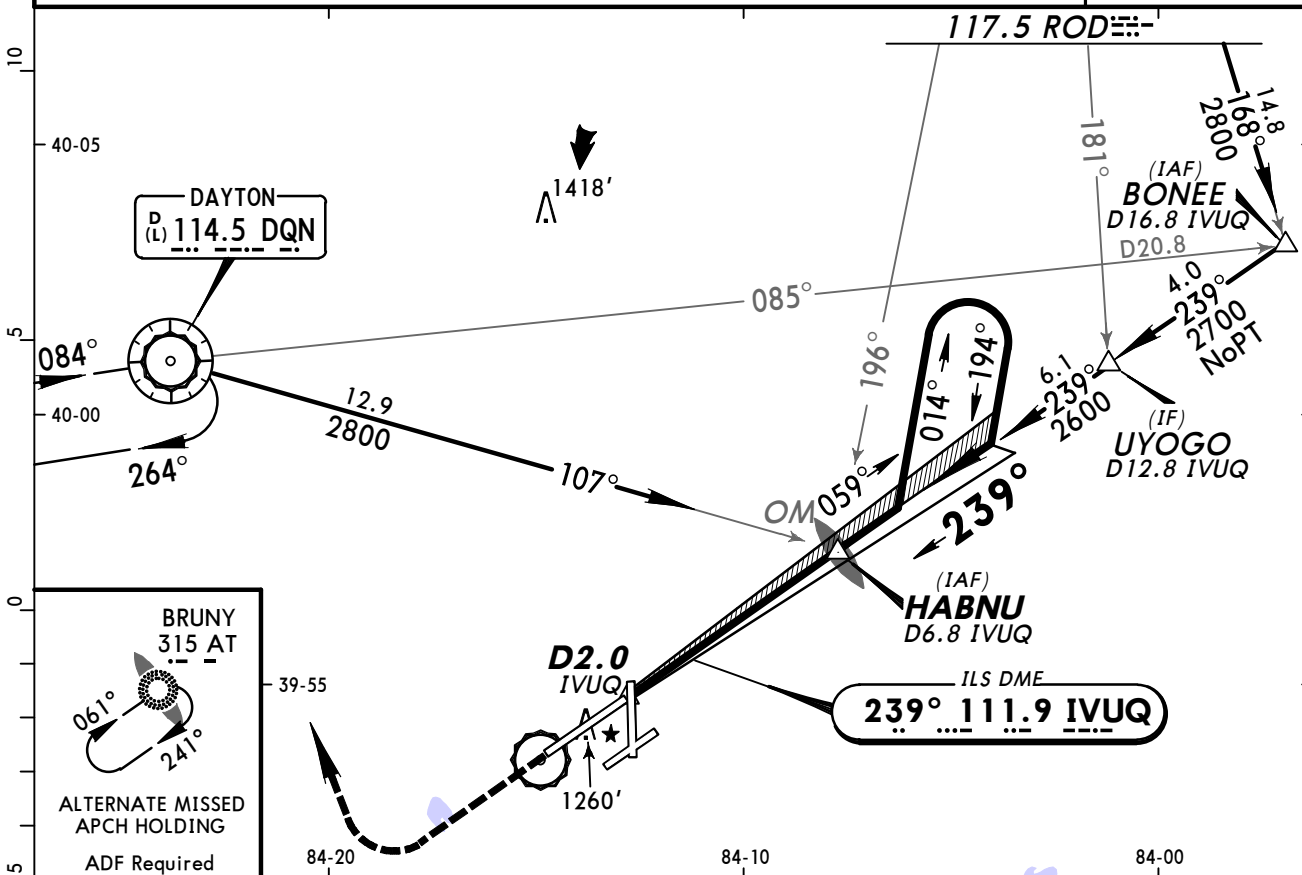
STRAIGHT-IN LANDING RWY 24L					CIRCLE-TO-LAND	
ILS		LOC (GS out)			Max Kts	MDA(H)
DA(H) 1206' (200')		MDA(H) 1500' (494')				
FULL	RAIL or ALS out	RAIL out	ALS out			
A		RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1560' (551') - 1
B					120	
C		RVR 40 or 3/4	RVR 60 or 1 1/4		140	1560' (551') - 1 1/2
D		RVR 50 or 1	1 1/2		165	1560' (551') - 2

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

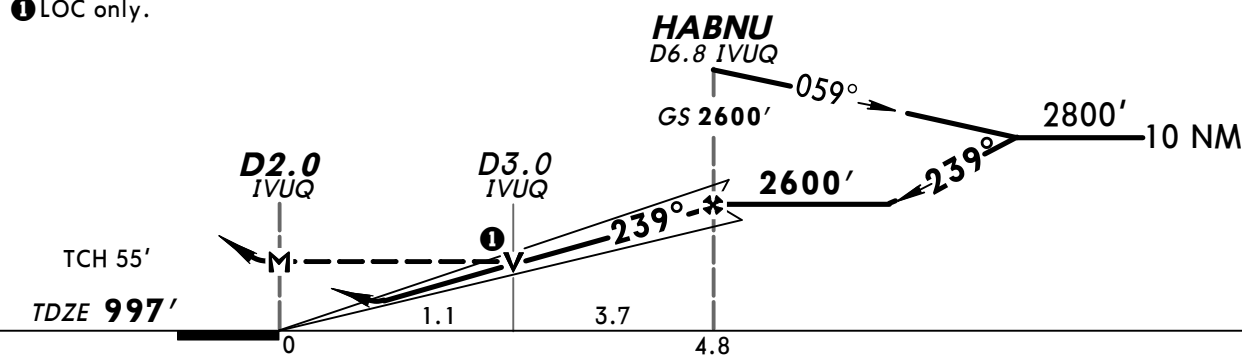
CHANGES: None.

© JEPPESSEN, 2001, 2012. ALL RIGHTS RESERVED.

ATIS 125.8	COLUMBUS Approach (R) 118.42		DAYTON Tower 119.9	Ground 121.9
LOC IVUQ 111.9	Final Apch Crs 239°	GS HABNU 2600' (1603')	ILS DA(H) 1197' (200')	Apt Elev 1009' TDZE 997'
MISSED APCH: Climb to 3000' then RIGHT turn direct DQN VOR and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				



① LOC only.



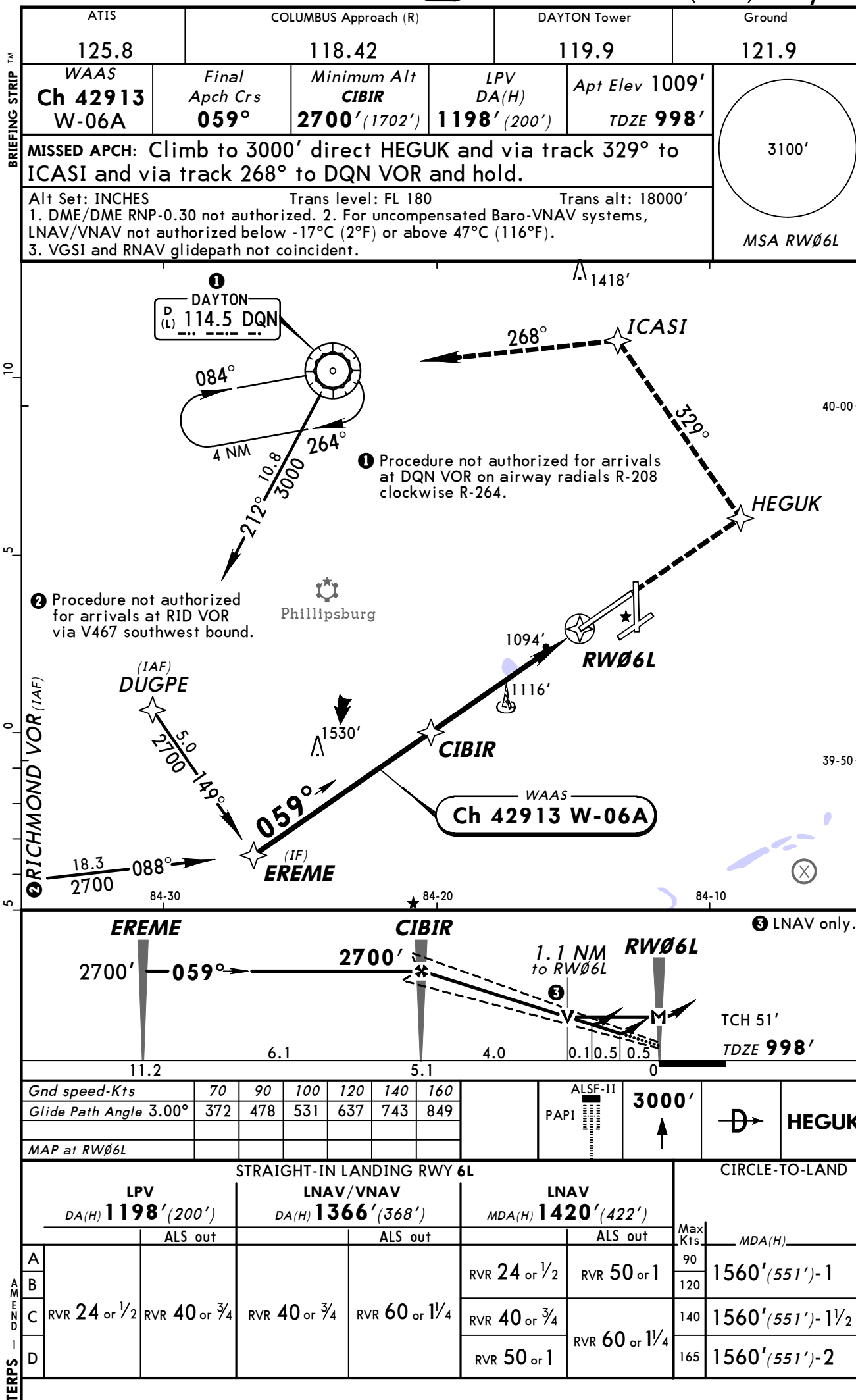
Gnd speed-Kts	70	90	100	120	140	160	MALS	3000'	RT	DQN
GS 3.00°	372	478	531	637	743	849	VASI	↑	→	114.5
MAP at D2.0 IVUQ or HABNU to MAP 4.8	4:07	3:12	2:53	2:24	2:03	1:48				

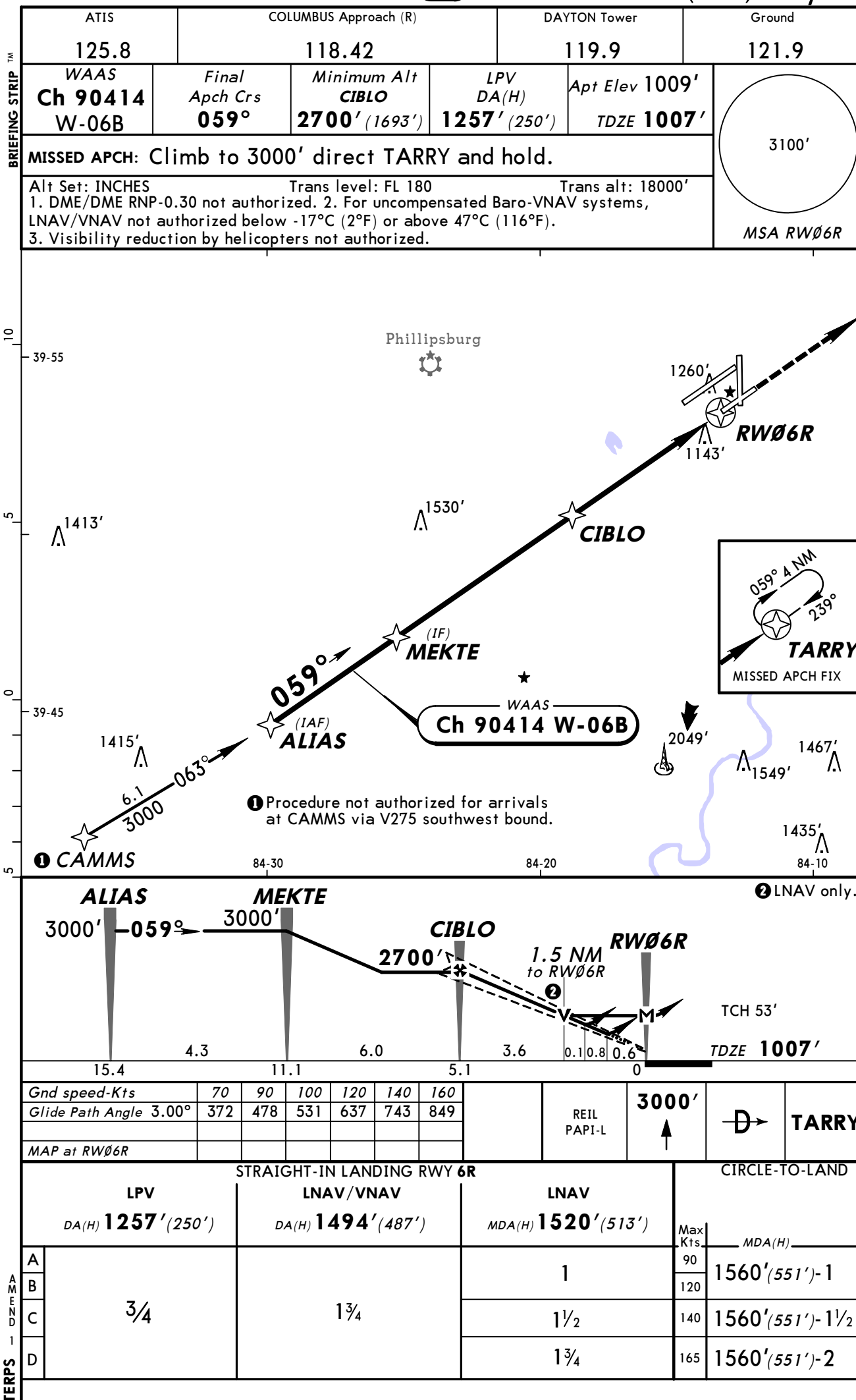
STRAIGHT-IN LANDING RWY 24R					CIRCLE-TO-LAND	
ILS			LOC (GS out)			
DA(H) 1197' (200')			MDA(H) 1400' (403')			
FULL	RAIL or ALS out		RAIL out	ALS out	Max Kts	MDA(H)
A			RVR 24 or 1/2	RVR 40 or 3/4	90	1560' (551')-1
B					120	
C	1 RVR 24 or 1/2	RVR 40 or 3/4			140	1560' (551')-1 1/2
D			RVR 40 or 3/4	RVR 60 or 1 1/4	165	1560' (551')-2

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

CHANGES: Communications.

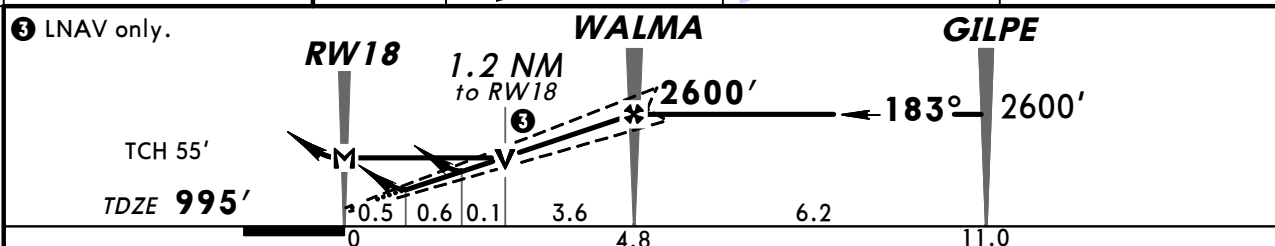
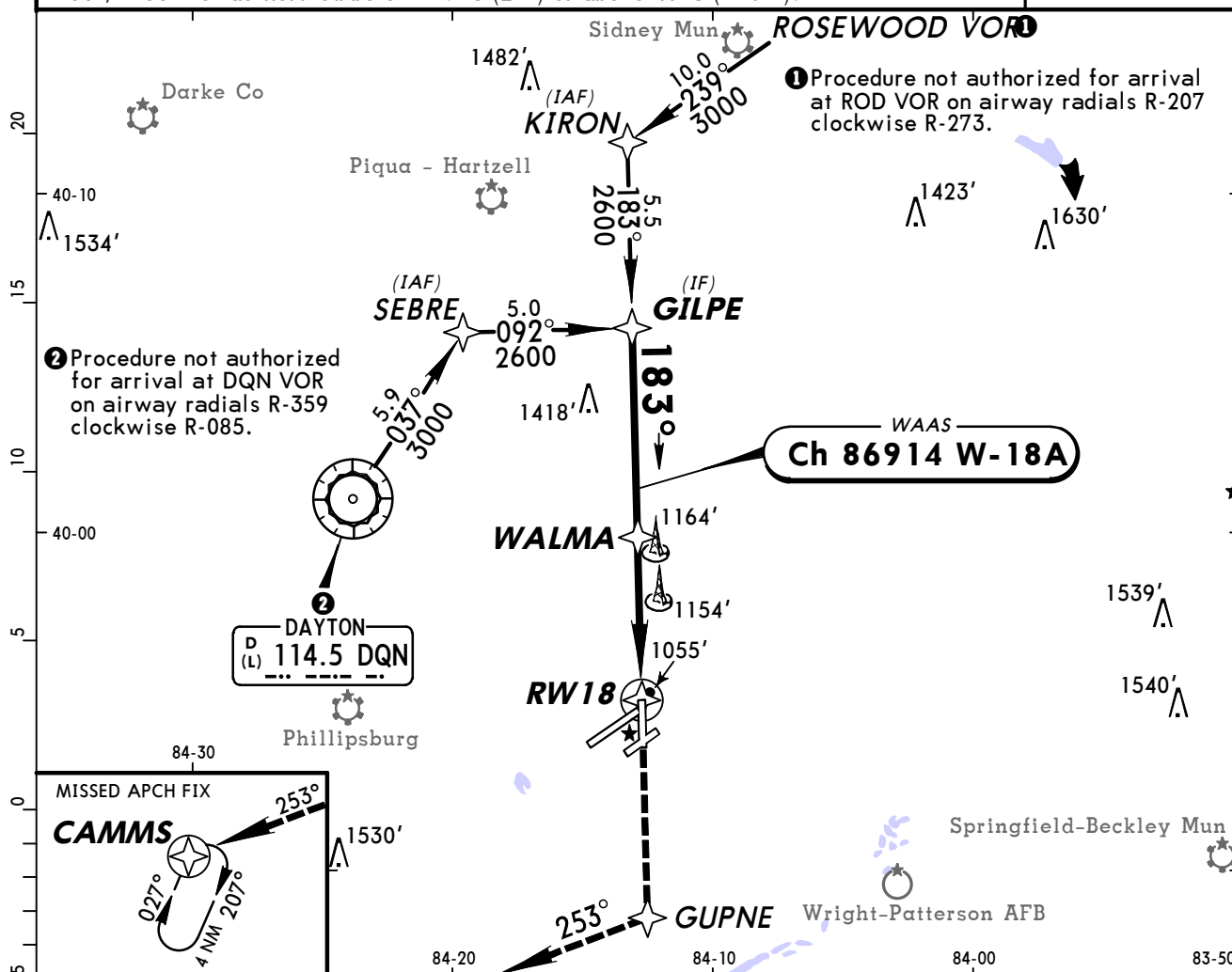
© JEPPESEN, 2001, 2011. ALL RIGHTS RESERVED.





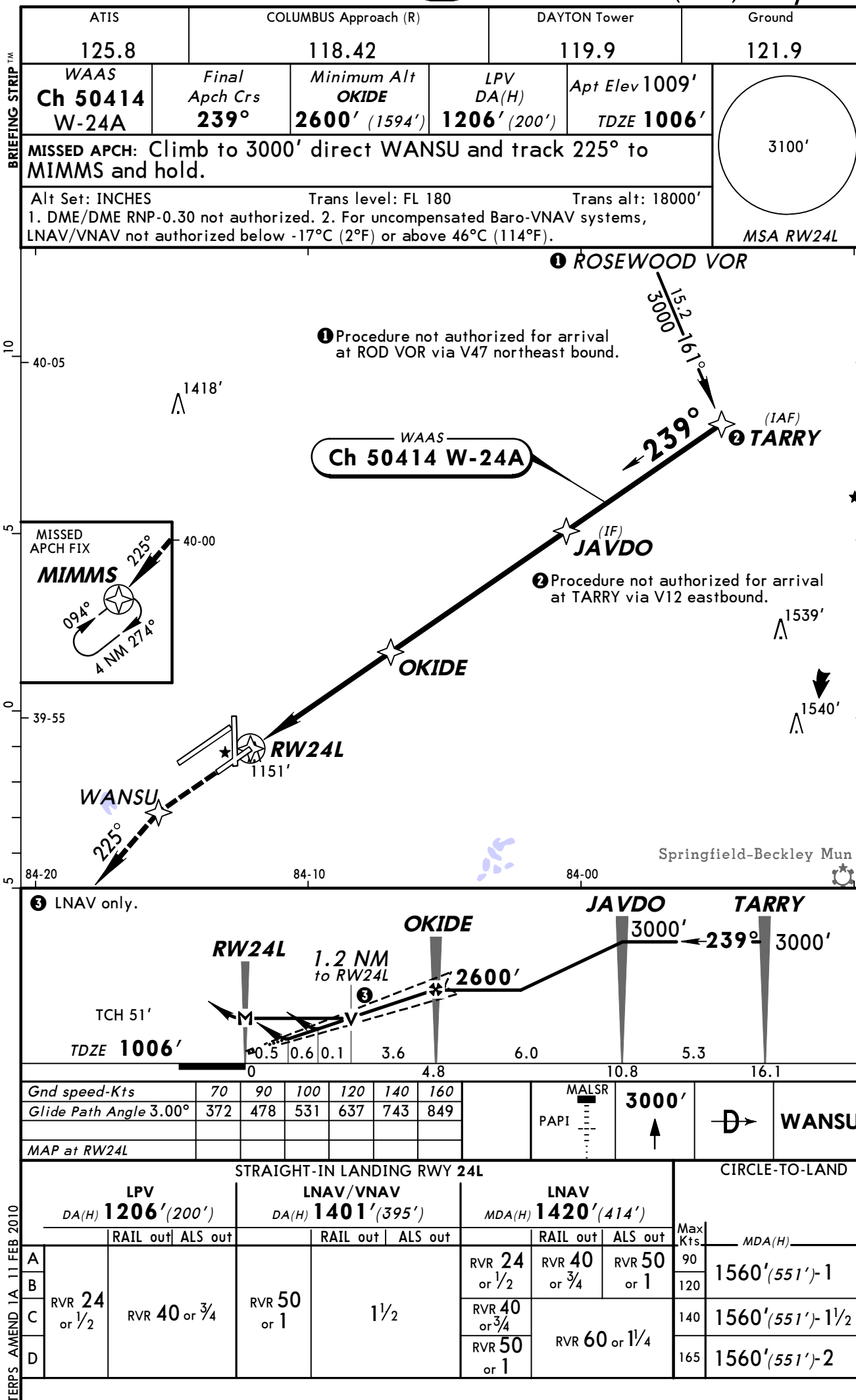
BRIEFING STRIP™

ATIS 125.8		COLUMBUS Approach (R) 118.42		DAYTON Tower 119.9		Ground 121.9	
WAAS Ch 86914 W-18A		Final Apch Crs 183°	Minimum Alt WALMA 2600' (1605')	LPV DA(H) 1195' (200')	Apt Elev 1009' TDZE 995'		3100' MSA RW18
MISSED APCH: Climb to 3000' direct GUPNE and via track 253° to CAMMS and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. DME/DME RNP-0.30 not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (2°F) or above 46°C (114°F).							



Gnd speed-Kts	70	90	100	120	140	160	MALSR 	3000' ↑	D → GUPNE
Glide Path Angle 3.00°	372	478	531	637	743	849			
MAP at RW18									

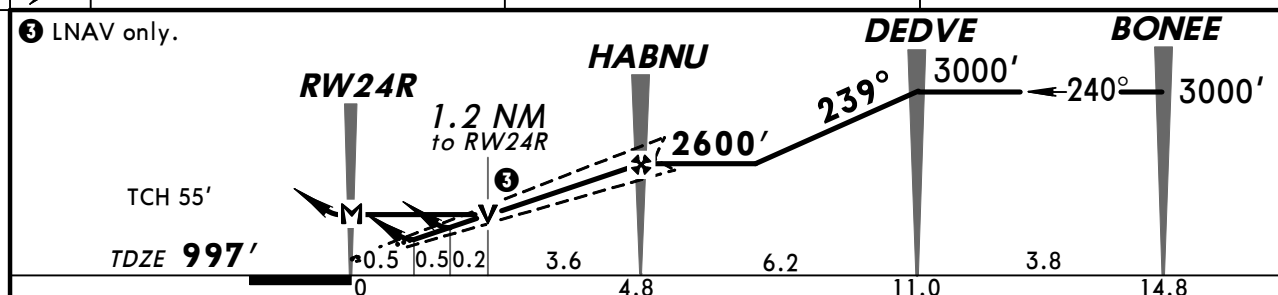
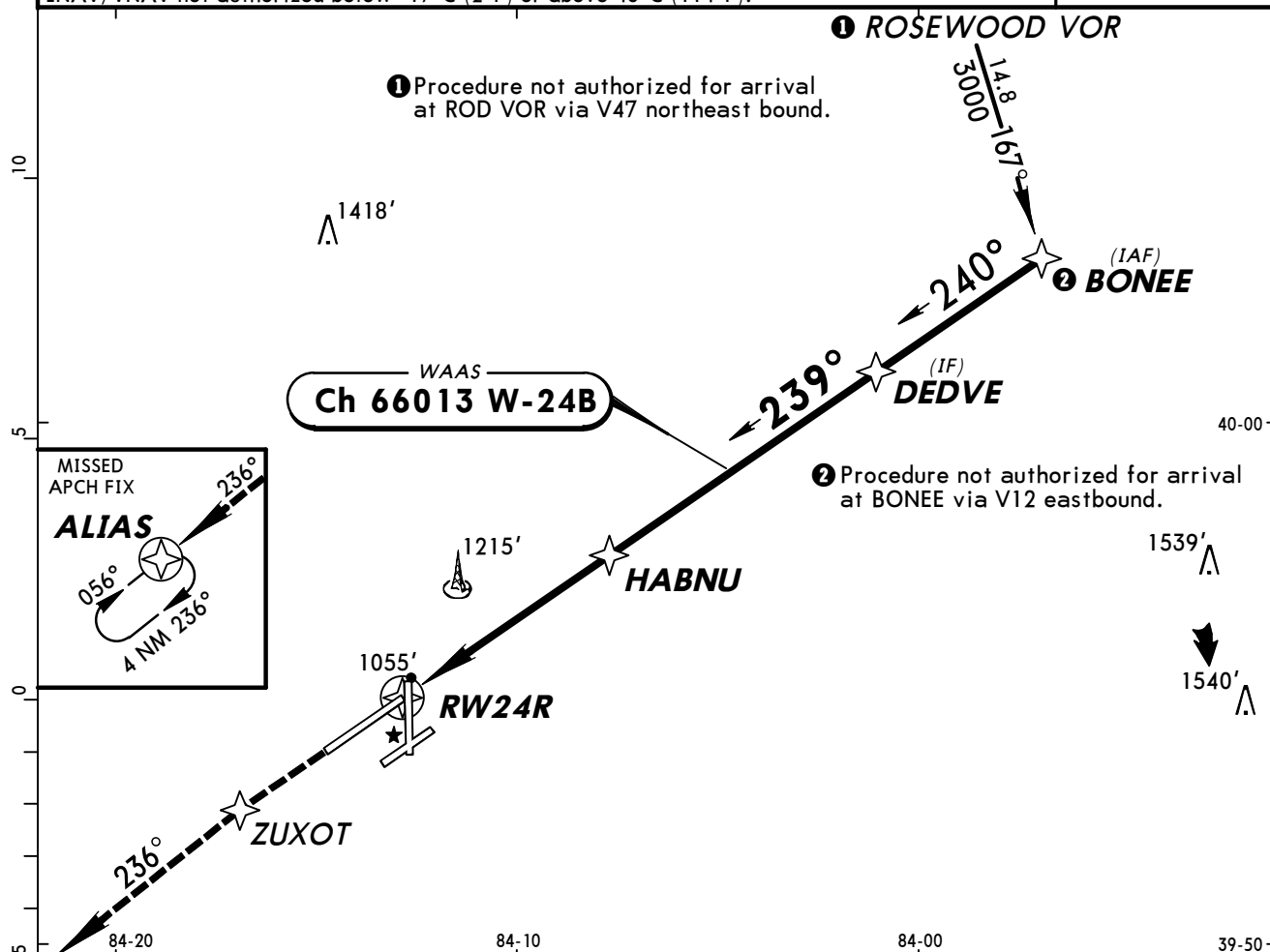
STRAIGHT-IN LANDING RWY 18						CIRCLE-TO-LAND			
LPV DA(H) 1195' (200')		LNAV/VNAV DA(H) 1405' (410')		LNAV MDA(H) 1420' (425')		Max Kts			
RAIL out	ALS out	RAIL out	ALS out	RAIL out	ALS out	90	120	140	1560' (551') - 1
A									
B	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1		
C					RVR 40 or 3/4		RVR 60 or 1 1/4		1560' (551') - 1 1/2
D					RVR 50 or 1				1560' (551') - 2



TERPS AMEND 1A, 11 FEB 2010

DAYTON, OHIO
RNAV (GPS) Rwy 24R

BRIEFING STRIP™



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	
<i>Glide Path Angle 3.00°</i>	372	478	531	637	743	849	
<i>MAP at RW24R</i>							

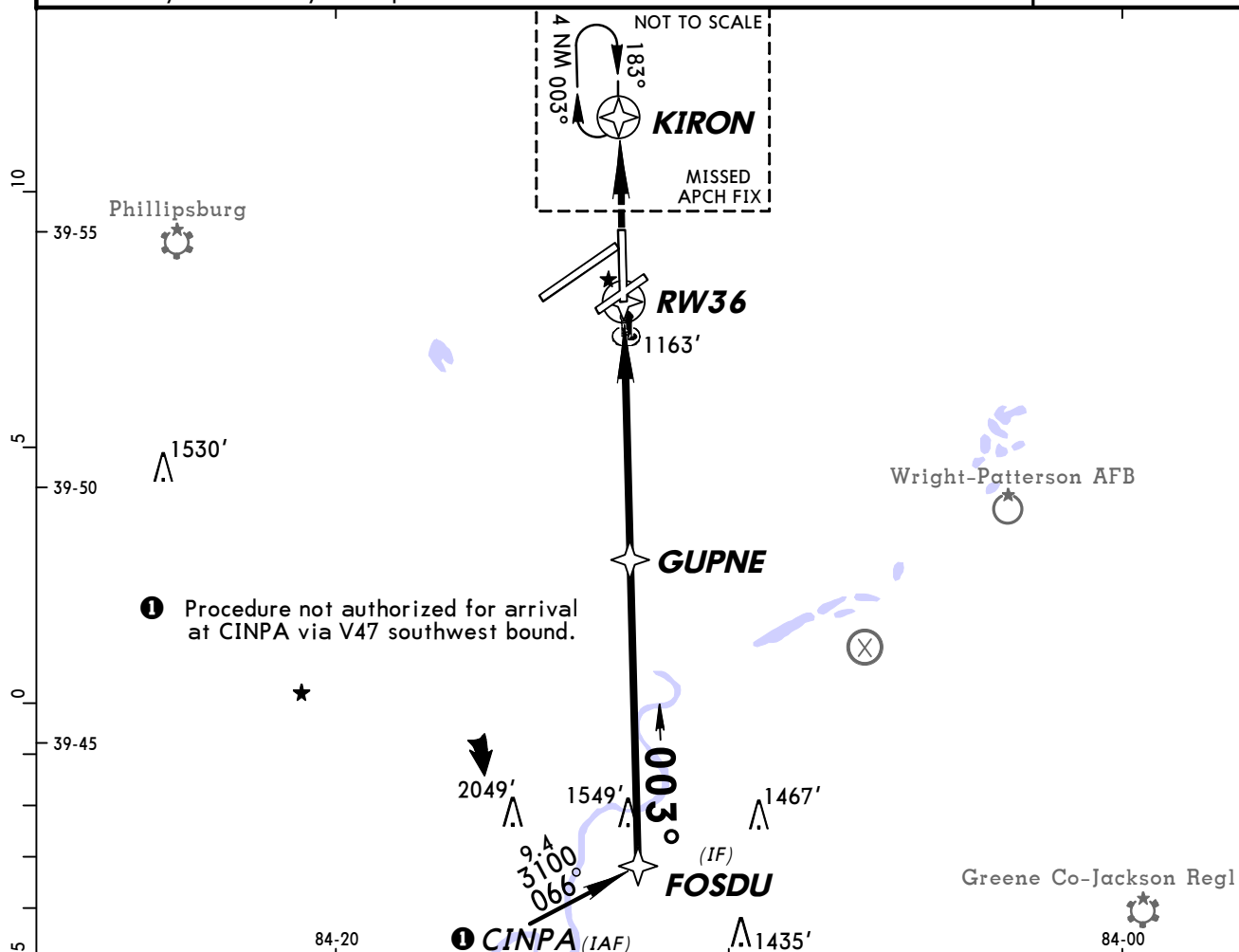
STRAIGHT-IN LANDING RWY 24R										CIRCLE-TO-LAND			
LPV DA(H) 1197'(200')				LNAV/VNAV DA(H) 1364'(367')				LNAV MDA(H) 1440'(443')					
		RAIL out	ALS out			RAIL out	ALS out			Max Kts	MDA(H)		
A	RVR 24 or 1/2	RVR 40 or 3/4		RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1560'(551')-1			
B									120				
C								RVR 40 or 3/4	RVR 60 or 1 1/4		140	1560'(551')-1 1/2	
D								RVR 50 or 1	1 1/2		165		

CHANGES: Communications.

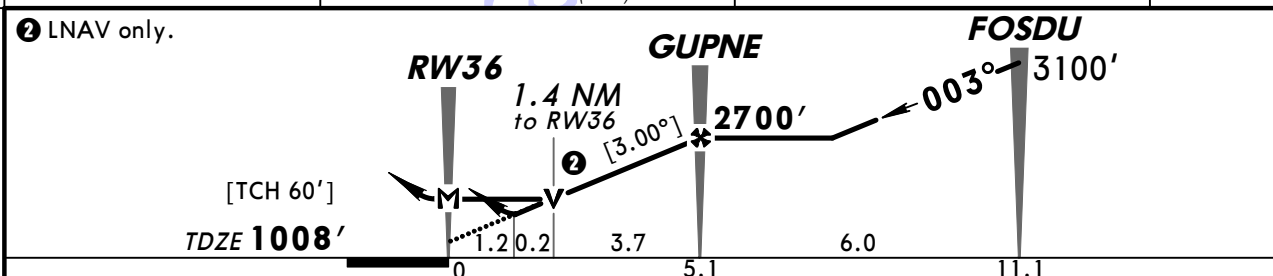
© JEPPESEN, 2002, 2011. ALL RIGHTS RESERVED.

BRIEFING STRIP™

ATIS 125.8		COLUMBUS Approach (R) 118.42		DAYTON Tower 119.9		Ground 121.9				
RNAV		Final Apch Crs 003°		Minimum Alt GUPNE 2700' (1692')		LNAV/VNAV DA(H) 1449' (441')		Apt Elev 1009' TDZE 1008'		3100' MSA RW36
MISSED APCH: Climb to 3000' direct KIRON and hold.										
Alt Set: INCHES										



② LNAV only.



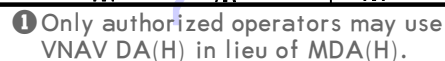
Gnd speed-Kts	70	90	100	120	140	160	VASI-L	3000'	D	KIRON
Descent angle [3.00°]	372	478	531	637	743	849				
MAP at RW36										

STRAIGHT-IN LANDING RWY 36

CIRCLE-TO-LAND

LNAV/VNAV		LNAV		Max Kts	MDA(H)
DA(H) 1449'(441')		MDA(H) 1500'(492')			
A	1½	1		90	1560'(551')-1
B				120	
C		1¼		140	1560'(551')-1½
D		1½		165	1560'(551')-2

BRIEFING STRIP TM



AMEND 9 TERPS

AMEND 9 TERPS

General Information

Location: Dayton OH USA
IATA Code: FFO
Lat/Long: N39° 49.6' W084° 02.9'
Elevation: 823 ft

Airport Use: Military
Magnetic Variation: 6.1 °W
Sectional Chart: St Louis

Fuel Types: Jet A-1, Jet 4
Repair Types: Major Airframe, Major Engine
Customs: Restricted
Airport Type: IFR
Landing Fee: No
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: No
Beacon: Yes

Sunrise: 1213 Z
Sunset: 2325 Z,

Runway Information

Runway: 05L
Length x Width: 12601 ft x 300 ft
Surface Type: asphalt
TDZ-Elev: 804 ft
Lighting: Edge, ALS
Stopway: 900 ft

Runway: 05R
Length x Width: 7000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 813 ft
Lighting: Edge

Runway: 23L
Length x Width: 7000 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 818 ft
Lighting: Edge
Stopway: 345 ft

Runway: 23R
Length x Width: 12601 ft x 300 ft
Surface Type: asphalt
TDZ-Elev: 822 ft
Lighting: Edge, ALS

Communication Information

ATIS 124.475

Patterson Tower 126.9

Patterson Ground Control 121.8

Columbus Approach Control 127.225

Columbus Approach Control 126.5 (91°-180°)

Columbus Approach Control 118.85 (91°-180°) Secondary

Columbus App ARSA 126.5 (91°-180°)

Columbus App ARSA 118.85 (91°-180°)

Columbus Departure Control 127.225

Columbus Departure Control 126.5 (91°-180°)

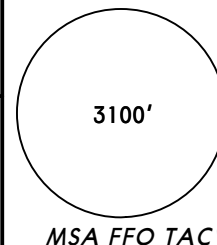
Columbus Departure Control 118.85 (91°-180°) Secondary

Patterson Operations 126.2

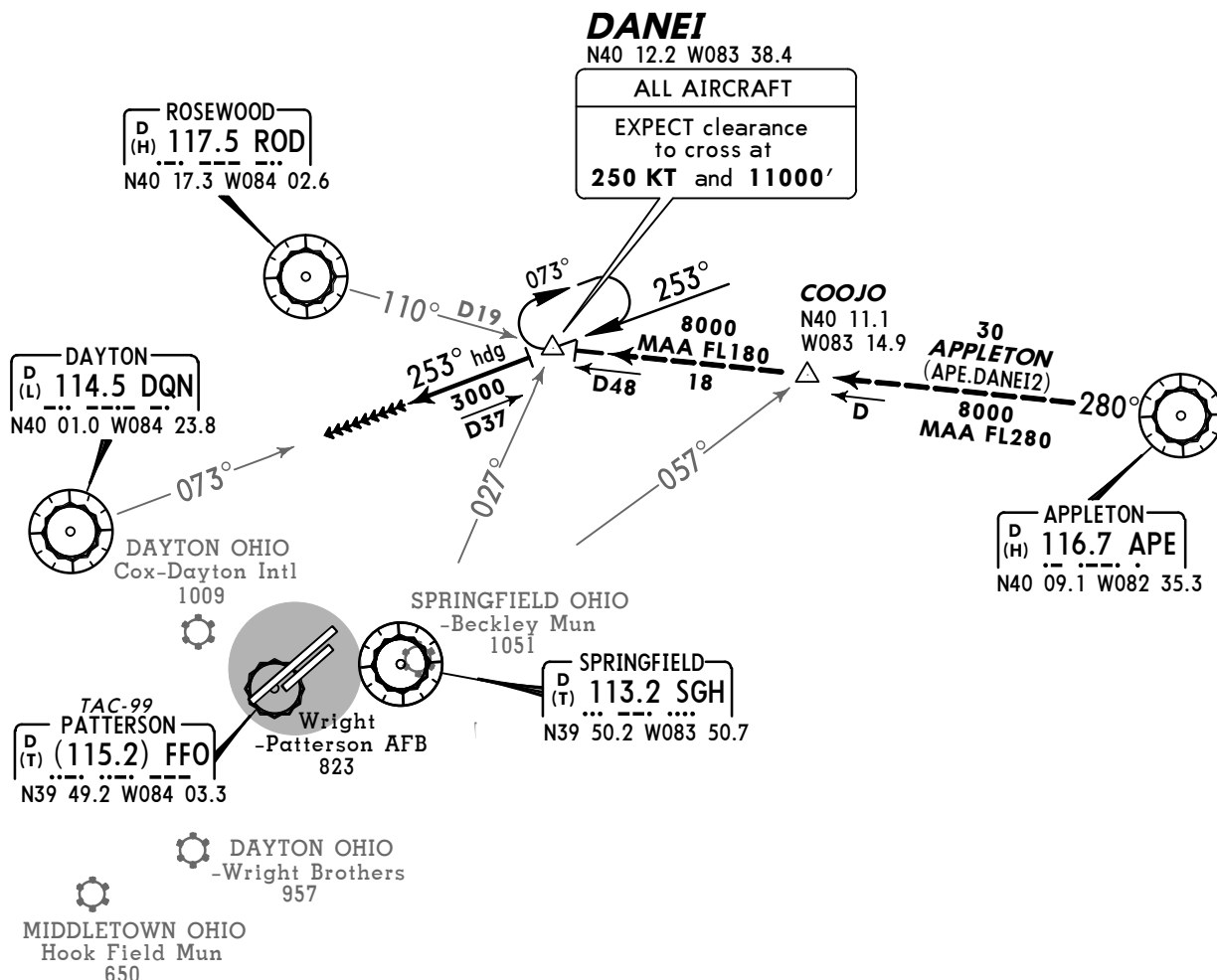
ATIS
124.47

Apt Elev
See graphic

Alt Set: INCHES
Trans level: FL180 Trans alt: 18000'
RADAR required.



DANEI TWO ARRIVAL (DANEI.DANEI2)



NOT TO SCALE

Direct distance from DANEI to:
Wright-Patterson AFB **29 NM**

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
In the event of lost communications:
At DANEI, proceed direct to DQN.
MAINTAIN 3000' until DQN.

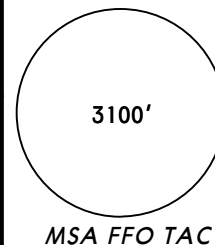
ROUTING

From over DANEI via heading 253°. EXPECT RADAR vectors to final approach course.

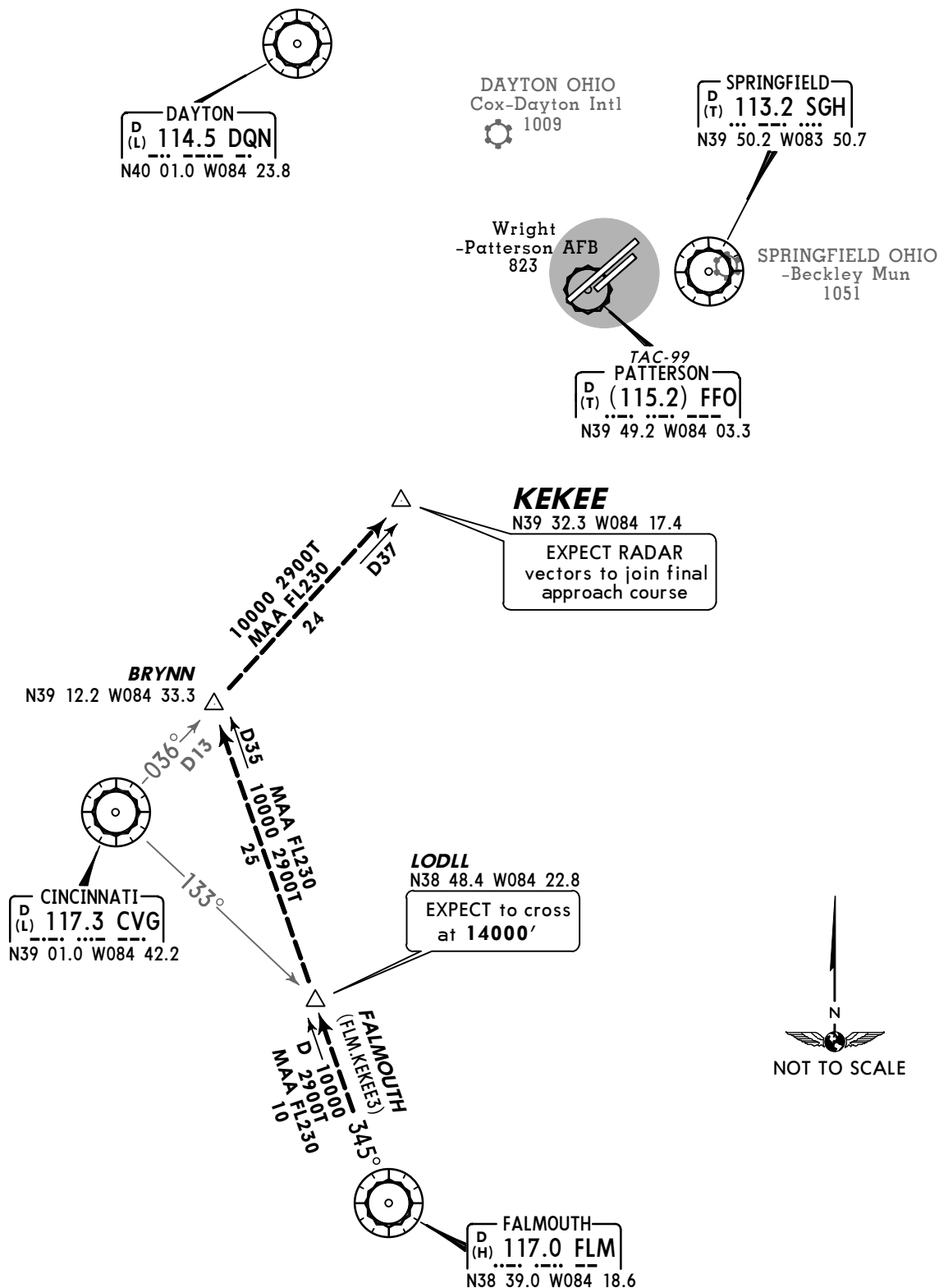
ATIS
124.47

Apt Elev
See graphic

Alt Set: INCHES
Trans level: FL180 Trans alt: 18000'
DME or RADAR required.



KEKEE THREE ARRIVAL (KEKEE.KEKEE3)



Direct distance from KEKEE to:
Wright-Patterson AFB **21 NM**

ROUTING

From over KEKEE, EXPECT RADAR vectors to join final approach course.

ADDITIONAL RUNWAY INFORMATION						
RWY		USABLE LENGTHS		TAKE-OFF	WIDTH	
		— LANDING BEYOND — Threshold	Glide Slope			
5R 23L	MIRL PAPI-L				150'	
5L 23R	HIRL ALSF-I PAPI-L (angle 3.0°) grooved RVR		11651'		300'	
	HIRL ALSF-I PAPI-R (angle 3.0°) grooved RVR					

[illegible]

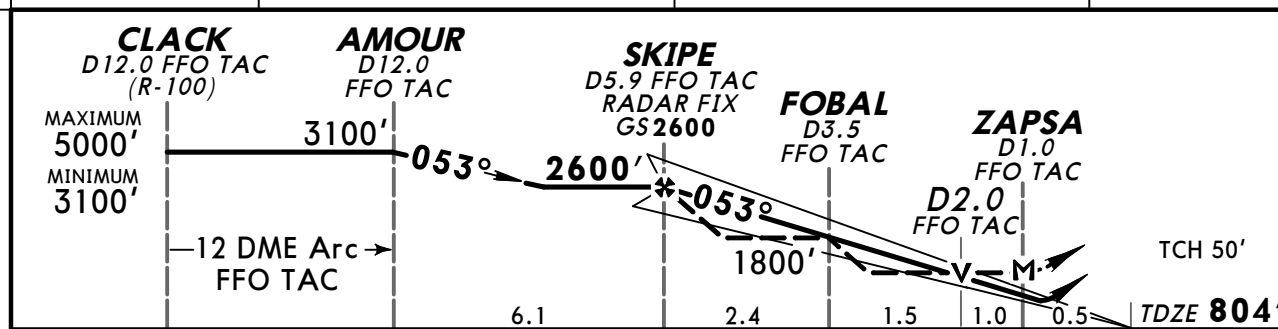
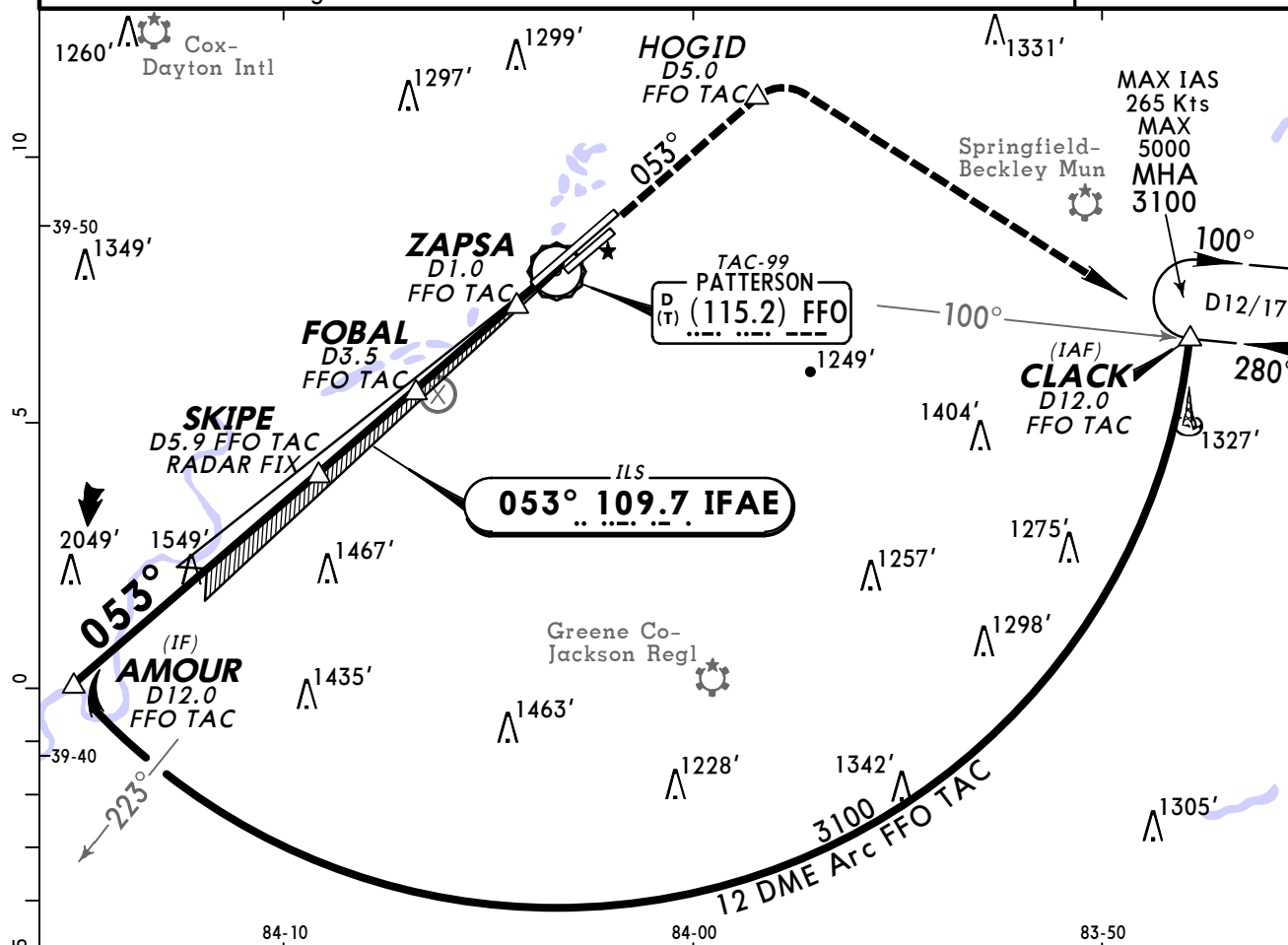
TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE											
Rwy 5L			Rwy 5R			Rwy 23L			Rwy 23R		
Adequate Vis Ref	STD	With Mim climb of 240' /NM to 1100'		Other	With Mim climb of 210' /NM to 1300'		Other	With Mim climb of 260' /NM to 1300'		Other	
		Adequate Vis Ref	STD		Adequate Vis Ref	STD		Adequate Vis Ref	STD		
1 & 2 Eng	RVR 16 or 1/4	RVR 50 or 1	1/4	1	200- 1 1/2	1/4	1	400- 2 3/4	RVR 16 or 1/4	RVR 50 or 1	400- 2 3/4
3 & 4 Eng		RVR 24 or 1/2		1/2						1/2	

Rwy 5L: Up to 105' AGL tree line beginning 3000' from DER, 700' right of centerline to 5100' from DER, 1300' left of centerline.

Rwy 23L: 43' AGL VOR, 850' from DER,
662' right of centerline.

OBSTACLE DP: Rwy 5R, climb on track 050° until reaching 1100'.

ATIS 124.47		COLUMBUS Approach (R) 126.5		PATTERSON Tower 126.9		Ground 121.8			
ILS IFAE 109.7		Final Apch Crs 053°		Minimum Alt SKIPE 2600' (1796')		ILS DA(H) 1004' (200')		Apt Elev 823' TDZE 804'	
MISSED APCH: Climb to 2000' outbound via FFO TAC R-053, at HOGID/D5.0 FFO TAC, turn RIGHT direct CLACK climbing to 3100' and hold. Requires use of RNAV or ATC RADAR monitoring.								3100' MSA FFO TAC	
Alt Set: INCHES									



Gnd speed-Kts	70	90	100	120	140	160	ALSFI	2000'	FFO TAC-99	HOGID
GS	3.00°	372	478	531	637	743	849	PAPI	(115.2)	R-053
MAP at ZAPSA or SKIPE to MAP	4.9	4:12	3:16	2:56	2:27	2:06	1:50			

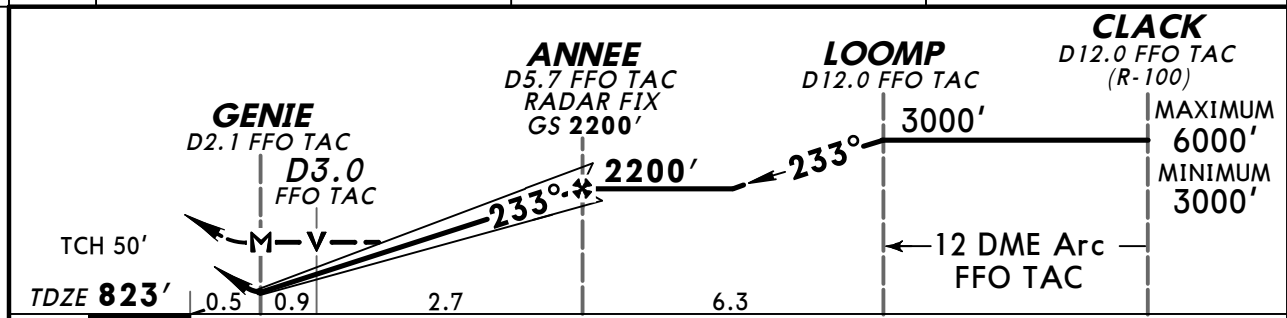
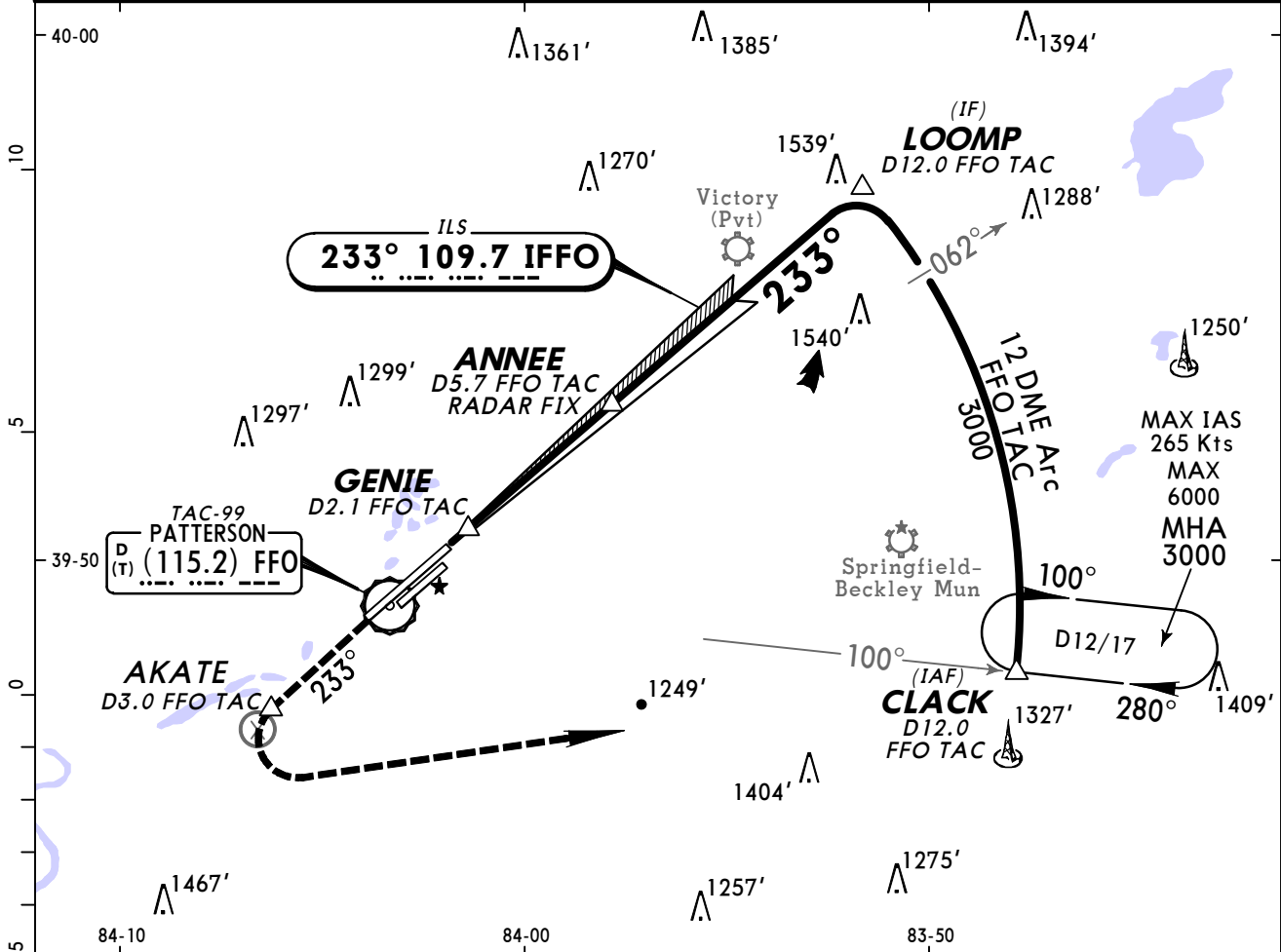
STRAIGHT-IN LANDING RWY 5L						CIRCLE-TO-LAND		
ILS		LOC (GS out)				Not Authorized at Night to Rwy 23R, when VGSI inop.		
DA(H) 1004' (200')		With FOBAL		Without FOBAL				
FULL		MDA(H) 1320' (516')		MDA(H) 1380' (576')				
		ALS out		ALS out				
A						Max Kts		
B						90		
C	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 55 or 1	RVR 24 or 1/2	120		
D						140		
						165		

KFFO/FFO
DAYTON, OHIO

JEPPESEN **WRIGHT-PATTERSON AFB**
19 AUG 11 **31-2** **Eff 25 Aug** **ILS or LOC Rwy 23R**

BRIEFING STRIP™

ATIS 124.47		COLUMBUS Approach (R) 126.5		PATTERSON Tower 126.9		Ground 121.8	
LOC IFFO 109.7	Final Apch Crs 233°	GS ANNEE 2200' (1377')	ILS DA(H) 1023' (200')	Apt Elev 823' TDZE 823'		3100' MSA FFO TAC	
MISSED APCH: Climb outbound via FFO TAC R-233 to 2000'. At AKATE/D3.0 FFO turn LEFT direct CLACK to 3000' and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME or Radar required for localizer. 2. SAFE ALTITUDE WITHIN 100 NM 3300'. 3. Missed approach requires use of RNAV or ATC Radar monitoring.							



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	ALSF-I PAPI 2000' via FFO TAC-99 R-233	AKATE
GS	3.00°	372	478	531	637	743		
MAP at GENIE								

STRAIGHT-IN LANDING RWY 23R				CIRCLE-TO-LAND	
ILS		LOC (GS out)		Max Kts	MDA(H)
DA(H) 1023' (200')		MDA(H) 1320' (497')			
FULL	ALS out		ALS out		
A				90	1380' (557')-1
B		RVR 24 or 1/2	RVR 50 or 1	120	1400' (577')-1
C	RVR 24 or 1/2		RVR 60 or 1 1/4	140	1420' (597')-1 1/2
D		RVR 50 or 1	1 1/2	165	1460' (637')-2

CHANGES: Approach control.

© JEPPESEN, 2006, 2011. ALL RIGHTS RESERVED.

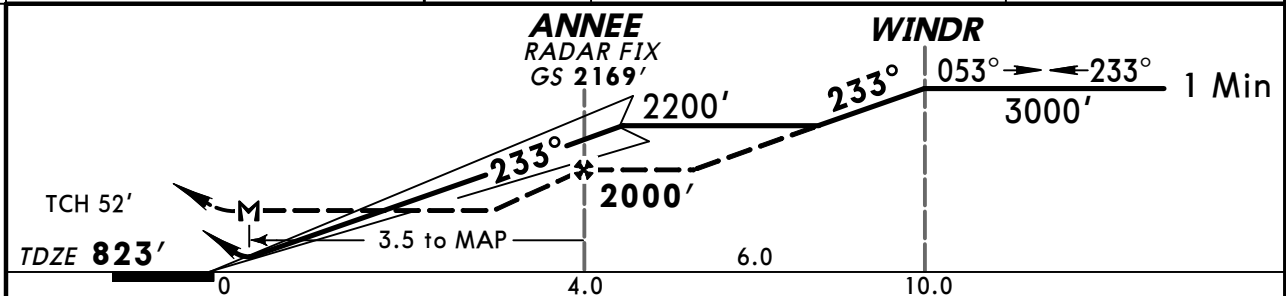
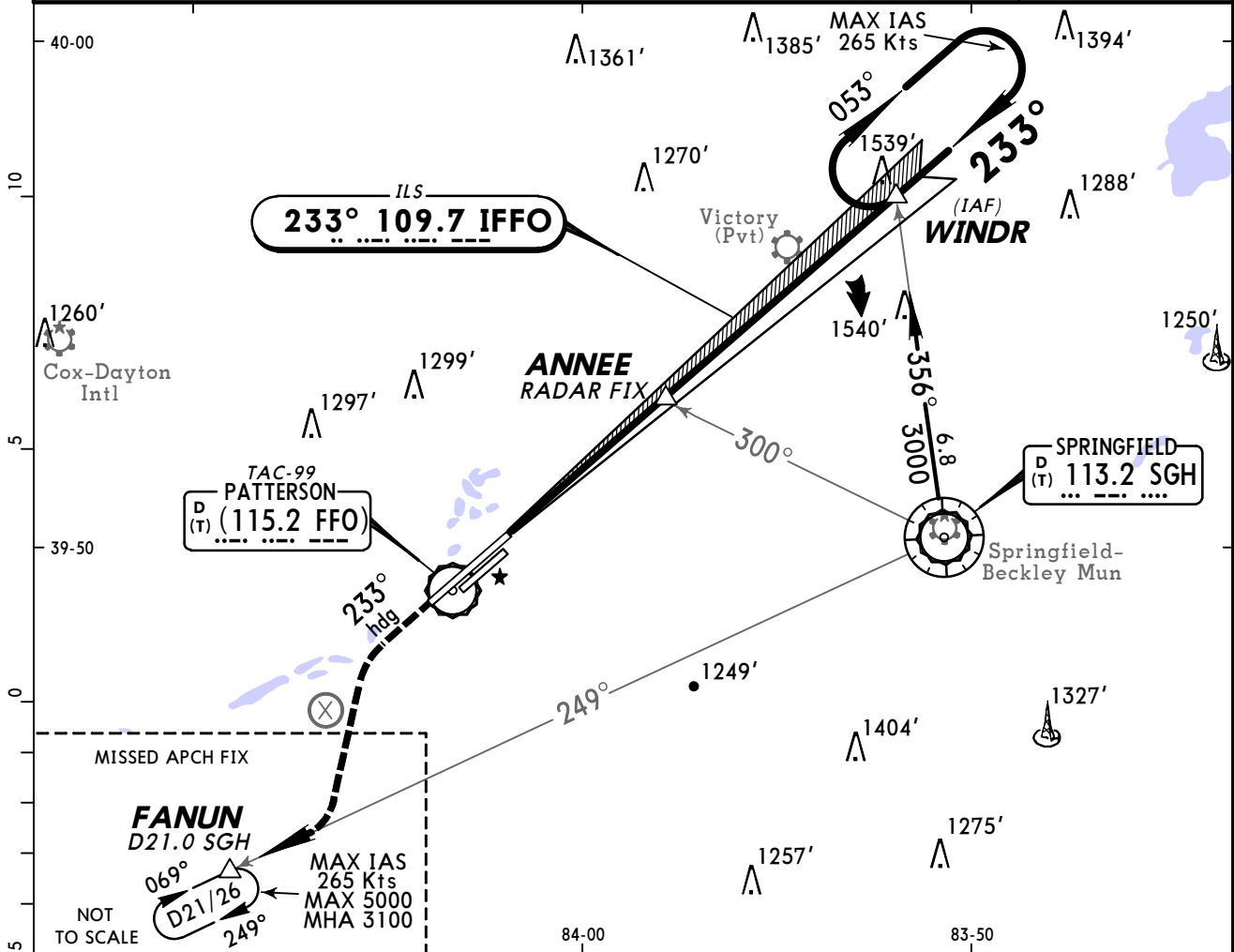
KFFO/FFO
DAYTON, OHIO

JEPPesen 19 AUG 11 **(31-3)** **Eff 25 Aug**

WRIGHT-PATTERSON AFB
ILS Z Rwy 23R

BRIEFING STRIP™

ATIS 124.47		COLUMBUS Approach (R) 126.5		PATTERSON Tower 126.9		Ground 121.8	
LOC IFFO 109.7	Final Apch Crs 233°	GS ANNEE 2169' (1346')	ILS DA(H) 1023' (200')	Apt Elev 823' TDZE 823'		3100' MSA FFO TAC	
MISSED APCH: Track heading 233°, climb to 3100', intercept outbound SGH VOR R-249 to FANUN and hold.							
Alt Set: INCHES 1. SAFE ALTITUDE WITHIN 100 NM 3300'. 2. VGSI and descent angle not coincident.							
		Trans level: FL 180		Trans alt: 18000'			

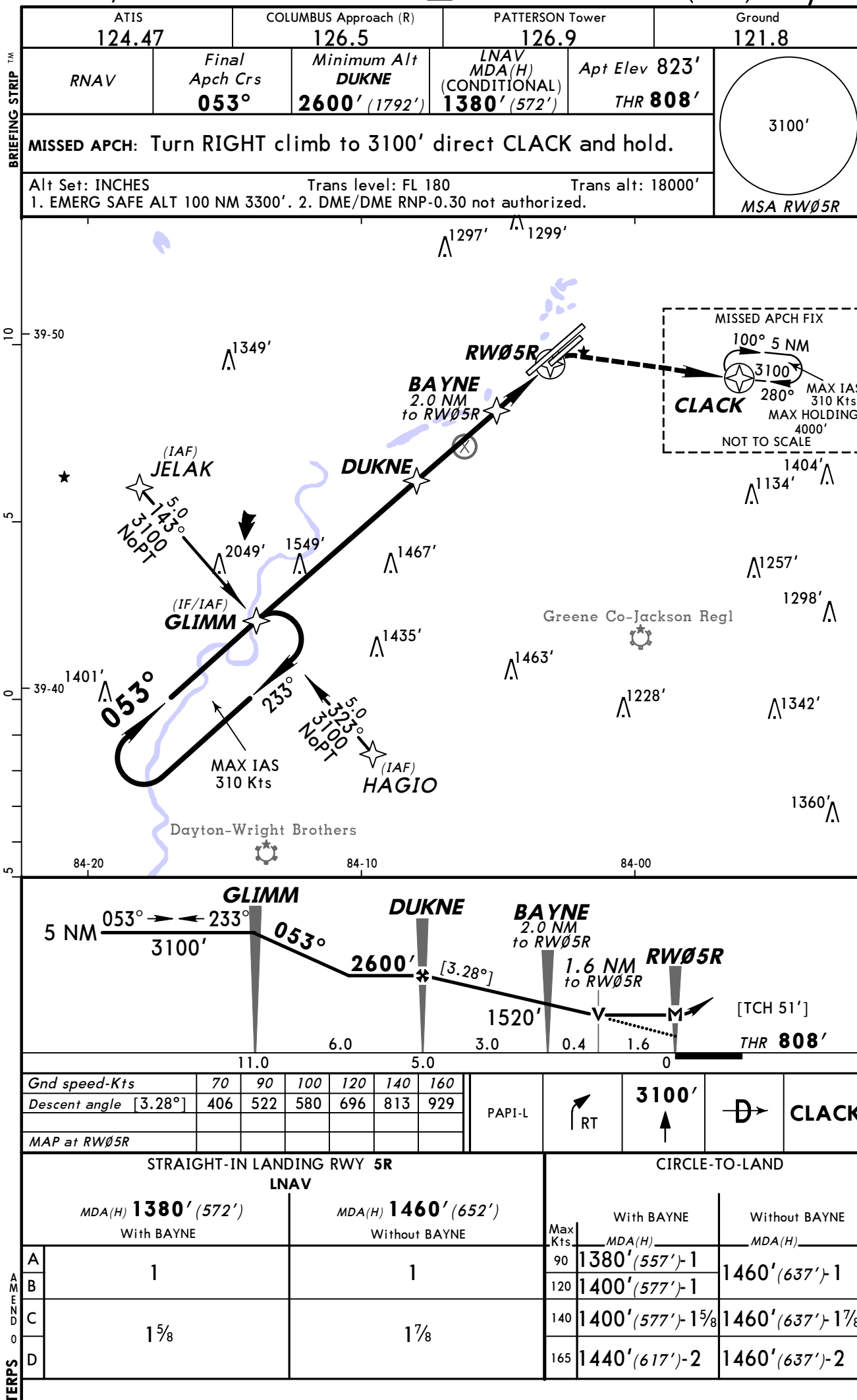


Gnd speed-Kts	70	90	100	120	140	160	ALS F-I	PAPI	233°	3100'	SGH	113.2	FANUN
GS	3.00°	372	478	531	637	743							
ANNEE to MAP	3.5	3:00	2:20	2:06	1:45	1:30							

STRAIGHT-IN LANDING RWY23R						CIRCLE-TO-LAND	
ILS			LOC (GS out)			Max Kts	MDA(H)
DA(H) 1023' (200')			MDA(H) 1320' (497')				
FULL		ALS out		ALS out			
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	90	1380' (557')- 1	
B					120	1400' (577')- 1	
C			RVR 40 or 3/4	RVR 60 or 1 1/4	140	1420' (597')- 1 1/2	
D			RVR 50 or 1	1 1/2	165	1460' (637')- 2	

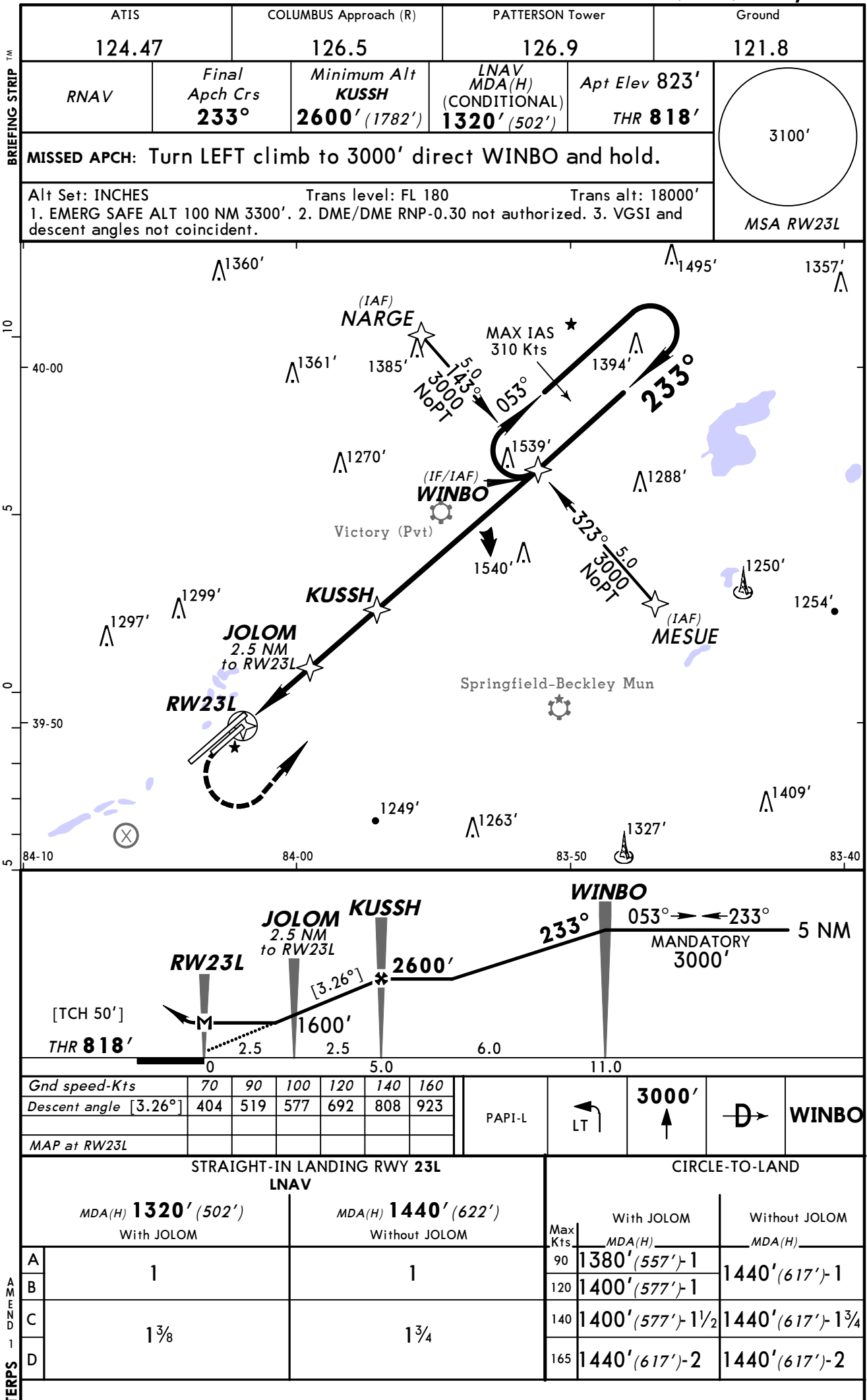
CHANGES: Approach control.

© JEPPesen, 2005, 2011. ALL RIGHTS RESERVED.



KFFO/FFO
DAYTON, OHIO

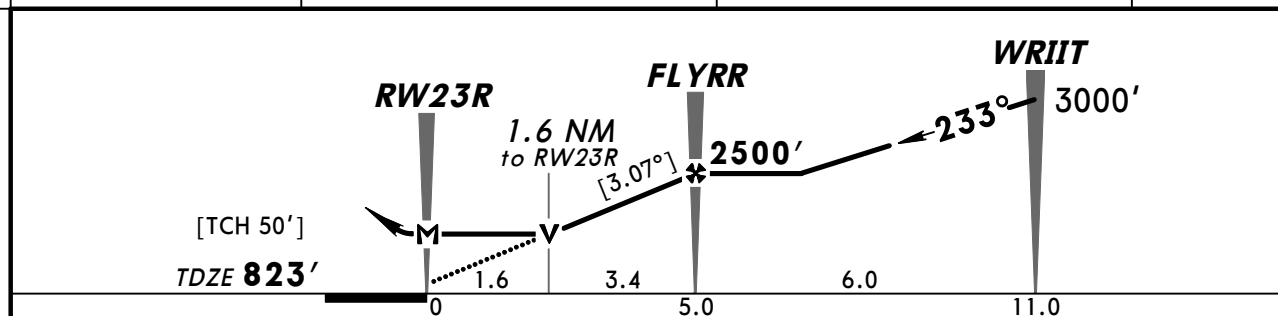
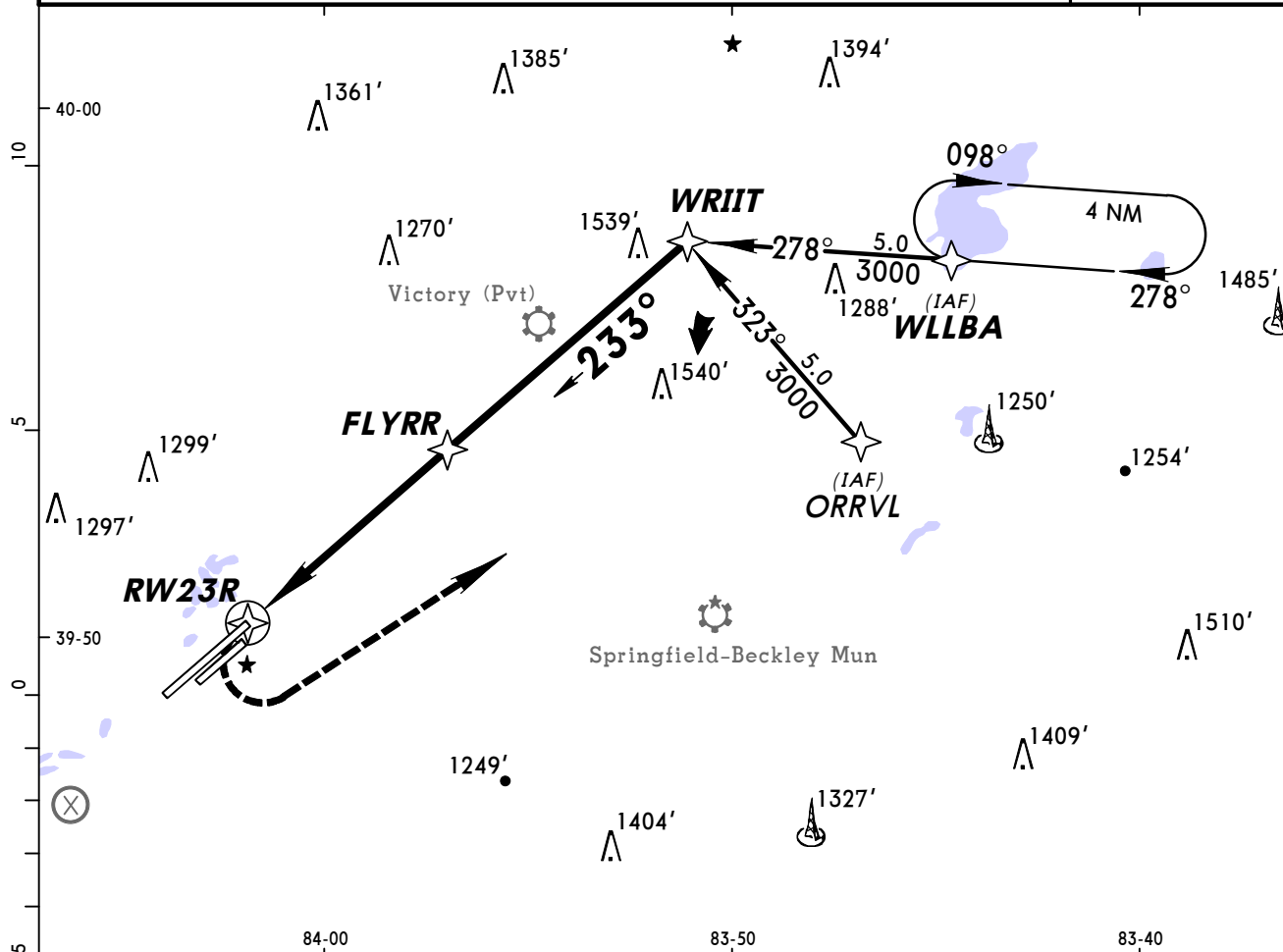
JEPPesen **WRIGHT-PATTERSON AFB**
16 SEP 11 **(32-2)** **Eff 22 Sep** **RNAV (GPS) Rwy 23L**



CHANGES: IAF altitude.

© JEPPesen, 2010, 2011. ALL RIGHTS RESERVED.

ATIS 124.47		COLUMBUS Approach (R) 126.5		PATTERSON Tower 126.9		Ground 121.8	
RNAV	Final Aptch Crs 233°	Minimum Alt FLYRR 2500' (1677')	LNAV MDA(H) 1380' (557')	Apt Elev 823' TDZE 823'		3100' MSA RW23R	
MISSED APCH: Turn LEFT climb to 3000' direct WLLBA and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. EMERG SAFE ALT 100 NM 3300'. 2. DME/DME RNP-0.30 not authorized.							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-I	3000'	LT	WLLBA
Descent angle [3.07°]	380	489	543	652	760	869	PAPI			
MAP at RW23R										

STRAIGHT-IN LANDING RWY 23R				CIRCLE-TO-LAND			
LNAV				MDA(H)			
MDA(H) 1380' (557')				MDA(H)			
ALS out				Max Kts			
A	RVR 24 or 1/2	RVR 50 or 1		90	1380' (557') - 1		
B	RVR 50 or 1	RVR 1 1/2		120	1380' (557') - 1 1/2		
C	RVR 60 or 1 1/4	RVR 1 3/4		140	1380' (557') - 2		
D				165			

General Information

Location: Wilmington OH USA
IATA Code: ILN
Lat/Long: N39° 25.7' W083° 47.5'
Elevation: 1077 ft

Airport Use: Public
Magnetic Variation: 6.2°W
Sectional Chart: Cincinnati

Fuel Types: Jet A
Oxygen Types: High Pressure, Low Pressure
Repair Types: Major Airframe, Major Engine
Customs: No
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: Yes

Sunrise: 1211 Z
Sunset: 2325 Z,

Runway Information

Runway: 04L
Length x Width: 10701 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 1057 ft
Lighting: Edge, ALS, Centerline

Runway: 04R
Length x Width: 9000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 1045 ft
Lighting: Edge, ALS, Centerline

Runway: 22L
Length x Width: 9000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 1077 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 22R
Length x Width: 10701 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 1077 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

ATIS 124.925

Wilmington Tower 119.475 CTAF

Wilmington Ground Control 121.6

Wilmington Clearance Delivery 128.85

Columbus Approach Control 127.225

Columbus Approach Control 126.5 (91°-180°)

Columbus Approach Control 118.85 (91°-180°) Secondary

Columbus App ARSA 126.5 (91°-180°)

Columbus App ARSA 118.85 (91°-180°)

Columbus Departure Control 127.225

Columbus Departure Control 126.5 (91°-180°)

Columbus Departure Control 118.85 (91°-180°) Secondary

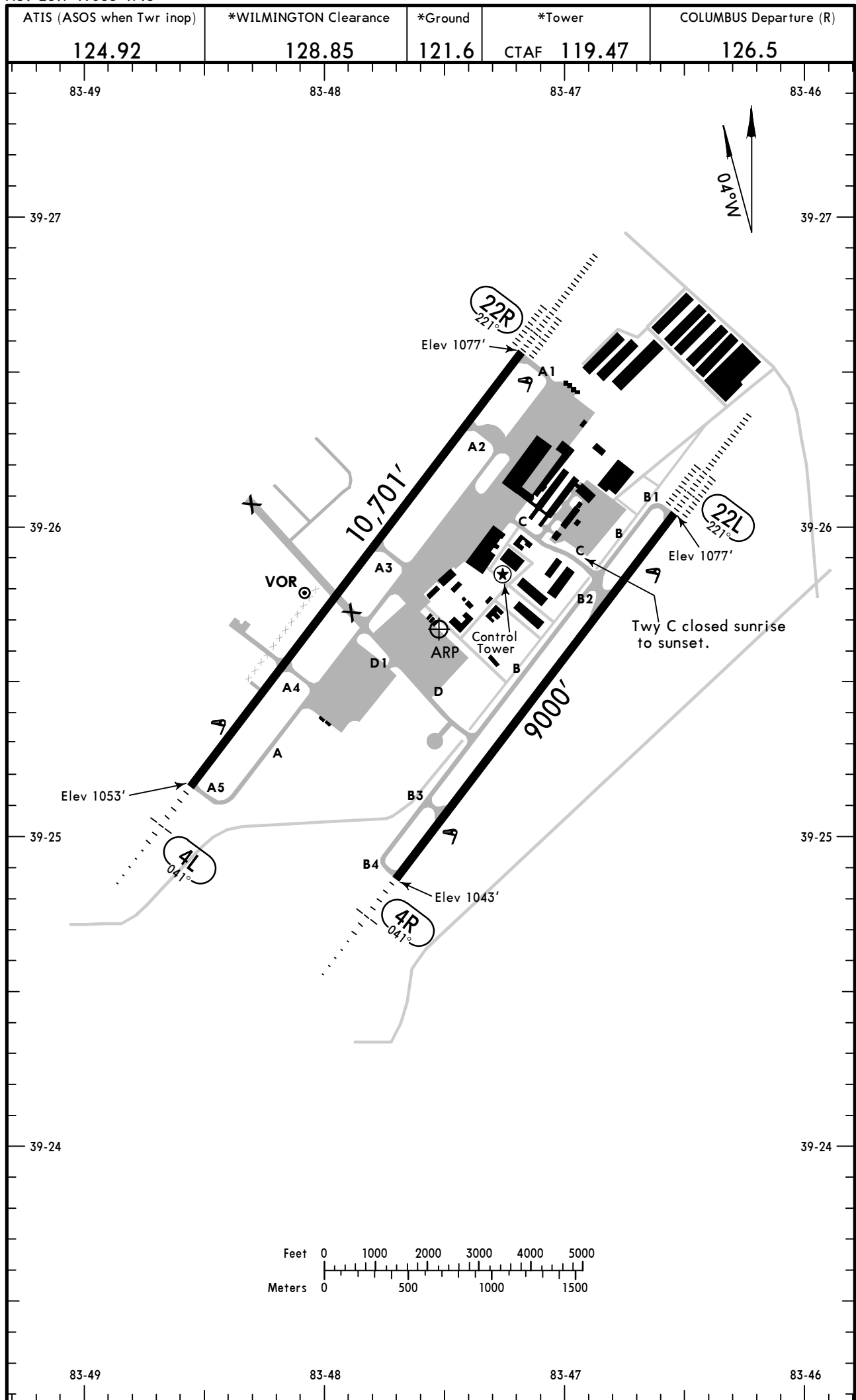
Airborne Operations 119.475

KILN/ILN
Apt Elev **1077'**
N39 25.7 W083 47.5

25 NOV 11

10-9

WILMINGTON, OHIO
WILMINGTON



CHANGES: Departure frequency and call name.

© JEPPESEN, 1999, 2011. ALL RIGHTS RESERVED.

GENERAL

4 hrs prior permission required for all transient aircraft. Contact airport manager or flight control.

Airport closed to air carrier operations with more than 9 passenger seats and unscheduled air carrier operations greater than 30 passenger seats. 90-day prior permission required. Contact airport manager.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		LANDING BEYOND Threshold	Glide Slope		
4L ① 22R	② HIRL ② CL ② MALSR PAPI-L (angle 3.0°) RVR		9801'		150'
	② HIRL ② CL ② ALSF-II ② TDZ PAPI-L (angle 3.0°) RVR		9576'		

① Grooved.

② Prior request on 119.47 when Twr inop.

4R ③ 22L	④ HIRL ④ CL ④ MALSR ⑤ PAPI-L RVR		7970'		150'
	④ HIRL ④ CL ④ ALSF-II ④ TDZ ⑤ PAPI-L RVR		7905'		

③ Grooved.

④ Prior request on 119.47 when Twr inop.

⑤ Angle 3.0°.

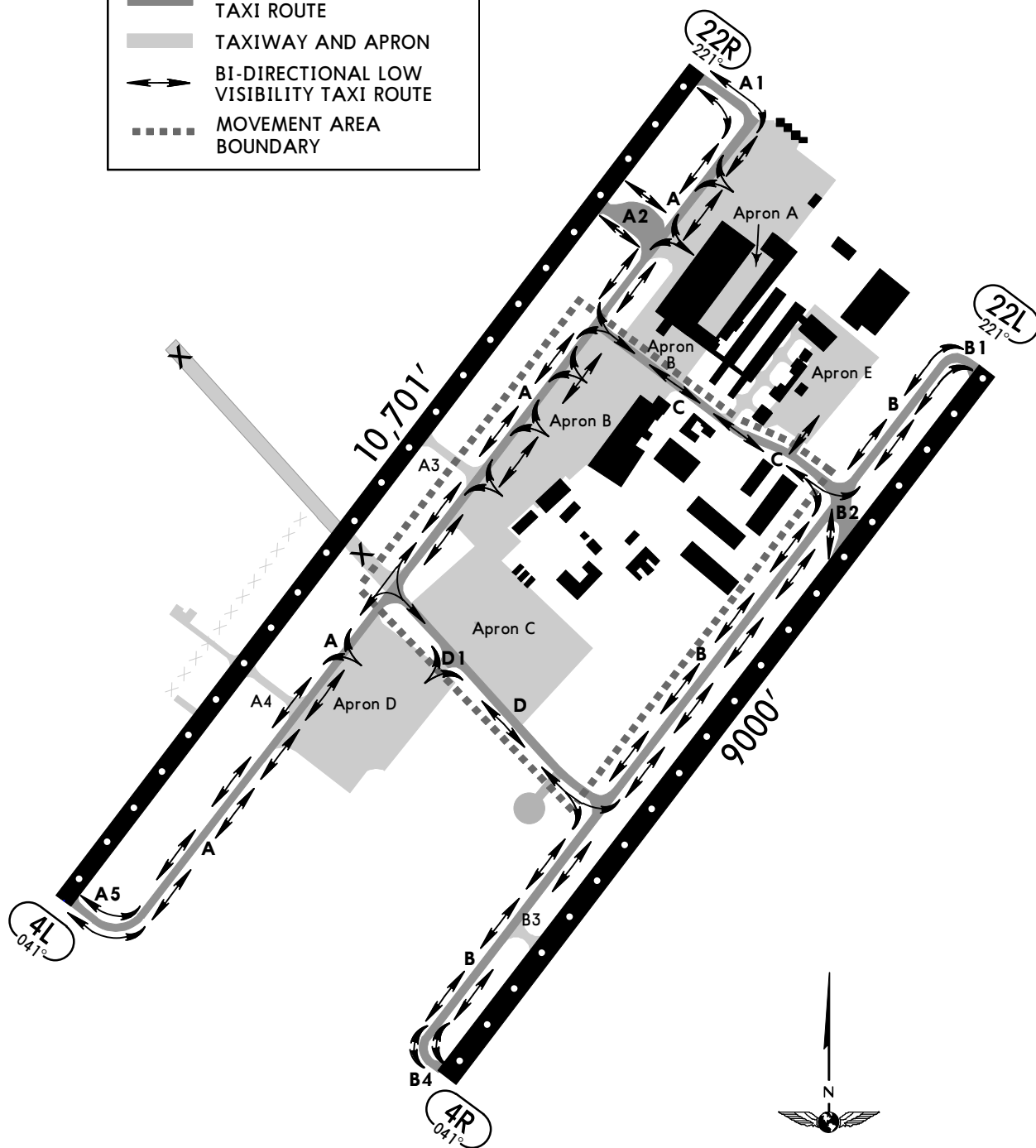
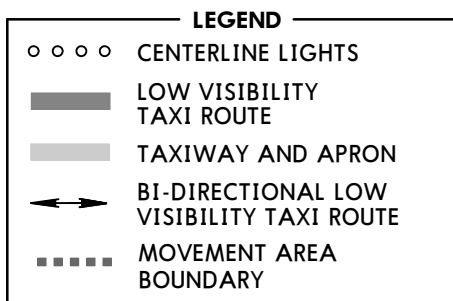
TAKE-OFF**All Rwys**

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 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1

FOR FILING AS ALTERNATE

	ILS Rwy 22R	LOC Rwy 22R RNAV (GPS) Rwy 4L	Authorized Only When Twr Operating or With Approved Weather Service		Authorized Only With Approved Weather Service		Authorized Only When Local Weather Available		Other
			ILS Rwy 4R ILS Rwy 22L	LOC Rwy 4R LOC Rwy 22L	ILS Rwy 4L	LOC Rwy 4L VOR Rwy 4L VOR Rwy 22R	Authorized Only When Twr Operating VOR DME Rwy 22R	RNAV (GPS) Rwy 22R	
A	600-2	800-2	600-2	800-2	600-2	800-2	800-2	800-2	NA
B									
C									
D			700-2		700-2				

ATIS(ASOS when Twr inop)	*WILMINGTON Clearance	*Ground	*Tower	COLUMBUS Departure (R)
124.92	128.85	121.6	CTAF 119.47	126.5



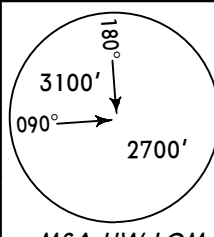
KILN/ILN WILMINGTON

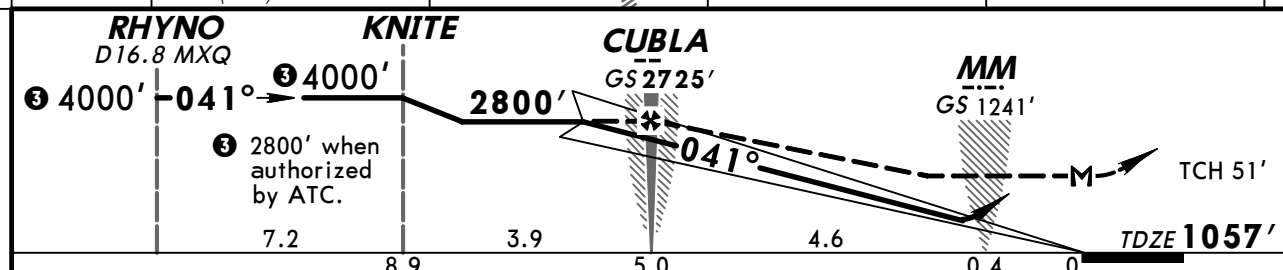
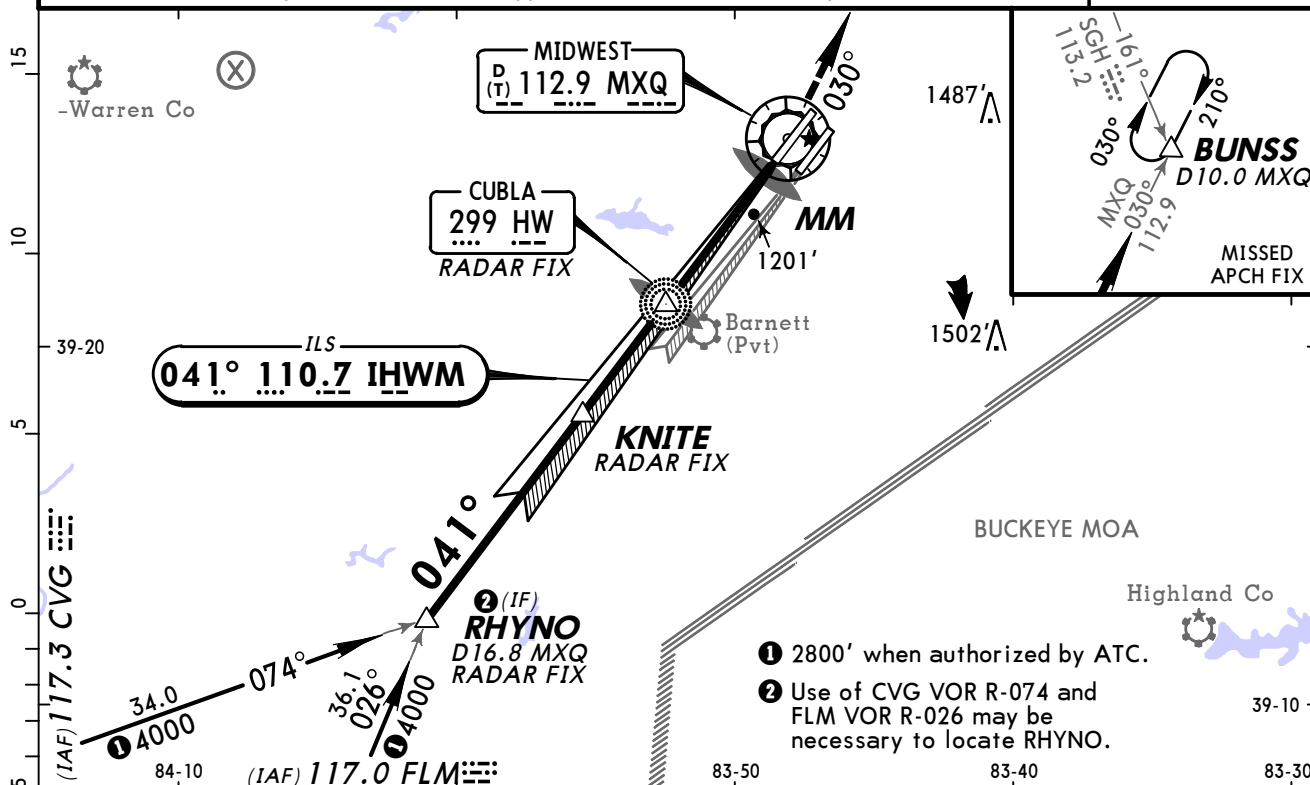
25 NOV 11 **11-1**

WILMINGTON, OHIO

ILS or LOC Rwy 4L

BRIEFING STRIP™

ATIS (ASOS when Twr inop) 124.92		COLUMBUS Approach (R) 126.5		*WILMINGTON Tower CTAF 119.47		*Ground 121.6	
LOC IHWM 110.7	Final Apch Crs 041°	GS CUBLA 2725' (1668')	ILS DA(H) (CONDITIONAL) 1257' (200')	Apt Elev 1077' TDZE 1057'			
MISSED APCH: Climb to 1600' then climbing LEFT turn to 4000' outbound via MXQ VOR R-030 to BUNSS INT/D10.0 MXQ and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Radar required. 2. Use local altimeter setting; if not received, use Cox-Dayton Intl altimeter setting. 3. Simultaneous approach authorized with Rwy 4R.							



Gnd speed-Kts	70	90	100	120	140	160	MALSR		1600'	4000'	MXQ	BUNSS
GS	3.00°	372	478	531	637	743	PAPI		↑	LT	via 112.9 R-030	
CUBLA to MAP	5.0	4:17	3:20	3:00	2:30	2:09	1:53					

STRAIGHT-IN LANDING RWY 4L With Local Altimeter Setting						CIRCLE-TO-LAND With Local Altimeter Setting		
ILS DA(H) 1257' (200')			LOC (GS out) MDA(H) 1460' (403')			Max Kts.	MDA(H)	
FULL		RAIL or ALS out		RAIL out	ALS out	90	1640' (563') - 1	
A	1 RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	120		
B			RVR 40 or 3/4	RVR 60 or 1 1/4		140		1640' (563') - 1 1/2
C						165		
D								
With Cox-Dayton Intl Altimeter Setting						With Cox-Dayton Intl Altimeter Setting		
ILS DA(H) 1347' (290')			LOC (GS out) MDA(H) 1560' (503')			Max Kts.	MDA(H)	
FULL		RAIL or ALS out		RAIL out	ALS out	90	1740' (663') - 1	
A	RVR 24 or 1/2	RVR 50 or 1	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	120		
B			RVR 50 or 1	1 1/2		140		1740' (663') - 1 1/2
C						165		
D								
1 RVR 18 with Flight Director or Autopilot or HUD to DA.								

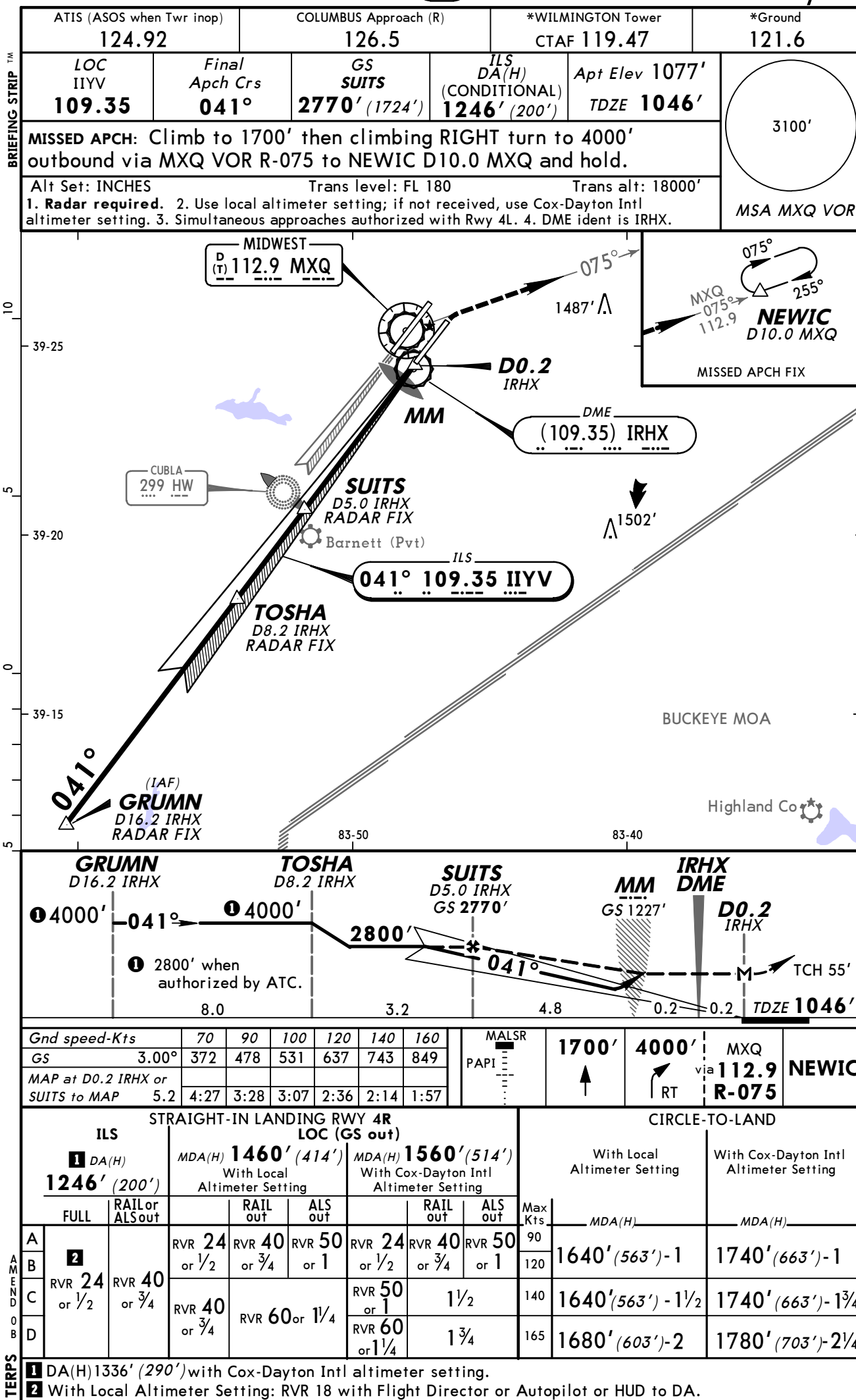
CHANGES: Airport name, approach frequency and call name, ATIS.

© JEPPESEN, 1999, 2011. ALL RIGHTS RESERVED.

KILN/ILN
WILMINGTON

JEPPesen
25 NOV 11 11-2

WILMINGTON, OHIO
ILS or LOC Rwy 4R



KILN/ILN WILMINGTON

25 NOV 11

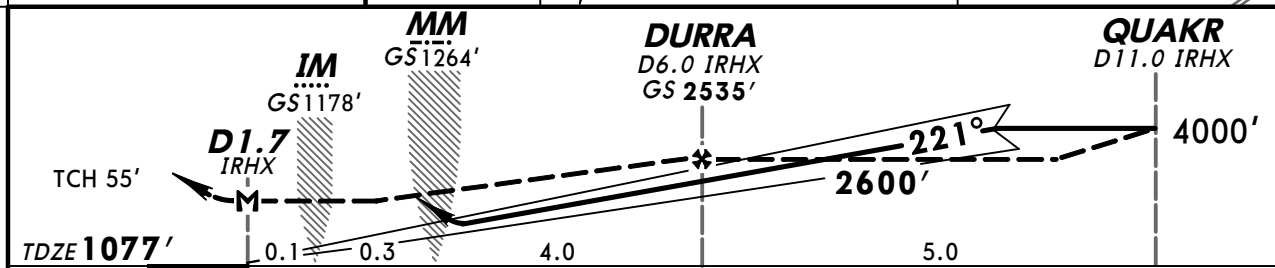
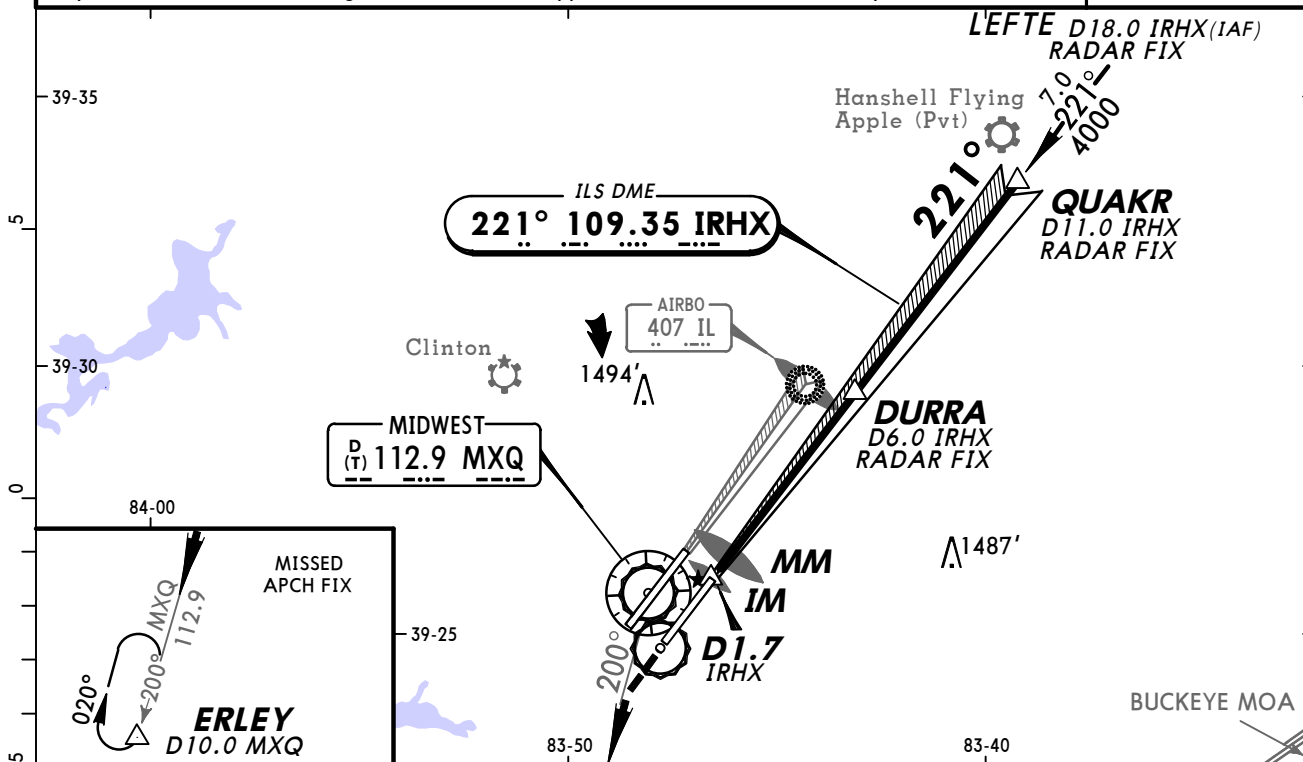
(11-3)

JEPPESSEN

WILMINGTON, OHIO
ILS Rwy 22L

BRIEFING STRIP

ATIS (ASOS when Twr inop) 124.92		COLUMBUS Approach (R) 126.5		*WILMINGTON Tower CTAF 119.47		*Ground 121.6	
LOC IRHX 109.35	Final Apch Crs 221°	GS DURRA 2535' (1458')	ILS DA(H) (CONDITIONAL) 1277' (200')	Apt Elev 1077' TDZE 1077'			3100' MSA MXQ VOR
MISSED APCH: Climb to 1500' then climbing LEFT turn to 4000' outbound via MXQ VOR R-200 to ERLEY D10.0 MXQ and hold.							
Alt Set: INCHES							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 1500' 4000' via MXQ LT R-200	ERLEY
GS	3.00°	372	478	531	637	743		
MAP at D1.7 IRHX or DURRA to MAP	4.4	3:46	2:56	2:38	2:12	1:53		

STRAIGHT-IN LANDING RWY 22L With Local Altimeter Setting					CIRCLE-TO-LAND With Local Altimeter Setting		
ILS DA(H) 1277' (200')			LOC (GS out) MDA(H) 1460' (383')		MDA(H)		
FULL	TDZ or CL out	ALS out	ALS out				
A					Max Kts		
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	90	1640' (563') - 1	
C				RVR 50 or 1	120	1640' (563') - 1 1/2	
D				RVR 60 or 1 1/4	140	1680' (603') - 2	

With Dayton Intl Altimeter Setting					With Dayton Intl Altimeter Setting		
ILS DA(H) 1367' (290')			LOC (GS out) MDA(H) 1540' (463')		MDA(H)		
FULL	ALS out		ALS out				
A					Max Kts		
B	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	90	1740' (663') - 1	
C			RVR 40 or 3/4	1 1/4	120	1740' (663') - 1 3/4	
D			RVR 50 or 1	1 1/2	140	1780' (703') - 2 1/4	

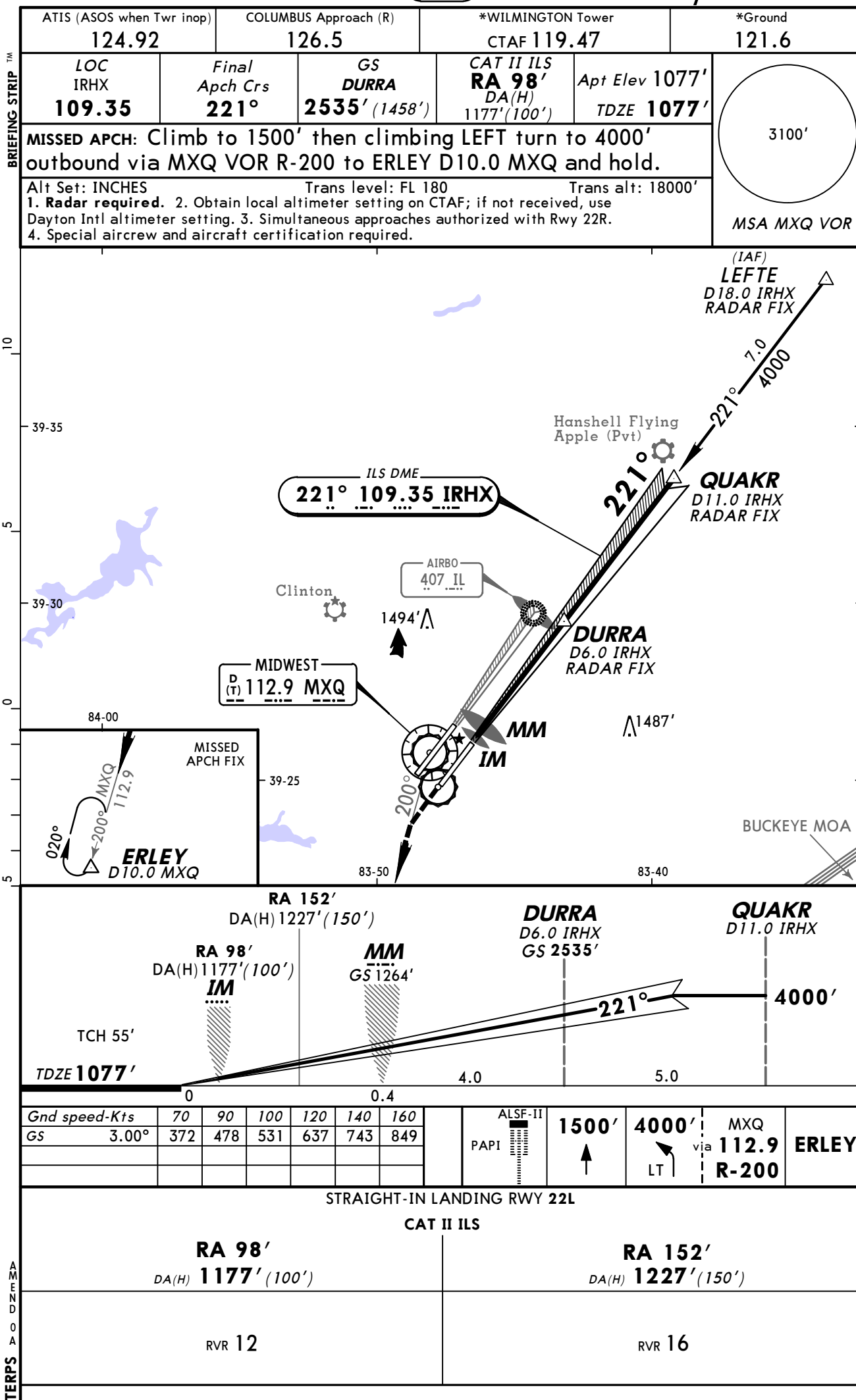
CHANGES: Airport name, approach frequency and call name, ATIS.

© JEPPESSEN, 1999, 2011. ALL RIGHTS RESERVED.

KILN/ILN
WILMINGTON

JEPPESSEN
25 NOV 11 **(11-3A)**

WILMINGTON, OHIO
ILS Rwy 22L CAT II



CHANGES: Airport name, approach frequency and call name, ATIS.

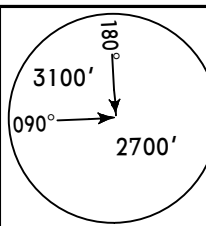
© JEPPESSEN, 1999, 2011. ALL RIGHTS RESERVED.

KILN/ILN WILMINGTON

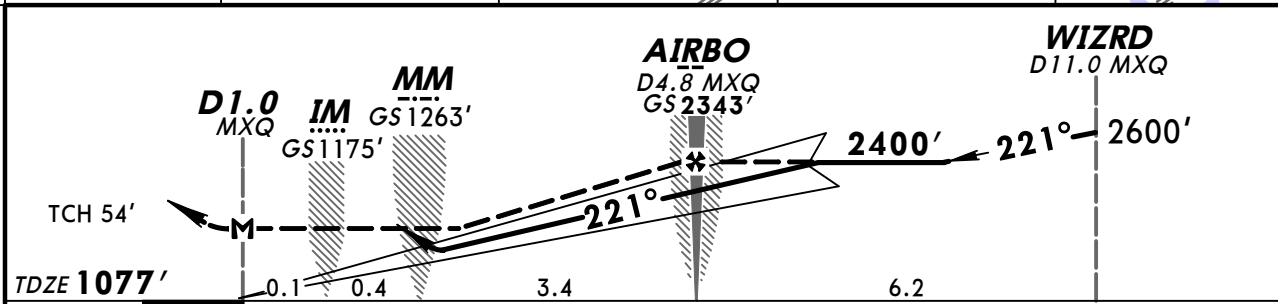
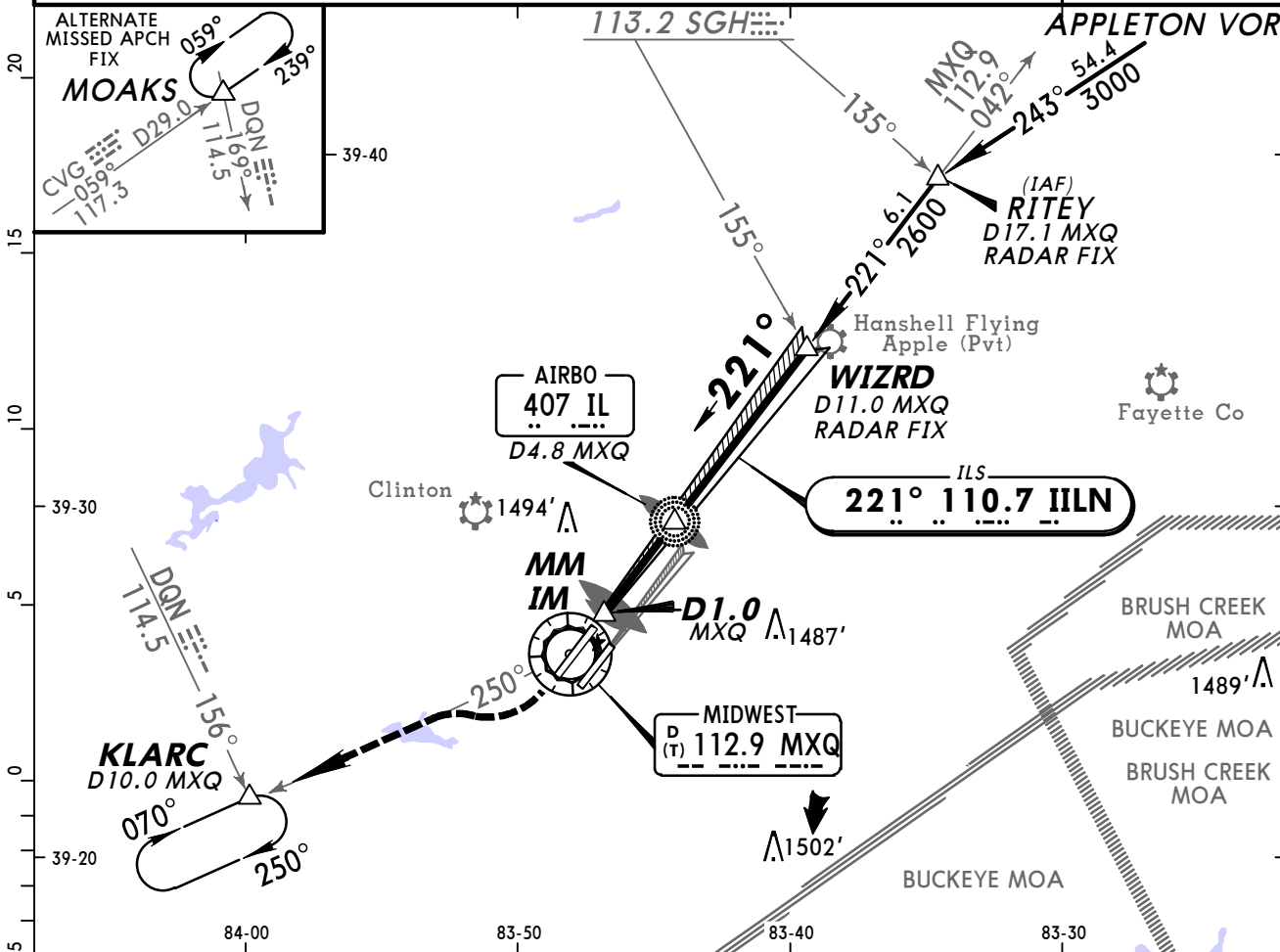
JEPPESSEN
25 NOV 11 (11-4)

WILMINGTON, OHIO
ILS or LOC Rwy 22R

BRIEFING STRIP

ATIS (ASOS when Twr inop)		COLUMBUS Approach (R)		*WILMINGTON Tower		*Ground	
124.92		126.5		CTAF 119.47		121.6	
LOC ILIN 110.7	Final Apch Crs 221°	GS AIRBO 2343' (1266')	ILS DA(H) 1277' (200')	Apt Elev 1077' TDZE 1077'			
MISSED APCH: Climb to 1500', then climbing RIGHT turn to 4000' outbound via MXQ VOR R-250 to KLARC INT/D10.0 MXQ and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Simultaneous approaches authorized with ILS Rwy 22L. 2. VGSI and ILS glide slope not coincident. 3. DME from MXQ VOR.							

MSA MXQ VOR



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		1500'	4000'	MXQ	KLARC
GS	3.00°	372	478	531	637	743	PAPI		↑	↑	via 112.9	R-250
MAP at D1.0 MXQ or												
AIRBO to MAP	3.8	3:15	2:32	2:17	1:54	1:38						

STRAIGHT-IN LANDING RWY 22R						CIRCLE-TO-LAND	
ILS				LOC (GS out)		Max Kts	MDA(H)
DA(H) 1277' (200')				MDA(H) 1400' (323')			
FULL		TDZ or CL out	ALS out		ALS out		
A	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	90	1640'(563')-1
B						120	
C				140	1640'(563')-1 1/2		
D				165	1640'(563')-2		
				RVR 40 or 3/4	RVR 60 or 1 1/4		

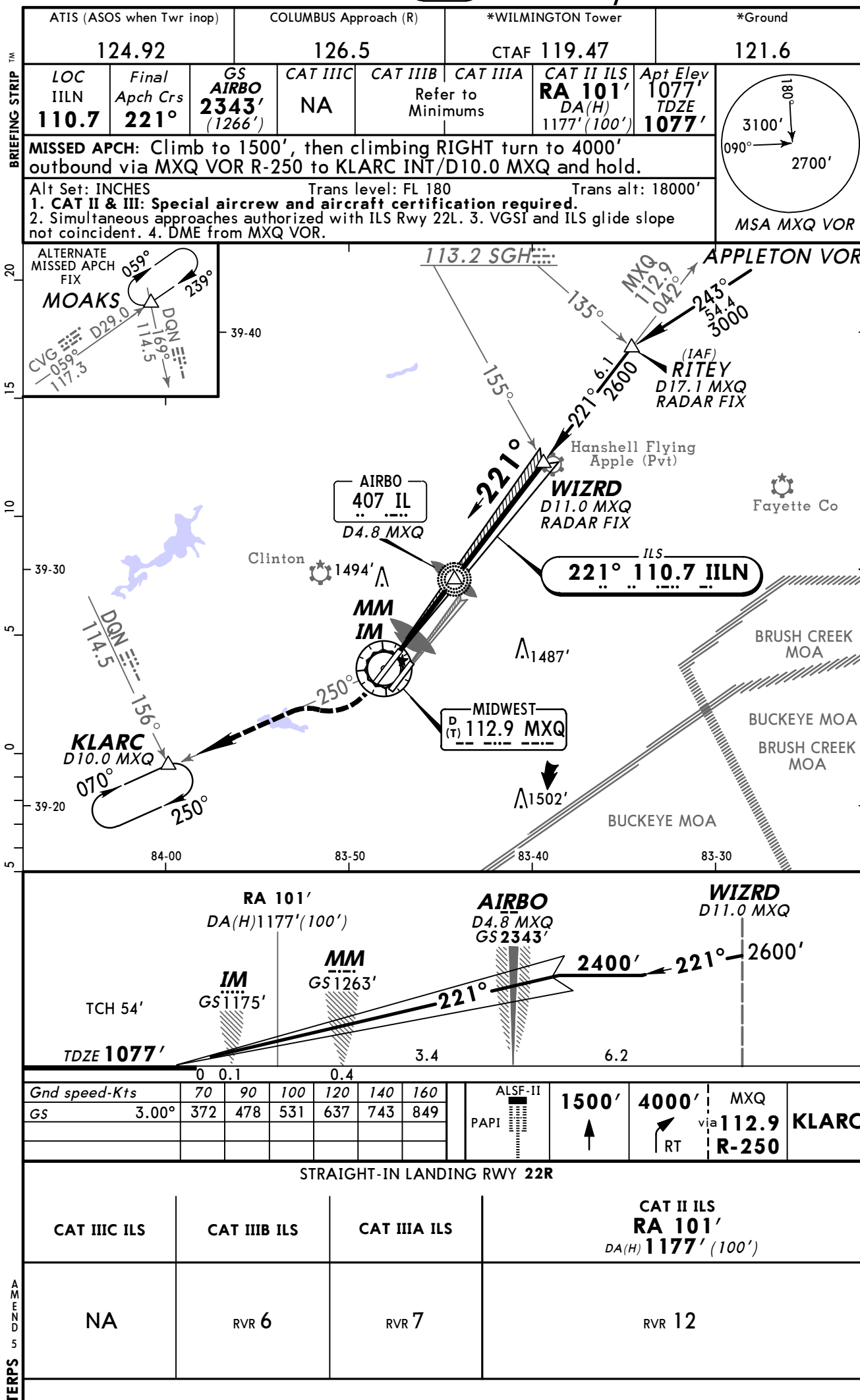
CHANGES: Airport name, approach frequency and call name.

© JEPPESSEN, 2004, 2011. ALL RIGHTS RESERVED.

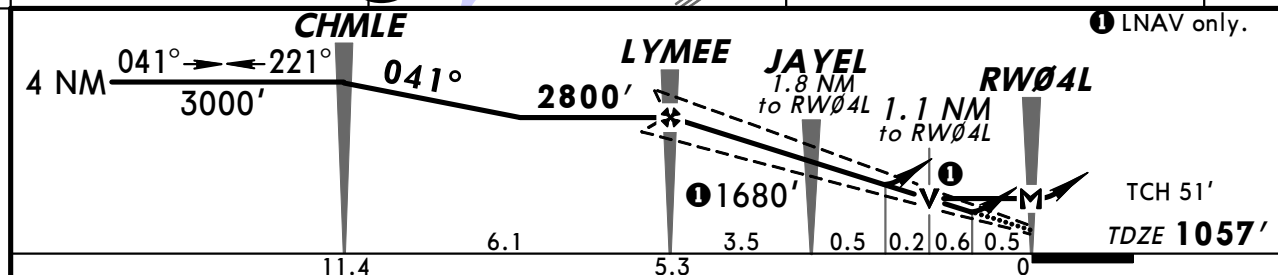
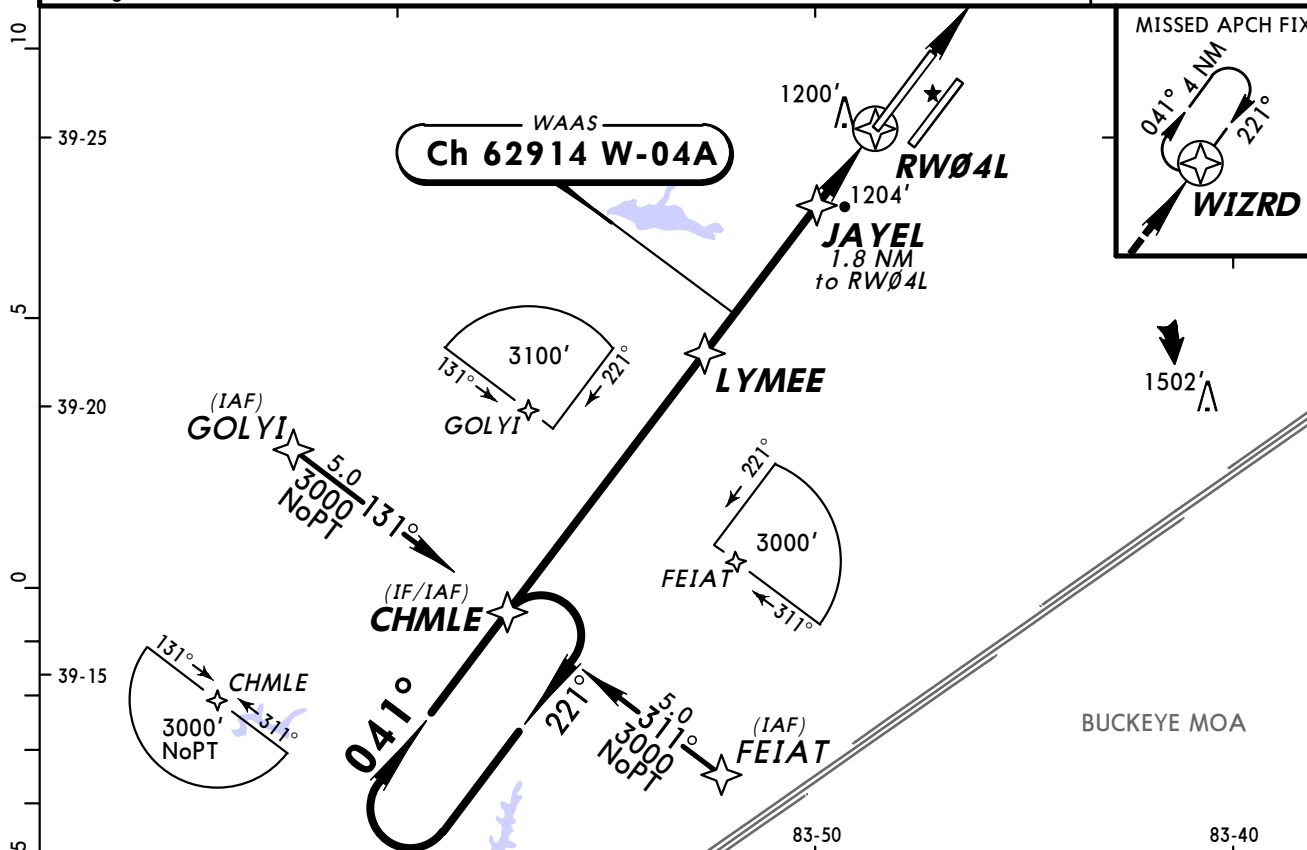
KILN/ILN WILMINGTON

25 NOV 11 **11-4A**

WILMINGTON, OHIO
ILS Rwy 22R CAT II & III



ATIS (ASOS when Twr inop) 124.92		COLUMBUS Approach (R) 126.5		*WILMINGTON Tower CTAF 119.47		*Ground 121.6	
WAAS Ch 62914 W-04A	<i>Final</i> <i>Apch Crs</i> 041°	<i>Minimum Alt</i> LYMEE 2800' (1743')	<i>LPV</i> <i>DA(H)</i> (CONDITIONAL) 1257' (200')	<i>Apt Elev</i> 1077' <i>TDZE</i> 1057'		TAA 30 NM IAF	
MISSED APCH: Climb to 3000' direct WIZRD and hold.							
Alt Set: INCHES							



Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI	3000' ↑	→ WIZRD
Glide Path Angle 3.00°	372	478	531	637	743	849			
MAP at RW04L									

STRAIGHT-IN LANDING RWY 4L With Local Altimeter Setting							CIRCLE-TO-LAND With Local Altimeter Setting		
LPV DA(H) 1257' (200')		LNAV/VNAV DA(H) 1505' (448')		LNAV MDA(H) 1460' (403')			Max Kts	MDA(H)	
RAIL or ALS out		RAIL or ALS out		RAIL out ALS out					
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1640' (563') - 1
B									
C									
D									
							120	1640' (563') - 1 1/2	
							140		
							165		1680' (603') - 2
With Cox-Dayton Intl Altimeter Setting							With Cox-Dayton Intl Altimeter Setting		
LPV DA(H) 1347' (290')		LNAV/VNAV DA(H) 1595' (538')		LNAV MDA(H) 1560' (503')			Max Kts	MDA(H)	
RAIL or ALS out		RAIL or ALS out		RAIL out ALS out					
A	RVR 24 or 1/2	RVR 50 or 1	1 1/2	2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1740' (663') - 1
B									
C									
D									
							120	1740' (663') - 1 3/4	
							140		
							165		1780' (703') - 2 1/4

KILN/ILN
WILMINGTON

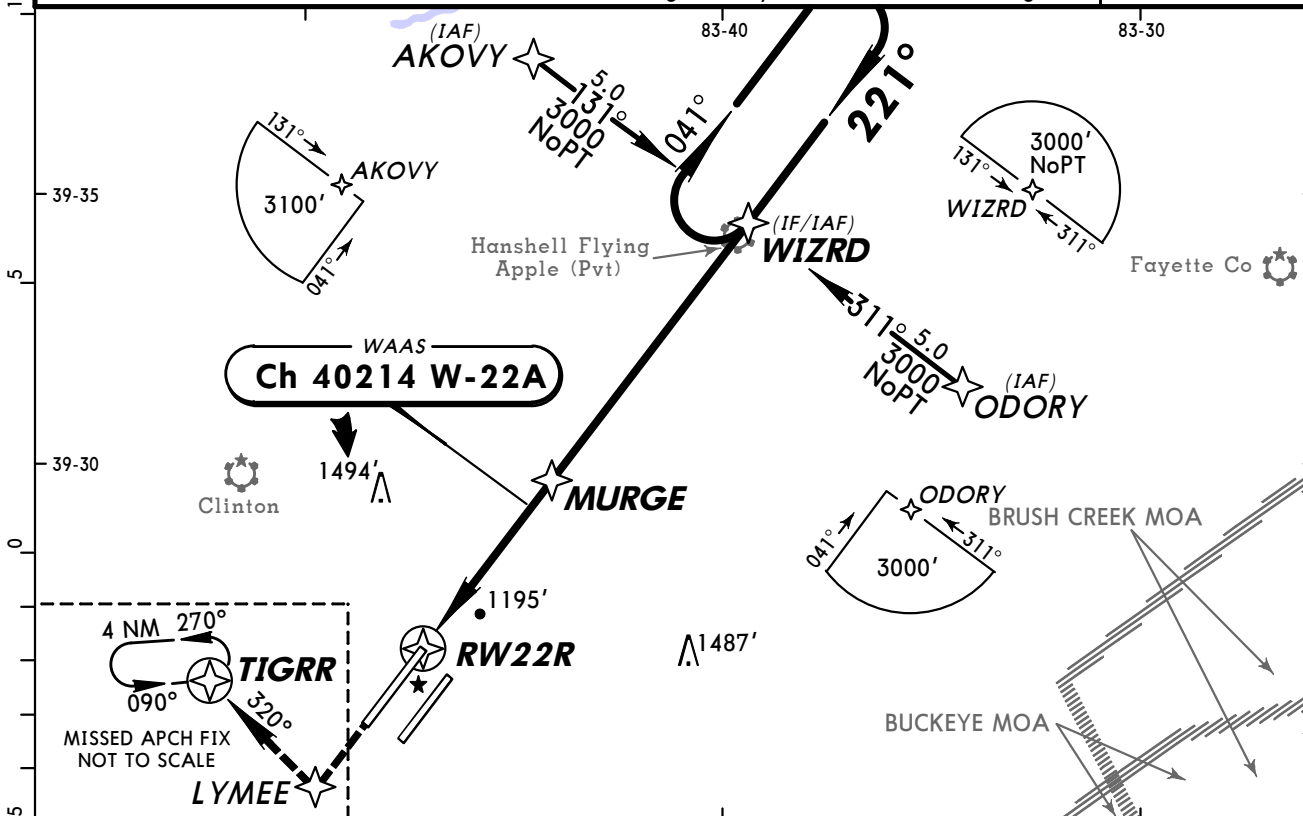
JEPPESSEN
25 NOV 11 (12-2)

WILMINGTON, OHIO
RNAV (GPS) Rwy 22R

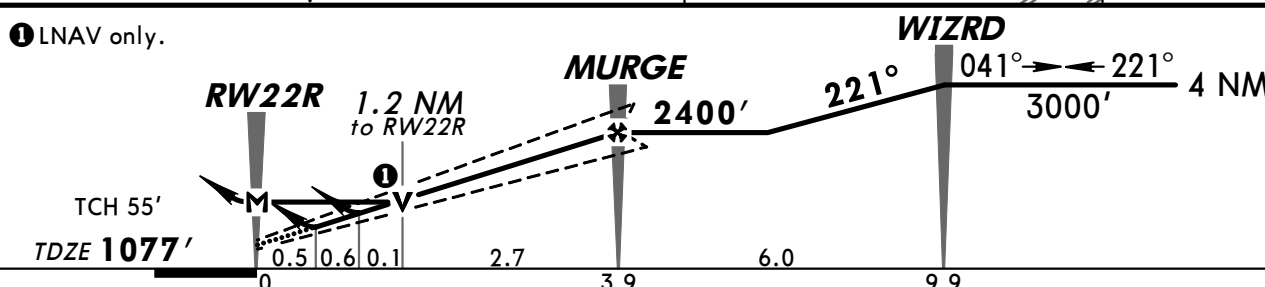
0

BRIEFING STRIP™

ATIS (ASOS when Twr inop) 124.92		COLUMBUS Approach (R) 126.5		*WILMINGTON Tower CTAF 119.47		*Ground 121.6			
WAAS Ch 40214 W-22A		Final Apch Crs 221°		Minimum Alt MURGE 2400' (1323')		LPV DA(H) (CONDITIONAL) 1277' (200')		Apt Elev 1077' TDZE 1077'	
MISSED APCH: Climb to 3000' direct LYMEE and RIGHT turn via track 320° to TIGRR and hold.								TAA 30 NM IAF	
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Cox-Dayton Intl altimeter setting. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (2°F) or above 46°C (114°F). 3. DME/DME RNP-0.30 not authorized. 4. VGSI and RNAV glidepath not coincident. 5. VDP and Baro-VNAV not authorized when using Cox-Dayton Intl altimeter setting.									



① LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	3000'	D	LYMEE
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at RW22R										

STRAIGHT-IN LANDING RWY 22R With Local Altimeter Setting							CIRCLE-TO-LAND With Local Altimeter Setting	
LPV DA(H) 1277' (200')		LNAV/VNAV DA(H) 1497' (420')		LNAV MDA(H) 1540' (463')		Max Kts	MDA(H)	
ALS out		ALS out		ALS out		90	1640' (563')- 1	
A	RVR 24 or 1½	RVR 40 or ¾	RVR 50 or 1	1½	RVR 24 or 1½	RVR 50 or 1	120	1640' (563')- 1½
B					RVR 40 or ¾	RVR 60 or 1¼	140	
C					RVR 50 or 1	1½	165	
D								
With Cox-Dayton Intl Altimeter Setting							With Cox-Dayton Intl Altimeter Setting	
LPV DA(H) 1367' (290')		LNAV/VNAV DA(H) 1587' (510')		LNAV MDA(H) 1640' (563')		Max Kts	MDA(H)	
ALS out		ALS out		ALS out		90	1740' (663')- 1	
A	RVR 24 or 1½	RVR 50 or 1	RVR 60 or 1¼	1¾	RVR 24 or 1½	RVR 50 or 1	120	1740' (663')- 1¾
B					RVR 50 or 1	1½	140	
C					RVR 60 or 1¼	1¾	165	
D								

CHANGES: Airport name, approach frequency and call name.

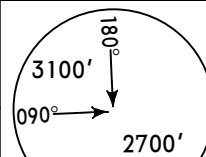
© JEPPESSEN, 2009, 2011. ALL RIGHTS RESERVED.

KILN/ILN WILMINGTON

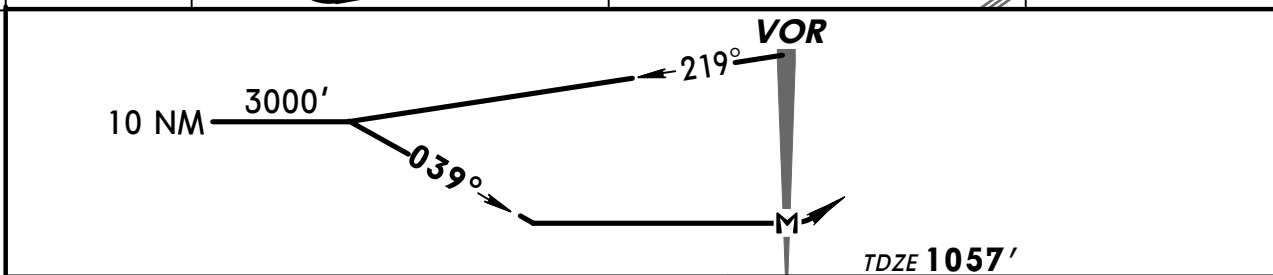
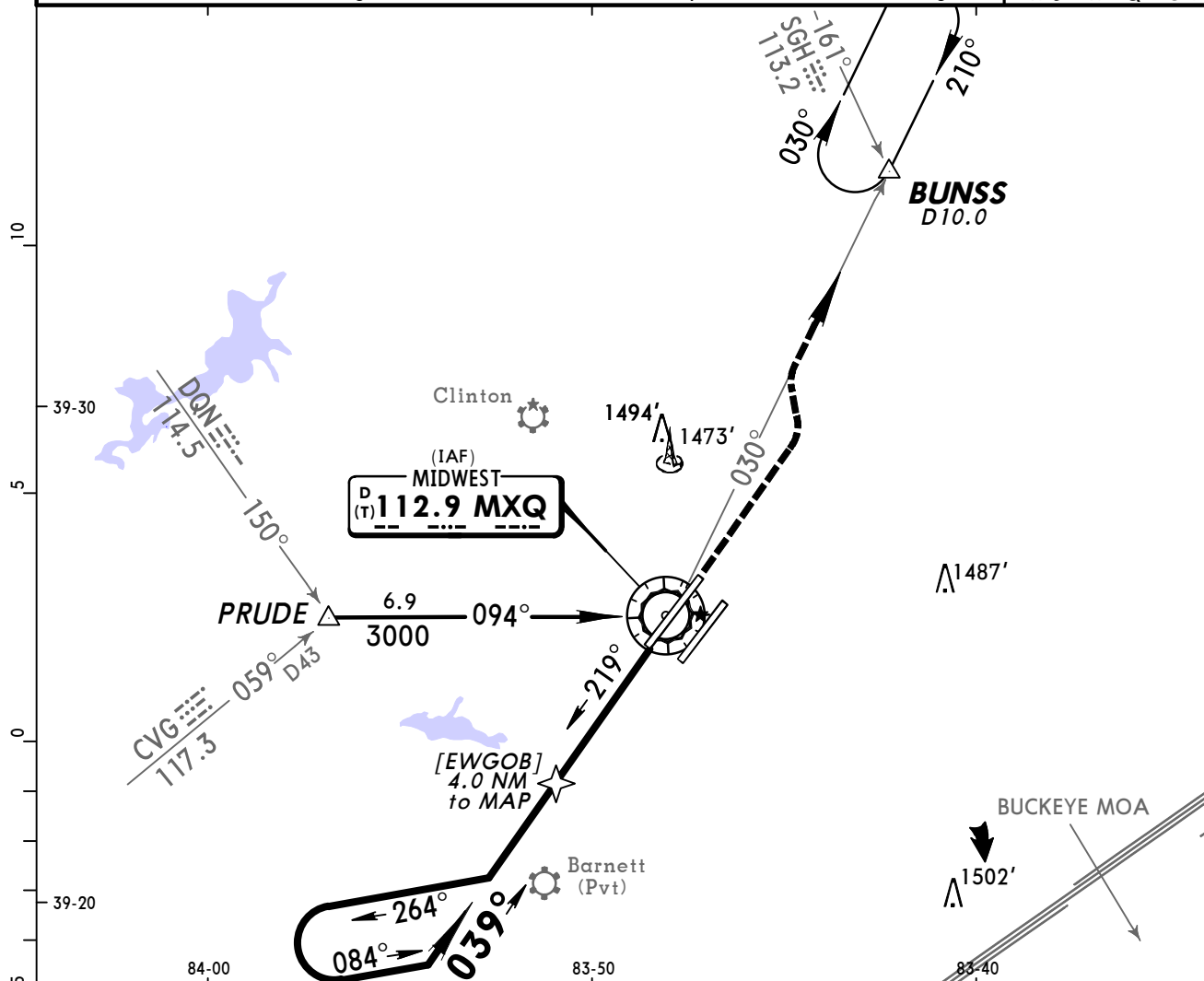
JEPPESN
25 NOV 11 (13-1)

WILMINGTON, OHIO VOR or GPS Rwy 4L

ATIS (ASOS when Twr inop) 124.92	COLUMBUS Approach (R) 126.5	*WILMINGTON Tower CTAF 119.47	*Ground 121.6
VOR MXQ 112.9	Final Apch Crs 039°	No FAF	MDA(H) (CONDITIONAL) 1520' (463')
MISSED APCH: Climb to 2500' then climbing LEFT turn to 4000' outbound via MXQ VOR R-030 to BUNSS INT/D10.0 and hold.			Apt Elev 1077' TDZE 1057'
Alt Set: INCHES 1. Obtain local altimeter setting on CTAF; if not received, use Dayton Intl altimeter setting.			Trans level: FL 180 Trans alt: 18000'



MSA MXQ VOR



MAP at VOR	MALS R	2500'	4000'	MXQ	BUNSS
	PAPI	↑	LT	via 112.9 R-030	

STRAIGHT-IN LANDING RWY 4L						CIRCLE-TO-LAND	
MDA(H) 1520' (463') With Local Altimeter Setting			MDA(H) 1620' (563') With Dayton Intl Altimeter Setting			With Local Altimeter Setting	With Dayton Intl Altimeter Setting
RAIL out	ALS out		RAIL out	ALS out		MDA(H)	MDA(H)
A RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	1/2	3/4	1	1640' (563') - 1	1740' (663') - 1
B RVR 40 or 3/4	RVR 60 or 1 1/4		1	1 1/2		1640' (563') - 1 1/2	1740' (663') - 1 3/4
C RVR 60 or 1 1/4	1 1/2		1 1/4	1 3/4		1680' (603') - 2	1780' (703') - 2 1/4

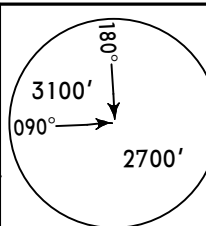
CHANGES: Airport name, approach frequency and call name.

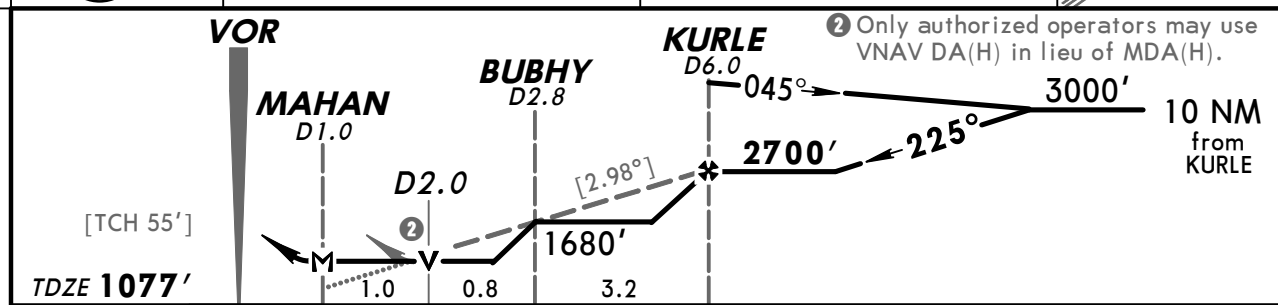
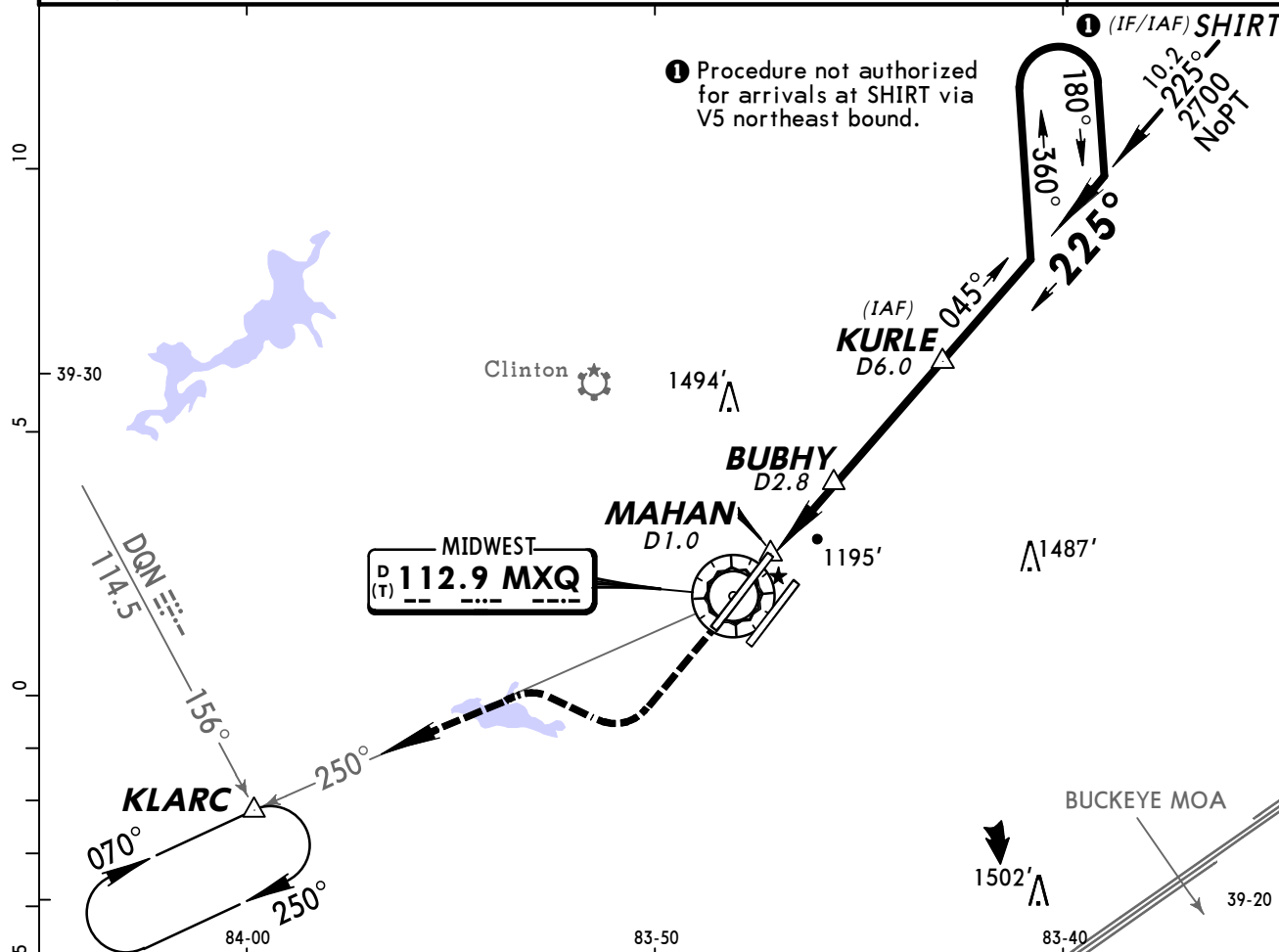
© JEPPESN, 1999, 2011. ALL RIGHTS RESERVED.

KILN/ILN
WILMINGTON

JEPPESSEN
25 NOV 11 (13-2)

WILMINGTON, OHIO
VOR DME Rwy 22R

ATIS (ASOS when Twr inop) 124.92		COLUMBUS Approach (R) 126.5		*WILMINGTON Tower CTAF 119.47		*Ground 121.6	
VOR MXQ 112.9	Final Apch Crs 225°	Minimum Alt KURLE 2700' (1623')	MDA(H) (CONDITIONAL) 1460' (383')	Apt Elev 1077' TDZE 1077'			
MISSED APCH: Climb to 2500' then climbing RIGHT turn to 4000' outbound via MXQ VOR R-250 to KLARC INT and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Cox-Dayton Intl altimeter setting. 2. VGSI and descent angles not coincident. 3. VDP not authorized when using Cox-Dayton Intl altimeter setting.							
MSA MXQ VOR							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	2500'	4000'	MXQ	KLARC
Descent angle [2.98°]	369	474	527	633	738	843	PAPI	↑	RT	via 112.9 R-250	
MAP at MAHAN											

STRAIGHT-IN LANDING RWY22R				CIRCLE-TO-LAND			
MDA(H) 1460' (383') With Local Altimeter Setting		MDA(H) 1560' (483') With Cox-Dayton Intl Altimeter Setting		With Local Altimeter Setting		With Cox-Dayton Intl Altimeter Setting	
ALS out		ALS out		Max Kts	MDA(H)	MDA(H)	
A	RVR 24 or 1/2	RVR 50 or 1	RVR 24 or 1/2	90	1640' (563') -1	1740' (663') -1	
B			RVR 50 or 1	120			
C			RVR 40 or 3/4	140	1640' (563') -1 1/2	1740' (663') -1 3/4	
D	RVR 50 or 1	RVR 60 or 1 1/4	RVR 50 or 1	165	1680' (603') -2	1780' (703') -2 1/4	

CHANGES: Airport name, approach frequency and call name.

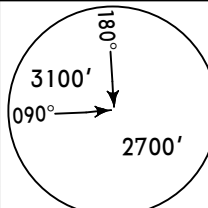
© JEPPESSEN, 1999, 2011. ALL RIGHTS RESERVED.

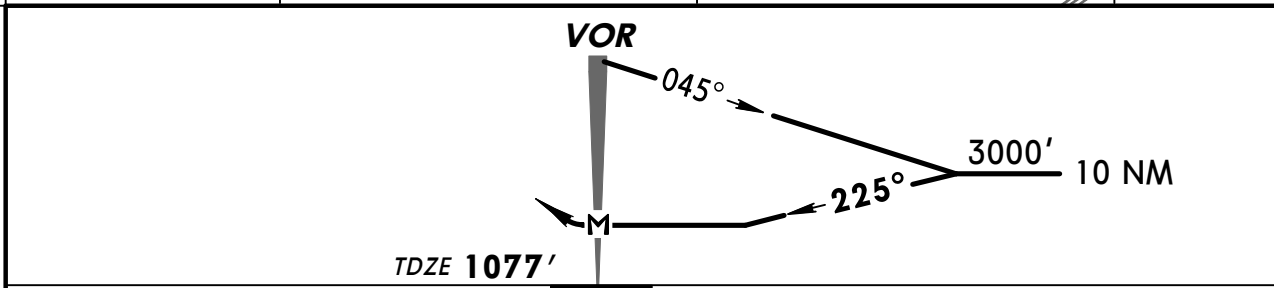
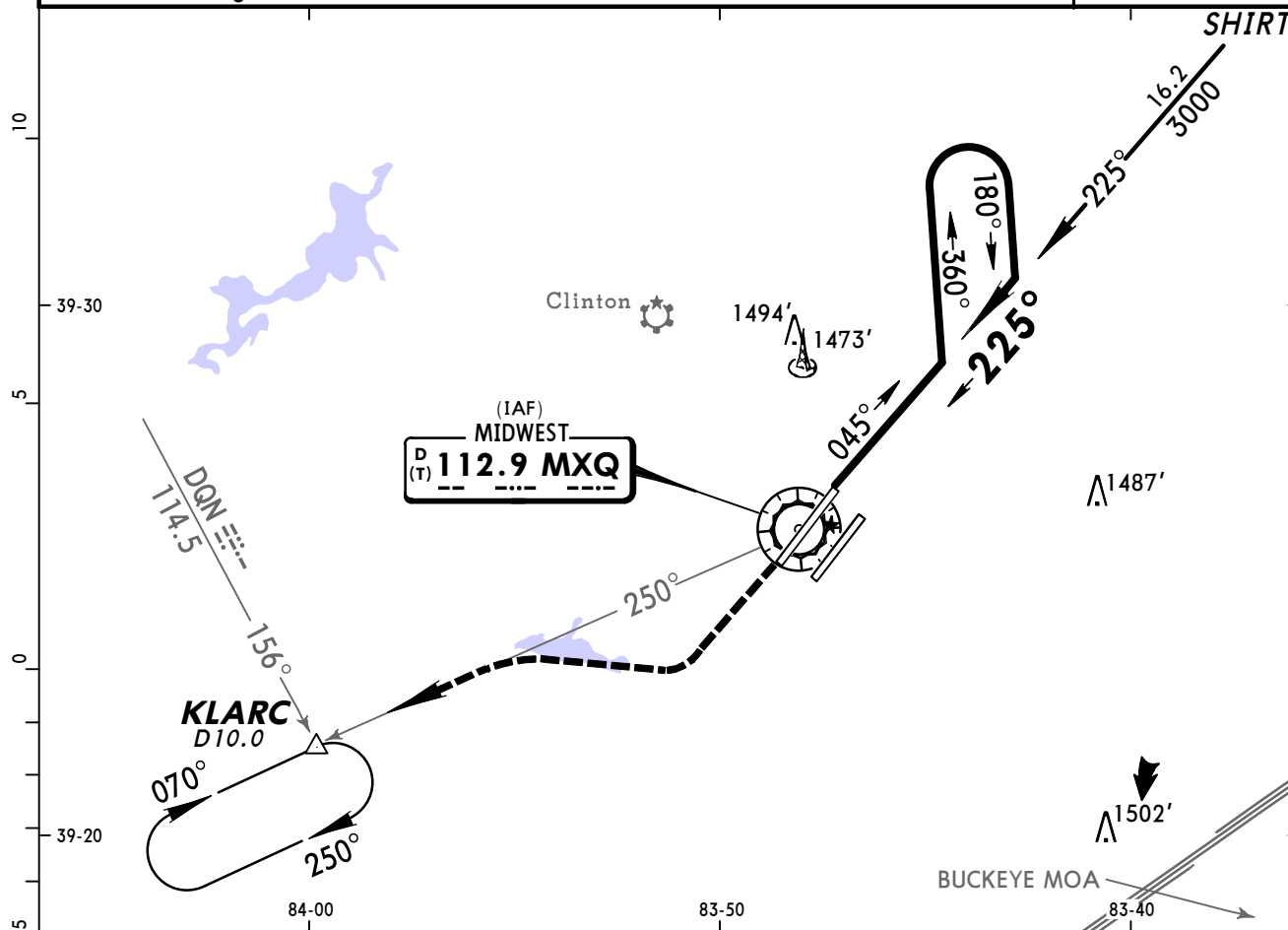
KILN/ILN
WILMINGTON

JEPPESSEN
25 NOV 11 (13-3)

WILMINGTON, OHIO
VOR Rwy 22R

BRIEFING STRIP™

ATIS (ASOS when Twr inop)		COLUMBUS Approach (R)		*WILMINGTON Tower		*Ground	
124.92		126.5		CTAF 119.47		121.6	
VOR MXQ 112.9	Final Apch Crs 225°	No FAF		MDA(H) (CONDITIONAL) 1640' (563')	Apt Elev 1077' TDZE 1077'		
MISSED APCH: Climb to 2500' then climbing RIGHT turn to 4000' outbound via MXQ VOR R-250 to KLARC INT/D10.0 and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. Obtain local altimeter setting on CTAF; if not received, use Cox-Dayton Intl altimeter setting.							
						MSA MXQ VOR	



--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

STRAIGHT-IN LANDING RWY22R				CIRCLE-TO-LAND			
MDA(H) 1640' (563')		MDA(H) 1740' (663')		With Local Altimeter Setting		With Cox-Dayton Intl Altimeter Setting	
With Local Altimeter Setting		With Cox-Dayton Intl Altimeter Setting		Max Kts		MDA(H)	
ALS out		ALS out					
A	RVR 24 or 1/2	RVR 50 or 1	RVR 24 or 1/2	RVR 50 or 1	90	1640' (563') - 1	1740' (663') - 1
B					120		
C	RVR 50 or 1	1 1/2	RVR 60 or 1/4	1 3/4	140	1640' (563') - 1 1/2	1740' (663') - 1 3/4
D	RVR 60 or 1/4	1 3/4	1 1/2	2	165	1680' (603') - 2	1780' (703') - 2 1/4

CHANGES: Airport name, approach frequency and call name.

© JEPPESSEN, 1999, 2011. ALL RIGHTS RESERVED.

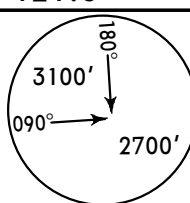
KILN/ILN WILMINGTON

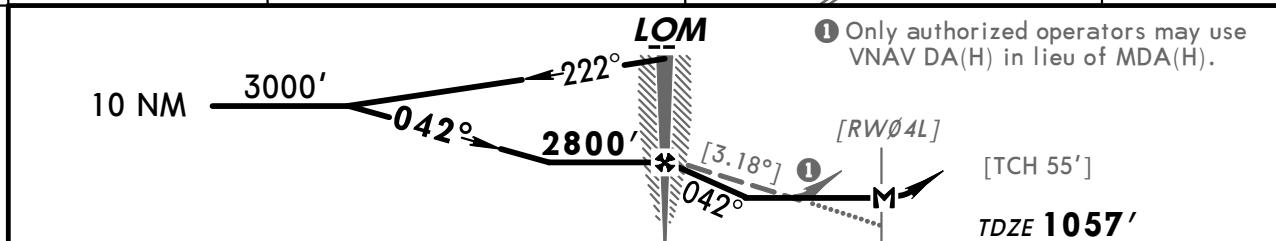
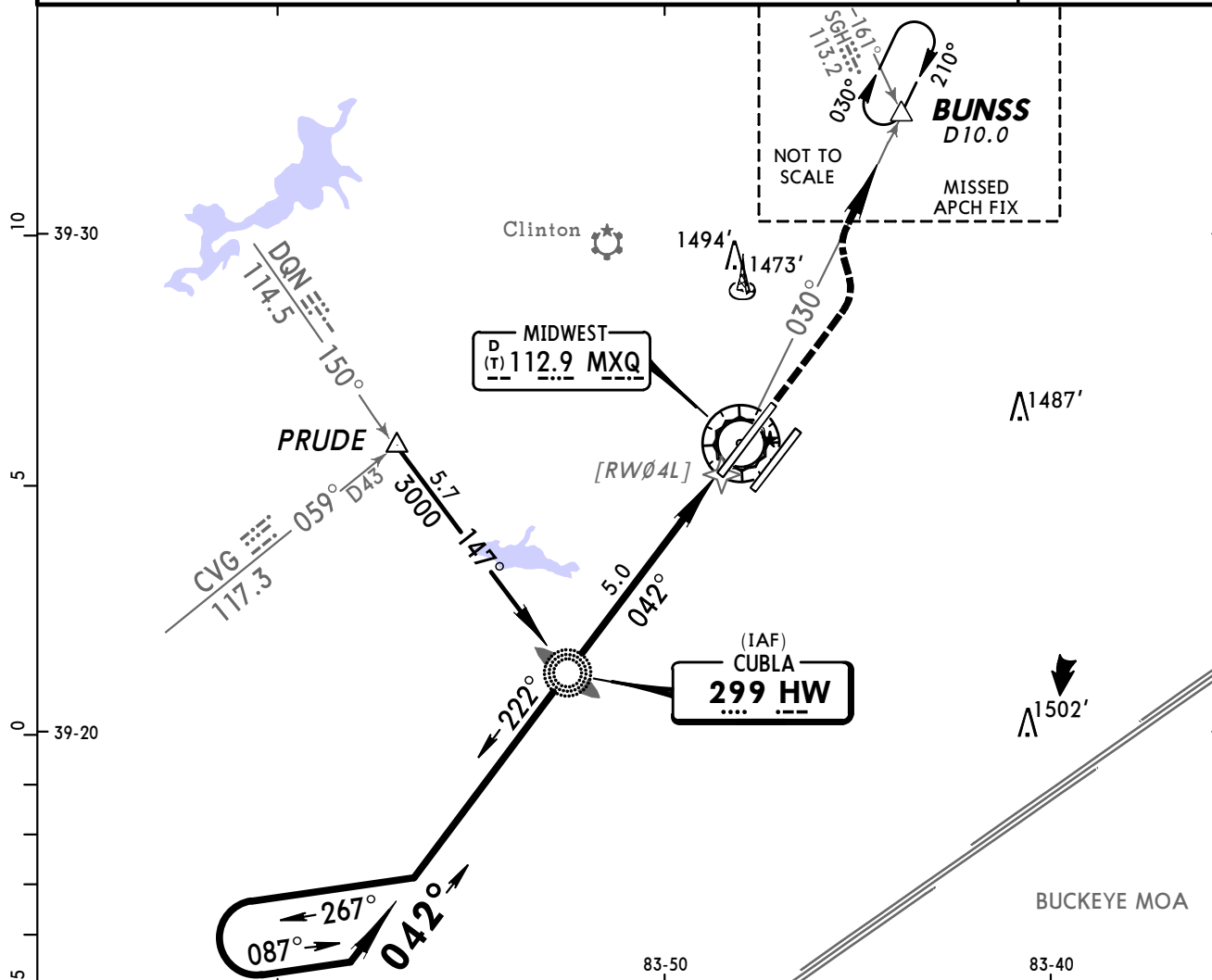
25 NOV 11

(16-1)

JEPPESSEN

WILMINGTON, OHIO
NDB Rwy 4L

ATIS (ASOS when Twr inop) 124.92		COLUMBUS Approach (R) 126.5		*WILMINGTON Tower CTAF 119.47		*Ground 121.6	
LOM HW 299	Final Apch Crs 042°	Minimum Alt LOM 2800' (1743')	MDA(H) (CONDITIONAL) 1520' (463')	Apt Elev 1077' TDZE 1057'			
MISSED APCH: Climb to 2500' then climbing LEFT turn to 4000' outbound via MXQ VOR R-030 to BUNSS INT/D10.0 and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. Obtain local altimeter setting on CTAF; if not received, use Dayton Intl altimeter setting.							
2. VNAV and descent angle not authorized with Dayton Intl altimeter setting.							
3. VGSI and descent angles not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	2500' 4000' via 112.9 MXQ R-030	BUNSS
Descent angle [3.18°]	394	506	563	675	788	900		
LOM to MAP	5.0	4:17	3:20	3:00	2:30	2:09		

STRAIGHT-IN LANDING RWY 4L						CIRCLE-TO-LAND		
MDA(H) 1520' (463')			MDA(H) 1600' (543')			With Local Altimeter Setting		With Dayton Intl Altimeter Setting
With Local Altimeter Setting			With Dayton Intl Altimeter Setting			Max Kts	MDA(H)	MDA(H)
	RAIL out	ALS out		RAIL out	ALS out			
A	RVR 40 or ¾		RVR 50 or 1	¾		1	1640' (563') - 1	1740' (663') - 1
B								
C	RVR 40 or ¾	RVR 60 or 1¼	1	1½		140	1640' (563') - 1½	1740' (663') - 1¾
D	RVR 60 or 1¼	1½	1½	1¾		165	1680' (603') - 2	1780' (703') - 2½

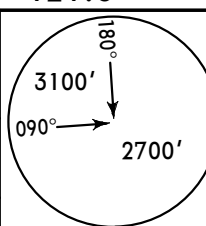
CHANGES: Airport name, approach frequency and call name.

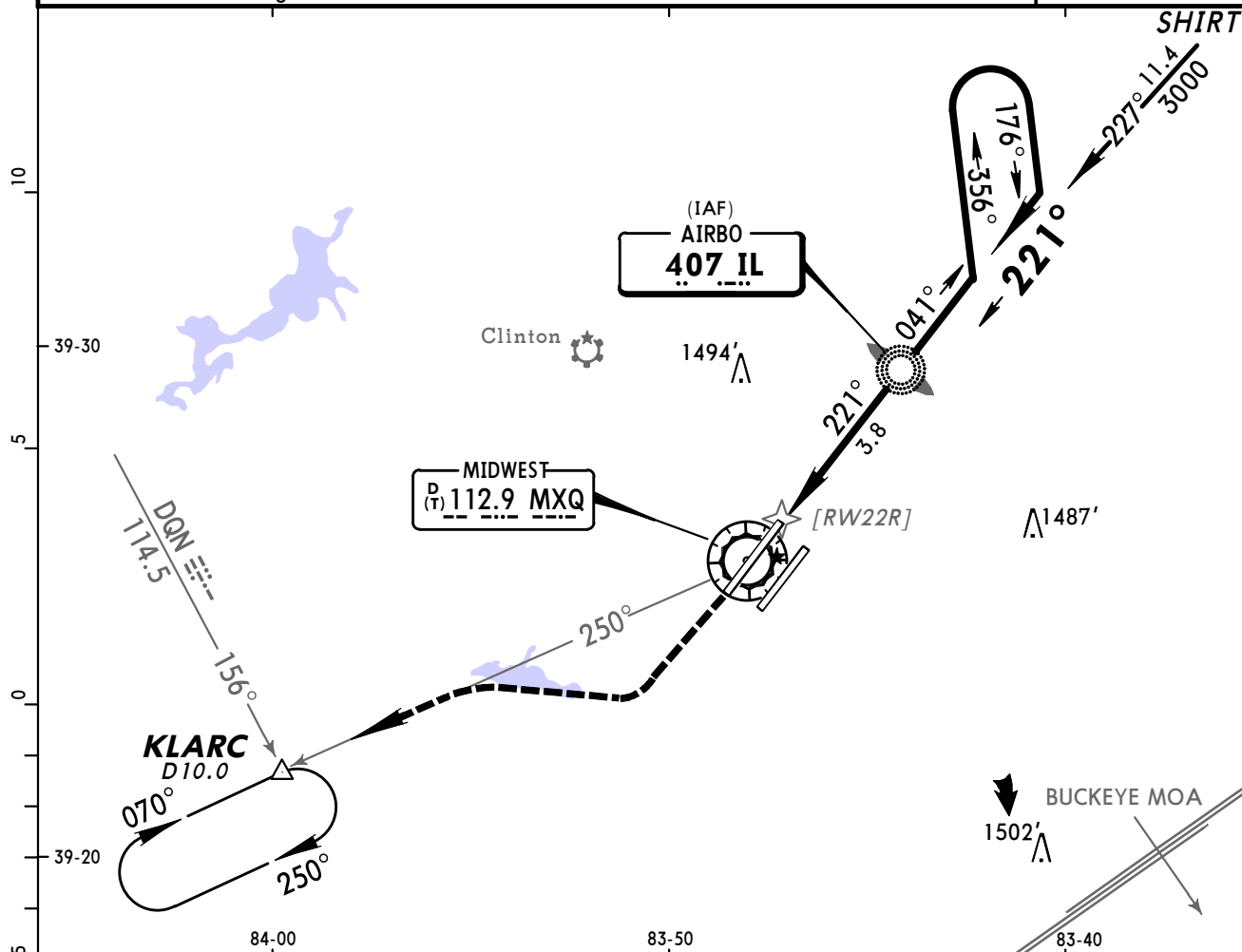
© JEPPESSEN, 1999, 2011. ALL RIGHTS RESERVED.

KILN/ILN WILMINGTON

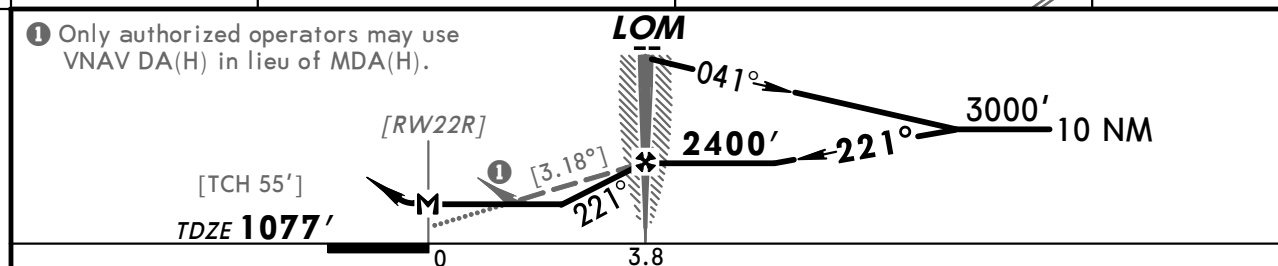
25 NOV 11 (16-2)

WILMINGTON, OHIO
NDB Rwy 22R

ATIS (ASOS when Twr inop)		COLUMBUS Approach (R)		*WILMINGTON Tower		*Ground	
124.92		126.5		CTAF 119.47		121.6	
LOM IL 407	Final Apch Crs 221°	Minimum Alt LOM 2400' (1323')	MDA(H) (CONDITIONAL) 1580' (503')	Apt Elev 1077' TDZE 1077'			
MISSED APCH: Climb to 2500' then climbing RIGHT turn to 4000' outbound via MXQ VOR R-250 to KLARC INT/D10.0 and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. Obtain local altimeter setting on CTAF; if not received, use Dayton Intl altimeter setting.							
2. VNAV and descent angle not authorized with Dayton Intl altimeter setting.							
3. VGSI and descent angles not coincident.							
MSA IL LOM							



① Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II		2500'	4000'	MXQ	KLARC
Descent angle [3.18°]	394	506	563	675	788	900	PAPI		↑	RT	via 112.9 R-250	
LOM to MAP	3.8	3:15	2:32	2:17	1:54	1:38	1:26					

STRAIGHT-IN LANDING RWY22R					CIRCLE-TO-LAND		
MDA(H) 1580' (503')			MDA(H) 1660' (583')		With Local Altimeter Setting		With Dayton Intl Altimeter Setting
		ALS out		ALS out	Max Kts.	MDA(H)	MDA(H)
A	RVR 40 or $\frac{3}{4}$	RVR 50 or 1	$\frac{3}{4}$	1	90	1640' (563') - 1	1740' (663') - 1
B					120		
C	RVR 50 or 1	1½	1	1½	140	1640' (563') - 1½	1740' (663') - 1¾
D	RVR 60 or 1½		1½	1¾	165	1680' (603') - 2	1780' (703') - 2¼

CHANGES: Airport name, approach frequency and call name.

© JEPPESEN, 1999, 2011. ALL RIGHTS RESERVED.

General Information

Location: Columbus OH USA
IATA Code: LCK
Lat/Long: N39° 48.8' W082° 55.7'
Elevation: 744 ft

Airport Use: Public
Magnetic Variation: 6.9°W
Sectional Chart: Cincinnati

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

Sunrise: 1208 Z
Sunset: 2321 Z,

Runway Information

Runway: 05L
Length x Width: 11902 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 744 ft
Lighting: Edge, ALS
Displaced Threshold: 898 ft

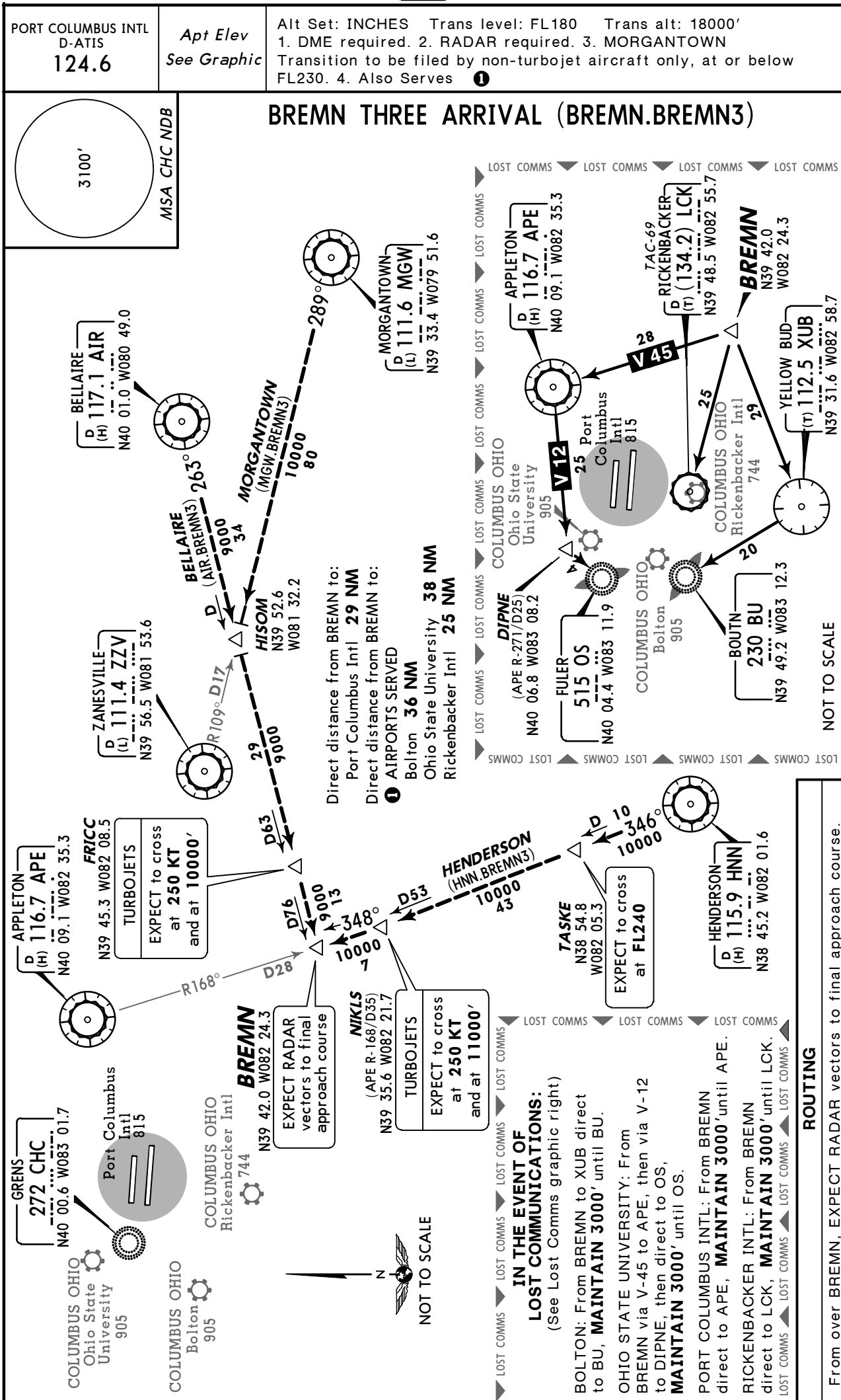
Runway: 05R
Length x Width: 12102 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 736 ft
Lighting: Edge, ALS, Centerline, TDZ

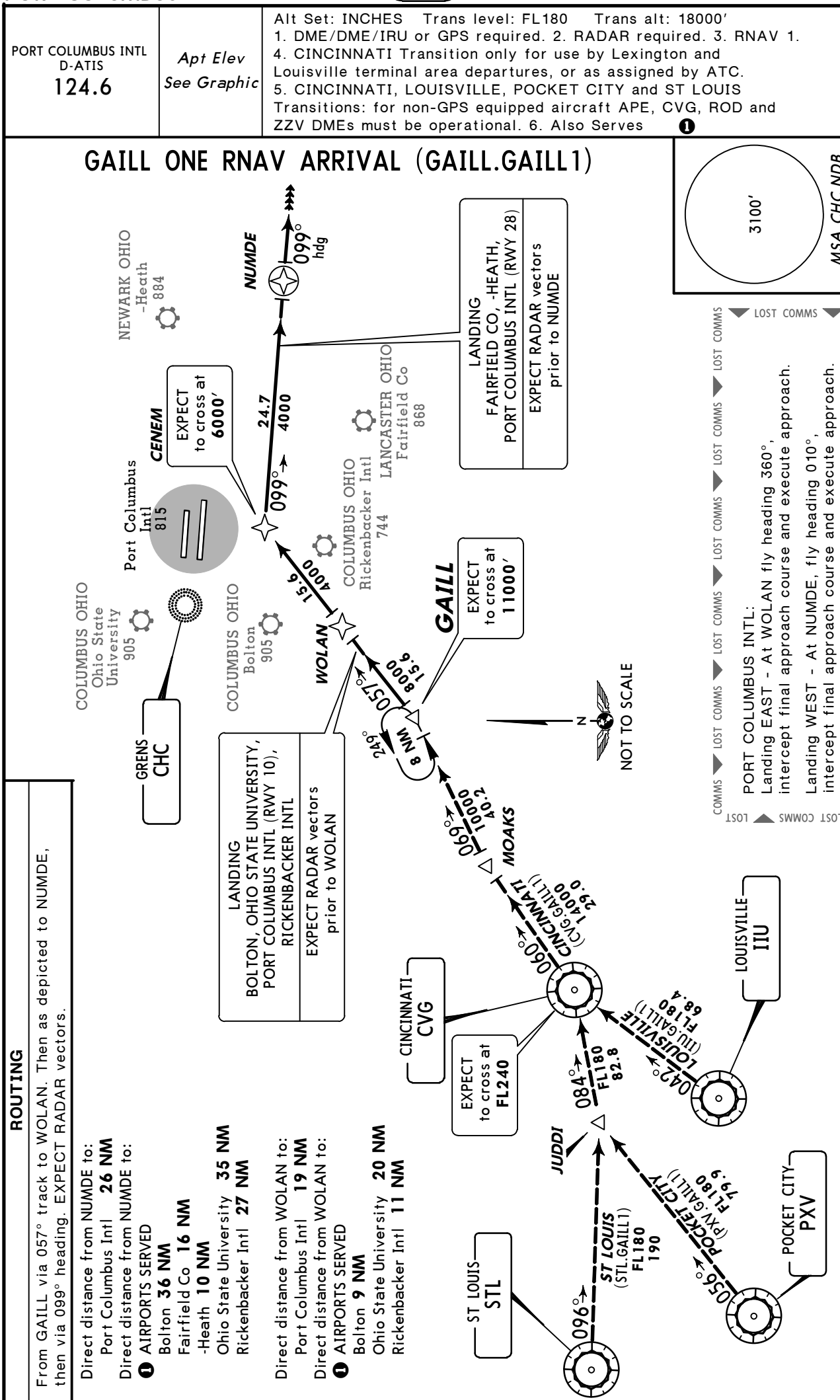
Runway: 23L
Length x Width: 12102 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 740 ft
Lighting: Edge, ALS, Centerline

Runway: 23R
Length x Width: 11902 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 743 ft
Lighting: Edge, REIL
Displaced Threshold: 989 ft

Communication Information

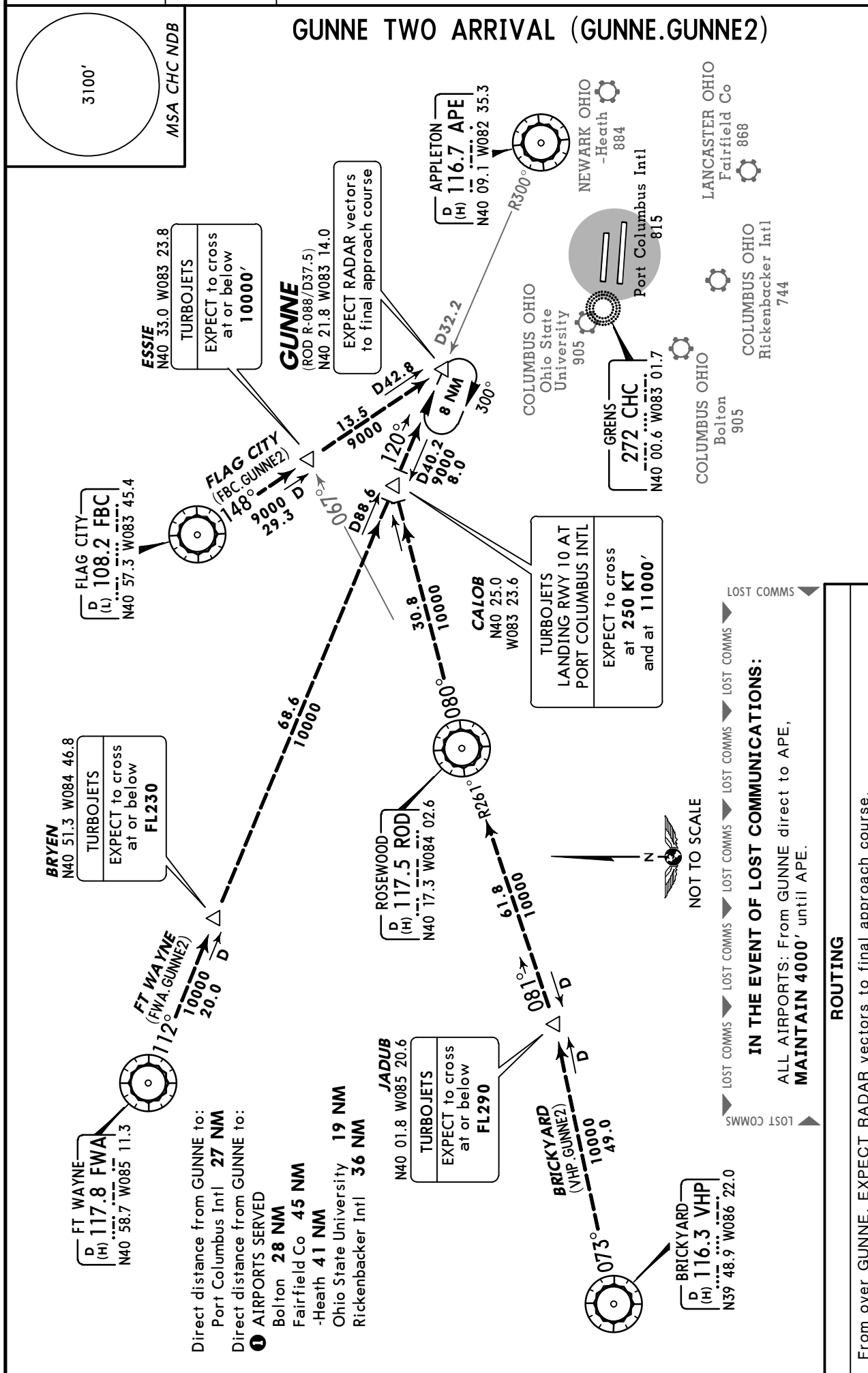
AWOS 132.75
Rick Tower 120.05
Rick Ground Control 121.85
Columbus Approach Control 119.15 (100°-279°)
Columbus App ARSA 119.15 (100°-279°)
Columbus Departure Control 119.15 (100°-279°)
Rickenbacker Unicom 122.95
Army Guard Operations 123.075 Military



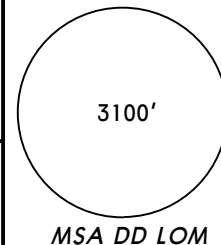


Alt Set: INCHES Trans level: FL180 Trans alt: 18000'

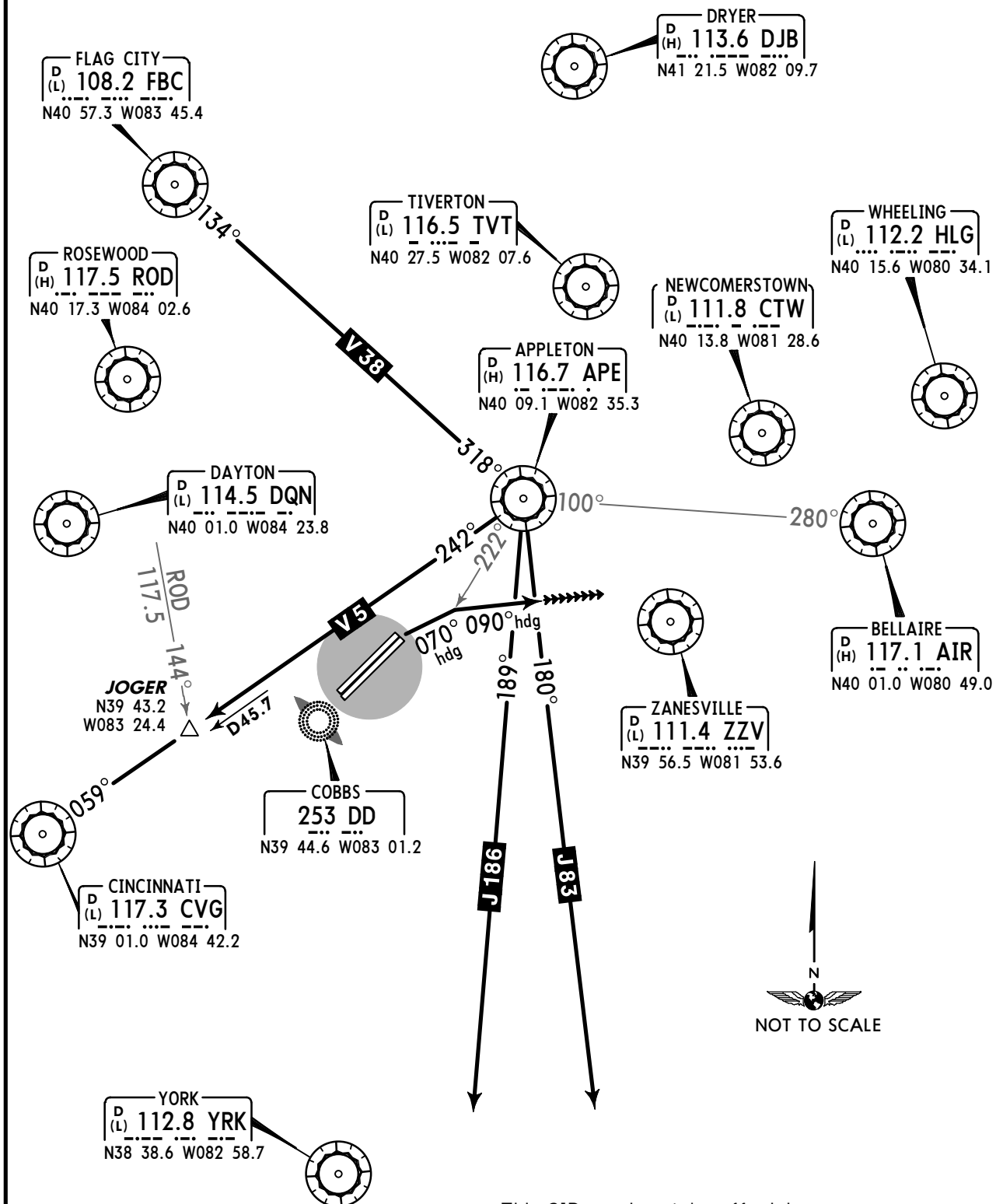
1. DME required.
2. Also Serves



COLUMBUS Departure (R) 119.15	<i>Apt Elev</i> 744'	Trans level: FL180 Trans alt: 18000' 1. Turbojet aircraft only. 2. Application in RADAR environment only. 3. Runways 5L/R turbojet Departure procedures utilized for Noise Abatement.
--	--------------------------------	--



LOCKBOURNE THREE DEPARTURE (LCK3.LCK)



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
All Rwy: Standard (or lower than standard,
if authorized).

RWY	INITIAL CLIMB
5L/R	Climbing RIGHT turn to 3000' via heading 070° until crossing APE R-222, then turn RIGHT heading 090°.
ROUTING	
EXPECT vectors to assigned route and clearance to filed altitude 10 minutes after departure.	

JEPPESEN
16 SEP 11 (50-9)

AWOS-3
132.75

RICK Ground
121.85

Tower
120.05

COLUMBUS Departure (R)
119.15

82-57 82-56 82-55 82-54

39-50 39-49 39-48 39-47

Control Tower 852'

Military Ramp

C-26

5L 050°

Ditch

794'

811'

793'

807'

792'

791'

Elev 737'

798'

23R 230°

23L 230°

Elev 739'

11,902'

12,102'

ARP

5R 050°

Elev 735'

785'

050°

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

82-57 82-56 82-55 82-54

39-47

GENERAL

For STARs see Columbus, Ohio (Port Columbus Intl).

Birds on and in vicinity of airport.

Noise abatement procedures in effect from 2300-0700.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		LANDING	BEYOND		
		Threshold	Glide Slope		
5R	HIRL CL ALSF-II TDZ PAPI-L (angle 3.0°) RVR		11,087'		200'
23L	HIRL CL MALSR PAPI-L (angle 3.0°) RVR		10,910'		

① Grooved.

5L	HIRL MALSR PAPI-L (angle 3.0°) grooved	11,004'	9,989'		150'
23R	HIRL REIL PAPI-L (angle 3.0°) grooved	10,913'			

TAKE-OFF

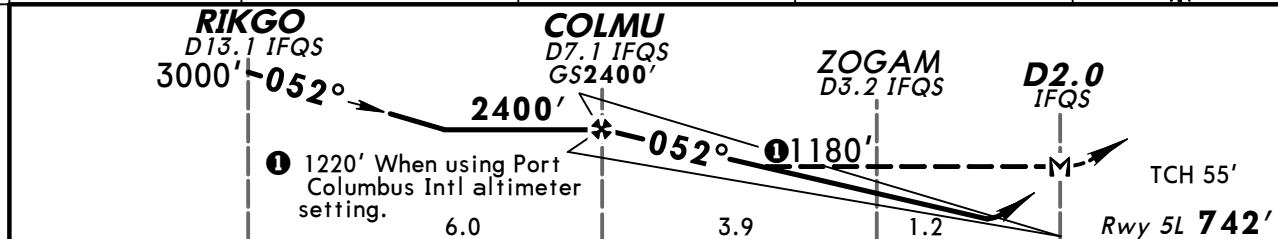
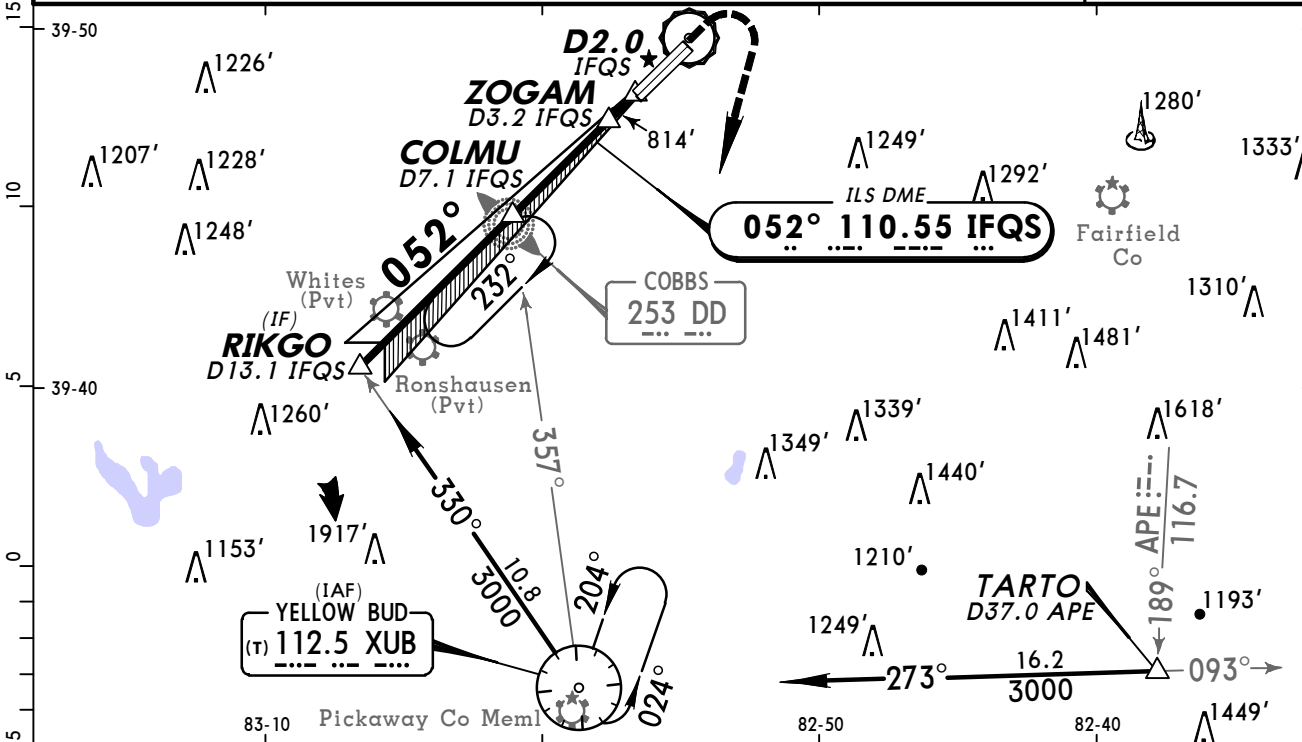
Rwys 5R, 23L					Rwys 5L, 23R		
Both RVRs are required & controlling		Adequate Vis Ref	STD		Adequate Vis Ref	STD	
CL & HIRL	CL, or RCLM & HIRL		3 & 4 Eng	1 & 2 Eng		3 & 4 Eng	1 & 2 Eng
TDZ RVR 5	TDZ RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	1/4	1/2	1
Rollout RVR 5	Rollout RVR 10						

FOR FILING AS ALTERNATE

Authorized Only When Local Weather Available

ILS Rwy 5L ILS Rwy 5R ILS Rwy 23L		RNAV (GPS) Rwy 5L RNAV (GPS) Rwy 5R RNAV (GPS) Rwy 23L RNAV (GPS) Rwy 23R	LOC Rwy 5L LOC Rwy 5R LOC Rwy 23L	NDB Rwy 5R NDB Rwy 23L	Other
600-2		800-2			NA

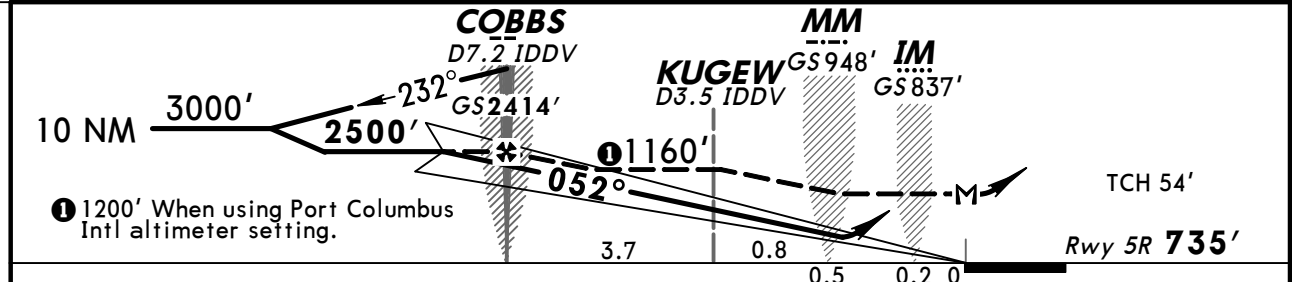
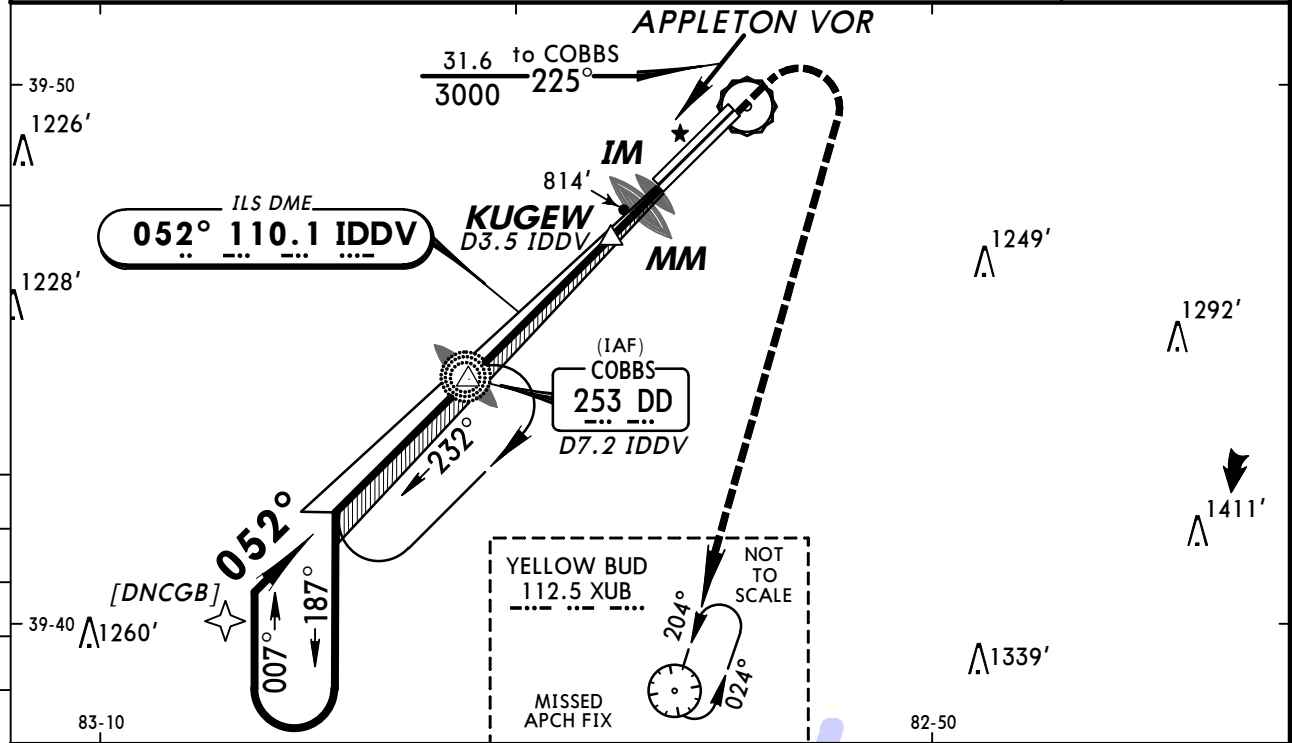
BRIEFING STRIP™	AWOS-3 132.75		COLUMBUS Approach (R) 119.15		RICK Tower 120.05		Ground 121.85	
	LOC IFQS 110.55	Final Apch Crs 052°	GS COLMU 2400' (1658')	ILS DA(H) (CONDITIONAL) 942' (200')	Apt Elev 744' Rwy 5L 742'		3100' DD LOM	
	MISSED APCH: Climb to 1500' then climbing RIGHT turn to 3000' direct XUB VOR and hold, or as directed by ATC.							
	Alt Set: INCHES							



Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI 1500' 3000' D XUB 112.5
GS	3.00°	372	478	531	637	743	
MAP at D2.0 IFQS or COLMU to MAP	5.0	4:17	3:20	3:00	2:30	2:09	

STRAIGHT-IN LANDING RWY 5L									CIRCLE-TO-LAND		
ILS			LOC (GS out)						Not Authorized Northwest of Rwy 5L-23R		
With ZOGAM			Without ZOGAM						With ZOGAM		
Without ZOGAM			Without ZOGAM						Without ZOGAM		
DA(H)			With Local Altimeter Setting						With Local Altimeter Setting		
942' (200')			MDA(H) 1080' (338')			MDA(H) 1180' (438')					
FULL		RAIL or ALS out		RAIL out	ALS out		RAIL out	ALS out	Max Kts	MDA(H)	MDA(H)
A	1/2	3/4	1/2	3/4	1	1/2	3/4	1	90	1180' (436') - 1	1180' (436') - 1
B					120	1200' (456') - 1	1200' (456') - 1				
C					140	1200' (456') - 1 1/2	1200' (456') - 1 1/2				
D					165	1300' (556') - 2	1300' (556') - 2				
With Port Columbus Intl Altimeter Setting									With Port Columbus Intl Altimeter Setting		
DA(H)											
978' (236')			MDA(H) 1120' (378')			MDA(H) 1220' (478')					
FULL		RAIL or ALS out		RAIL out	ALS out		RAIL out	ALS out	Max Kts	MDA(H)	MDA(H)
A	1/2	3/4	1/2	3/4	1	1/2	3/4	1	90	1220' (476') - 1	1220' (476') - 1
B									120	1240' (496') - 1	1240' (496') - 1
C									140	1240' (496') - 1 1/2	1240' (496') - 1 1/2
D									165	1340' (596') - 2	1340' (596') - 2

AWOS-3		COLUMBUS Approach (R)		RICK Tower		Ground	
132.75		119.15		120.05		121.85	
LOC IDDV 110.1	Final Apch Crs 052°	GS COBBS 2414' (1679')	ILS DA(H) (CONDITIONAL) 935' (200')	Apt Elev 744' Rwy 5R 735'		3100' MSA DD LOM	
MISSED APCH: Climb to 1500' then climbing RIGHT turn to 3000' direct XUB VOR and hold, or as directed by ATC.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. ADF or DME required. 2. Use local altimeter setting; if not received, use Port Columbus Intl altimeter setting.							

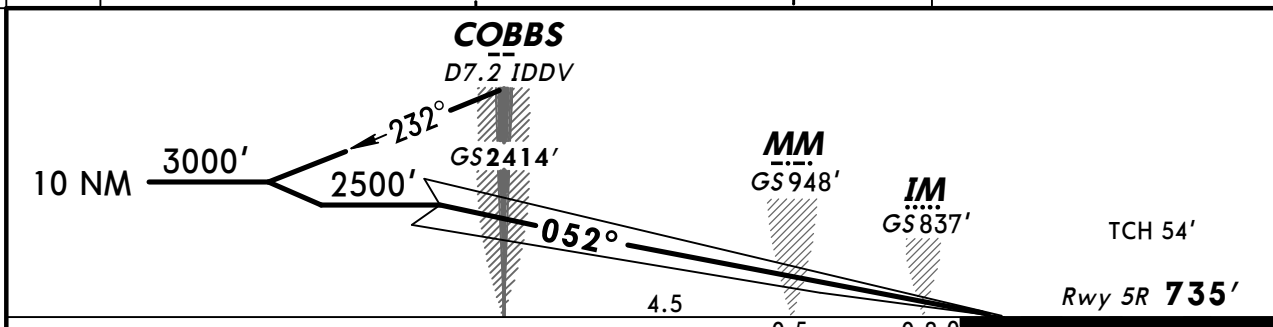
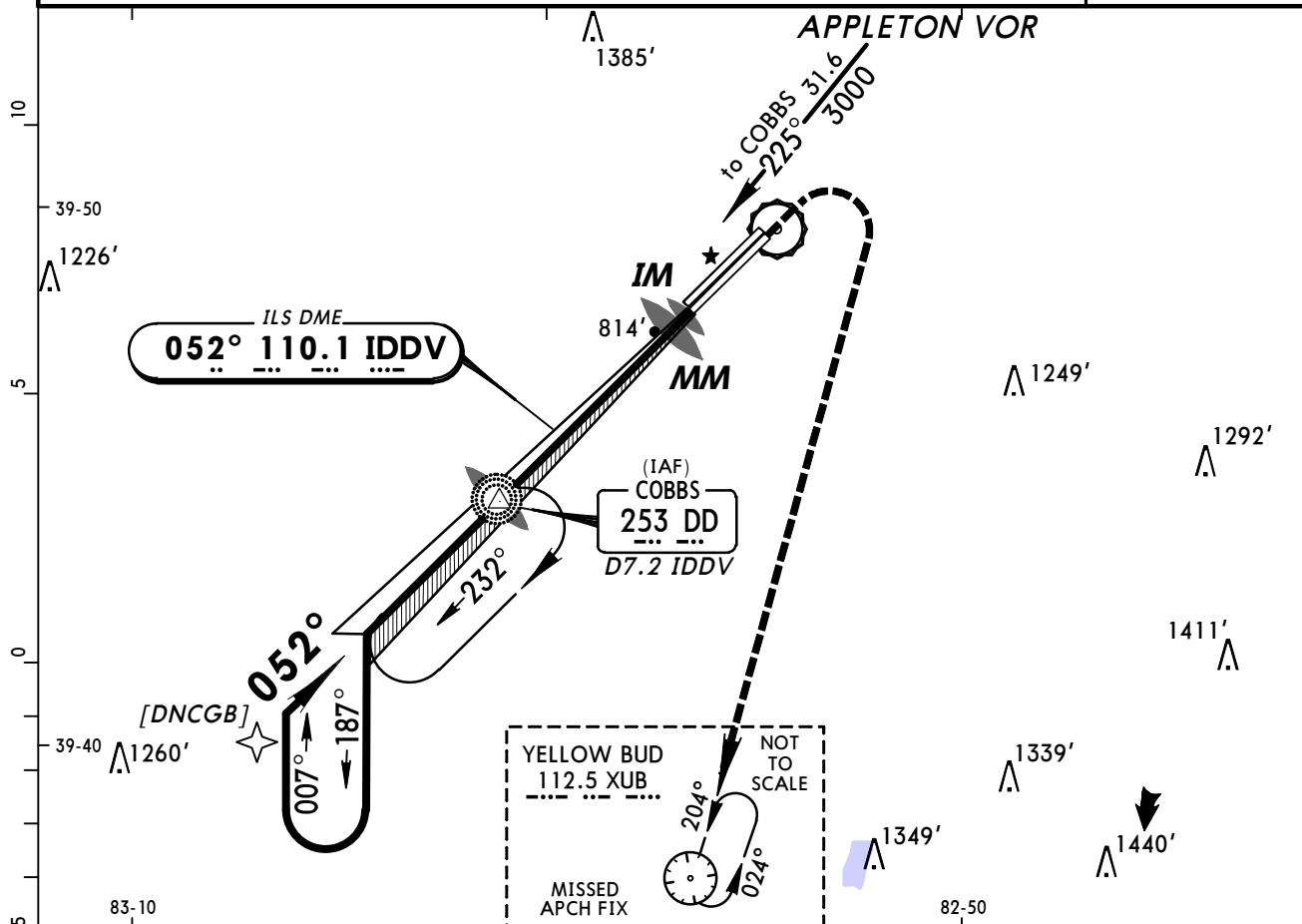


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 1500' 3000' RT D XUB 112.5	
GS 3.00°	372	478	531	637	743	849		
COBBS to MAP 5.0	4:17	3:20	3:00	2:30	2:09	1:53		

STRAIGHT-IN LANDING RWY 5R							CIRCLE-TO-LAND			
ILS			LOC (GS out)				Not Authorized Northwest of Rwy 5L/23R			
			With KUGEW		Without KUGEW		With KUGEW		Without KUGEW	
DA(H)			With Local Altimeter Setting				With Local Altimeter Setting			
935' (200')			MDA(H) 1080' (345')		MDA(H) 1160' (425')					
FULL TDZ or CL out		ALS out		ALS out		ALS out	Max Kts	MDA(H)	MDA(H)	
A							90	1180' (436') - 1	1180' (436') - 1	
B	RVR 18	RVR 40	RVR 24 or 1/2	RVR 55 or 1	RVR 24 or 1/2	RVR 55 or 1	120	1200' (456') - 1	1200' (456') - 1	
C	or 3/8	or 3/4	RVR 30 or 5/8		RVR 40 or 3/4	1 1/4	140	1200' (456') - 1 1/2	1200' (456') - 1 1/2	
D							165	1300' (556') - 2	1300' (556') - 2	
With Port Columbus Intl Altimeter Setting							With Port Columbus Intl Altimeter Setting			
DA(H) 971' (236')			MDA(H) 1120' (385')		MDA(H) 1200' (465')					
FULL TDZ or CL out		ALS out		ALS out		ALS out	Max Kts	MDA(H)	MDA(H)	
A							90	1220' (476') - 1	1220' (476') - 1	
B	RVR 24	RVR 45	RVR 24 or 1/2	RVR 55 or 1	RVR 24 or 1/2	RVR 55 or 1	120	1240' (496') - 1	1240' (496') - 1	
C	or 1/2	or 7/8	RVR 30 or 5/8	RVR 60 or 1 1/8	RVR 40 or 3/4	1 3/8	140	1240' (496') - 1 1/2	1240' (496') - 1 1/2	
D							165	1340' (596') - 2	1340' (596') - 2	

BRIEFING STRIP

AWOS-3		COLUMBUS Approach (R)		RICK Tower		Ground	
132.75		119.15		120.05		121.85	
LOC IDDV 110.1	Final Apch Crs 052°	GS COBBS 2414' (1679')	CAT II ILS RA 100' DA(H) 835' (100')		Apt Elev 744' Rwy 5R 735'		3100' MSA DD LOM
MISSED APCH: Climb to 1500' then climbing RIGHT turn to 3000' direct XUB VOR and hold, or as directed by ATC.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. Special Aircrew & Acft Certification Required. 2. ADF or DME required. 3. CAT II not authorized when using Port Columbus Intl altimeter setting.							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II		1500'	3000'	D→	XUB 112.5
GS	3.00°	372	478	531	637	743	PAPI		↑	RT		

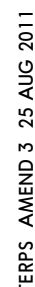
STRAIGHT-IN LANDING RWY 5R
CAT II ILS
RA 100'
 DA(H) **835'** (100')

RVR 12

TERPS AMEND 3 25 AUG 2011

COLUMBUS, OHIO
ILS Rwy 5R SA CAT I

BRIEFING STRIP™

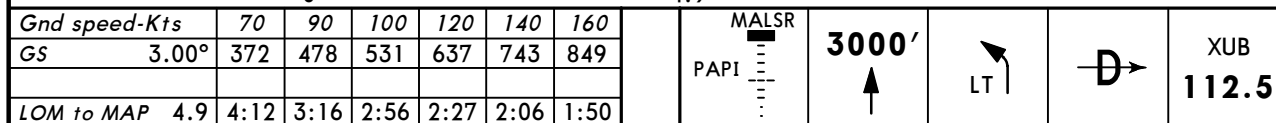
TERPS AMEND 3 25 AUG 2011

1 SA CAT I ILS
RA 150'
DA(H) 885' (150')

1 Requires specific OPSEC, MSPEC or LAO approval and use of HUD to DH.

COLUMBUS, OHIO
ILS or LOC Rwy 23L

BRIEFING STRIP™

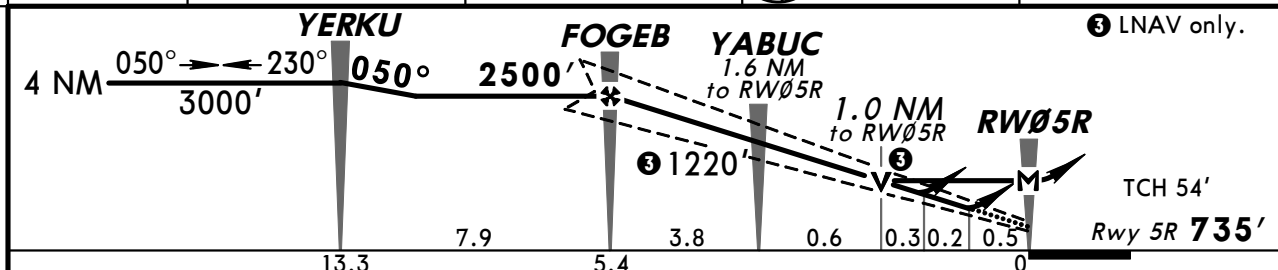
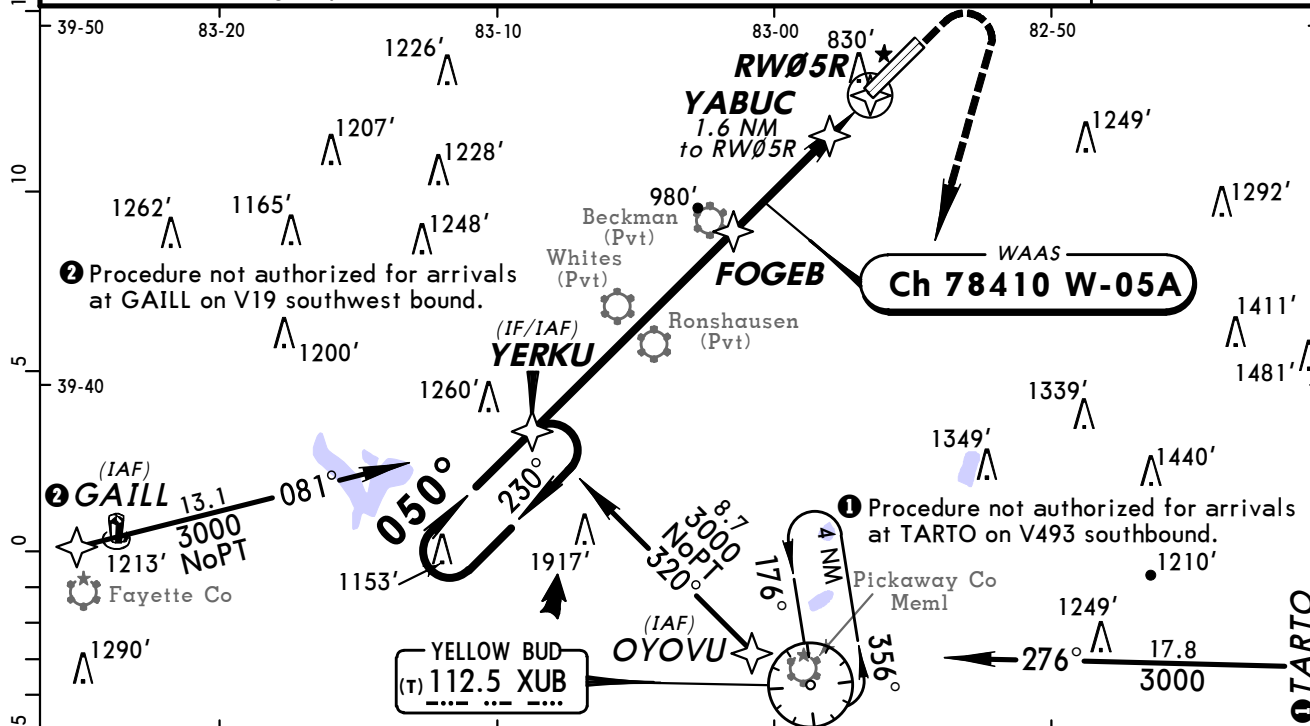
TERPS AMEND 1 25 AUG 2011

CHANGES: Note added.

5

BRIEFING STRIP™

AWOS-3		COLUMBUS Approach (R)		RICK Tower		Ground	
132.75		119.15		120.05		121.85	
WAAS Ch 78410 W-05A	Final Apch Crs 050°	Minimum Alt FOGEB 2500' (1765')	LPV DA(H) (CONDITIONAL) 935' (200')	Apt Elev 744' Rwy 5R 735'		3100' MSA RW05R	
MISSED APCH: Climb to 1500' then climbing RIGHT turn to 3000' direct XUB VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. Use local altimeter setting; if not received, use Port Columbus Intl altimeter setting. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 39°C (102°F). 3. Baro-VNAV and VDP not authorized when using Port Columbus Intl altimeter setting. 4. DME/DME RNP-0.30 not authorized. 5. VGSI and RNAV glidepath not coincident.							



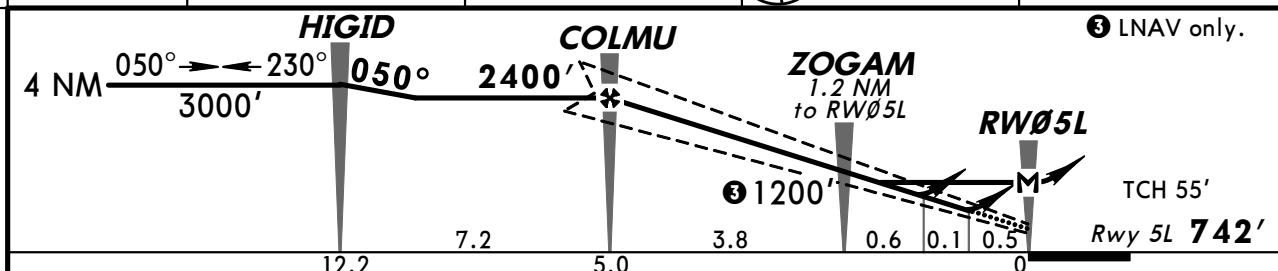
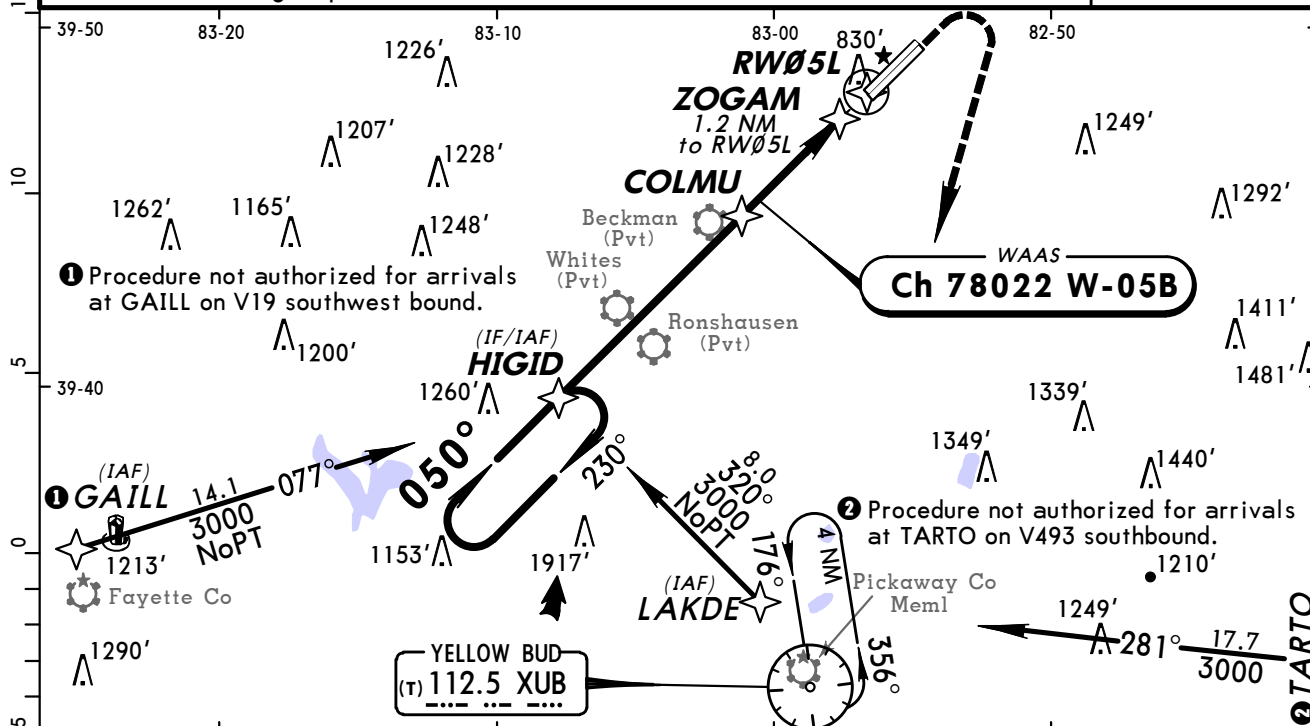
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1500'	3000'	RT	XUB
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI	↑	↻	↻	112.5
MAP at RW05R											

STRAIGHT-IN LANDING RWY 5R							CIRCLE-TO-LAND	
With Local Altimeter Setting							Not Authorized Northwest of Rwy 5L-23R	
LPV DA(H) 935' (200')		LNAV/VNAV DA(H) 1011' (276')		LNAV MDA(H) 1120' (385')			With Local Altimeter Setting	
ALS out		ALS out		ALS out			Max Kts	MDA(H)
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	RVR 24 or 1/2	RVR 55 or 1	90	1180' (436') - 1
B					RVR 35 or 5/8	RVR 60 or 1 1/8	120	1200' (456') - 1
C							140	1200' (456') - 1 1/2
D							165	1300' (556') - 2
With Port Columbus Intl Altimeter Setting							With Port Columbus Intl Altimeter Setting	
LPV DA(H) 971' (236')		LNAV/VNAV DA(H) 1047' (312')		LNAV MDA(H) 1160' (425')			Max Kts	MDA(H)
ALS out		ALS out		ALS out			90	1220' (476') - 1
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	RVR 50 or 1	RVR 24 or 1/2	RVR 55 or 1	120	1240' (496') - 1
B					RVR 40 or 3/4	1 1/4	140	1240' (496') - 1 1/2
C							165	1340' (596') - 2
D								

5

BRIEFING STRIP™

AWOS-3 132.75		COLUMBUS Approach (R) 119.15		RICK Tower 120.05		Ground 121.85	
WAAS Ch 78022 W-05B	Final Apch Crs 050°	Minimum Alt COLMU 2400' (1658')	LPV DA(H) (CONDITIONAL) 942' (200')	Apt Elev 744' Rwy 5L 742'		3100' MSA RW05L	
MISSED APCH: Climb to 1500' then climbing RIGHT turn to 3000' direct XUB VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Port Columbus Intl altimeter setting. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 39°C (102°F). 3. Baro-VNAV not authorized when using Port Columbus Intl altimeter setting. 4. DME/DME RNP-0.30 not authorized. 5. VGSI and RNAV glidepath not coincident.							

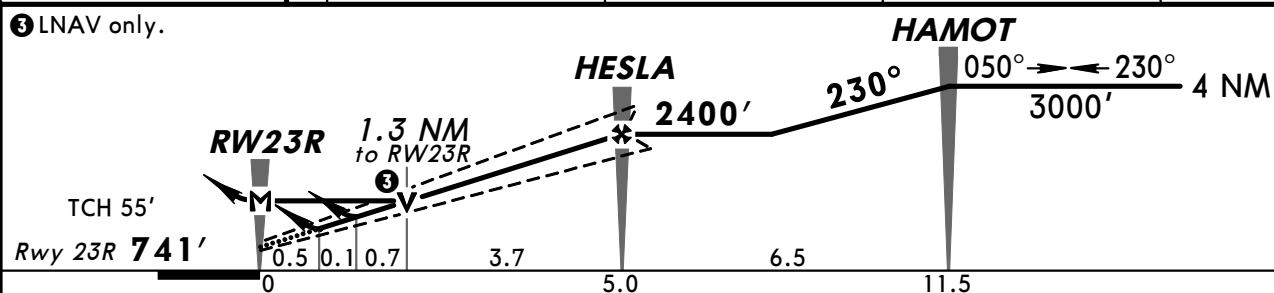
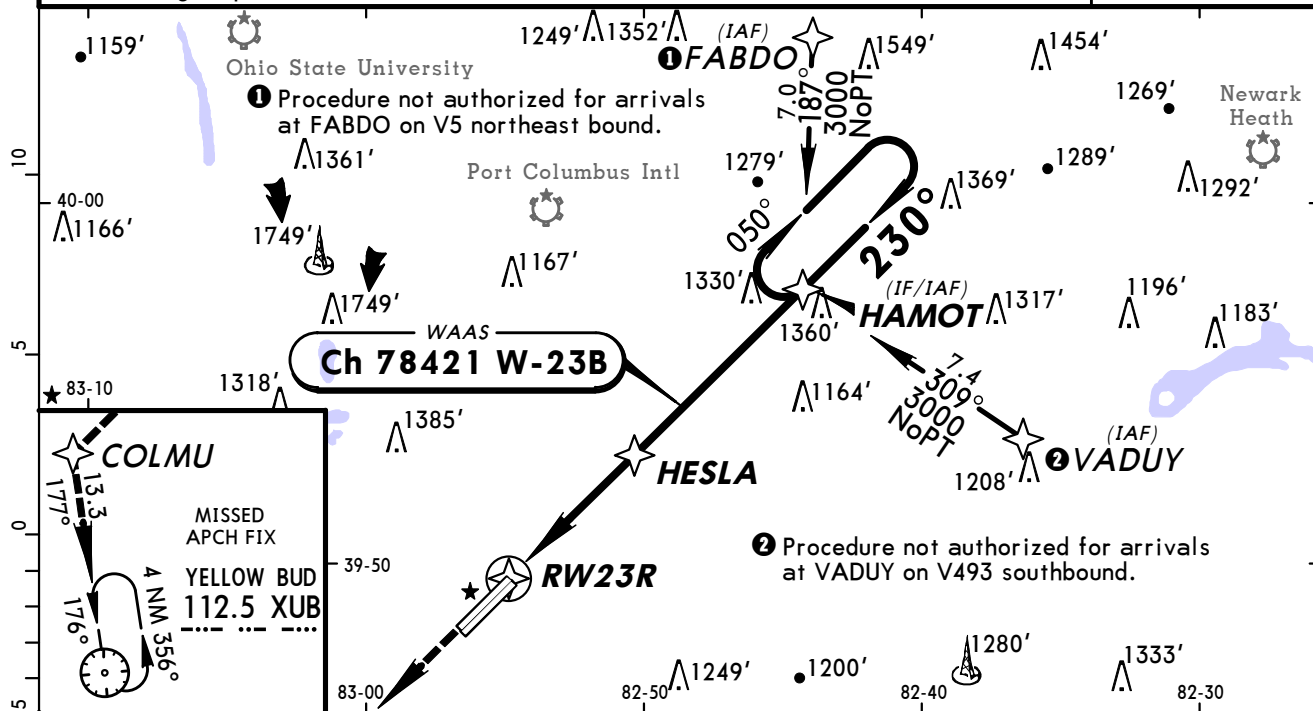


Gnd speed-Kts	70	90	100	120	140	160	MALSR	1500'	3000'	XUB	112.5
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI	↑	RT	→	
MAP at RW05L											

STRAIGHT-IN LANDING RWY 5L With Local Altimeter Setting								CIRCLE-TO-LAND Not Authorized Northwest of Rwy 5L-23R		
LPV DA(H) 942' (200')		LNAV/VNAV DA(H) 992' (250')			LNAV MDA(H) 1080' (338')			Max Kts.	With Local Altimeter Setting MDA(H)	
RAIL or ALS out		RAILout ALS out			RAIL out ALS out					
A	1/2	3/4	1/2	3/4	1/2	3/4	1	90	1180' (436') - 1	
B								120	1200' (456') - 1	
C								7/8	140	1200' (456') - 1 1/2
D									165	1300' (556') - 2
With Port Columbus Intl Altimeter Setting								With Port Columbus Intl Altimeter Setting		
LPV DA(H) 978' (236')		LNAV/VNAV DA(H) 1028' (286')			LNAV MDA(H) 1120' (378')			Max Kts.	MDA(H)	
RAIL or ALS out		RAILout ALS out			RAIL out ALS out					
A	1/2	3/4	1/2	3/4	7/8	1/2	3/4	1	90	1220' (476') - 1
B									120	1240' (496') - 1
C						5/8			140	1240' (496') - 1 1/2
D									165	1340' (596') - 2

BRIEFING-STRIP™

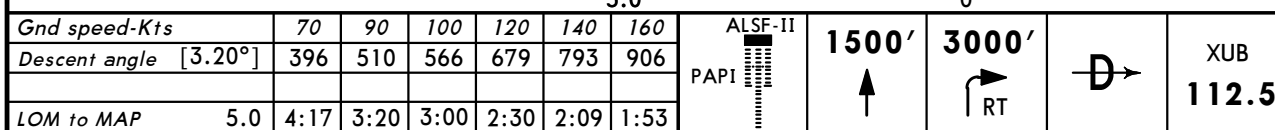
AWOS-3		COLUMBUS Approach (R)		RICK Tower		Ground	
132.75		119.15		120.05		121.85	
WAAS Ch 78421 W-23B		<i>Final Apch Crs</i> 230°	<i>Minimum Alt</i> HESLA 2400' (1659')	<i>LPV DA(H)</i> (CONDITIONAL) 941' (200')	<i>Apt Elev</i> 744' <i>Rwy 23R</i> 741'	3100' MSA RW23R	
MISSED APCH: Climb to 3000' direct COLMU and on track 177° to XUB VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Port Columbus Intl altimeter setting. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 39°C (102°F). 3. Baro-VNAV and VDP not authorized when using Port Columbus Intl altimeter setting. 4. DME/DME RNP-0.30 not authorized. 5. VGSI and RNAV glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	REIL PAPI-L	3000' ↑	→ COLMU
Glide Path Angle 3.00°	372	478	531	637	743	849			
MAP at RW23R									

STRAIGHT-IN LANDING RWY 23R					CIRCLE-TO-LAND		
With Local Altimeter Setting					Not Authorized Northwest of Rwy 5L-23R		
LPV DA(H) 941' (200')		LNAV/VNAV DA(H) 991' (250')		LNAV MDA(H) 1220' (479')		Max Kts	With Local Altimeter Setting MDA(H)
A	3/4	3/4	1		90	1220' (476') - 1	
B					120		
C			1 3/8		140	1220' (476') - 1 1/2	
D					165	1300' (556') - 1 1/2	
With Port Columbus Intl Altimeter Setting					With Port Columbus Intl Altimeter Setting		
LPV DA(H) 977' (236')		LNAV/VNAV DA(H) 1027' (286')		LNAV MDA(H) 1260' (519')		Max Kts	MDA(H)
A	3/4	7/8	1		90	1260' (516') - 1	
B					120		
C			1 3/8		140	1260' (516') - 1 1/2	
D					165	1340' (596') - 1 1/2	

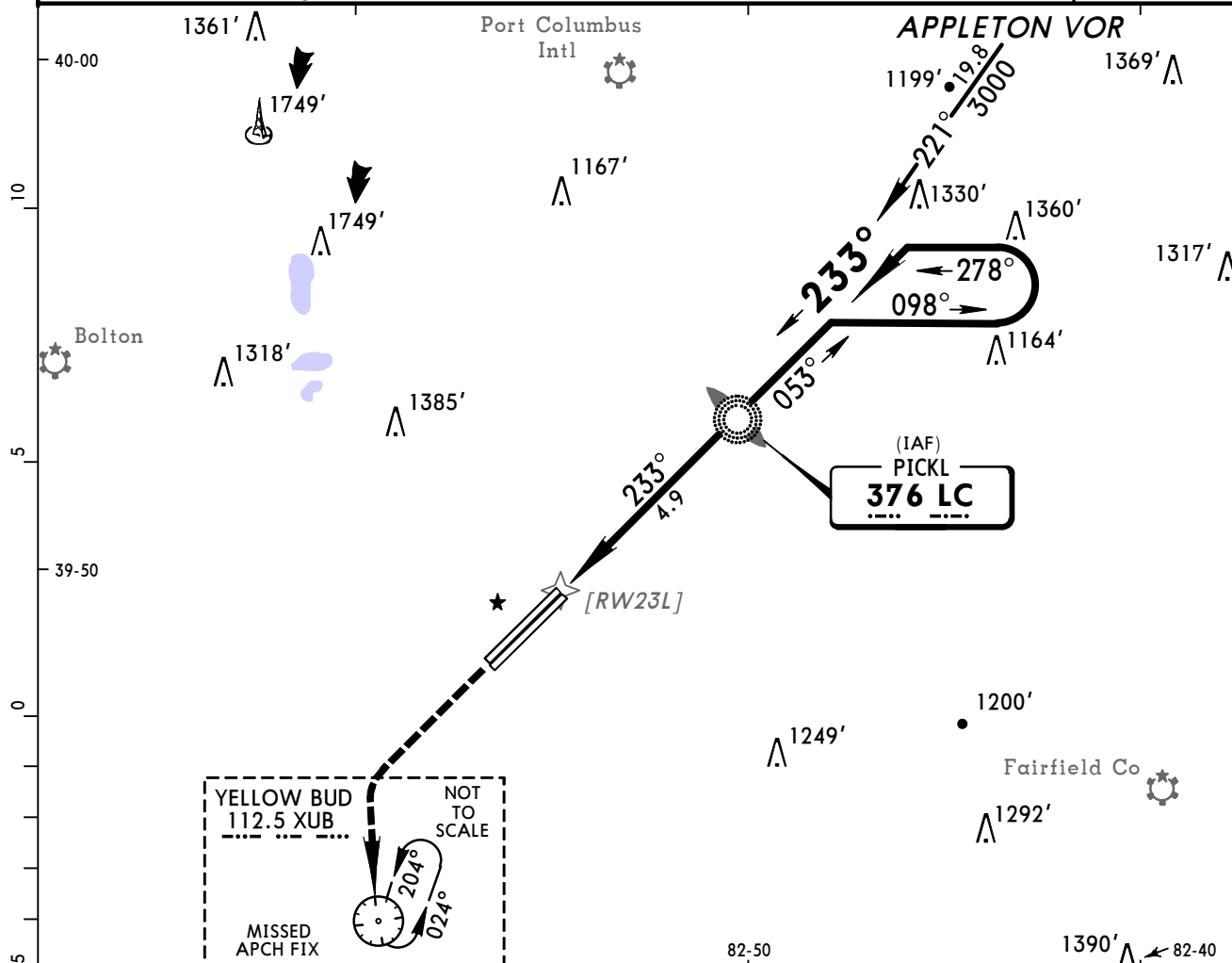
BRIEFING STRIP™



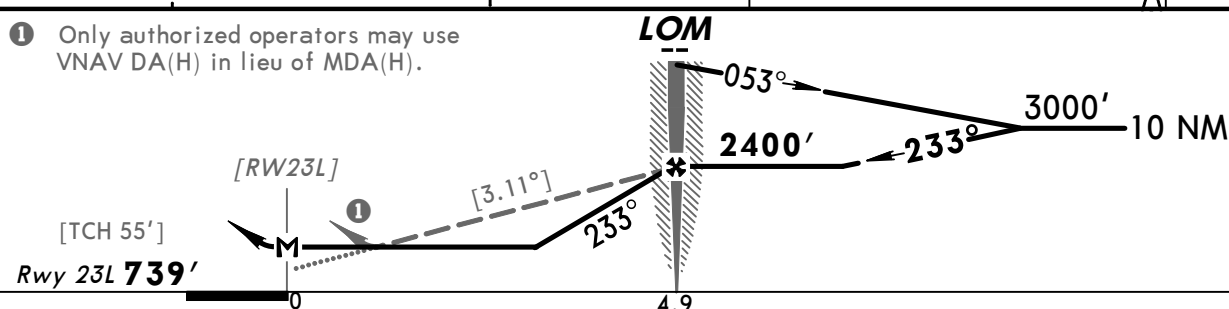
STRAIGHT-IN LANDING RWY 5R					CIRCLE-TO-LAND		
With PEIYI			Without PEIYI		Not Authorized Northwest of Rwy 5L-23R		
					With PEIYI		
					Without PEIYI		
With Local Altimeter Setting					With Local Altimeter Setting		
MDA(H) 1160' (425')			MDA(H) 1240' (505')				
ALS out			ALS out				
A	RVR 40 or 3/4	RVR 55 or 1	RVR 40 or 3/4	RVR 55 or 1	Max Kts.	MDA(H)	
B					90	1180' (436') - 1	
C		1 1/4	RVR 55 or 1	1 3/8	120	1200' (456') - 1	
D					140	1200' (456') - 1 1/2	
					165	1300' (556') - 2	
With Port Columbus Intl Altimeter Setting					With Port Columbus Intl Altimeter Setting		
MDA(H) 1200' (465')			MDA(H) 1280' (545')				
ALS out			ALS out				
A	RVR 40 or 3/4	RVR 55 or 1	RVR 40 or 3/4	RVR 55 or 1	Max Kts.	MDA(H)	
B					90	1220' (476') - 1	
C		1 3/8	RVR 60 or 1 1/4	1 5/8	120	1240' (496') - 1	
D					140	1240' (496') - 1 1/2	
					165	1340' (596') - 2	

BRIEFING STRIP™

AWOS-3		COLUMBUS Approach (R)		RICK Tower		Ground			
132.75		119.15		120.05		121.85			
LOM LC 376		Final Apch Crs 233°		Minimum Alt LOM 2400' (1661')		MDA(H) (CONDITIONAL) 1280' (541')		Apt Elev 744' Rwy 23L 739'	
MISSED APCH: Climb to 3000' then LEFT turn direct XUB VOR and hold.								3100' MSA LC LOM	
Alt Set: INCHES				Trans level: FL 180		Trans alt: 18000'			
1. Use local altimeter setting; if not received, use Port Columbus Intl altimeter setting. 2. VGSI and descent angles not coincident.									



① Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



Gnd speed-Kts	70	90	100	120	140	160	MALSR PAPI	3000'	LT	D	XUB 112.5
Descent angle [3.11°]	385	495	550	660	770	880					
LOM to MAP	4.9	4:12	3:16	2:56	2:27	2:06					

STRAIGHT-IN LANDING RWY23L							CIRCLE-TO-LAND			
MDA(H) 1280' (541')				MDA(H) 1320' (581')			Not Authorized Northwest of Rwy 5L-23R			
With Local Altimeter Setting				With Port Columbus Intl Altimeter Setting			With Local Altimeter Setting		With Port Columbus Intl Altimeter Setting	
		RAIL out	ALS out			RAIL out	ALS out	Max Kts	MDA(H)	MDA(H)
A	RVR 40 or 3/4		RVR 55 or 1	RVR 40 or 3/4		RVR 55 or 1	90	1280'(536')-1	1320'(576')-1	
B							120			
C	RVR 60	1 3/8	1 5/8	1 3/4	1 3/8	1 3/4	140	1280'(536')-1 5/8	1320'(576')-1 5/8	
D	or 1 1/8						165			1300'(556')-2

CHANGES: Reissue.

© JEPPESEN, 2000, 2011. ALL RIGHTS RESERVED.

TERPS AMEND 2 25 AUG 2011

General Information

Location: Mansfield OH USA
IATA Code: MFD
Lat/Long: N40° 49.3' W082° 31.0'
Elevation: 1297 ft

Airport Use: Public
Magnetic Variation: 7.5°W
Sectional Chart: Detroit

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

Sunrise: 1208 Z
Sunset: 2318 Z,

Runway Information

Runway: 05
Length x Width: 6800 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1297 ft
Lighting: Edge, REIL, Part time, Pilot controlled
Stopway: 451 ft

Runway: 14
Length x Width: 9001 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1276 ft
Lighting: Edge, Pilot controlled
Stopway: 1000 ft

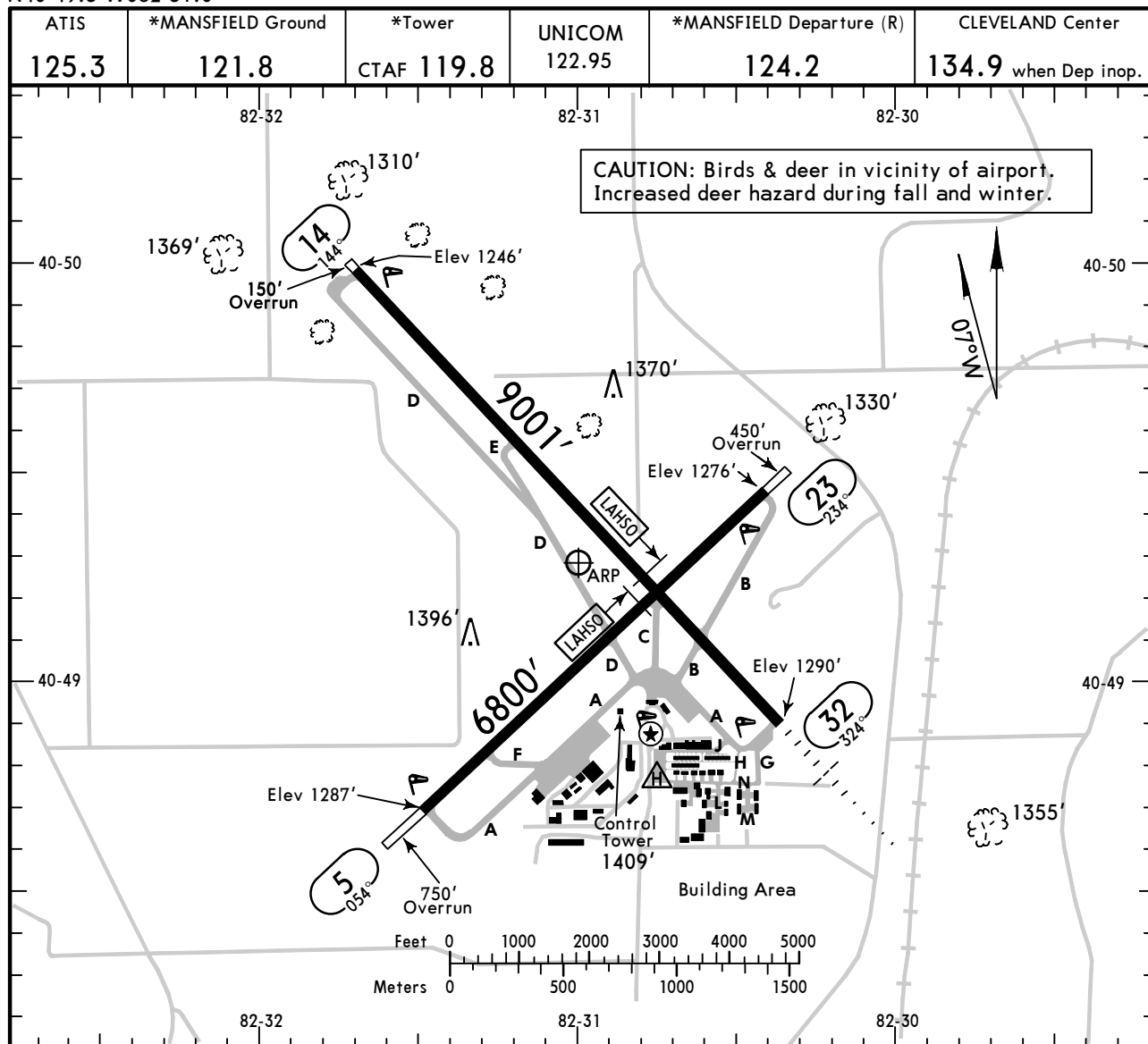
Runway: 23
Length x Width: 6800 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1276 ft
Lighting: Edge, REIL, Part time, Pilot controlled
Stopway: 750 ft

Runway: 32
Length x Width: 9001 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1293 ft
Lighting: Edge, ALS, Pilot controlled

Stopway: 1000 ft

Communication Information

- ATIS 125.3
- Mansfield Tower 119.8 CTAF PCL
- Mansfield Ground Control 121.8
- Mansfield Approach Control 127.35 Secondary
- Mansfield Approach Control 124.2
- Mansfield Departure Control 127.35 Secondary
- Mansfield Departure Control 124.2
- Mansfield Lahm Mun Unicom 122.95
- Mansfield Radar 124.2
- Cleveland Flight Service Station 122.6 RCO
- Cleveland Flight Service Station 122.1 RCO
- Cleveland Flight Service Station 108.8 RCO
- Cleveland Center 134.9 Remote Communications Air-Ground



ADDITIONAL RUNWAY INFORMATION

RWY					USABLE LENGTHS			
					LANDING BEYOND Threshold	Glide Slope	LAHSO Distance	TAKE-OFF WIDTH
5	23	①HIRL ①REIL PAPI-L (angle 3.0°)	grooved				14/32 4350'	150'
14		①HIRL PAPI-L (angle 3.0°)	grooved				5/23 6100'	150'
32		①HIRL ①MALSR	grooved RVR		8162'			

① Activate on 119.8 when Twr inop.

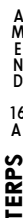
TAKE-OFF

All Rwys		
Adequate Vis Ref		STD
1 & 2 Eng	RVR 16 or 1/4	RVR 50 or 1
3 & 4 Eng		RVR 24 or 1/2

FOR FILING AS ALTERNATE

Authorized Only When Twr Operating		Authorized Only When Local Weather Available
ILS Rwy 32	LOC Rwy 32 NDB Rwy 32 RADAR-1	RNAV (GPS) Rwy 5 RNAV (GPS) Rwy 14 RNAV (GPS) Rwy 23 RNAV (GPS) Rwy 32 VOR Rwy 14 VOR Rwy 32
A	600-2	800-2
B		
C		
D		

BRIEFING STRIPTM

TERPS
A
16TERPS
A
16

BRIEFING STRIPTM

3000'

MSA RW05

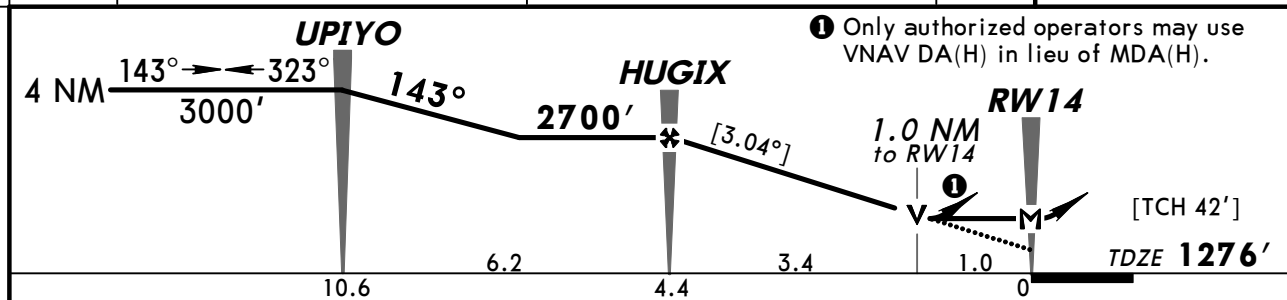
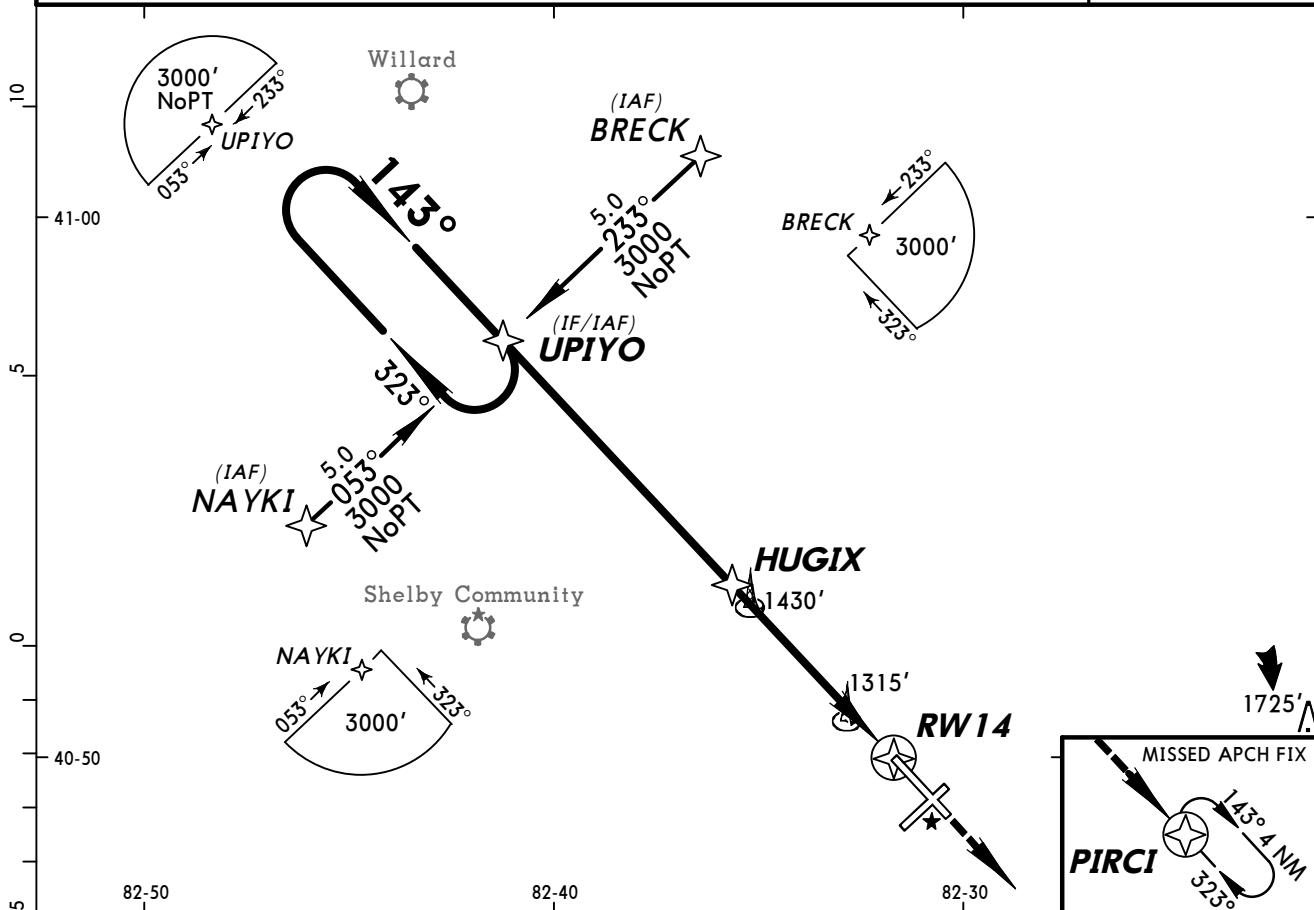
MSA RW05

TERPS AMEND 0 23 SEP 2010

STRAIGHT-IN LANDING RWY 5					CIRCLE-TO-LAND	
With Local Altimeter Setting					With Local Altimeter Setting	
LPV DA(H) 1497' (200')		LNAV/VNAV DA(H) 1715' (418')		LNAV MDA(H) 1820' (523')		
A	3/4	1 1/2	1	Max Kts 90	1820' (523') - 1	
B				120		
C			1 1/2	140	1820' (523') - 1 1/2	
D			1 3/4	165	1880' (583') - 2	
With Marion Altimeter Setting					With Marion Altimeter Setting	
LPV DA(H) 1604' (307')		LNAV/VNAV DA(H) 1822' (525')		LNAV MDA(H) 1940' (643')		
A	1	2	1	Max Kts 90	1940' (643') - 1	
B				120		
C			1 3/4	140	1940' (643') - 1 3/4	
D			2	165	2000' (703') - 2 1/2	

© JEPPESEN, 2010. ALL RIGHTS RESERVED.

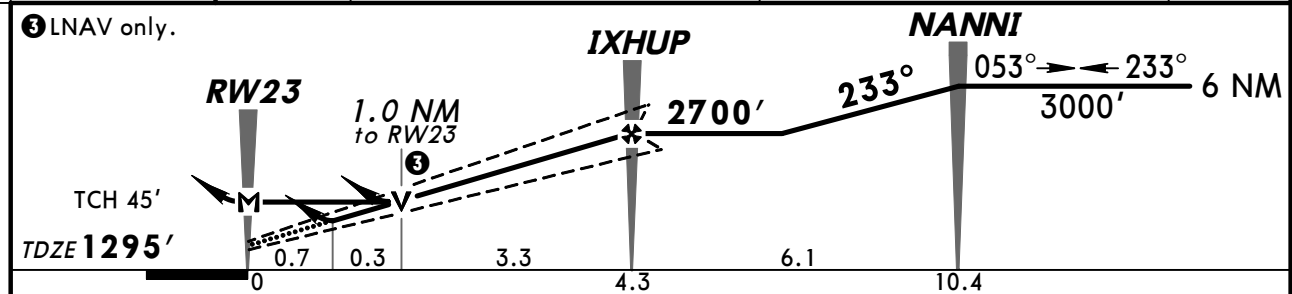
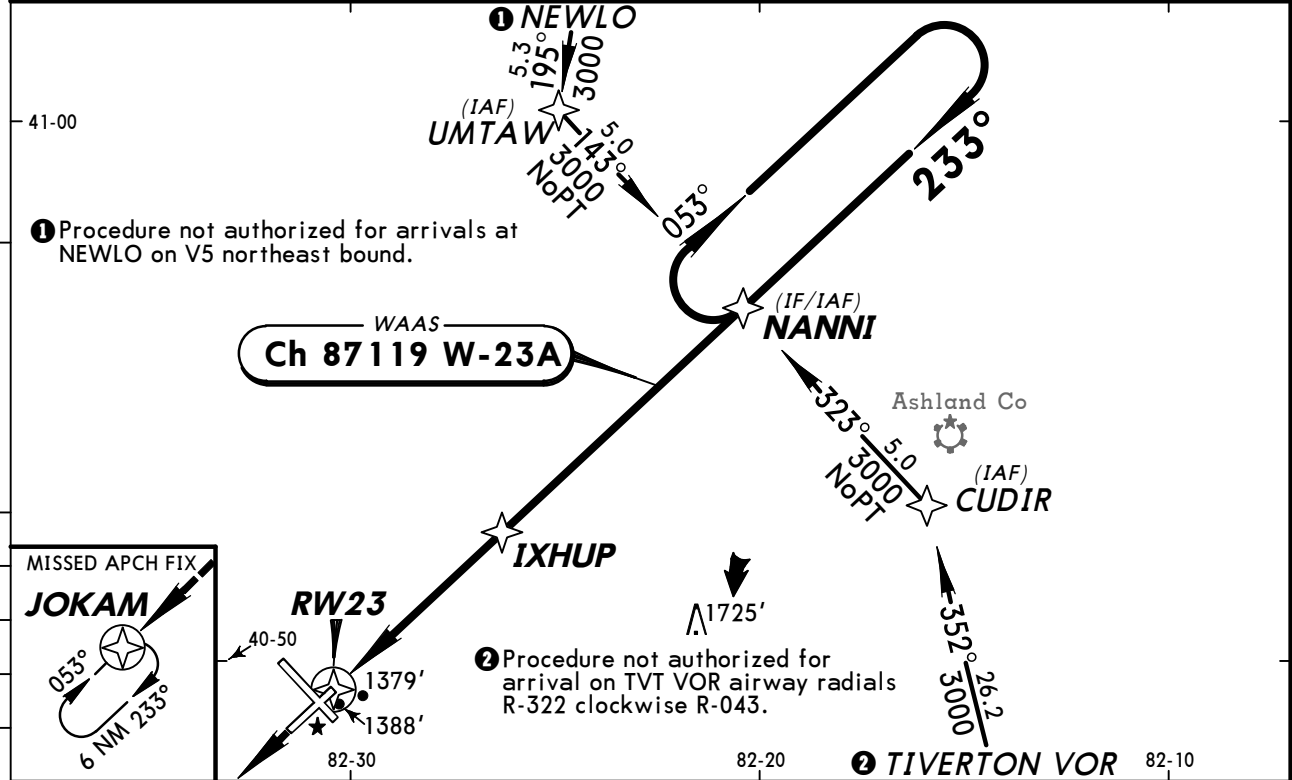
ATIS 125.3	*MANSFIELD Approach (R) 124.2	CLEVELAND Center 134.9 when App inop.	*MANSFIELD Tower CTAF 119.8	*Ground 121.8
RNAV	Final Apch Crs 143°	Minimum Alt HUGIX 2700' (1424')	LNAV MDA(H) (CONDITIONAL) 1620' (344')	Apt Elev 1297' TDZE 1276'
MISSED APCH: Climb to 3000' direct PIRCI and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Marion altimeter setting. 2. DME/DME RNP-0.30 not authorized. 3. VDP not authorized with Marion altimeter setting. 4. Pilot controlled lighting 119.8.				
				TAA 30 NM IAF



Gnd speed-Kts	70	90	100	120	140	160				
Descent angle [3.04°]	376	484	538	645	753	861				
MAP at RW14										

STRAIGHT-IN LANDING RWY 14					CIRCLE-TO-LAND		
LNAV							
MDA(H) 1620' (344')			MDA(H) 1740' (464')		With Local Altimeter Setting		With Marion Altimeter Setting
With Local Altimeter Setting			With Marion Altimeter Setting		Max Kts	MDA(H)	MDA(H)
A	1		1		90	1760'(463')- 1	1880'(583')- 1
B					120		
C					1¼		140
D	1¼		1½		165	1880'(583')- 2	2000'(703')- 2¼

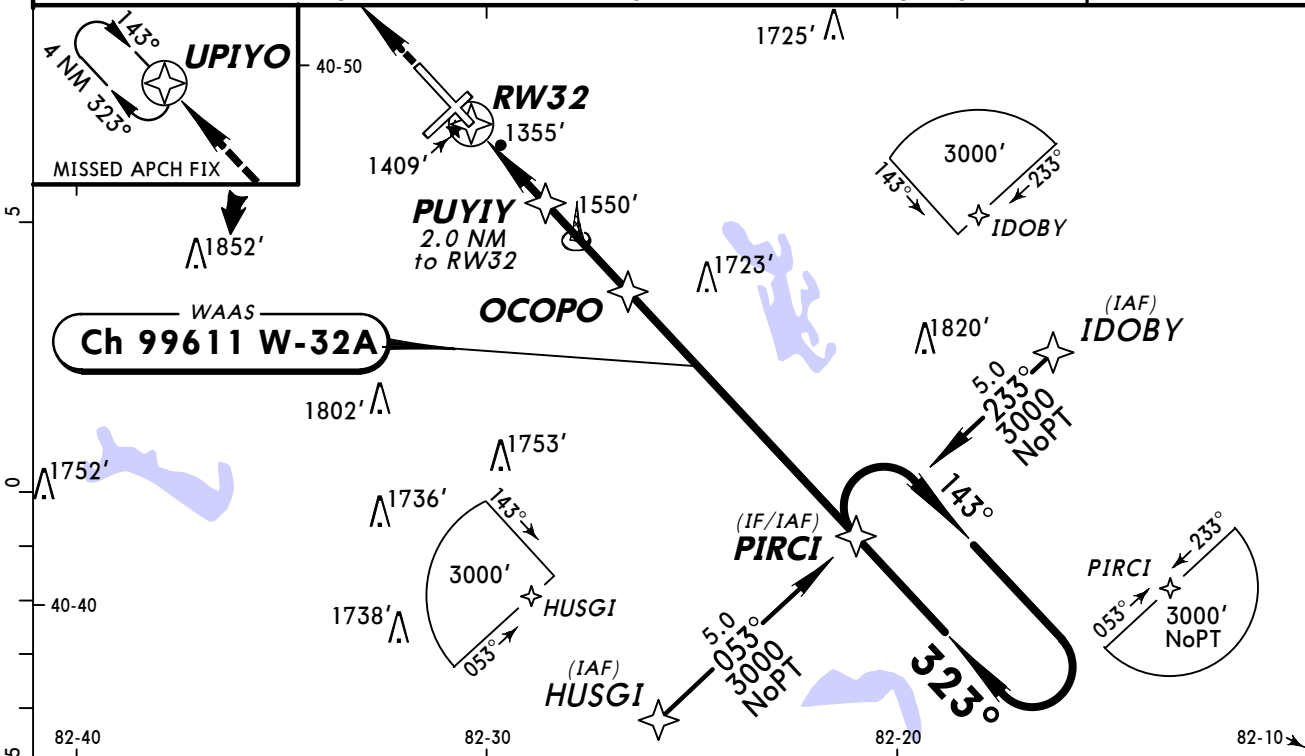
ATIS	*MANSFIELD Approach (R)	CLEVELAND Center	*MANSFIELD Tower	*Ground
125.3	124.2	134.9 when App inop.	CTAF 119.8	121.8
WAAS Ch 87119 W-23A	Final Apch Crs 233°	Minimum Alt IXHUP 2700' (1405')	LPV DA(H) (CONDITIONAL) 1545' (250')	Apt Elev 1297' TDZE 1295'
MISSED APCH: Climb to 3000' direct JOKAM and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Marion altimeter setting. 2. DME/DME RNP-0.30 not authorized. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (2°F) or above 46°C (114°F). 4. Baro-VNAV and VDP not authorized when using Marion altimeter setting. 5. Visibility reduction by helicopters not authorized. 6. Pilot controlled lighting 119.8.				
				3000' MSA RW23



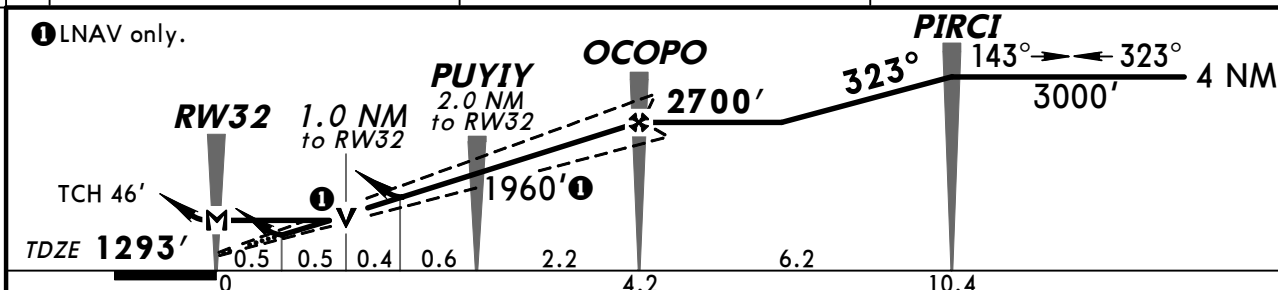
Gnd speed-Kts	70	90	100	120	140	160						
Glide Path Angle 3.00°	372	478	531	637	743	849						
MAP at RW23												

STRAIGHT-IN LANDING RWY 23 With Local Altimeter Setting							CIRCLE-TO-LAND With Local Altimeter Setting	
LPV DA(H) 1545' (250')		LNAV/VNAV DA(H) 1649' (354')		LNAV MDA(H) 1640' (345')		Max Kts	MDA(H)	
A	1	1¼	1	90	1760' (463')-1			
B				120				
C				140				
D				165				
			1¼		1880' (583')-2			
With Marion Altimeter Setting							With Marion Altimeter Setting	
LPV DA(H) 1652' (357')		LNAV/VNAV DA(H) 1756' (461')		LNAV MDA(H) 1760' (465')		Max Kts	MDA(H)	
A	1¼	1¾	1	90	1880' (583')-1			
B				120				
C				140				
D				165				
			1½		2000' (703')-2¼			

ATIS 125.3	*MANSFIELD Approach (R) 124.2	CLEVELAND Center 134.9 when App inop.	*MANSFIELD Tower CTAF 119.8	*Ground 121.8
WAAS Ch 99611 W-32A	Final Apch Crs 323°	Minimum Alt OCOPO 2700' (1407')	LPV DA(H) (CONDITIONAL) 1493' (200')	Apt Elev 1297' TDZE 1293'
MISSED APCH: Climb to 3000' direct UPIYO and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. Use local altimeter setting; if not received, use Marion altimeter setting. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (2°F) or above 46°C (114°F). 3. DME/DME RNP-0.30 not authorized. 4. Baro-VNAV and VDP not authorized when using Marion altimeter setting. 5. Pilot controlled lighting 119.8.				
				TAA 30 NM IAF



① LNAV only.



Gnd speed-Kts	70	90	100	120	140	160	MALSR	3000'	→	UPIYO
Glide Path Angle	3.00°	372	478	531	637	743	849			
MAP at RW32										

STRAIGHT-IN LANDING RWY 32							CIRCLE-TO-LAND		
With Local Altimeter Setting							With Local Altimeter Setting		
LPV DA(H) 1493' (200')		LNAV/VNAV DA(H) 1789' (496')		LNAV MDA(H) 1660' (367')			Max Kts	MDA(H)	
RAIL or ALS out		RAIL or ALS out		RAIL out		ALS out			
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 60 or 1 1/4	1 3/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1760' (463')- 1
B					RVR 50 or 1	RVR 60 or 1 1/4	120	1760' (463')- 1 1/2	
C							140		
D							165		1880' (583')- 2
With Marion Altimeter Setting							With Marion Altimeter Setting		
LPV DA(H) 1600' (307')		LNAV/VNAV DA(H) 1896' (603')		LNAV MDA(H) 1780' (487')			Max Kts	MDA(H)	
RAIL or ALS out		RAIL or ALS out		RAIL out		ALS out			
A	RVR 24 or 1/2	RVR 50 or 1	1 3/4	2 1/4	RVR 24 or 1/2	RVR 40 or 3/4	RVR 50 or 1	90	1880' (583')- 1
B					RVR 40 or 3/4	RVR 60 or 1 1/4	120	1880' (583')- 1 1/2	
C							140		
D							165		2000' (703')- 2 1/4

KMFD/MFD

MANSFIELD LAHM REGL

JEPPESEN

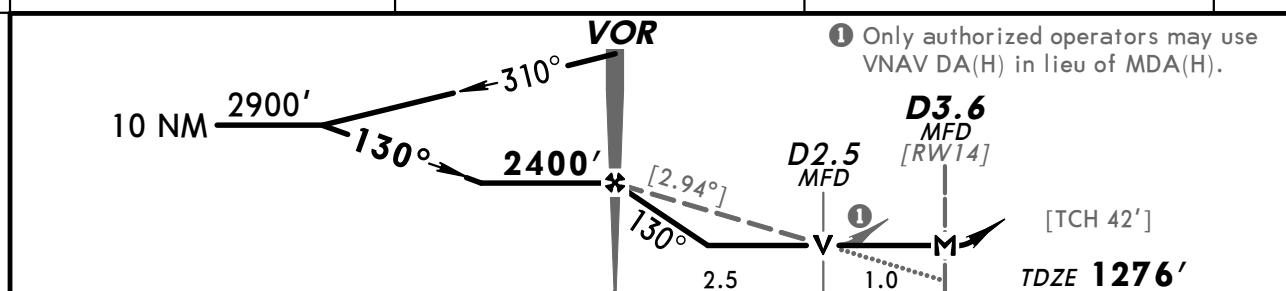
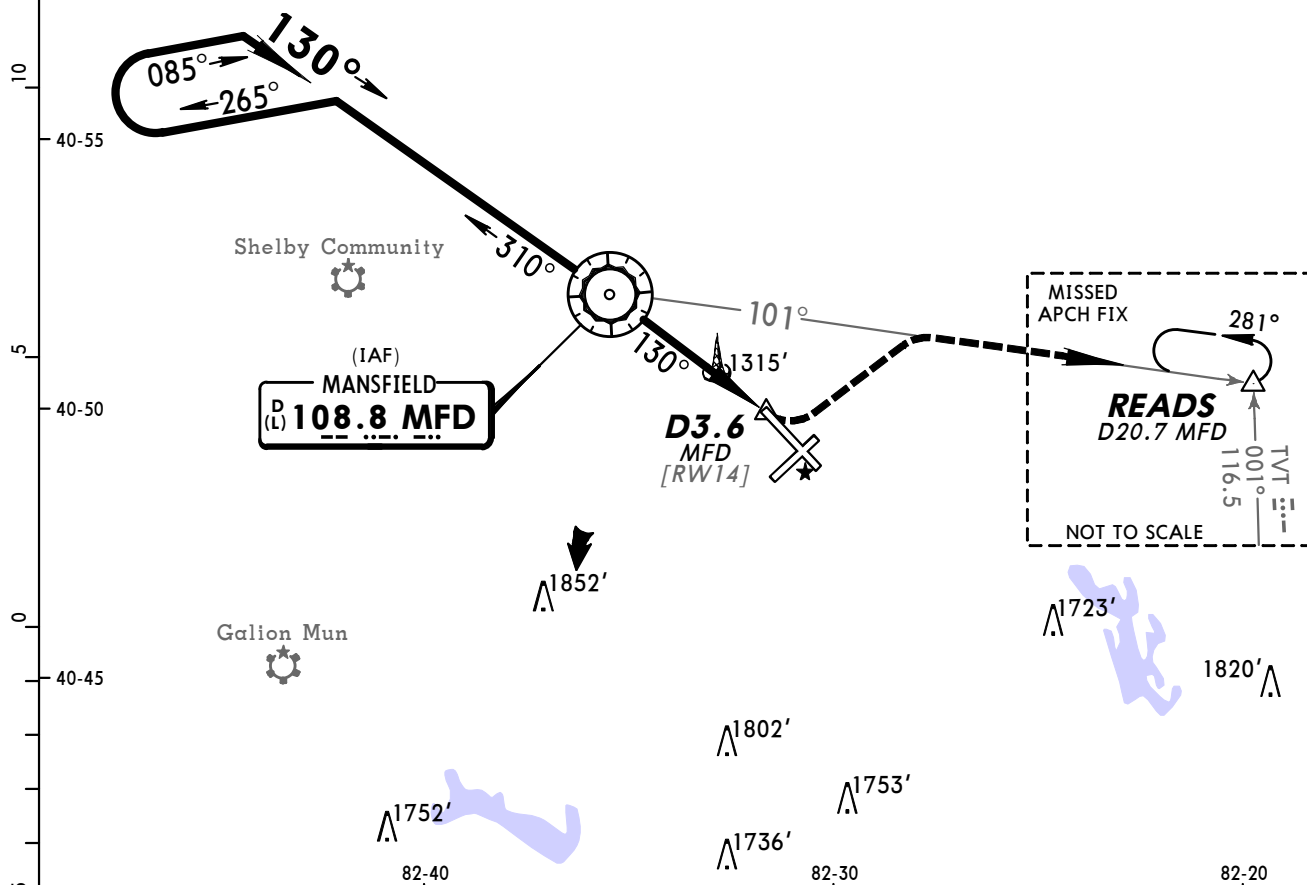
15 MAY 09 (13-1)

MANSFIELD, OHIO

VOR Rwy 14

BRIEFING STRIP™

ATIS 125.3	*MANSFIELD Approach (R) 124.2	CLEVELAND Center 134.9 when App inop.	*MANSFIELD Tower CTAF 119.8	*Ground 121.8
VOR MFD 108.8	Final Apch Crs 130°	Minimum Alt VOR 2400' (1124')	MDA(H) (CONDITIONAL) 1620' (344')	Apt Elev 1297' TDZE 1276'
MISSED APCH: Climbing LEFT turn to 3000' outbound via MFD VOR R-101 to READS INT/D20.7 MFD and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Marion altimeter setting. 2. VDP not authorized with Marion altimeter setting. 3. Pilot controlled lighting 119.8.				
				3000' MSA MFD VOR



Gnd speed-Kts	70	90	100	120	140	160				
Descent angle [2.94°]	364	468	520	624	728	832				
MAP at D3.6 or VOR to MAP	3.6	3:05	2:24	2:10	1:48	1:33	1:21			

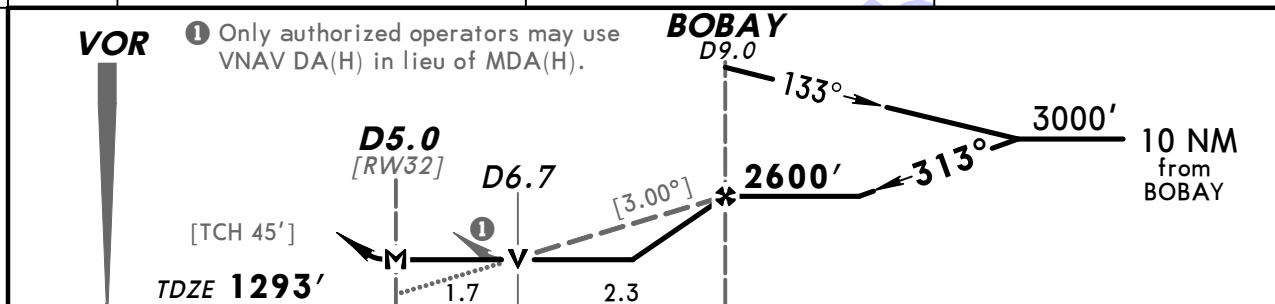
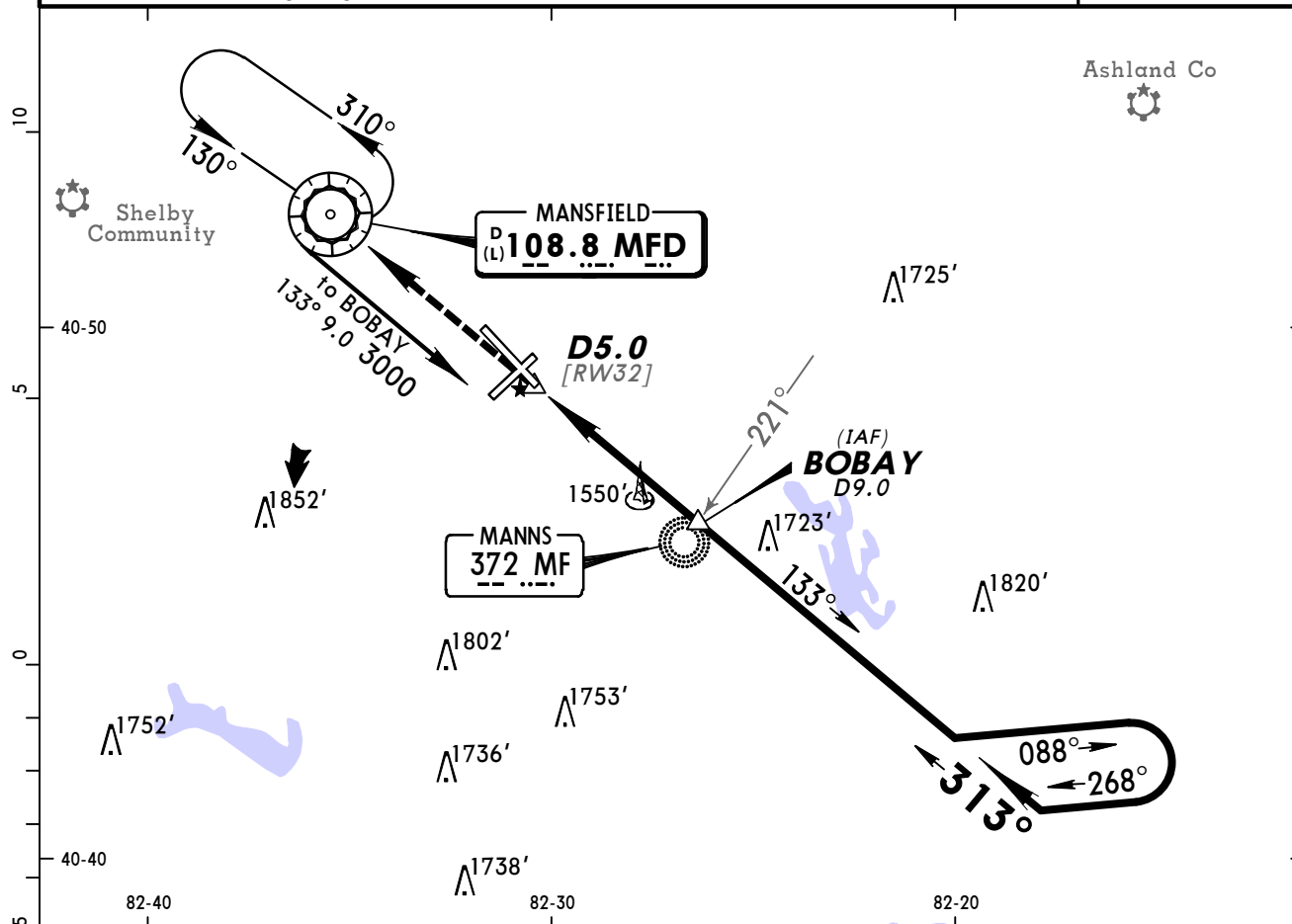
STRAIGHT-IN LANDING RWY 14				CIRCLE-TO-LAND			
MDA(H) 1620' (344')		MDA(H) 1740' (464')		With Local Altimeter Setting		With Marion Altimeter Setting	
With Local Altimeter Setting		With Marion Altimeter Setting		Max Kts	MDA(H)	MDA(H)	
1		1		90	1760' (463') - 1	1880' (583') - 1	
1		1 1/4		120	1760' (463') - 1 1/2	1880' (583') - 1 1/2	
1 1/4		1 1/2		140	1760' (463') - 2	1880' (583') - 2	
				165	1880' (583') - 2 1/4	2000' (703') - 2 1/4	

CHANGES: Circling minimums.

© JEPPESEN, 2000, 2009. ALL RIGHTS RESERVED.

BRIEFING STRIP

ATIS 125.3	*MANSFIELD Approach (R) 124.2	CLEVELAND Center 134.9 when App inop.	*MANSFIELD Tower CTAF 119.8	*Ground 121.8
VOR MFD 108.8	Final Apch Crs 313°	Minimum Alt BOBAY 2600' (1307')	MDA(H) (CONDITIONAL) 1860' (567')	Apt Elev 1297' TDZE 1293'
MISSED APCH: Climb to 3000' direct MFD VOR and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'				
1. ADF or DME required. 2. Use local altimeter setting; if not received, use Marion altimeter setting. 3. VDP not authorized with Marion altimeter setting. 4. Pilot controlled lighting 119.8.				
3000'				
MSA MFD VOR				

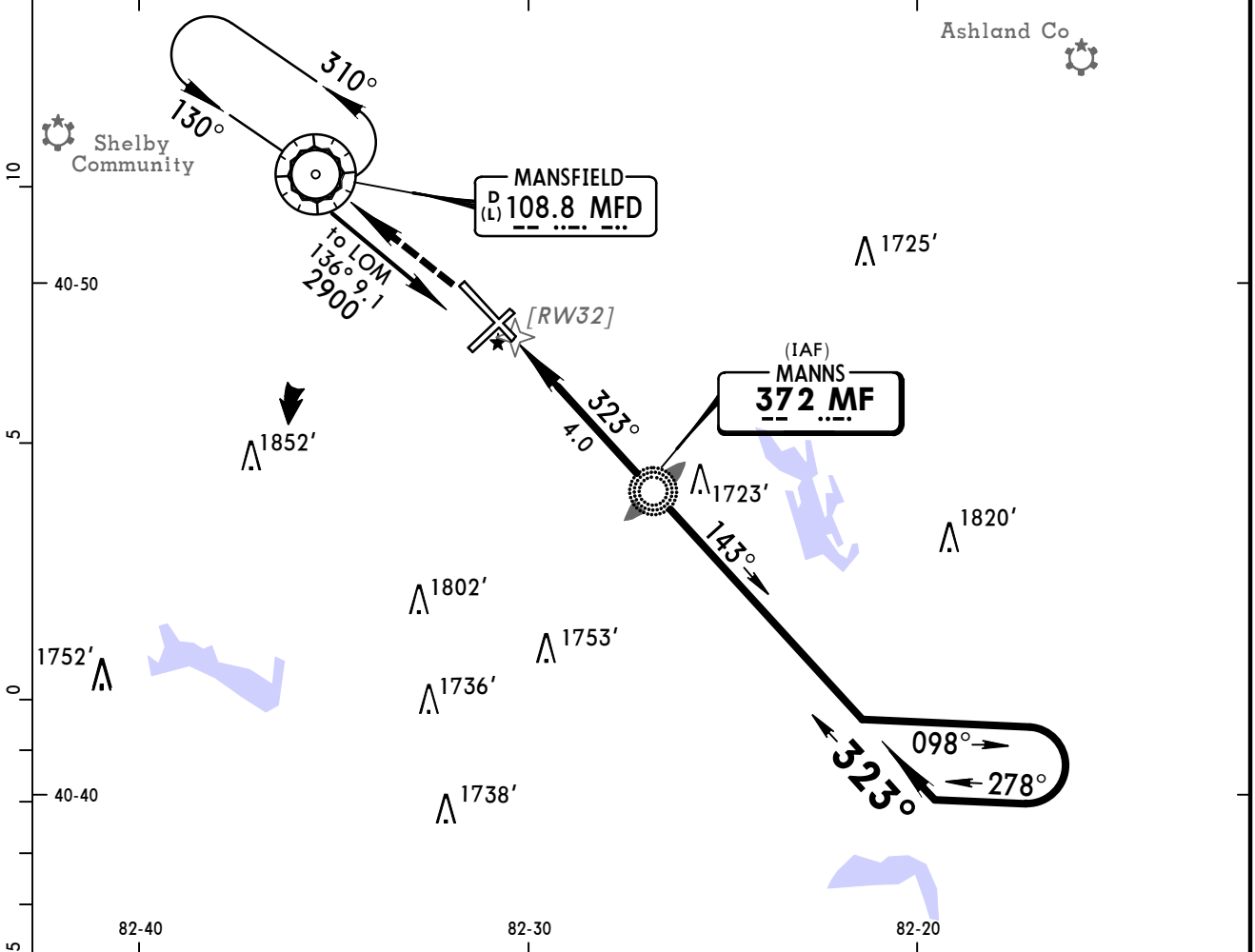


Gnd speed-Kts	70	90	100	120	140	160		MALSR	3000'	D	MFD 108.8
Descent angle [3.00°]	372	478	531	637	743	849					
MAP at D5.0 or BOBAY to MAP	4.0	3:26	2:40	2:24	2:00	1:43	1:30				

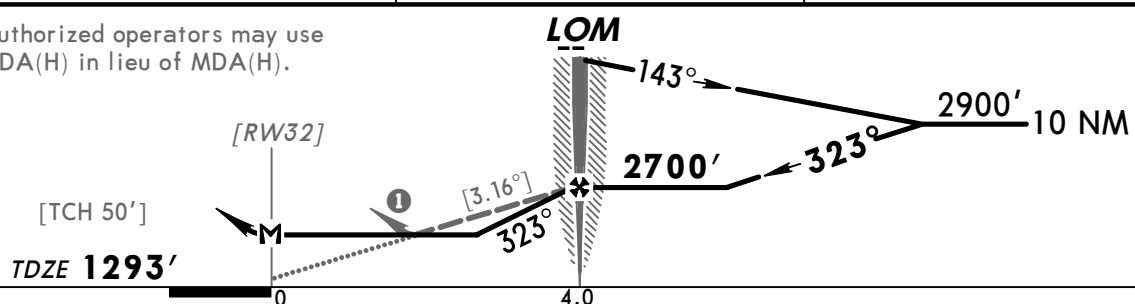
STRAIGHT-IN LANDING RWY 32							CIRCLE-TO-LAND		
MDA(H) 1860' (567')				MDA(H) 1980' (687')			Max Kts	With Local Altimeter Setting	With Marion Altimeter Setting
With Local Altimeter Setting				With Marion Altimeter Setting				MDA(H)	MDA(H)
		RAIL out	ALS out		RAIL out	ALS out			
A	RVR 24	RVR 40	RVR 50	RVR 24	RVR 40	RVR 50	90	1860' (563') - 1	1980' (683') - 1
B	or 1/2	or 3/4	or 1	or 1/2	or 3/4	or 1	120		
C	RVR 50 or 1	1 1/2		1 1/2	2		140	1860' (563') - 1 1/2	1980' (683') - 2
D	RVR 60 or 1 1/4	1 3/4		1 3/4	2 1/4		165	1880' (583') - 2	2000' (703') - 2 1/4

BRIEFING STRIP

ATIS 125.3	*MANSFIELD Approach (R) 124.2	CLEVELAND Center 134.9 when App inop.	*MANSFIELD Tower CTAF 119.8	*Ground 121.8
LOM MF 372	Final Apch Crs 323°	Minimum Alt LOM 2700' (1407')	MDA(H) 1900' (607')	Apt Elev 1297' TDZE 1293'
MISSED APCH: Climb to 2900' direct MFD VOR and hold.				
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'
1. Pilot controlled lighting 119.8.				MSA MF LOM



① Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



Gnd speed-Kts	70	90	100	120	140	160	MALSR	2900'	D	MFD 108.8
Descent angle [3.16°]	391	503	559	671	783	895				
LOM to MAP	4.0	3:26	2:40	2:24	2:00	1:43				

STRAIGHT-IN LANDING RWY32				CIRCLE-TO-LAND	
MDA(H) 1900' (607')					
		RAIL out	ALS out	Max Kts.	MDA(H)
A	RVR 40 or 3/4		RVR 50 or 1	90	1900' (603') - 1
B				120	
C	RVR 60 or 1 1/4	1 3/4		140	1900' (603') - 1 3/4
D	1 3/4	2		165	1900' (603') - 2

Runway 23: Climbing RIGHT turn to 3000' direct MFD VOR and hold.

RWY 23
TDZE 1295'

Lighting -
Refer to
Airport
Chart

General Information

Location: Springfield OH USA
IATA Code: SGH
Lat/Long: N39° 50.4' W083° 50.4'
Elevation: 1051 ft

Airport Use: Joint
Magnetic Variation: 6.2°W
Sectional Chart: Cincinnati

Repair Types: Major Airframe, Major Engine
Customs: No
Airport Type: IFR
Landing Fee: No
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: No
Beacon: Yes

Sunrise: 1212 Z
Sunset: 2324 Z,

Runway Information

Runway: 06
Length x Width: 9009 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1051 ft
Lighting: Edge, REIL, Pilot controlled

Runway: 15
Length x Width: 5499 ft x 100 ft
Surface Type: asphalt
TDZ-Elev: 1047 ft
Lighting: Edge, REIL, Pilot controlled

Runway: 24
Length x Width: 9009 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 1048 ft
Lighting: Edge, Pilot controlled

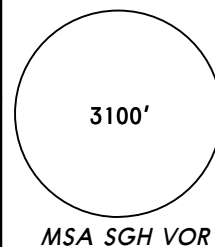
Runway: 33
Length x Width: 5499 ft x 100 ft
Surface Type: asphalt
TDZ-Elev: 1047 ft
Lighting: Edge, REIL, Pilot controlled

Communication Information

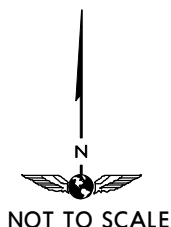
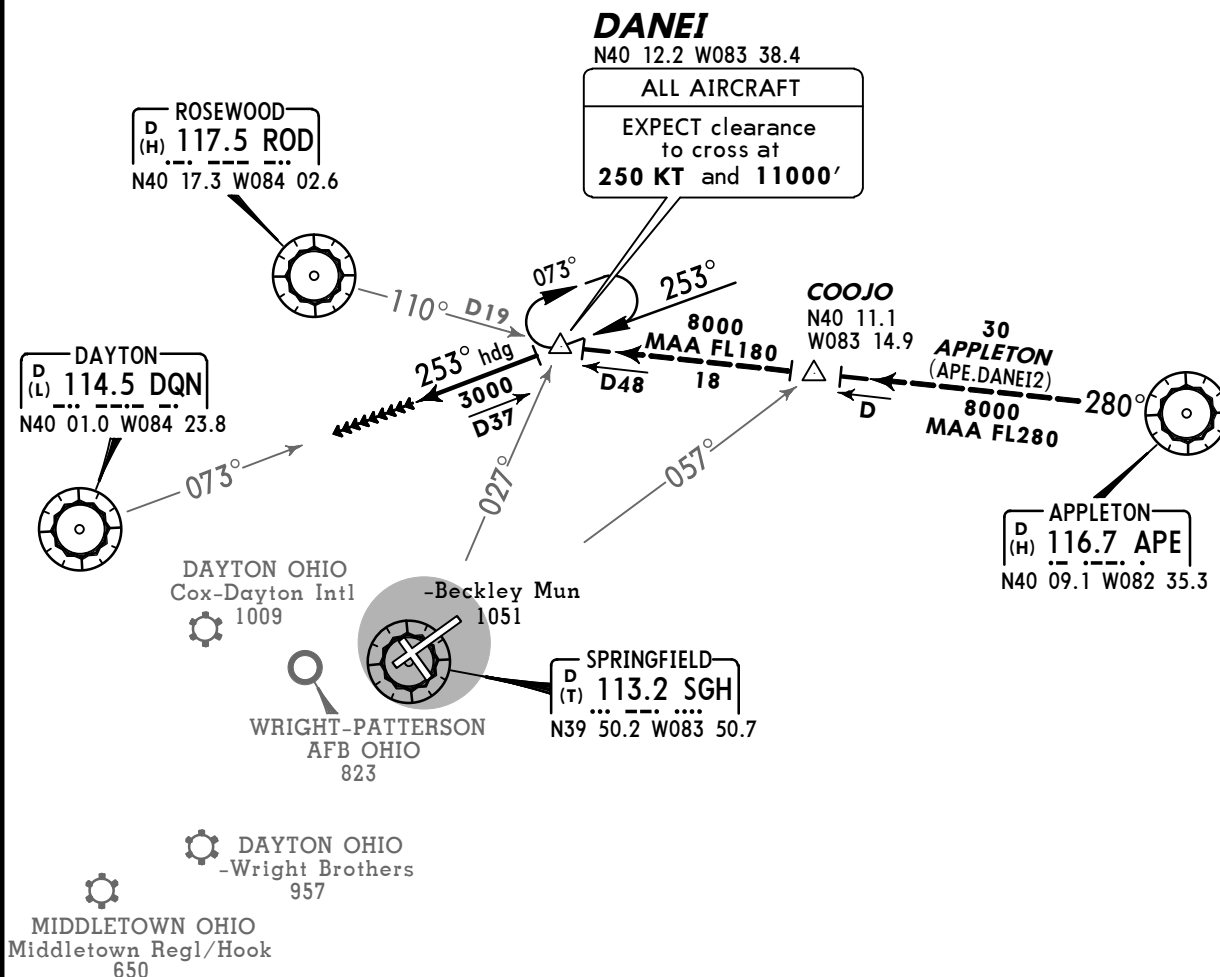
ASOS 134.975
Springfield Tower 120.7 CTAF PCL
Springfield Ground Control 121.7
Columbus Approach Control 127.225
Columbus Approach Control 126.5 (91°-180°)
Columbus Approach Control 118.85 (91°-180°) Secondary
Columbus App ARSA 126.5 (91°-180°)
Columbus App ARSA 118.85 (91°-180°)
Columbus Departure Control 127.225
Columbus Departure Control 126.5 (91°-180°)
Columbus Departure Control 118.85 (91°-180°) Secondary
Springfield-Beckley Mun Unicom 122.95

Apt Elev
See graphic

Alt Set: INCHES
Trans level: FL180 Trans alt: 18000'
RADAR required.



DANEI TWO ARRIVAL (DANEI.DANEI2)



Direct distance from DANEI to:
-Beckley Mun **24 NM**

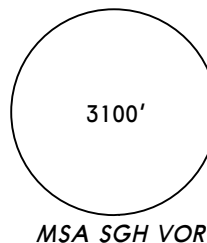
LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
In the event of lost communications:
At DANEI, proceed direct to DQN.
MAINTAIN 3000' until DQN.

ROUTING

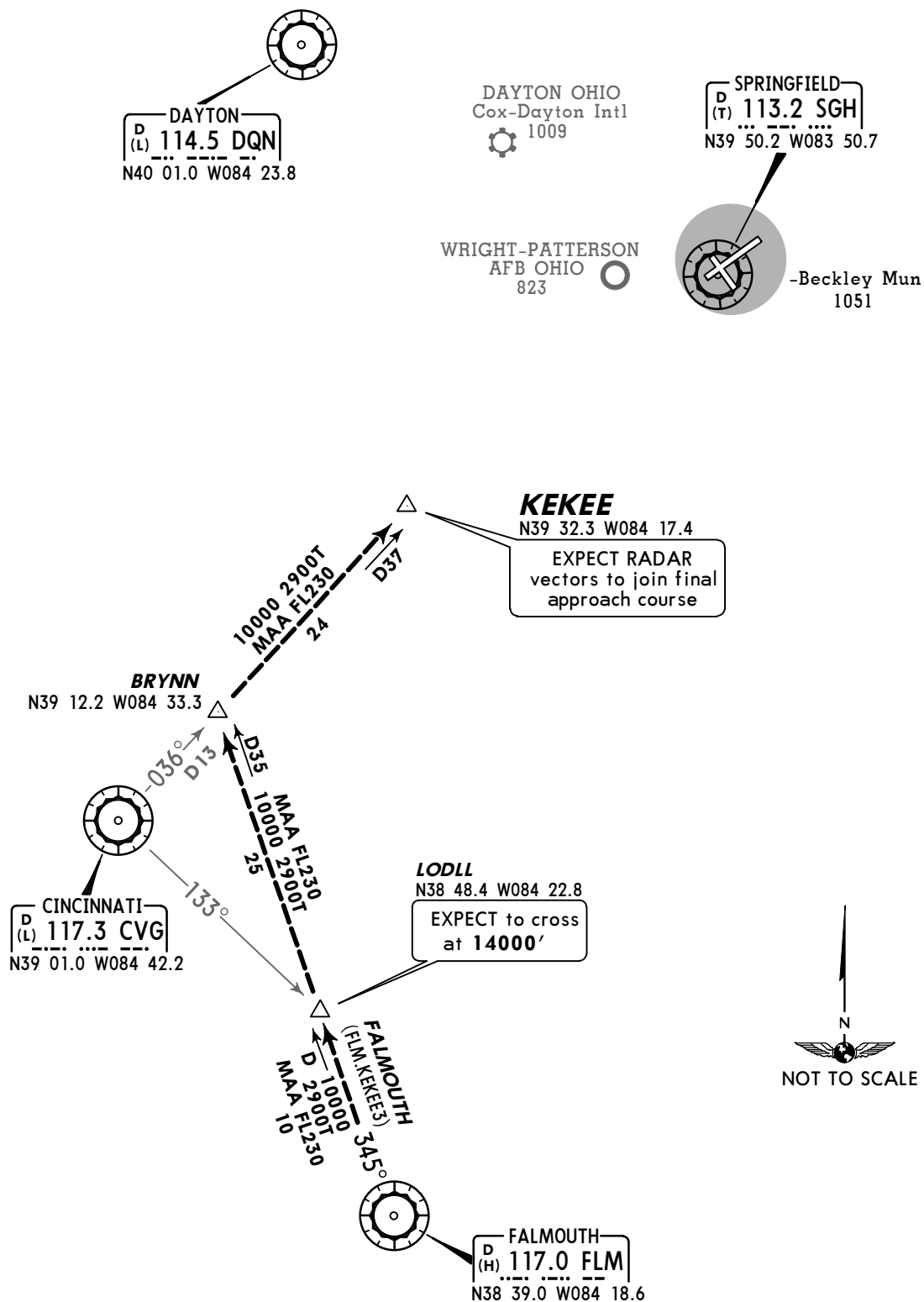
From over DANEI via heading 253°. EXPECT RADAR vectors to final approach course.

Apt Elev
See graphic

Alt Set: INCHES
Trans level: FL180 Trans alt: 18000'
DME or RADAR required.



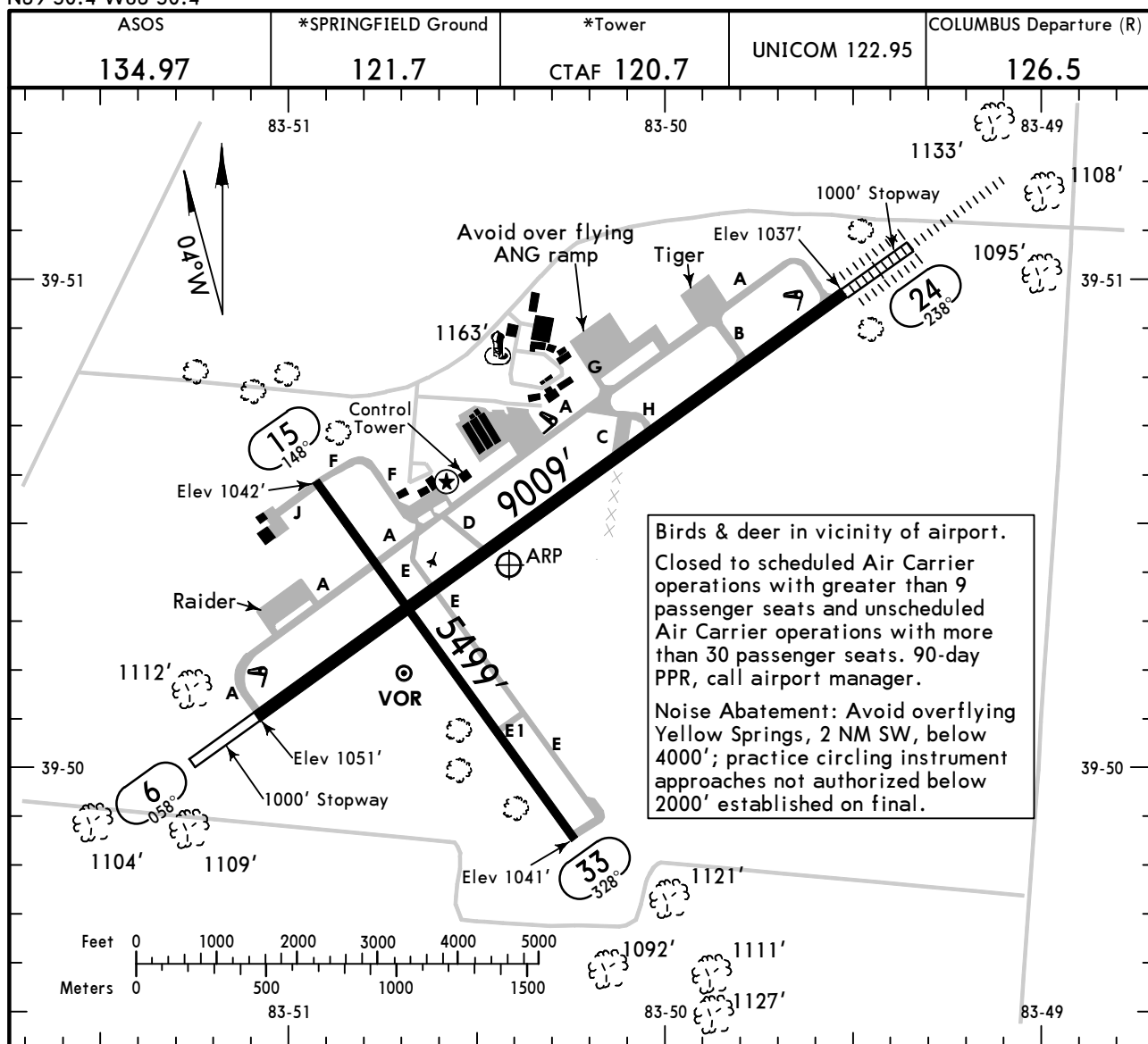
KEKEE THREE ARRIVAL (KEKEE.KEKEE3)



Direct distance from KEKEE to:
-Beckley Mun **28 NM**

ROUTING

From over KEKEE, EXPECT RADAR vectors to join final approach course.



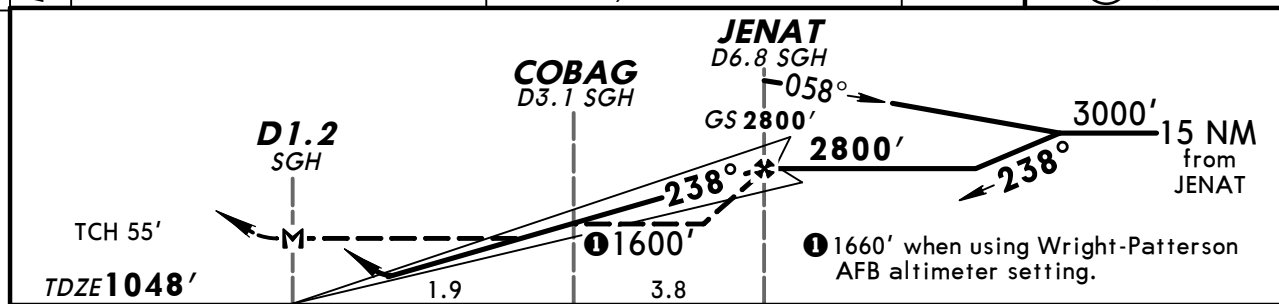
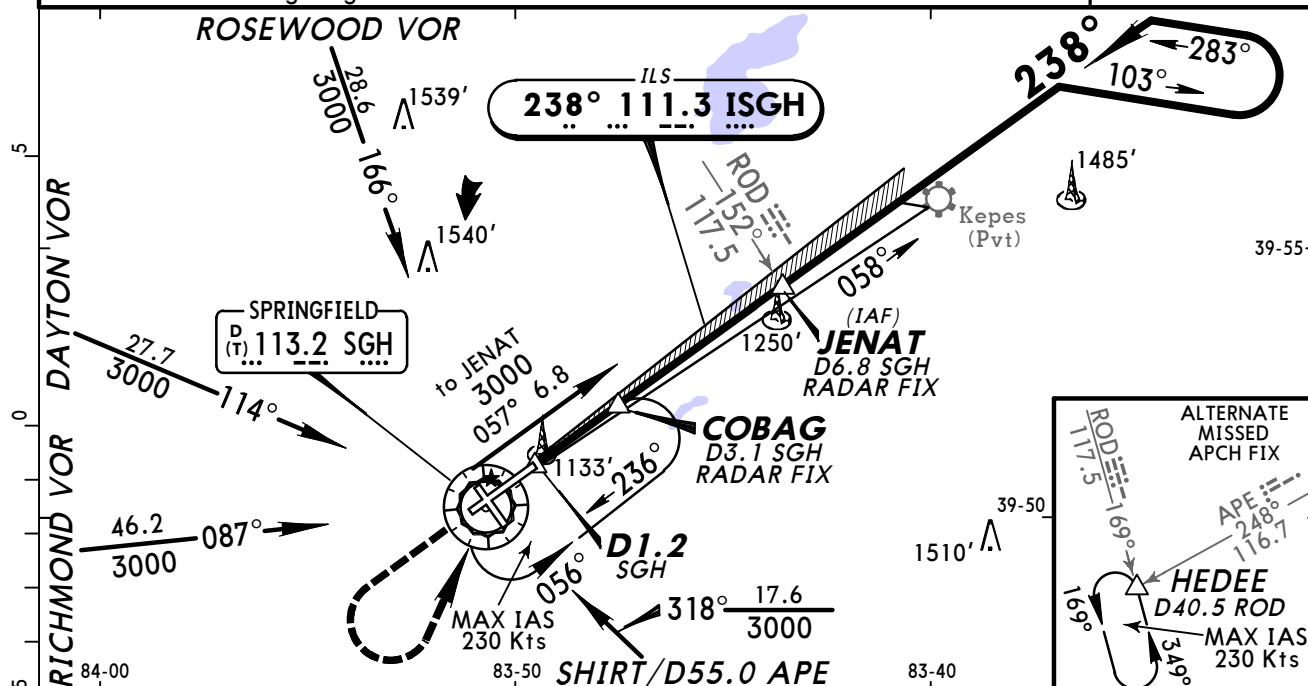
ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			WIDTH
		Threshold	Landing Beyond Glide Slope	TAKE-OFF	
6	① HIRL ② REIL PAPI-L (angle 3.0°) grooved				150'
24	① HIRL ② ③ ALSF-II PAPI-L (angle 3.0°) grooved		7880'		150'
15	② MIRL ② REIL PAPI-L (angle 3.0°)				100'
33	② MIRL ② REIL PAPI-L				

- ① Increase intensity on 120.7 when Twr inop.
- ② Activate on 120.7 when Twr inop.
- ③ Operates as SSALR when Twr closed.

TAKE-OFF			FOR FILING AS ALTERNATE			
All Rwy's			Authorized Only When Twr Operating		Authorized Only When Local Weather Available	VOR Rwy 24 VOR DME Rwy 33 NDB Rwy 24
			ILS Rwy 24	LOC Rwy 24	RNAV (GPS) Rwy 6 RNAV (GPS) Rwy 24 VOR Rwy 6	
1 & 2 Eng	1/4	1	600-2	800-2	800-2	NA
3 & 4 Eng		1/2				

ASOS 134.97	COLUMBUS Approach (R) 126.5	*SPRINGFIELD Tower CTAF 120.7	*Ground 121.7
LOC ISGH 111.3	Final Apch Crs 238°	GS JENAT 2800' (1752')	ILS DA(H) (CONDITIONAL) 1248' (200')
Apt Elev 1051' TDZE 1048'			
MISSED APCH: Climb to 3000' then LEFT turn direct SGH VOR and hold. Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME from SGH VOR. Simultaneous reception of ISGH and SGH DME required. 2. Use local altimeter setting; if not received, use Wright-Patterson AFB altimeter setting. 3. ALSF-II reverts to SSALR when tower inop. 4. Pilot controlled lighting 120.7.			
3100' MSA SGH VOR			



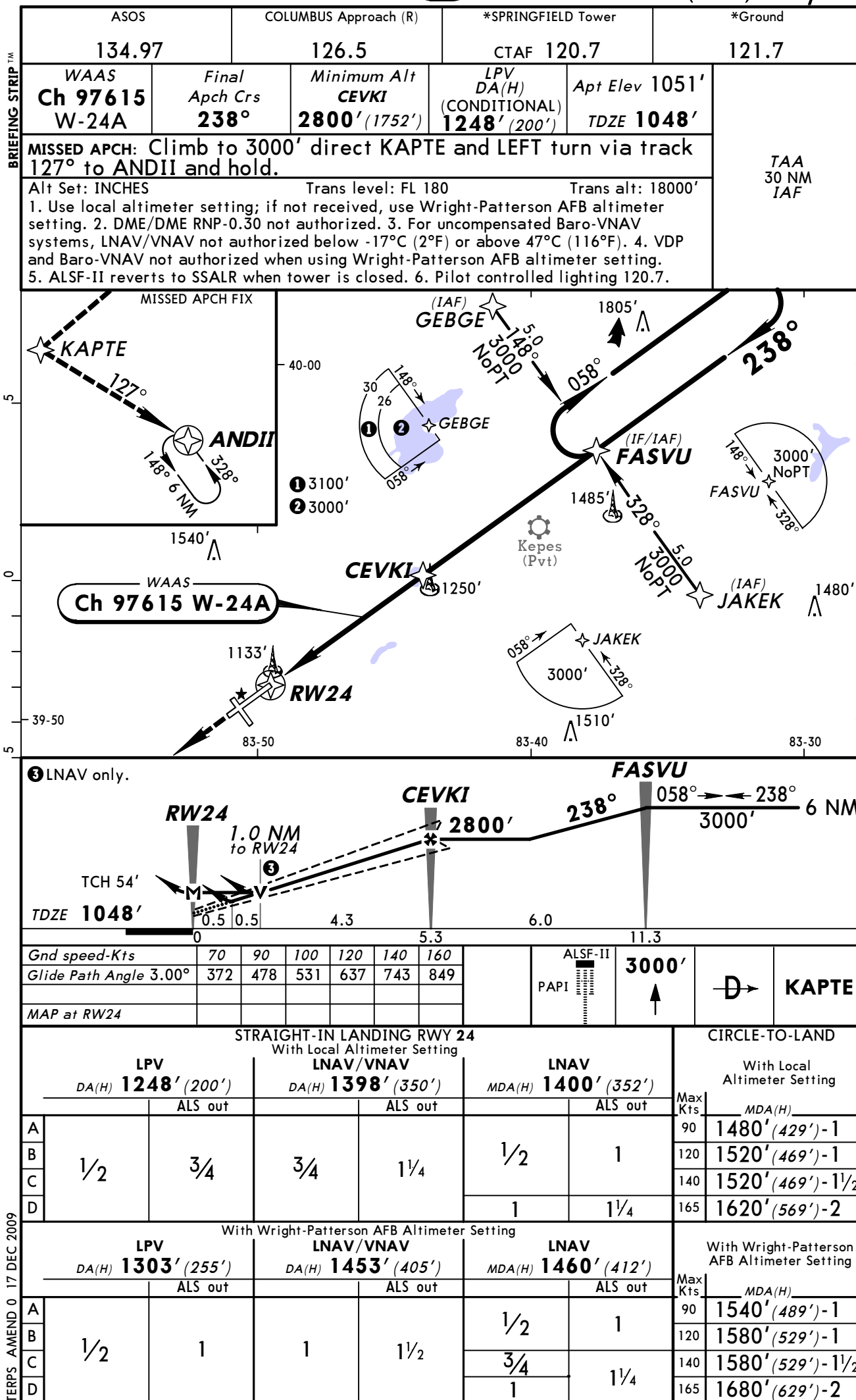
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	LT	SGH 113.2
GS	2.80°	347	446	495	594	693	PAPI			
MAP at D1.2 SGH or JENAT to MAP	5.7	4:53	3:48	3:25	2:51	2:27	2:08			

STRAIGHT-IN LANDING RWY 24							CIRCLE-TO-LAND			
With Local Altimeter Setting							With Local Altimeter Setting			
ILS DA(H) 1248' (200')		LOC (GS out) With COBAG MDA(H) 1420' (372')		Without COBAG MDA(H) 1600' (552')			With COBAG		Without COBAG	
FULL	ALS out	ALS out	ALS out	ALS out	ALS out	ALS out	Max Kts	MDA(H)	MDA(H)	MDA(H)
A							90	1480' (429')-1		1600' (549')-1
B	1/2	3/4	1/2	1	1/2	1	120	1520' (469')-1		1600' (549')-1
C					1	1 1/2	140	1520' (469')-1 1/2		1600' (549')-1 1/2
D			3/4	1 1/4	1 1/4	1 3/4	165	1620' (569')-2		1620' (569')-2
With Wright-Patterson AFB Altimeter Setting							With Wright-Patterson AFB Altimeter Setting			
DA(H) 1303' (255')		With COBAG MDA(H) 1480' (432')		Without COBAG MDA(H) 1660' (612')			Max Kts	MDA(H)	MDA(H)	MDA(H)
FULL	ALS out	ALS out	ALS out	ALS out	ALS out	ALS out	Max Kts	MDA(H)	MDA(H)	MDA(H)
A							90	1540' (489')-1		1660' (609')-1
B	1/2	1	1/2	1	1/2	1	120	1580' (529')-1		1660' (609')-1
C			3/4	1 1/4	1 1/4	1 3/4	140	1580' (529')-1 1/2		1660' (609')-1 3/4
D			1	1 1/2	1 1/2	2	165	1680' (629')-2		1680' (629')-2

BRIEFING STRIP TM

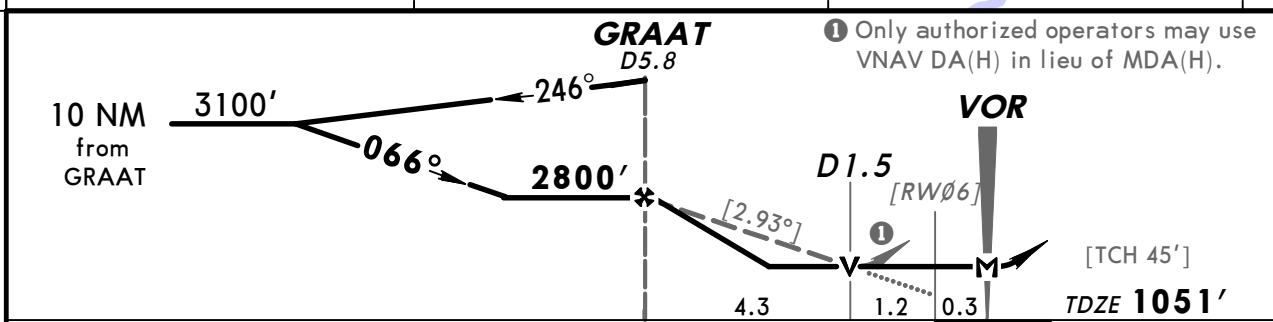
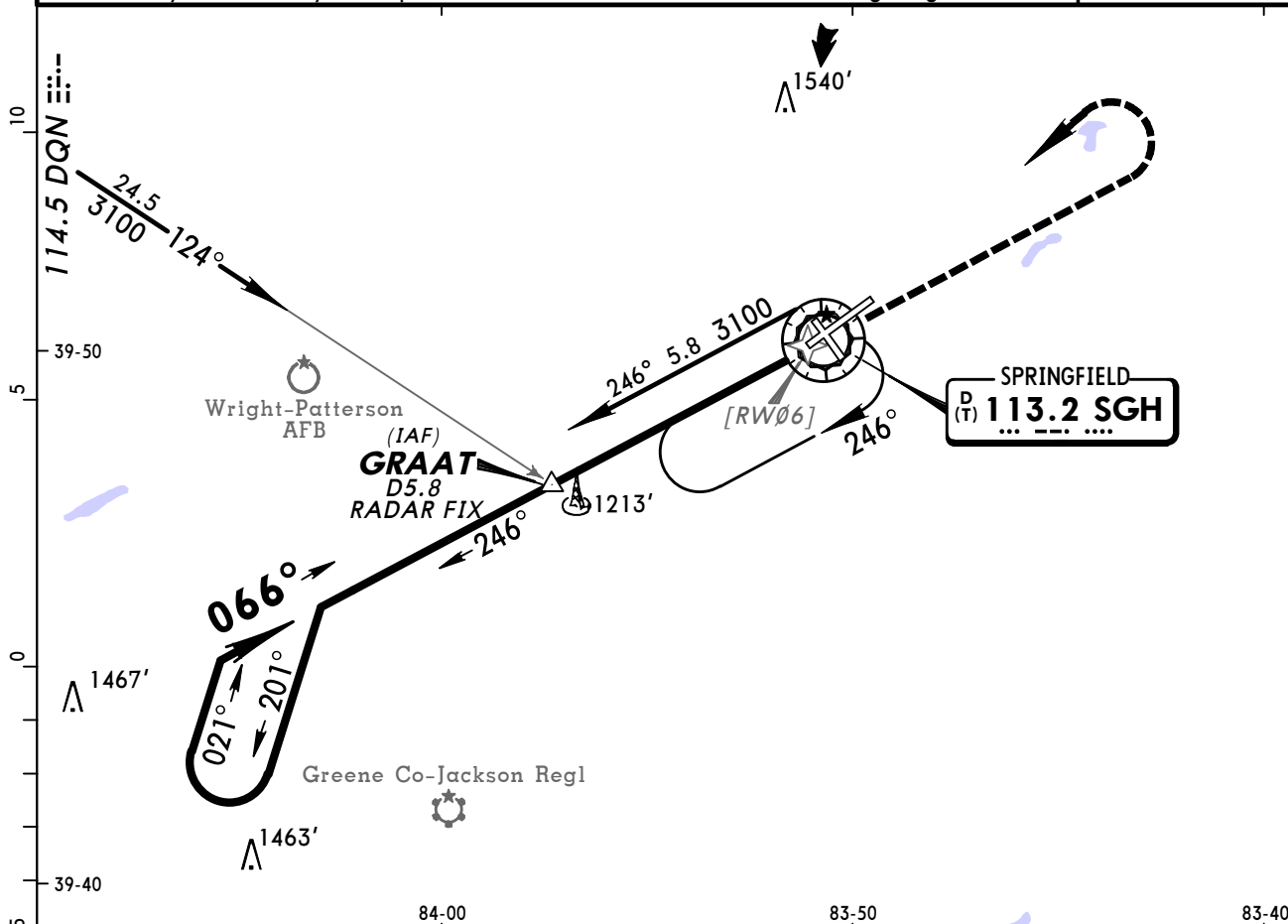
TERBEC AMEND 0 17 DEC 2009

STRAIGHT-IN LANDING RWY 6					CIRCLE-TO-LAND	
With Local Altimeter Setting					With Local Altimeter Setting	
LPV DA(H) 1354' (303')		LNAV/VNAV DA(H) 1429' (378')		LNAV MDA(H) 1500' (449')		
A	1	1¼	1	Max Kts 90	1500' (449')-1	
B				120	1520' (469')-1	
C				140	1520' (469')-1½	
D				165	1620' (569')-2	
With Wright-Patterson AFB Altimeter Setting					With Wright-Patterson AFB Altimeter Setting	
LPV DA(H) 1409' (358')		LNAV/VNAV DA(H) 1484' (433')		LNAV MDA(H) 1560' (509')		
A	1¼	1½	1	Max Kts 90	1560' (509')-1	
B				120	1580' (529')-1	
C				140	1580' (529')-1½	
D				165	1680' (629')-2	



BRIEFING STRIP™

ASOS 134.97		COLUMBUS Approach (R) 126.5		*SPRINGFIELD Tower CTAF 120.7		*Ground 121.7	
VOR SGH 113.2	Final Apch Crs 066°	Minimum Alt GRAAT 2800' (1749')	MDA(H) (CONDITIONAL) 1480' (429')	Apt Elev 1051' TDZE 1051'	3100' MSA SGH VOR		
MISSED APCH: Climb to 3000', then LEFT turn direct SGH VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Wright-Patterson AFB altimeter setting. 2. VDP not authorized when using Wright-Patterson AFB altimeter setting. 3. Visibility reduction by helicopters not authorized. 4. Pilot controlled lighting 120.7.							



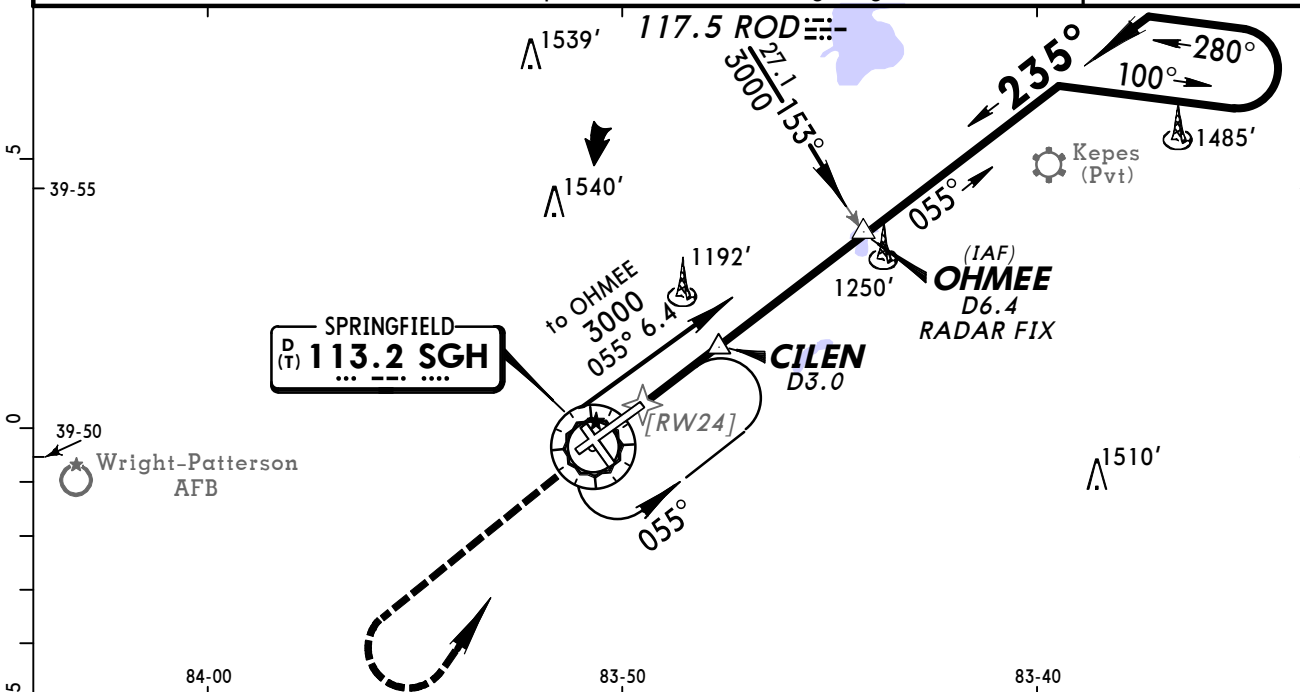
Gnd speed-Kts	70	90	100	120	140	160	REIL PAPI-L	3000'	LT	D	SGH 113.2
Descent angle [2.93°]	363	466	518	622	726	829					
MAP at VOR											

STRAIGHT-IN LANDING RWY 6				CIRCLE-TO-LAND			
MDA(H) 1480' (429')		MDA(H) 1540' (489')		With Local Altimeter Setting		With Wright-Patterson AFB Altimeter Setting	
With Local Altimeter Setting		With Wright-Patterson AFB Altimeter Setting		Max Kts.	MDA(H)	MDA(H)	
A		1		90	1480' (429')-1	1540' (489')-1	
B		1		120	1520' (469')-1	1580' (529')-1	
C		1 1/4		140	1520' (469')-1 1/2	1580' (529')-1 1/2	
D		1 1/2		165	1620' (569')-2	1680' (629')-2	

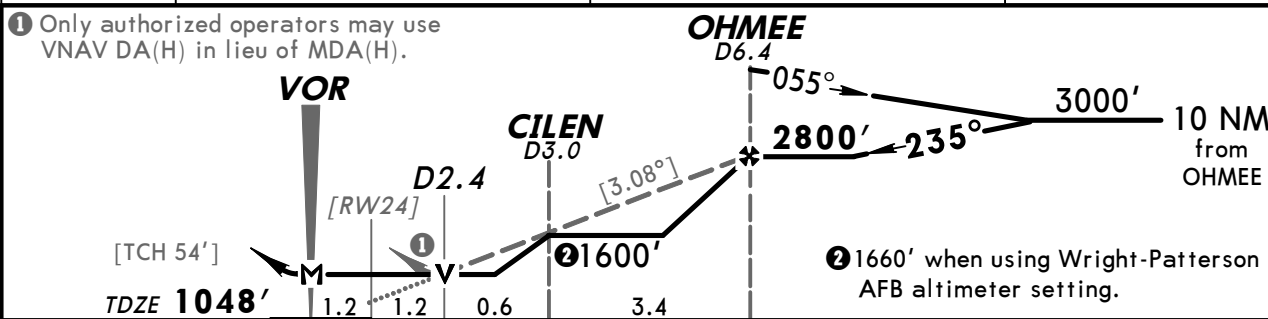
TERPS AMEND 11 17 DEC 2009

BRIEFING STRIP™

ASOS 134.97		COLUMBUS Approach (R) 126.5		*SPRINGFIELD Tower CTAF 120.7		*Ground 121.7	
VOR SGH 113.2	Final Apch Crs 235°	Minimum Alt OHMEE 2800' (1752')	MDA(H) (CONDITIONAL) 1460' (412')	Apt Elev 1051' TDZE 1048'		3100' MSA SGH VOR	
MISSED APCH: Climb to 3000' then LEFT turn direct SGH VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Wright-Patterson AFB altimeter setting. 2. VDP not authorized when using Wright-Patterson AFB altimeter setting. 3. ALSF-II reverts to SSALR when tower inop. 4. Pilot controlled lighting 120.7.							



① Only authorized operators may use VNAV DA(H) in lieu of MDA(H).

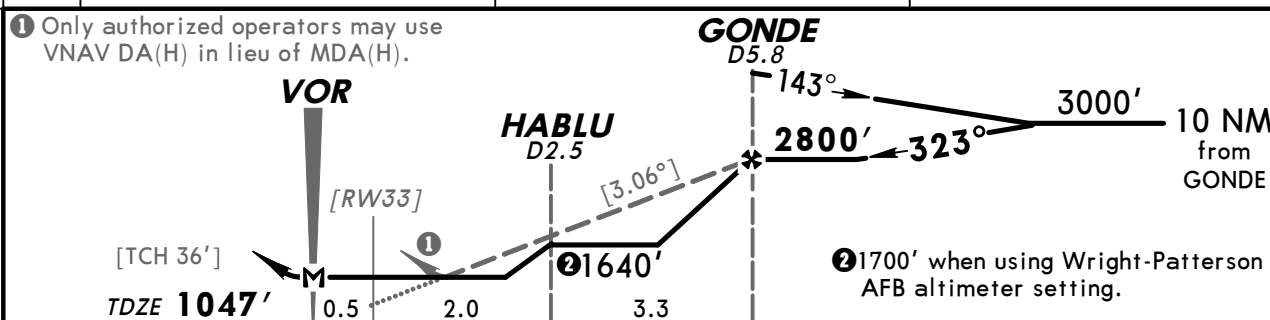
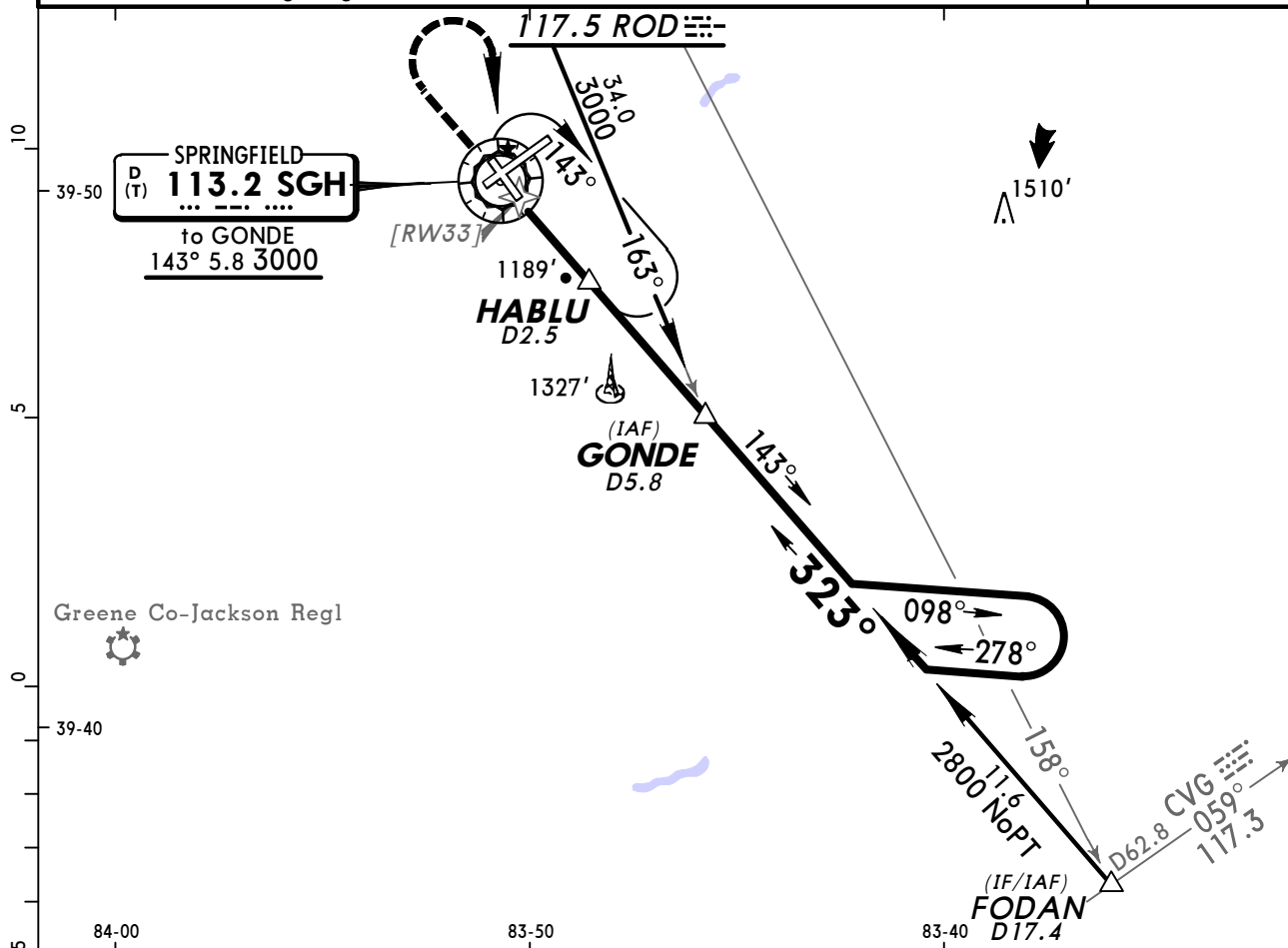


Gnd Speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	3000'	LT	D	SGH 113.2
Descent angle [3.08°]	381	490	545	654	763	872					
MAP at VOR											

STRAIGHT-IN LANDING RWY 24					CIRCLE-TO-LAND			
With CILEN		Without CILEN			With CILEN		Without CILEN	
With Local Altimeter Setting					With Local Altimeter Setting			
MDA(H) 1460' (412')		MDA(H) 1600' (552')			Max Kts	MDA(H)		
ALS out		ALS out				MDA(H)		
A	1/2	1	1/2	1	90	1480' (429')-1	1600' (549')-1	
B					120	1520' (469')-1		
C	3/4	1 1/4	1	1 1/2	140	1520' (469')-1 1/2	1600' (549')-1 1/2	
D	1		1 1/4	1 3/4	165	1620' (569')-2	1620' (569')-2	
With Wright-Patterson AFB Altimeter Setting					With Wright-Patterson AFB Altimeter Setting			
MDA(H) 1520' (472')		MDA(H) 1660' (612')			Max Kts	MDA(H)		
ALS out		ALS out				MDA(H)		
A	1/2	1	1/2	1	90	1540' (489')-1	1660' (609')-1	
B					120	1580' (529')-1		
C	3/4	1 1/4	1 1/4	1 3/4	140	1580' (529')-1 1/2	1660' (609')-1 3/4	
D	1	1 1/2	1 1/2	2	165	1680' (629')-2	1680' (629')-2	

BRIEFING STRIP™

ASOS 134.97		COLUMBUS Approach (R) 126.5		*SPRINGFIELD Tower CTAF 120.7		*Ground 121.7	
VOR SGH 113.2	Final Apch Crs 323°	Minimum Alt GONDE 2800' (1753')	MDA(H) (CONDITIONAL) 1440' (393')	Apt Elev 1051'	TDZE 1047'	3100' MSA SGH VOR	
MISSED APCH: Climb to 3000' then RIGHT turn direct SGH VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. Use local altimeter setting; if not received, use Wright-Patterson AFB altimeter setting. 2. Visibility reduction by helicopters not authorized. 3. Pilot controlled lighting 120.7.							



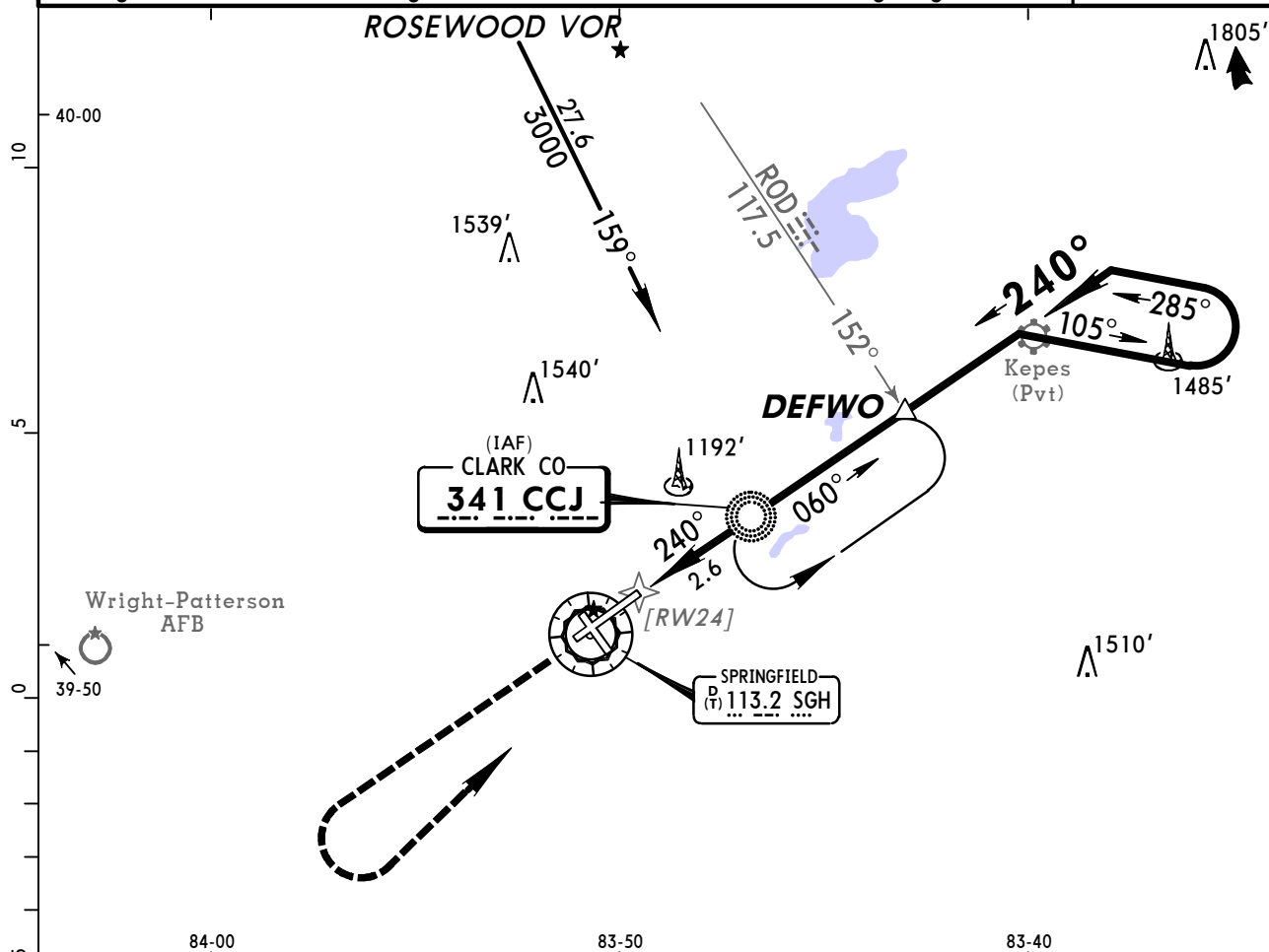
Gnd Speed-Kts	70	90	100	120	140	160	REIL PAPI-L	3000'	RT	D	SGH 113.2
Descent angle [3.06°]	379	487	541	650	758	866					
MAP at VOR											

STRAIGHT-IN LANDING RWY 33				CIRCLE-TO-LAND			
MDA(H) 1440' (393')		MDA(H) 1500' (453')		With Local Altimeter Setting		With Wright-Patterson AFB Altimeter Setting	
With Local Altimeter Setting		With Wright-Patterson AFB Altimeter Setting		Max Kts	MDA(H)	MDA(H)	
1	1	1 1/4	1 1/4	90	1480' (429')-1	1540' (489')-1	
				120	1520' (469')-1	1580' (529')-1	
				140	1520' (469')-1 1/2	1580' (529')-1 3/4	
1 1/4	1 1/4	1 1/2	1 1/2	165	1620' (569')-2	1680' (629')-2 1/4	

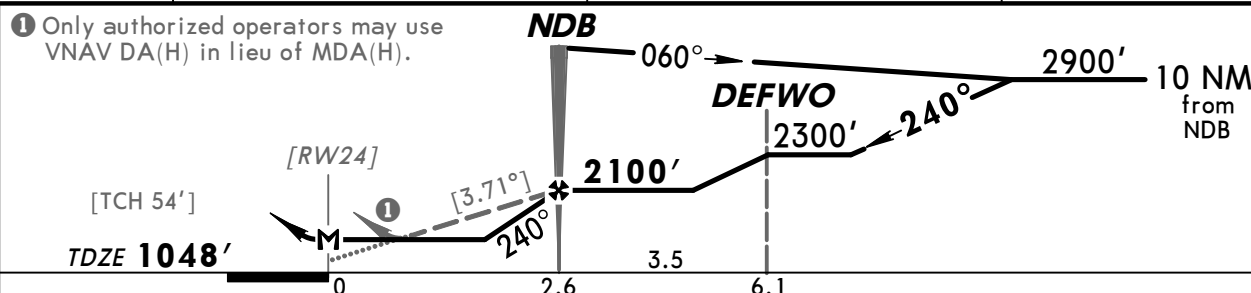
BRIEFING STRIP

TM

ASOS		COLUMBUS Approach (R)		*SPRINGFIELD Tower		*Ground	
134.97		126.5		CTAF 120.7		121.7	
NDB CCJ 341	Final Apch Crs 240°	Minimum Alt NDB 2100' (1052')	MDA(H) (CONDITIONAL) 1500' (452')	Apt Elev 1051' TDZE 1048'		3100' MSA CCJ NDB	
MISSED APCH: Climb to 2900' then LEFT turn direct CCJ NDB and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Wright-Patterson AFB altimeter setting. 2. VGSI and descent angles not coincident. 3. Pilot controlled lighting 120.7.							



① Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	2900'	LT	CCJ 341
Descent angle [3.71°]	460	591	657	788	919	1051	PAPI			
NDB to MAP	2.6	2:14	1:44	1:34	1:18	1:07	0:59			

STRAIGHT-IN LANDING RWY 24				CIRCLE-TO-LAND			
MDA(H) 1500' (452')		MDA(H) 1560' (512')		With Local Altimeter Setting		With Wright-Patterson AFB Altimeter Setting	
With Local Altimeter Setting		With Wright-Patterson AFB Altimeter Setting		Max Kts	MDA(H)	MDA(H)	
ALS out		ALS out		90	1500' (449') - 1	1560' (509') - 1	
3/4	1	3/4	1	120	1520' (469') - 1	1580' (529') - 1	
	1 1/4			140	1520' (469') - 1 1/2	1580' (529') - 1 1/2	
1 1/4	1 1/2	1 1/2	1 3/4	165	1620' (569') - 2	1680' (629') - 2	

TERPS AMEND 17 17 DEC 2009

CHANGES: ATIS changed to ASOS.

© JEPPESSEN, 2000, 2012. ALL RIGHTS RESERVED.

General Information

Location: Toledo OH USA
IATA Code: TOL
Lat/Long: N41° 35.2' W083° 48.5'
Elevation: 683 ft

Airport Use: Public
Magnetic Variation: 6.6°W
Sectional Chart: Detroit

Fuel Types: 100 Octane (LL), Jet A
Oxygen Types: HP Bottle
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: No
Beacon: Yes

Sunrise: 1214 Z
Sunset: 2323 Z,

Runway Information

Runway: 07
Length x Width: 10599 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 683 ft
Lighting: Edge, ALS, Centerline

Runway: 16
Length x Width: 5599 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 674 ft
Lighting: Edge, REIL

Runway: 25
Length x Width: 10599 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 678 ft
Lighting: Edge, ALS, Centerline

Runway: 34
Length x Width: 5599 ft x 150 ft
Surface Type: asphalt
TDZ-Elev: 668 ft
Lighting: Edge, REIL

Communication Information

ATIS 118.75

Toledo Tower 118.1

Toledo Ground Control 121.9

Toledo Clearance Delivery 121.75

Toledo Approach Control 134.35 (180°-359°)

Toledo Approach Control 126.1 (360°-179°) Initial Contact

Toledo Approach Control 123.975 Secondary

Toledo App ARSA 134.35 (180°-359°)

Toledo App ARSA 126.1 (360°-179°)

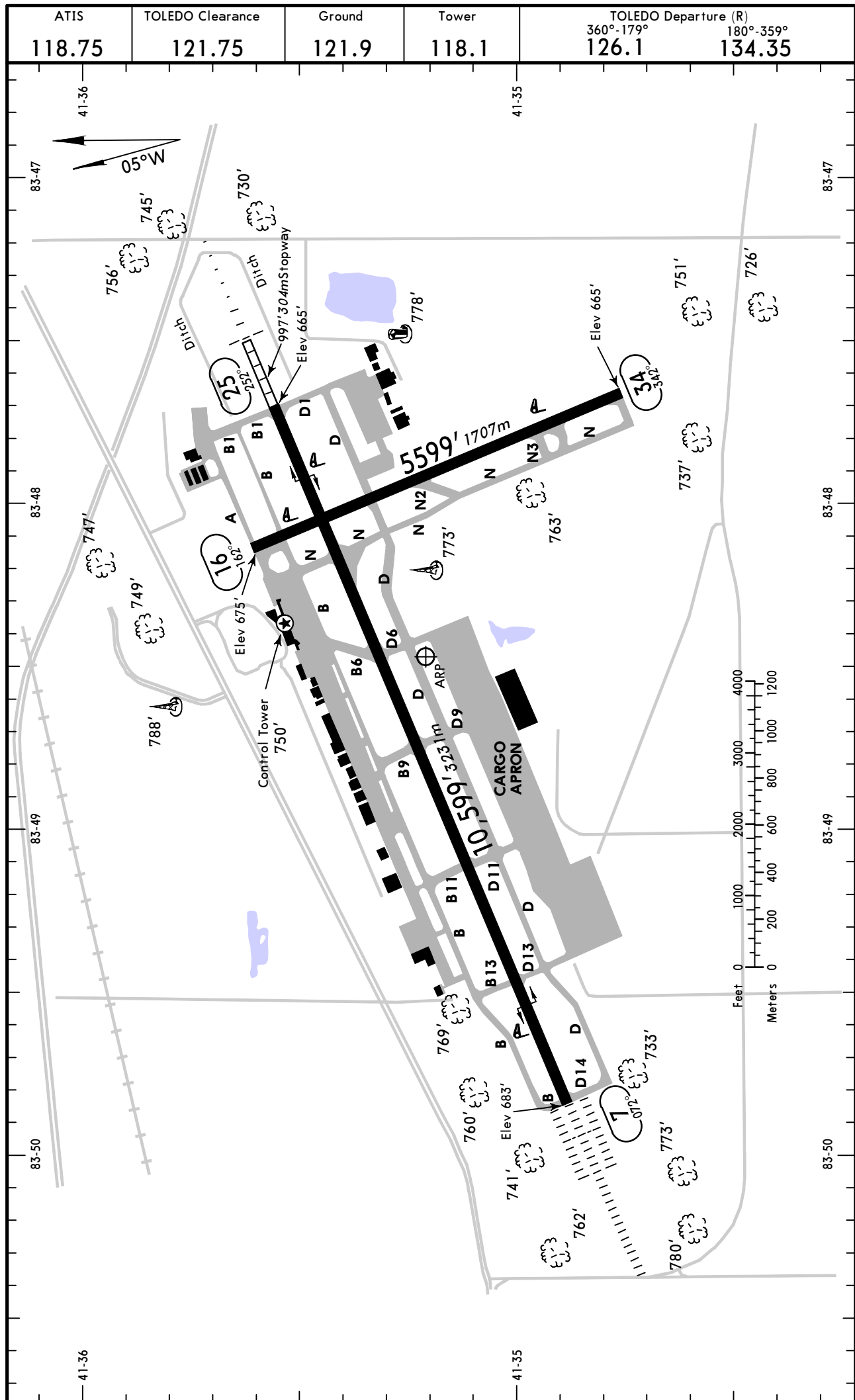
Toledo Departure Control 134.35 (180°-359°)

Toledo Departure Control 126.1 (360°-179°)

Toledo Departure Control 123.975 Secondary

Toledo Express Unicom 122.95

Beehive Operations 143.85 Military



GENERAL

Birds and deer in vicinity of airport.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Glide Slope		
7	HIRL CL ALSF-II grooved RVR		9474' 2888m		150' 46m
25	HIRL CL MALSR VASI-L grooved		9698' 2956m		
16	MIRL REIL PAPI-L (angle 3.0°) grooved				150' 46m
34	MIRL REIL grooved				

TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE

	Rwys 7, 25, 34		Rwy 16		
	Adequate Vis Ref	STD	With Min climb of 260'/NM to 1000'		Other
			Adequate Vis Ref	STD	
1 & 2 Eng	RVR 16 or 1/4	RVR 50 or 1	1/4	1	300-1
3 & 4 Eng		RVR 24 or 1/2		1/2	

OBSTACLE DP

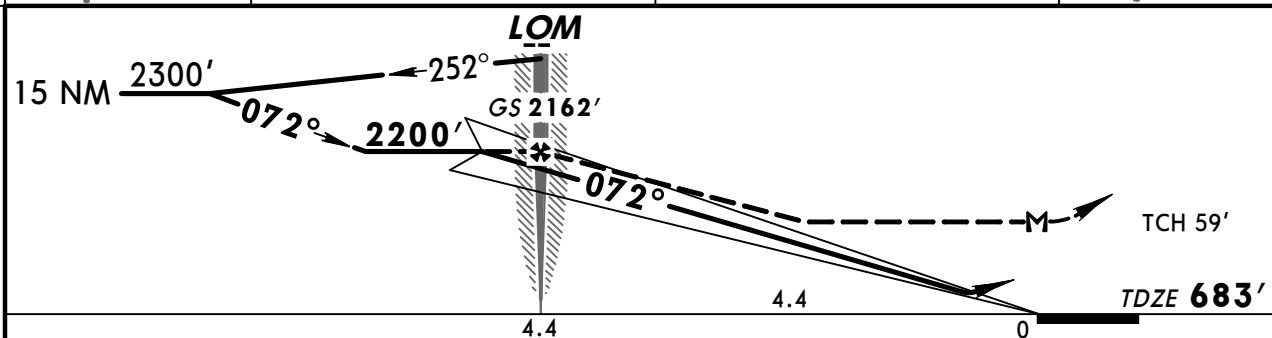
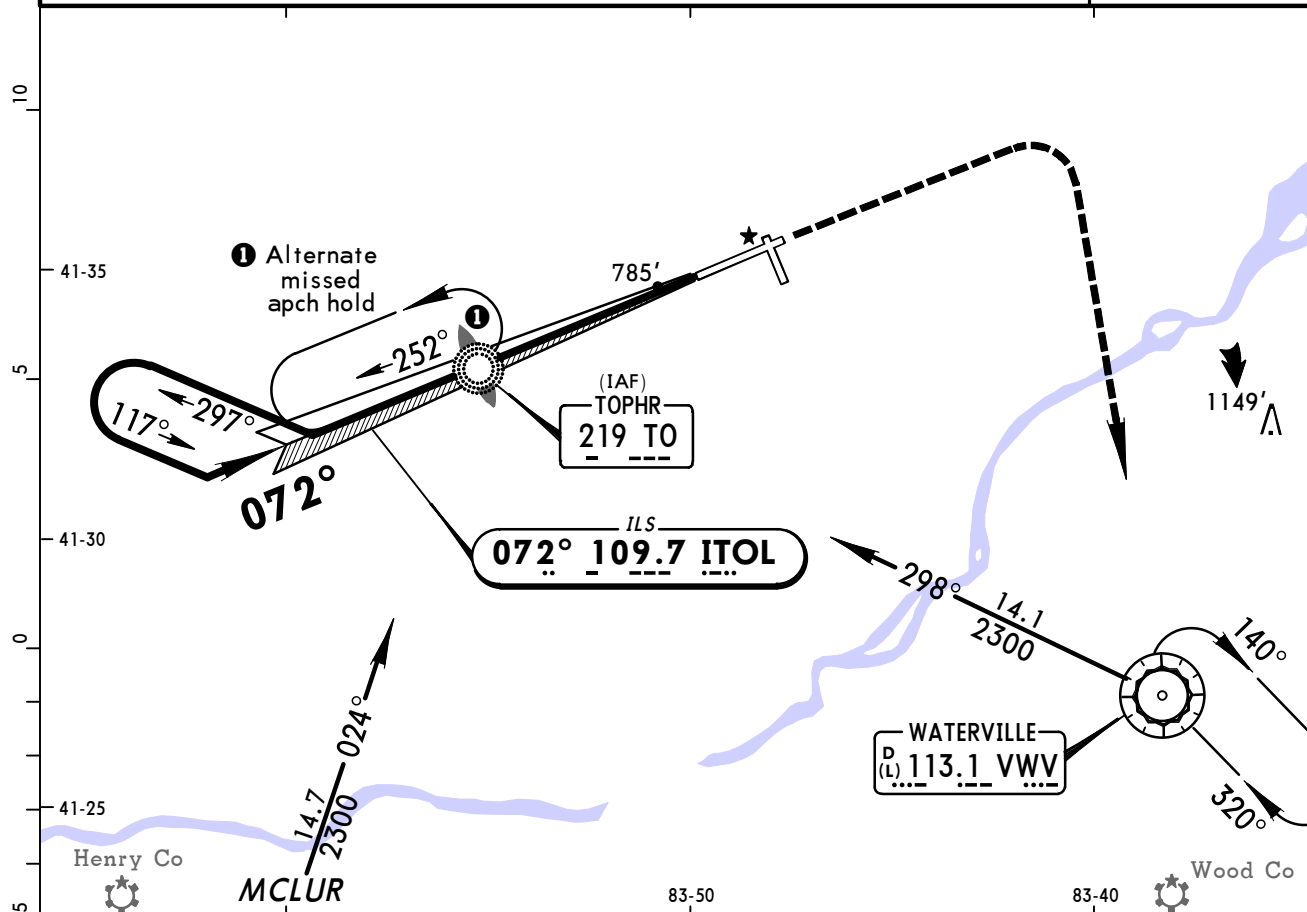
Rwy 25, climb runway heading to 1100' before turning.

FOR FILING AS ALTERNATE

Authorized When Local Weather Available		ILS Rwy 7	RNAV (GPS) Rwy 25 RNAV (GPS) Rwy 34 VOR DME Rwy 34 RADAR-1	Other	
ILS Rwy 25	LOC Rwy 25 RNAV (GPS) Rwy 7				
A	600-2	800-2	600-2	800-2	NA
B					
C					
D					

BRIEFING STRIP™

ATIS 118.75		TOLEDO Approach (R) 360°-179° 126.1		180°-359° 134.35		TOLEDO Tower 118.1		Ground 121.9	
LOC ITOL 109.7	Final Apch Crs 072°	GS LOM 2162' (1479')	ILS DA(H) 883' (200')	Apt Elev 683'	TDZE 683'	3100' MSA TO LOM			
MISSED APCH: Climb to 2500', then RIGHT turn direct VWV VOR and hold.									
Alt Set: INCHES 1. ADF or RADAR required.		Trans level: FL 180		Trans alt: 18000'					



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II 2500' RT D VWV 113.1
GS	3.00°	377	484	538	646	753	
LOM to MAP	4.4	3:46	2:56	2:38	2:12	1:53	

STRAIGHT-IN LANDING RWY7					CIRCLE-TO-LAND	
ILS DA(H) 883' (200')			LOC (GS out) MDA(H) 1080' (397')		Max Kts.	MDA(H)
FULL	CL out	ALS out		ALS out		
A					90	1180' (497')-1
B	RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 3/4	RVR 24 or 1/2	120	1180' (497')-1 1/2
C					140	1240' (557')-2
D					165	

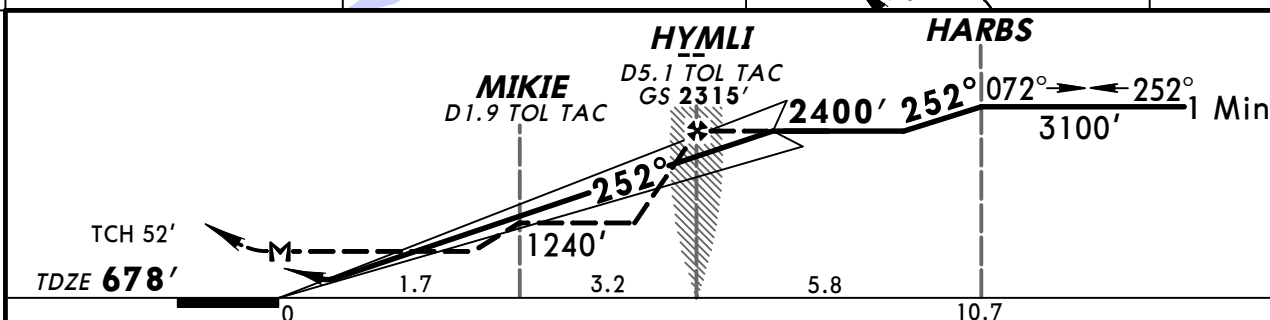
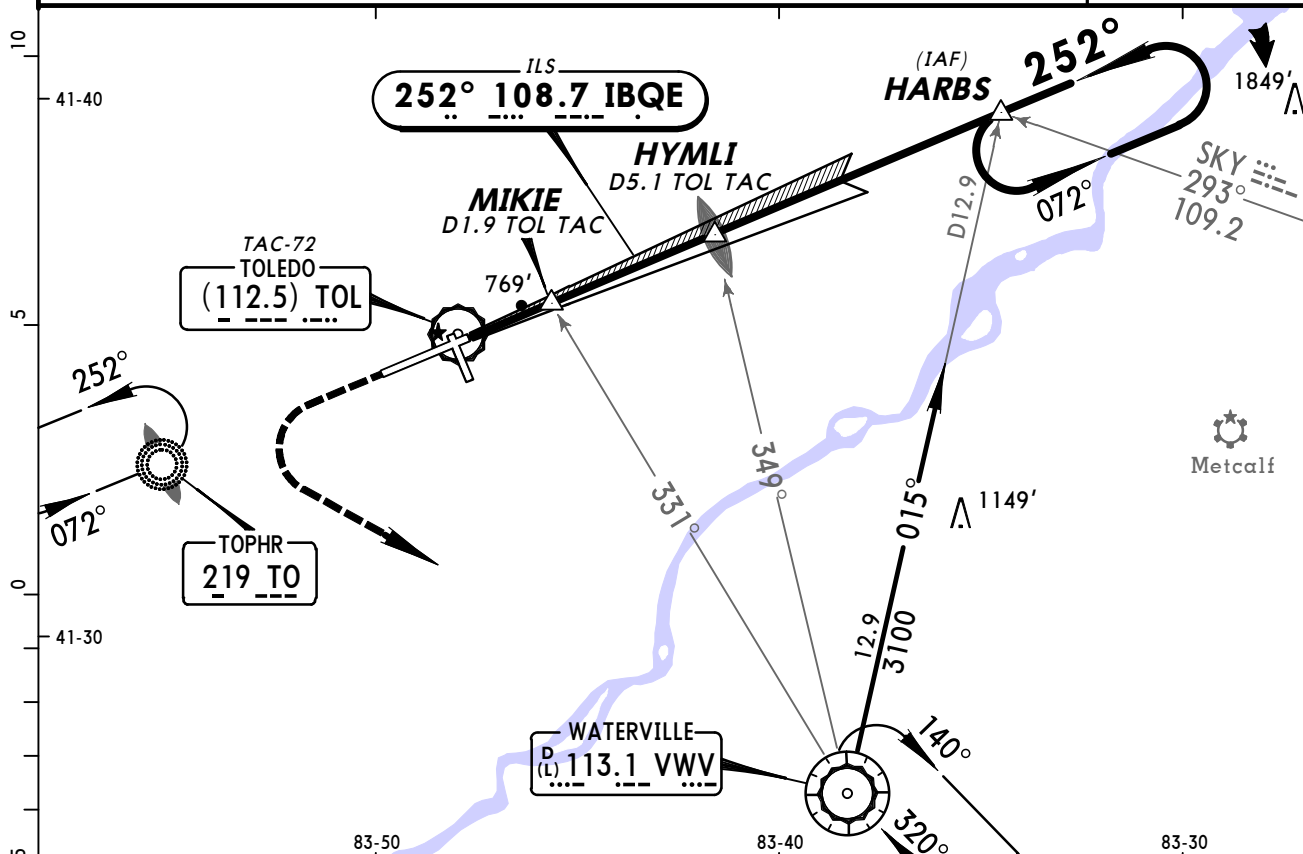
KTOL/TOL TOLEDO EXPRESS

JEPPesen
7 JAN 11 (21-2)

TOLEDO, OHIO
ILS or LOC Rwy 25

BRIEFING STRIP™

ATIS 118.75		TOLEDO Approach (R) 360°-179° 180°-359° 126.1 134.35		TOLEDO Tower 118.1	Ground 121.9
LOC IBQE 108.7	Final Apch Crs 252°	GS HYMLI 2315' (1637')	ILS DA(H) (CONDITIONAL) 878' (200')	Apt Elev 683' TDZE 678'	3100' MSA VWV VOR
MISSED APCH: Climb to 2500' then LEFT turn direct VWV VOR and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Lambertville/Toledo Suburban altimeter setting.					

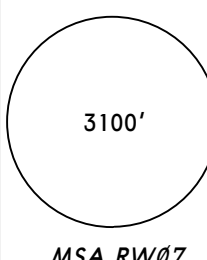


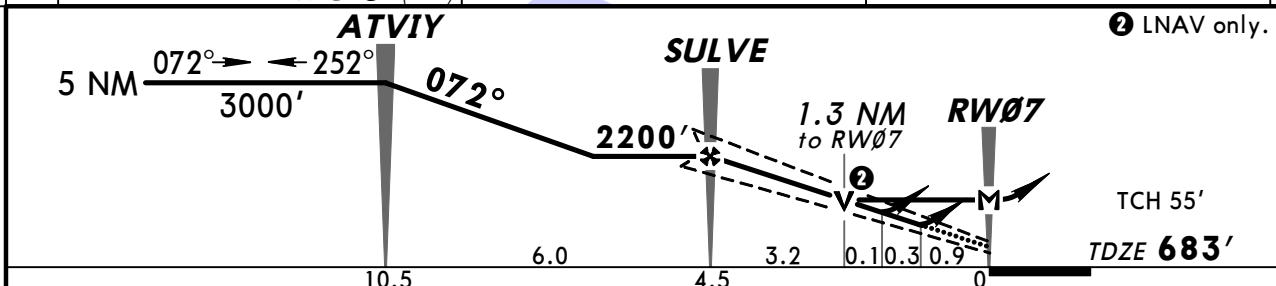
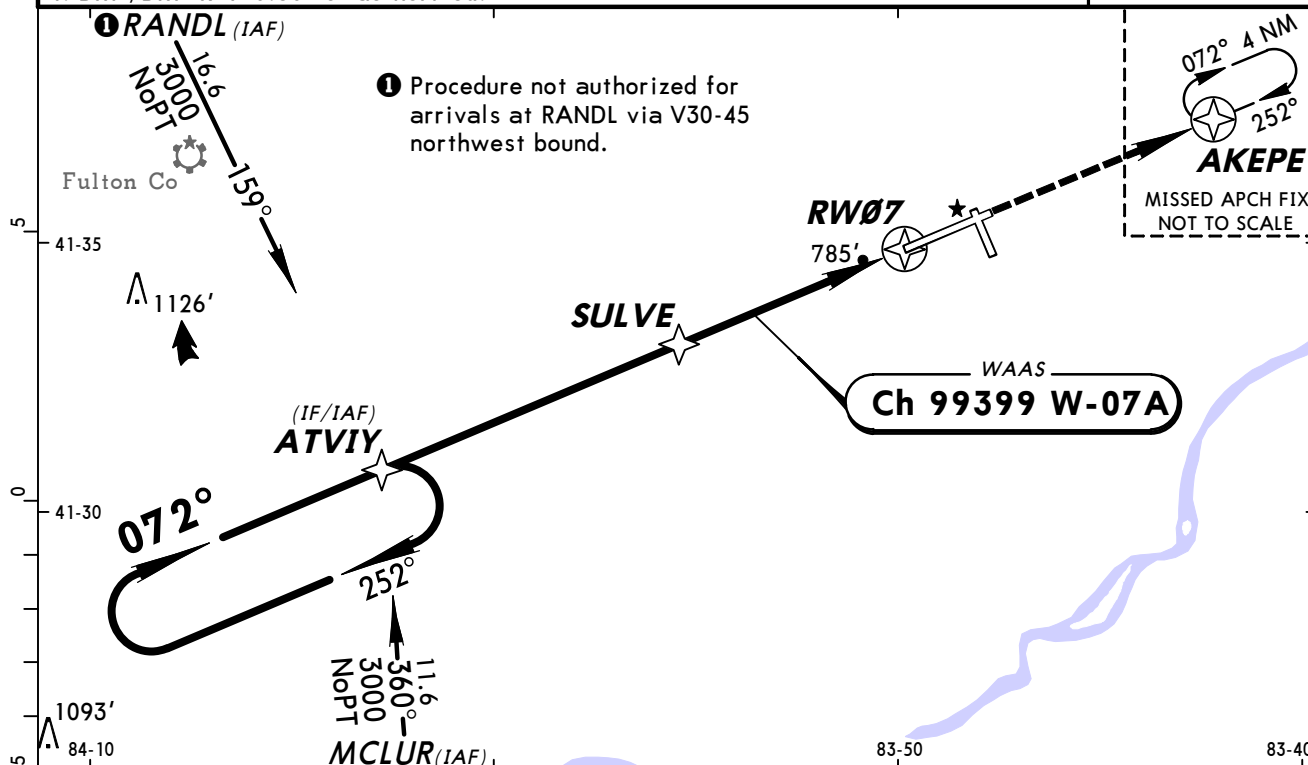
Gnd speed-Kts	70	90	100	120	140	160	MALSR VASI	2500'	LT	D	VWV 113.1
GS 3.00°	377	484	538	646	753	861					
HYMLI to MAP 5.0	4:17	3:20	3:00	2:30	2:09	1:53					

STRAIGHT-IN LANDING RWY 25								CIRCLE-TO-LAND			
ILS				LOC (GS out)				With MIKIE		Without MIKIE	
With Local Altimeter Setting				With Local Altimeter Setting				With Local Altimeter Setting		Without MIKIE	
DA(H)				MDA(H)				MDA(H)		MDA(H)	
878' (200')				1020' (342')				1180' (497') - 1		1240' (557') - 1	
With Lambertville/Toledo Suburban Altimeter Setting				With Lambertville/Toledo Suburban Altimeter Setting				With Lambertville/Toledo Suburban Altimeter Setting		Without MIKIE	
DA(H)				MDA(H)				MDA(H)		MDA(H)	
918' (240')				1060' (382')				1220' (537') - 1		1280' (597') - 1	
FULL				RAIL out				1220' (537') - 1 1/2		1280' (597') - 1 1/2	
RAIL or ALS out				ALS out				1240' (557') - 2		1280' (597') - 2	
A				RAIL out				1220' (537') - 1		1280' (597') - 1	
B				1/2				1220' (537') - 1 1/2		1280' (597') - 1 1/2	
C				3/4				1240' (557') - 2		1280' (597') - 2	
D				1 1/4				1220' (537') - 1		1280' (597') - 1	

CHANGES: Minimums.

© JEPPesen, 2000, 2011. ALL RIGHTS RESERVED.

ATIS 118.75		TOLEDO Approach (R) 360°-179° 180°-359° 126.1 134.35		TOLEDO Tower 118.1	Ground 121.9
WAAS Ch 99399 W-07A	Final Apch Crs 072°	Minimum Alt SULVE 2200' (1517')	LPV DA(H) (CONDITIONAL) 1018' (335')	Apt Elev 683' TDZE 683'	
MISSED APCH: Climb to 3000' direct AKEPE and hold.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Use local altimeter setting; if not received, use Lambertville/Toledo Suburban altimeter setting. 2. VDP and Baro-VNAV not authorized when using Lambertville/Toledo Suburban altimeter setting. 3. Baro-VNAV not authorized below -16°C (4°F). 4. DME/DME RNP-0.30 not authorized.					

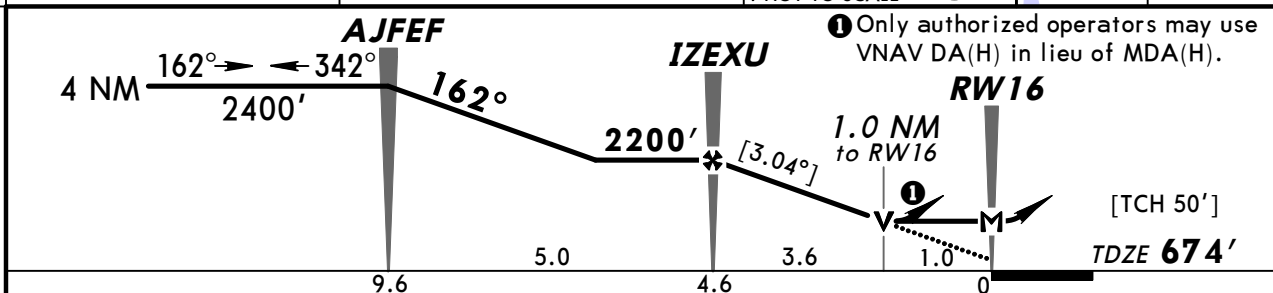
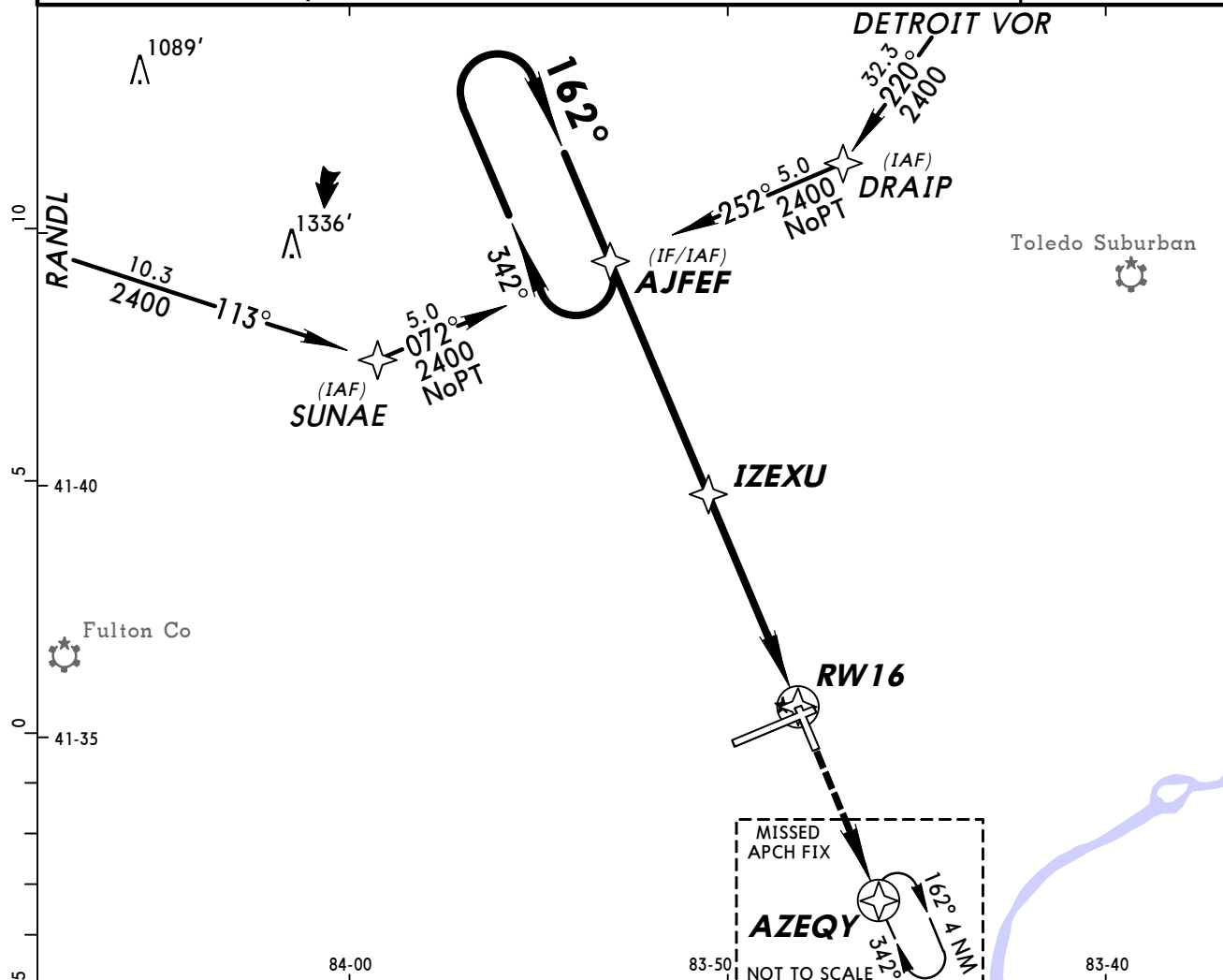


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II		3000'	D → AKEPE
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at RW07										

STRAIGHT-IN LANDING RWY 7 With Local Altimeter Setting							CIRCLE-TO-LAND			
LPV DA(H) 1018' (335')		LNAV/VNAV DA(H) 1129' (446')		LNAV MDA(H) 1140' (457')		Max Kts.	With Local Altimeter Setting MDA(H)			
ALS out		ALS out		ALS out						
A	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 50 or 1	1 1/2	RVR 24 or 1/2	RVR 50 or 1	90	1180' (497') - 1		
B					RVR 40 or 3/4	RVR 60 or 1 1/4	140		1180' (497') - 1 1/2	
C							RVR 50 or 1	1 1/2		165
D										
With Lambertville/Toledo Suburban Altimeter Setting							With Lambertville/ Toledo Suburban Altimeter Setting			
LPV DA(H) 1058' (375')		LNAV/VNAV DA(H) 1169' (486')		LNAV MDA(H) 1180' (497')		Max Kts.	MDA(H)			
ALS out		ALS out		ALS out						
A	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 60 or 1 1/4	1 3/4	RVR 24 or 1/2	RVR 50 or 1	90	1220' (537') - 1		
B					RVR 40 or 3/4	RVR 60 or 1 1/4	140		1220' (537') - 1 1/2	
C							RVR 50 or 1	1 1/2		165
D										

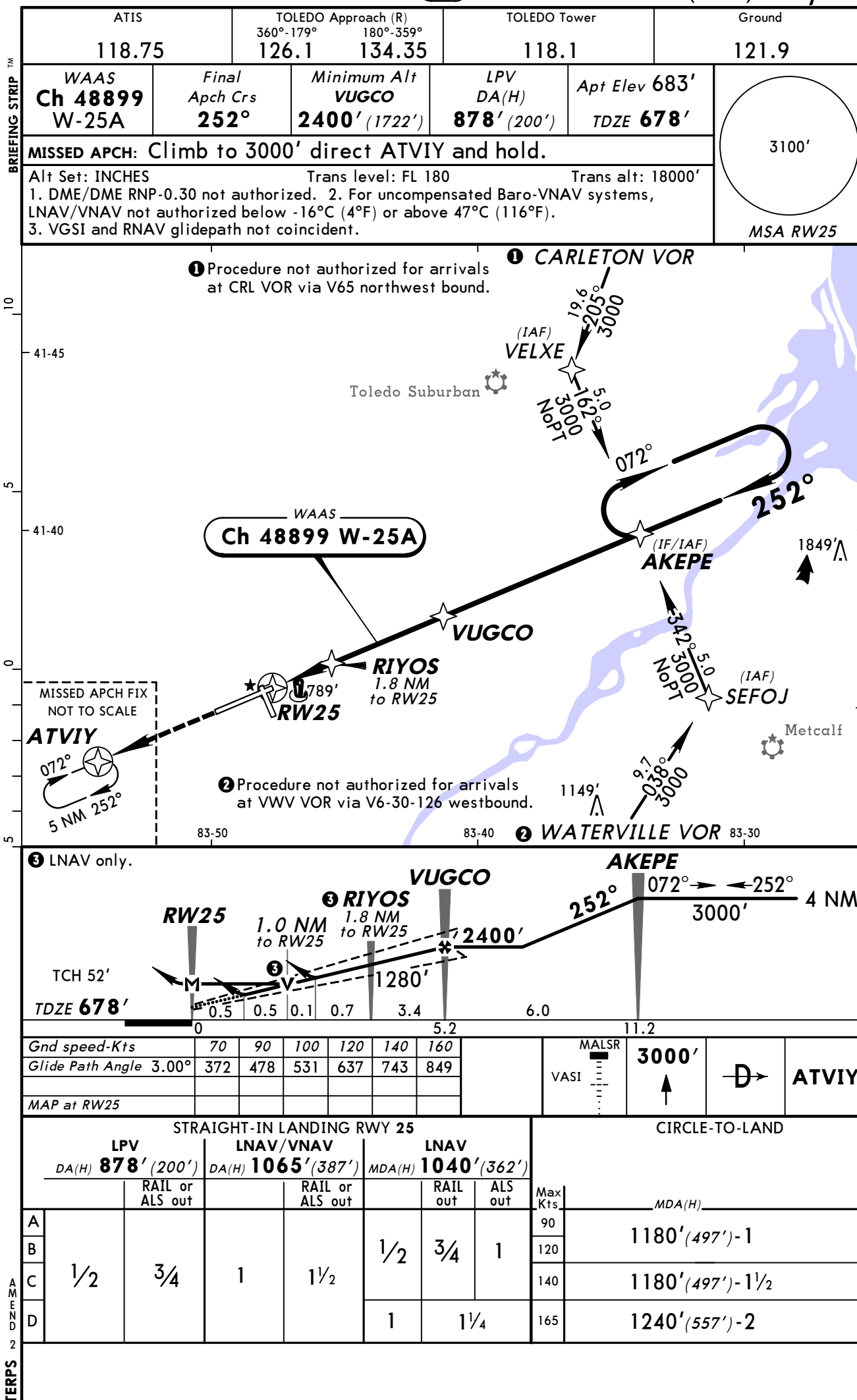
BRIEFING STRIP TM

ATIS 118.75		TOLEDO Approach (R) 360°-179° 180°-359° 126.1 134.35		TOLEDO Tower 118.1	Ground 121.9
RNAV	Final Apch Crs 162°	Minimum Alt IZEXU 2200' (1526')	LNAV MDA(H) 1040' (366')	Apt Elev 683' TDZE 674'	3100' MSA RW16
MISSED APCH: Climb to 2300' direct AZEQY and hold.					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
1. GPS or RNP-0.30 required. 2. DME/DME RNP-0.30 not authorized.					



Gnd speed-Kts	70	90	100	120	140	160	REIL		2300'	D→	AZEQY
Descent angle [3.04°]	376	484	538	645	753	861	PAPI-L				
MAP at RW16											

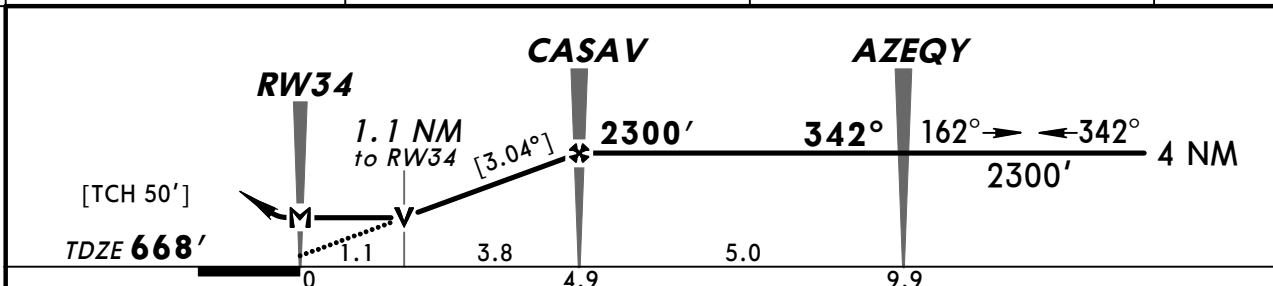
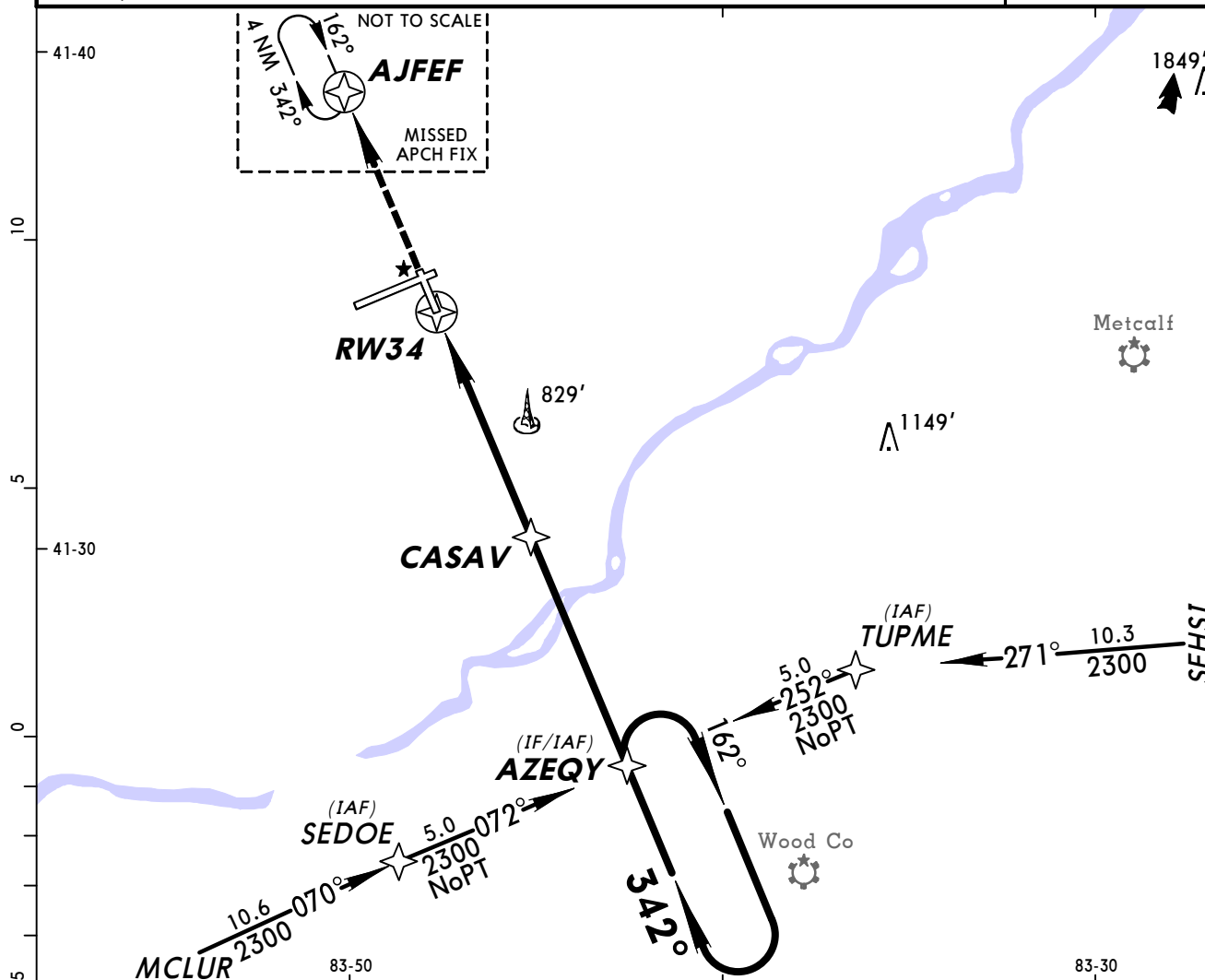
STRAIGHT-IN LANDING RWY 16						CIRCLE-TO-LAND	
LNAV						Max Kts	MDA(H)
MDA(H) 1040' (366')						90	1180' (497') -1
1						120	1180' (497') -1 1/2
1 1/4						140	1180' (497') -1 1/2
						165	1240' (557') -2



TM

BRIEFING STRIP

ATIS 118.75		TOLEDO Approach (R) 360°-179° 126.1 180°-359° 134.35		TOLEDO Tower 118.1	Ground 121.9
RNAV	Final Apch Crs 342°	Minimum Alt CASAV 2300' (1632')	LNAV MDA(H) 1080' (412')	Apt Elev 683' TDZE 668'	3100' MSA RW34
MISSED APCH: Climb to 2400' direct AJFEF and hold.					
Alt Set: INCHES 1. DME/DME RNP-0.30 not authorized.		Trans level: FL 180		Trans alt: 18000'	



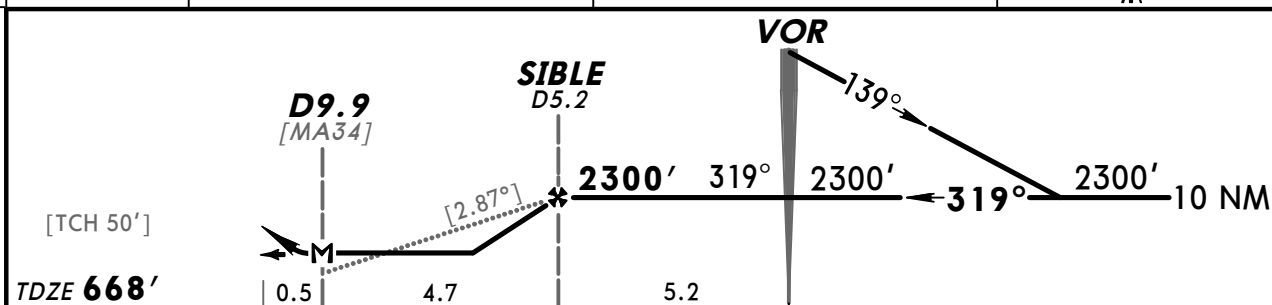
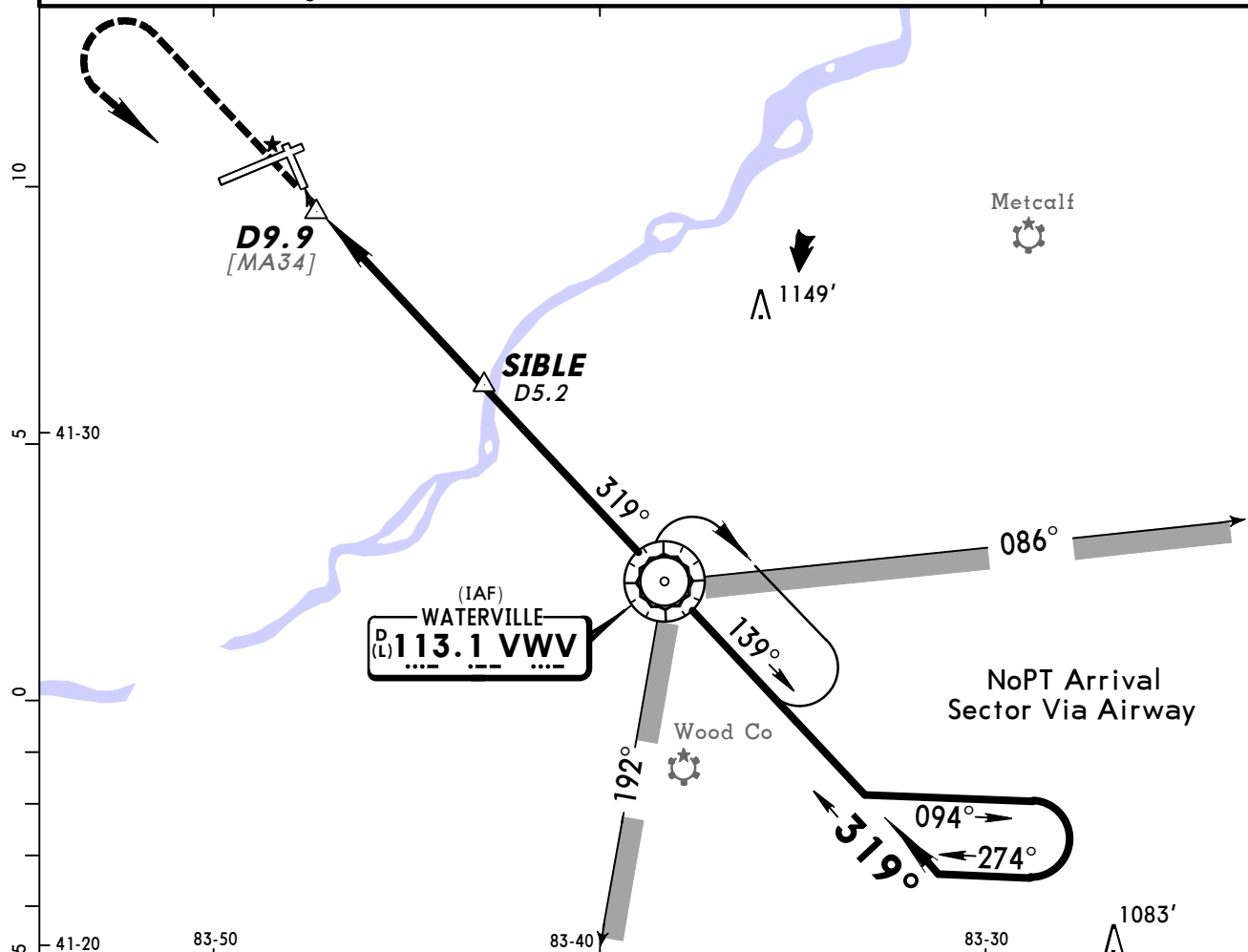
Gnd speed-Kts	70	90	100	120	140	160				
Descent angle [3.04°]	376	484	538	645	753	861				
MAP at RW34										

STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND			
LNAV							
MDA(H) 1080' (412')							
A	1			Max Kts	MDA(H)		
B				90	1180' (497')-1		
C				120			
D	1 1/4			140	1180' (497')-1 1/2		
				165	1240' (557')-2		

TERPS AMEND 0A 26 AUG 2010

BRIEFING STRIP™

ATIS 118.75		TOLEDO Approach (R) 360°-179° 180°-359° 126.1 134.35		TOLEDO Tower 118.1		Ground 121.9	
VOR VWV 113.1	Final Apch Crs 319°	Minimum Alt SIBLE 2300' (1632')	MDA(H) 1080' (412')	Apt Elev 683' TDZE 668'	3100' MSA VWV VOR		
MISSED APCH: Climb to 2500', then LEFT turn direct VWV VOR and hold.							
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
1. VGSI and descent angles not coincident.							

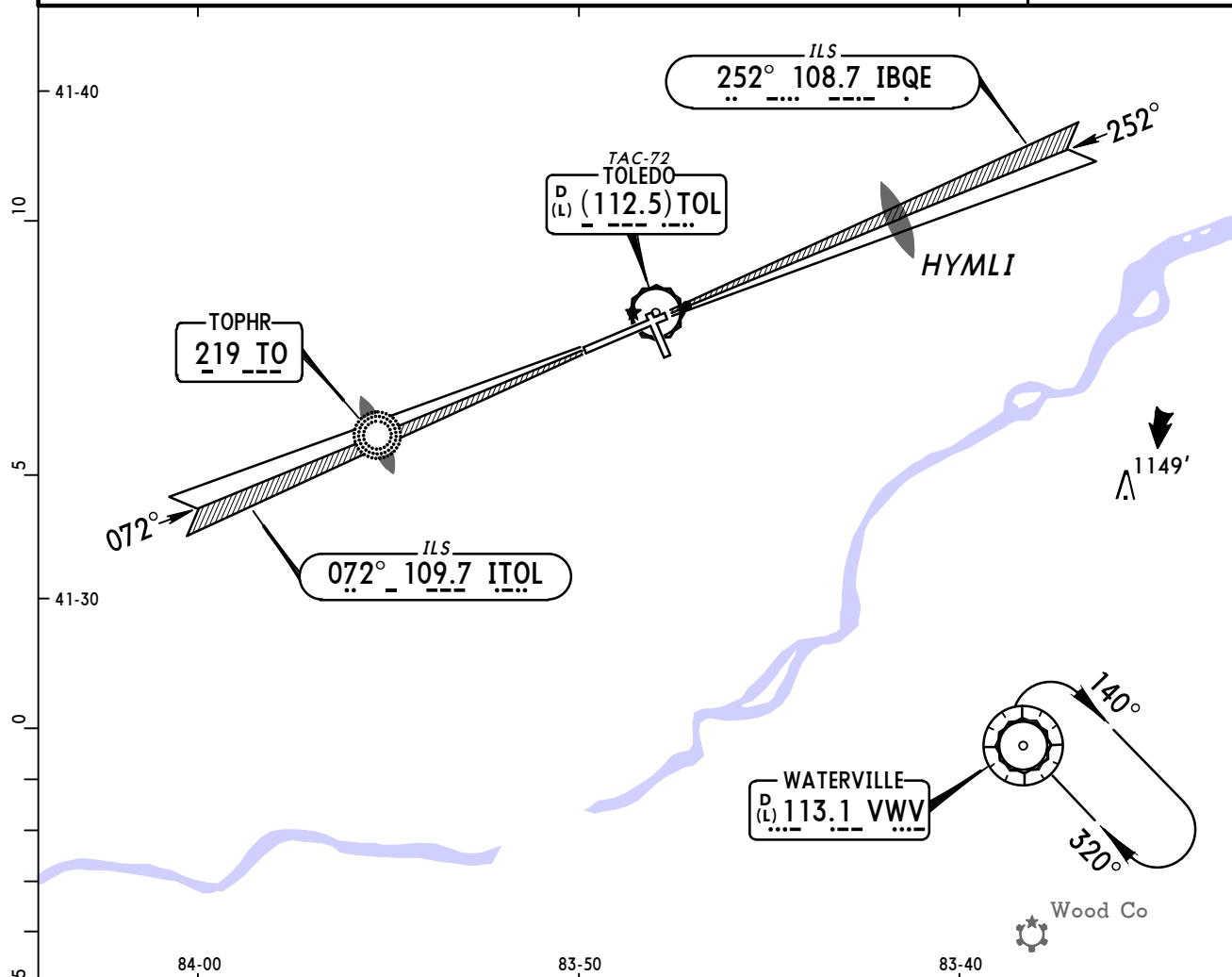


Gnd speed-Kts	70	90	100	120	140	160	REIL	2500'	LT	D	VWV 113.1
Descent angle [2.87°]	355	457	508	609	711	812					
MAP at D9.9											

STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND			
MDA(H) 1080' (412')							
A	1			Max Kts	MDA(H)		
B				90	1180' (497') - 1		
C				120			
D				140	1180' (497') - 1½		
	1¼			165	1240' (557') - 2		

BRIEFING STRIP™

ATIS 118.75		TOLEDO Approach (R) 360°-179° 180°-359° 126.1 134.35		TOLEDO Tower 118.1		Ground 121.9				
RADAR		Final Apch Crs By ATC		Minimum Alt No FAF		MDA(H) Refer to Minimums		Apt Elev 683' TDZE -See below		No MSA published
Missed Approach-See below										
Alt Set: INCHES				Trans level: FL 180				Trans alt: 18000'		



MISSED APCH:

Runway 7: Climb to 2500', then RIGHT turn direct VWV VOR and hold.

Runway 16: Climb to 2500' direct VWV VOR and hold.

Runways 25, 34: Climb to 2500', then LEFT turn direct VWV VOR and hold.

RWY 7
TDZE 683'

RWY 16
TDZE 674'

RWY 25
TDZE 678'

RWY 34
TDZE 668'

ASR All Rwys: MAP 0.5 mile from Rwy Thr

Lighting -
Refer to
Airport
Chart

ASR 7		STRAIGHT-IN LANDING		ASR 25		ASR 34		CIRCLE-TO-LAND	
MDA(H) 1080'(397')		ASR 16 MDA(H) 1060'(386')		MDA(H) 1040'(362')		MDA(H) 1080'(412')		Max Kts.	
ALS out				RAIL out		ALS out		MDA(H)	
A	RVR 24 or 1/2	RVR 50 or 1	1	1/2	3/4	1	1	90	1180'(497')-1
B								120	
C								140	1180'(497')-1 1/2
D	RVR 50 or 1	RVR 60 or 1 1/4	1 1/4	1	1 1/4	1 1/4	1 1/4	165	1240'(557')-2

CHANGES: Airport elevation, ASR 34 minimums.

© JEPPESEN, 2000, 2010. ALL RIGHTS RESERVED.

General Information

Location: Youngstown-Warren OH USA

IATA Code: YNG

Lat/Long: N41° 15.6' W080° 40.7'

Elevation: 1192 ft

Airport Use: Public

Magnetic Variation: 8.9°W

Sectional Chart: Detroit

Fuel Types: 100 Octane (LL), Jet A

Oxygen Types: High Pressure, Low Pressure, HP Bottle, LP Bottle

Repair Types: Major Airframe, Major Engine

Customs: No

Airport Type: IFR

Landing Fee: Yes

Control Tower: Yes

Jet Start Unit: Yes

LLWS Alert: No

Beacon: Yes

Sunrise: 1201 Z

Sunset: 2310 Z,

Runway Information

Runway: 05

Length x Width: 5002 ft x 150 ft

Surface Type: asphalt

TDZ-Elev: 1123 ft

Lighting: Edge, REIL

Runway: 14

Length x Width: 9003 ft x 150 ft

Surface Type: asphalt

TDZ-Elev: 1134 ft

Lighting: Edge, ALS

Runway: 23

Length x Width: 5002 ft x 150 ft

Surface Type: asphalt

TDZ-Elev: 1192 ft

Lighting: Edge, REIL

Runway: 32

Length x Width: 9003 ft x 150 ft

Surface Type: asphalt

TDZ-Elev: 1185 ft

Lighting: Edge, ALS

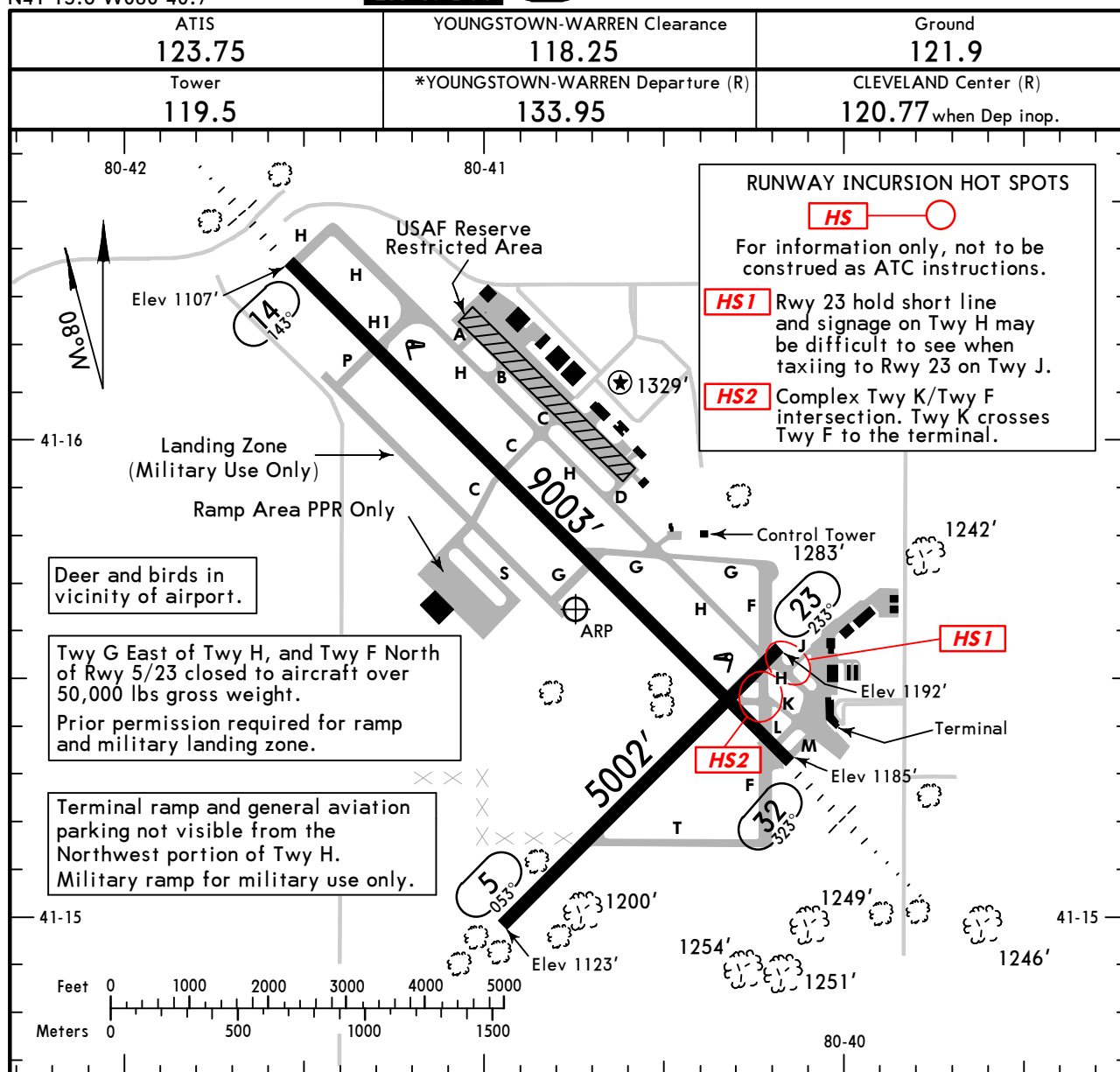
Communication Information

ATIS 123.75
Youngstown Tower 119.5
Youngstown Ground Control 121.9
Youngstown Clearance Delivery 118.25
Youngstown Approach Control 133.95
Youngstown Approach Control 127.15
Youngstown Departure Control 133.95
Youngstown Departure Control 127.15
Youngstown-Warren Rgnl Unicom 122.95
Youngstown Radar 128.25
Cleveland Flight Service Station 122.2 RCO
Cleveland Flight Service Station 122.1 RCO
Cleveland Flight Service Station 109.0 RCO
Cleveland Center 120.775 Remote Communications Air-Ground

KYNG/YNG
Apt Elev 1192'
N41 15.6 W080 40.7

JEPPESSEN
9 DEC 11
Eff 15 Dec 11-1

YOUNGSTOWN/WARREN, OHIO
YOUNGSTOWN-WARREN REGL



ADDITIONAL RUNWAY INFORMATION

RWY					USABLE LENGTHS			WIDTH
					Threshold	Landing Beyond	TAKE-OFF	
5 ① 23	MIRL	REIL	VASI-L (angle 3.25°)	grooved				150'
	MIRL	REIL	② PAPI-R (angle 3.0°)	grooved				
14 32	HIRL	MALSR	PAPI-L	grooved RVR		8051'		150'
	HIRL	MALSR	PAPI-L (angle 3.0°)	grooved RVR		8257'		

① Weight bearing capacity: Single wheel 138,000 lbs,
Dual wheel 175,000 lbs, Dual tandem 280,000 lbs.

② TCH 24'.

TAKE-OFF

Rwys 14, 32				Rwy 5			Rwy 23
Both RVRs are required and controlling.	Adequate Vis Ref	STD		Adequate Vis Ref	STD		300-1
		3 & 4 Eng	1 & 2 Eng		3 & 4 Eng	1 & 2 Eng	
TDZ RVR 10 Rollout RVR 10	RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	1/4	1/2	1	

FOR FILING AS ALTERNATE

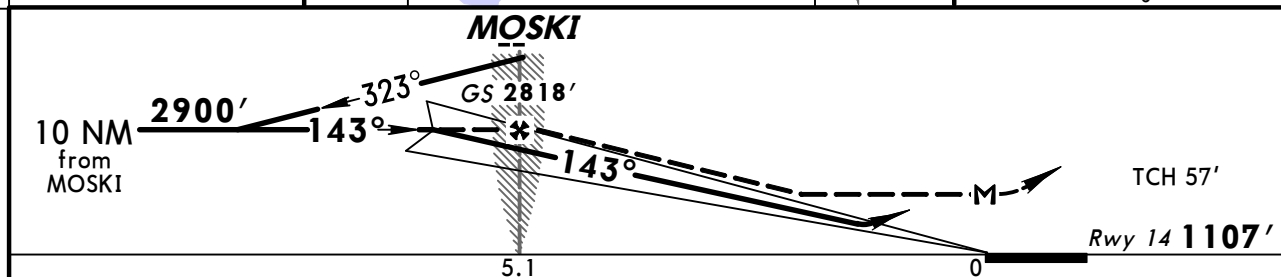
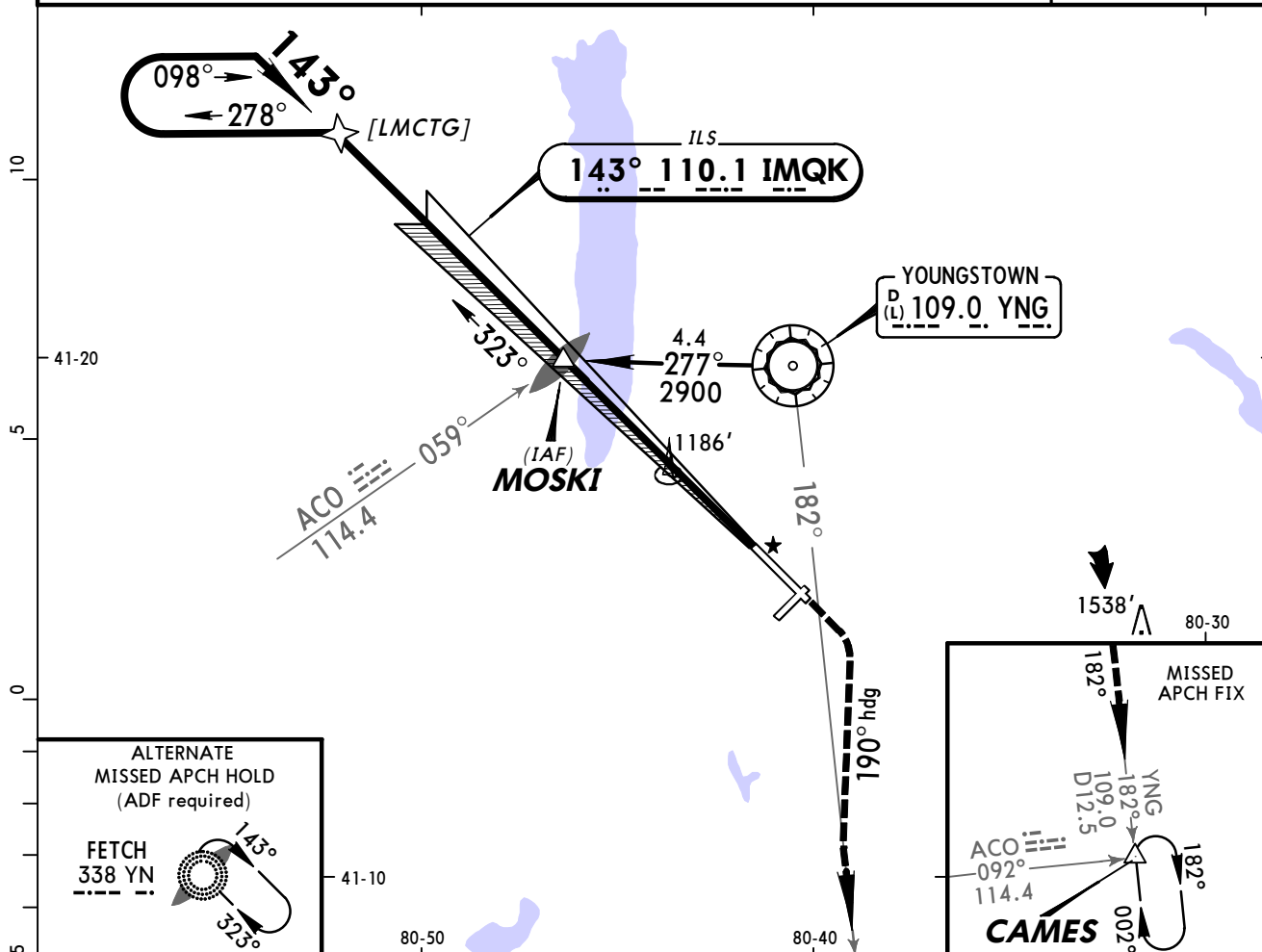
ILS Rwy 32	LOC Rwy 32 RNAV (GPS) Rwy 14 RNAV (GPS) Rwy 32 VOR-A	Authorized Only When Youngstown Approach Control Available	ILS Rwy 14 LOC Rwy 14 NDB Rwy 32
A B C D	600-2	800-2	800-2
			NA

A
M
E
N
D
4

TM

BRIEFING STRIP

ATIS		*YOUNGSTOWN-WARREN Approach (R)		CLEVELAND Center (R)		YOUNGSTOWN-WARREN Tower		Ground	
123.75		133.95		120.77 when App inop.		119.5		121.9	
LOC IMQK 110.1		Final Apch Crs 143°		GS MOSKI 2818' (1711')		ILS DA(H) 1307' (200')		Apt Elev 1192' Rwy 14 1107'	
MISSED APCH: Climb to 1600' then climbing RIGHT turn to 3600' on heading 190° and outbound on YNG VOR R-182 to CAMES INT and hold, or as directed by ATC.								3600' MSA YNG VOR	
Alt Set: INCHES 1. VGSI and ILS glidepath not coincident.		Trans level: FL 180		Trans alt: 18000'					



Gnd speed-Kts	70	90	100	120	140	160	MALSR	1600'	3600'	190°	YNG	
GS	3.00°	372	478	531	637	743	PAPI			on	109.0	CAMES
MOSKI to MAP 5.1	4:22	3:24	3:04	2:33	2:11	1:55				hdg	R-182	

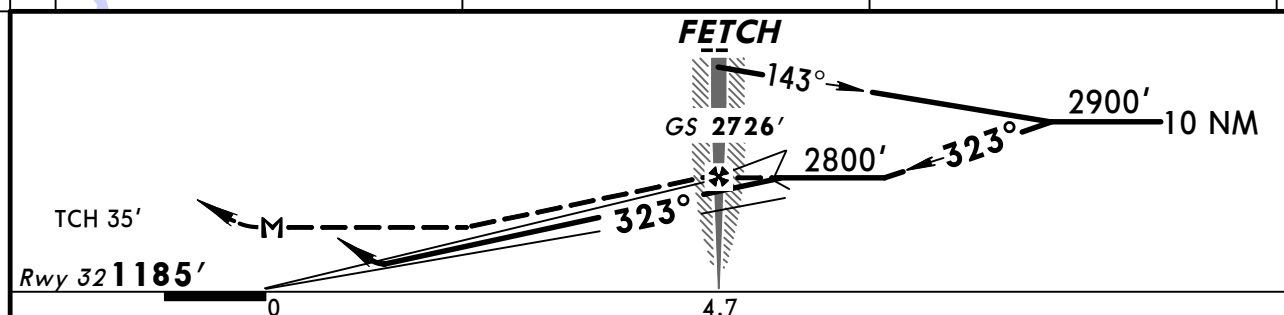
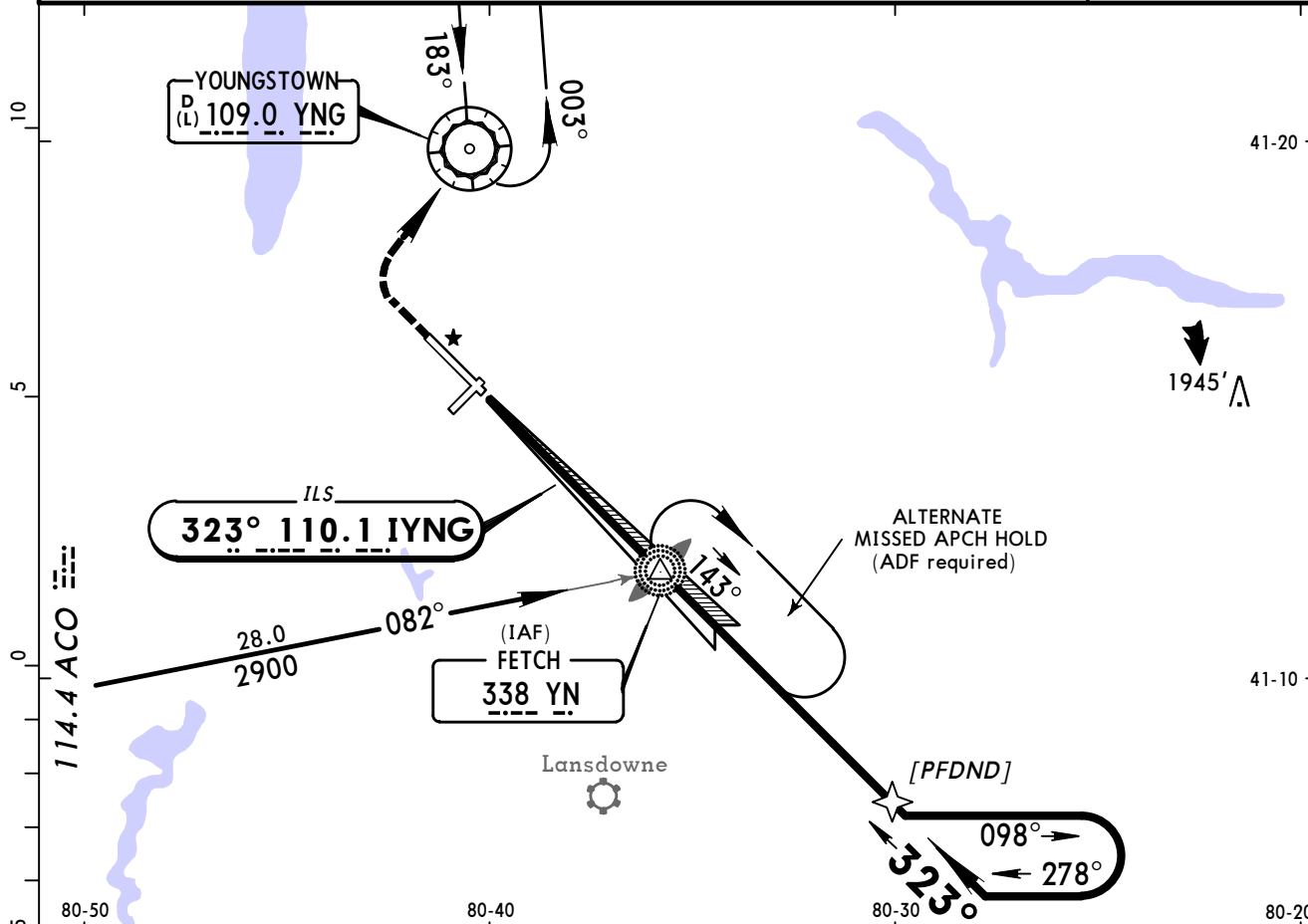
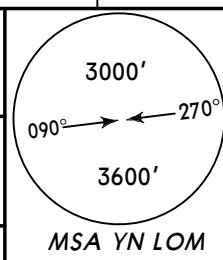
TERPS						CIRCLE-TO-LAND	
STRAIGHT-IN LANDING RWY 14			LOC (GS out)				
ILS			LOC (GS out)				
DA(H) 1307' (200')			MDA(H) 1580' (473')				
FULL	RAIL or ALS out		RAIL out	ALS out	Max Kts.	MDA(H)	
A			1/2	3/4	90	1640' (448')-1	
B					120	1660' (468')-1	
C	1/2	3/4	1	1 1/8	140	1660' (468')-1 1/2	
D					165	1760' (568')-2	

1 When VGSI inop, circling Rwy 5 not authorized at night.

CHANGES: Missed approach, minimums, notes.

© JEPPESEN, 1999, 2011. ALL RIGHTS RESERVED.

ATIS 123.75		*YOUNGSTOWN-WARREN Approach (R) 133.95		CLEVELAND Center (R) 120.77 when App inop.		YOUNGSTOWN-WARREN Tower 119.5		Ground 121.9	
LOC IYNG 110.1		Final Apch Crs 323°		GS FETCH 2726' (1541')		ILS DA(H) 1385' (200')		Apt Elev 1192' Rwy 32 1185'	
MISSED APCH: Climb to 1800' then climbing RIGHT turn to 2900' direct YNG VOR and hold, continue climb-in-hold to 2900', or as directed by ATC.									
Alt Set: INCHES 1. VGSI and ILS glidepath not coincident.		Trans level: FL 180			Trans alt: 18000'				
									MSA YN LOM



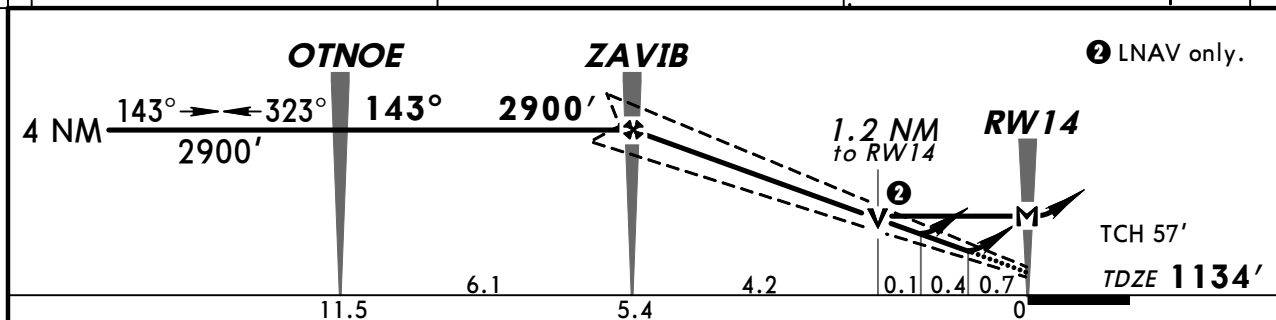
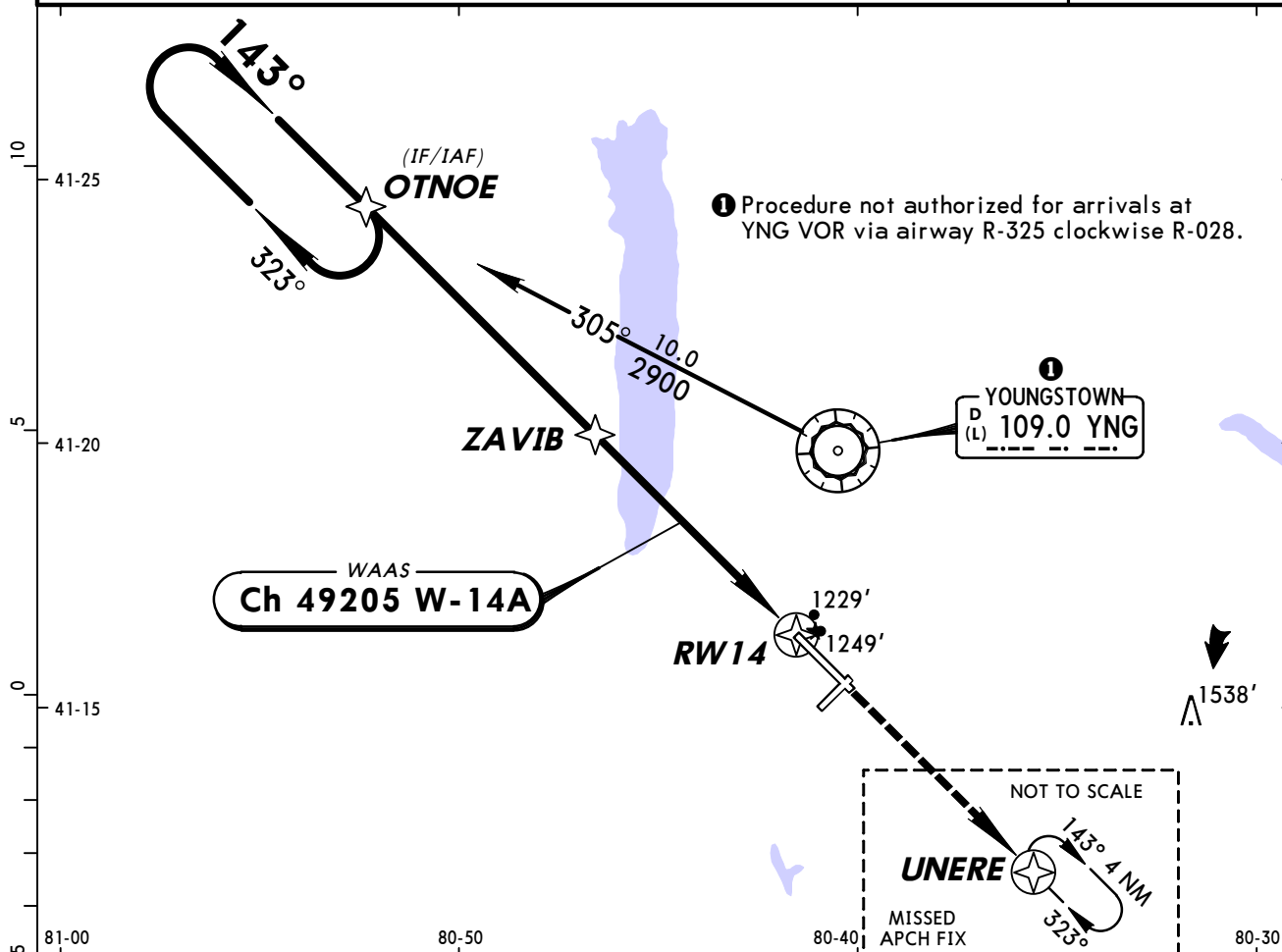
Gnd speed-Kts	70	90	100	120	140	160	MALSR	1800'	2900'	YNG 109.0
GS	3.00°	372	478	531	637	743	PAPI	↑	RT	
FETCH to MAP 4.7	4:02	3:08	2:49	2:21	2:01	1:46				

TERPS STRAIGHT-IN LANDING RWY 32						2 CIRCLE-TO-LAND	
ILS DA(H) 1385' (200')			LOC (GS out) MDA(H) 1640' (455')				
FULL		RAIL or ALS out		RAIL out	ALS out	Max Kts	MDA(H)
						90	1640' (448') - 1
						120	1660' (468') - 1
1 RVR 24 or 1/2		RVR 40 or 3/4		RVR 45 or 7/8	RVR 55 or 1	140	1660' (468') - 1 1/2
					1 3/8	165	1760' (568') - 2

1 RVR 18 with Flight Director or Autopilot or HUD to DA.
 2 When VGSI inop, circling Rwy 5 not authorized at night.

KYNG/YNG **JEPPESEN** YOUNGSTOWN/WARREN, OHIO YOUNGSTOWN-WARREN REGL **(12-1)** 9 DEC 11 **Eff 15 Dec** RNAV (GPS) RWY 14

ATIS	*YOUNGSTOWN-WARREN Approach (R)	CLEVELAND Center (R)	YOUNGSTOWN-WARREN Tower	Ground
123.75	133.95	120.77 when App inop.	119.5	121.9
WAAS Ch 49205 W-14A	Final Apch Crs 143°	Minimum Alt ZAVIB 2900' (1766')	LPV DA(H) 1384' (250')	Apt Elev 1192' TDZE 1134'
MISSED APCH: Climb to 2900' direct UNERE and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (2°F) or above 46°C (114°F). 2. DME/DME RNP-0.30 not authorized.				
				3600' MSA RW14



Gnd speed-Kts	70	90	100	120	140	160		MALSR	2900'		UNERE
Glide Path Angle 3.00°	372	478	531	637	743	849		PAPI			
MAP at RW14											

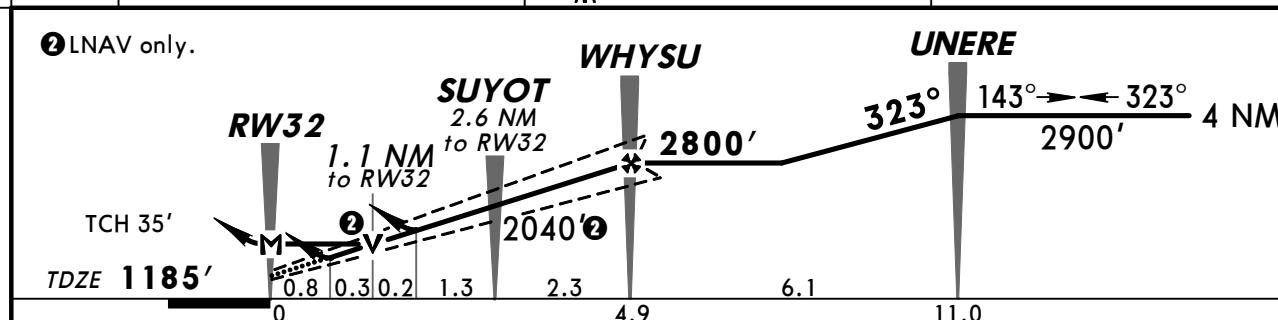
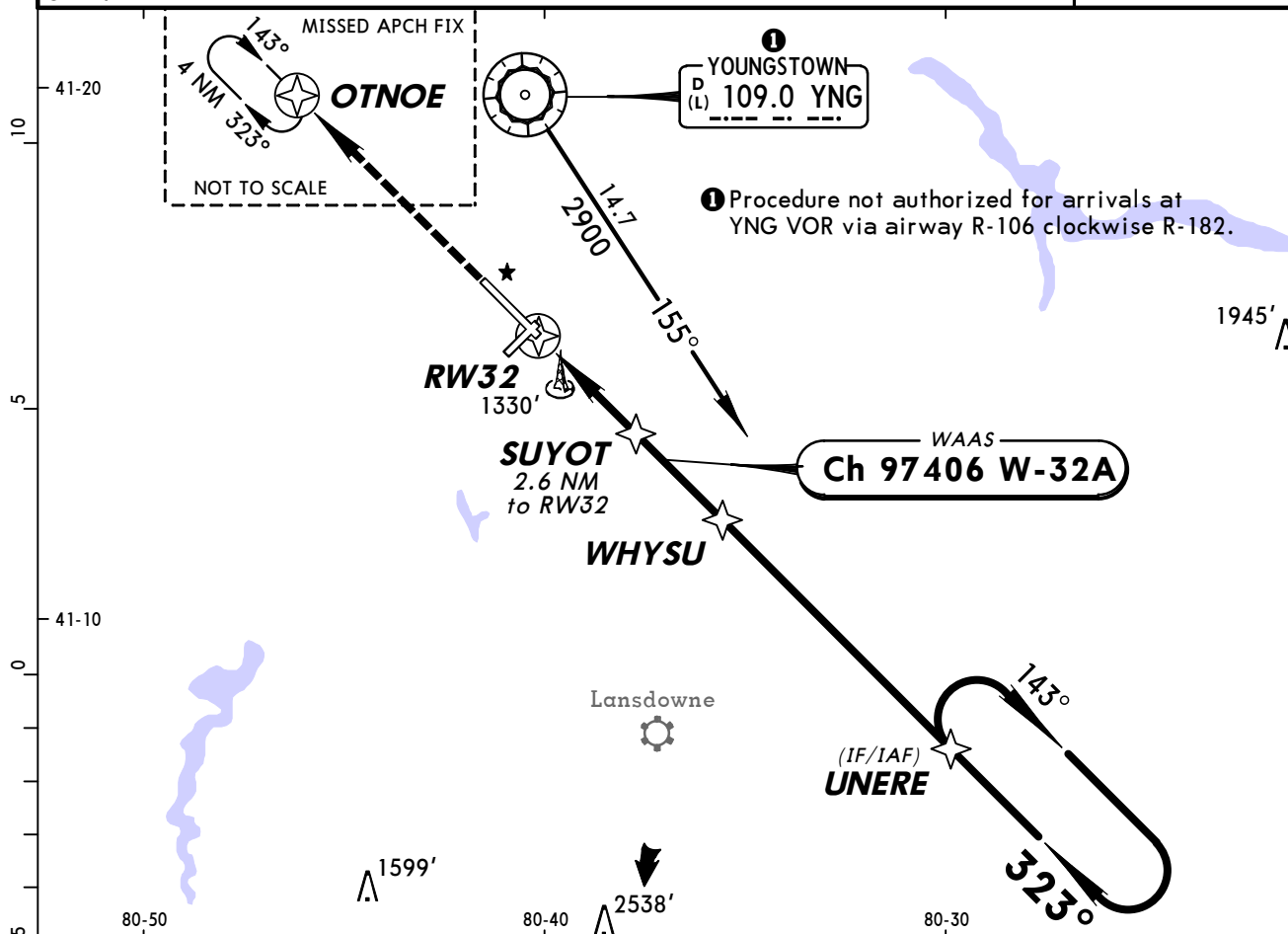
STRAIGHT-IN LANDING RWY 14						CIRCLE-TO-LAND	
LPV DA(H) 1384' (250')		LNAV/VNAV DA(H) 1499' (365')		LNAV MDA(H) 1540' (406')		Max Kts	MDA(H)
RAIL or ALS out		RAIL or ALS out		RAIL out	ALS out	90	1640' (448') - 1
A				RVR 24 or 1/2	RVR 40 or 3/4	120	1660' (468') - 1
B				RVR 40 or 3/4	RVR 50 or 1	140	1660' (468') - 1 1/2
C	RVR 24 or 1/2	RVR 50 or 1	RVR 40 or 3/4	RVR 60 or 1 1/4	RVR 60 or 1 1/4	165	1760' (568') - 2
D				RVR 50 or 1			

CHANGES: None.

© JEPPESEN, 2008, 2011. ALL RIGHTS RESERVED.

KYNG/YNG **JEPPESEN** YOUNGSTOWN/WARREN, OHIO YOUNGSTOWN-WARREN REGL **(12-2)** 9 DEC 11 **Eff 15 Dec** RNAV (GPS) Rwy 32

ATIS	*YOUNGSTOWN-WARREN Approach (R)	CLEVELAND Center (R)	YOUNGSTOWN-WARREN Tower	Ground
123.75	133.95	120.77 when App inop.	119.5	121.9
WAAS Ch 97406 W-32A	Final Apch Crs 323°	Minimum Alt WHYSU 2800' (1615')	LPV DA(H) 1457' (272')	Apt Elev 1192' TDZE 1185'
MISSED APCH: Climb to 2900' direct OTNOE and hold.				
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (2°F) or above 46°C (114°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident.				
MSA RW32				



Gnd speed-Kts	70	90	100	120	140	160	MALSR	2900'	OTNOE
Glide Path Angle	3.00°	372	478	531	637	743	PAPI		
MAP at RW32									

STRAIGHT-IN LANDING RWY 32							CIRCLE-TO-LAND	
LPV DA(H) 1457' (272')		LNAV/VNAV DA(H) 1638' (453')		LNAV MDA(H) 1580' (395')				
RAIL or ALS out		RAIL or ALS out		RAIL out		ALS out	Max Kts	MDA(H)
							90	1640' (448')-1
							120	1660' (468')-1
							140	1660' (468')-1 1/2
							165	1760' (568')-2

1 When VGSI inop, circling Rwy 5 not authorized at night.

CHANGES: ULICI renamed WHYSU, minimums note.

© JEPPESEN, 2008, 2011. ALL RIGHTS RESERVED.

TERPS AMEND 0A 15 DEC 2011

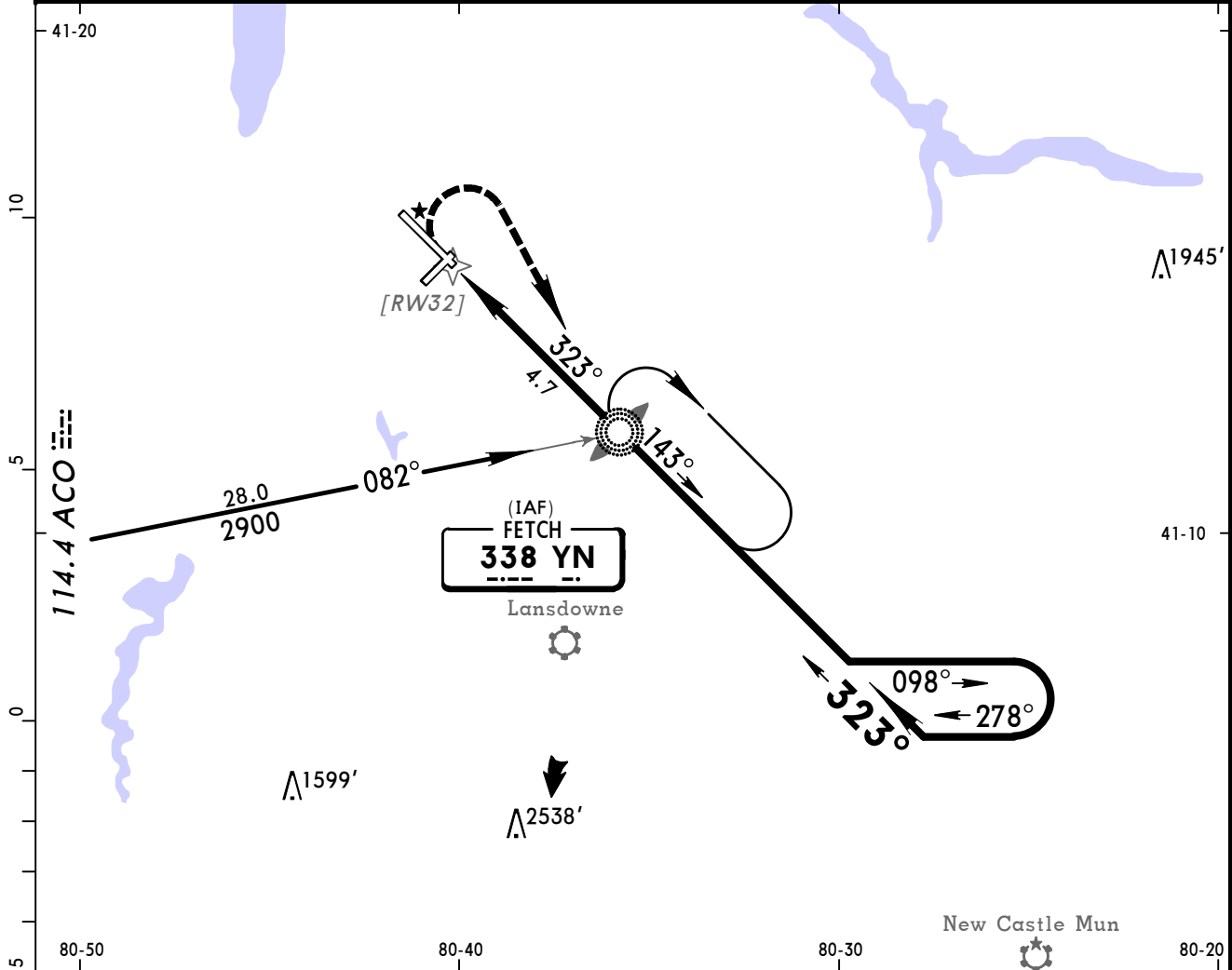
MSA YNG VOR



YNG
109.0

1760' (568') - 2

ATIS		*YOUNGSTOWN-WARREN Approach (R)		CLEVELAND Center (R)	YOUNGSTOWN-WARREN Tower	Ground
123.75		133.95		120.77 when App inop.	119.5	121.9
LOM YN 338		Final Apch Crs 323°	Minimum Alt LOM 2800' (1615')	MDA(H) 1700' (515')	Apt Elev 1192' Rwy 32 1185'	3000' 090° → ← 270° 3600'
MISSED APCH: Climb to 1800' then climbing RIGHT turn to 2900' direct FETCH LOM and hold.						
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'		



1

Only authorized operators may use VNAV DA(H) in lieu of MDA(H).

LOM

143°

2900'

10 NM

323°

2800'

3.16°

[RW32]

[TCH 50']

Rwy 32 **1185'**

0

4.7

Gnd speed-Kts	70	90	100	120	140	160	MALSR	PAPI	1800'	2900'	D→	YN 338
Descent angle [3.16°]	391	503	559	671	783	895						
LOM to MAP	4.7	4:02	3:08	2:49	2:21	2:01	1:46					

TERPS						STRAIGHT-IN LANDING RWY 32		1 CIRCLE-TO-LAND	
						MDA(H) 1700' (515')			
						RAIL out	ALS out	Max Kts	MDA(H)
A	RVR 40 or $\frac{3}{4}$					RVR 55 or 1		90	1700' (508') - 1
B								120	
C	RVR 55 or 1					$1\frac{1}{4}$		140	1700' (508') - 1½
D						$1\frac{3}{8}$		165	1760' (568') - 2

1

When VGSI inop, circling Rwy 5 not authorized at night.

KYNG/YNG

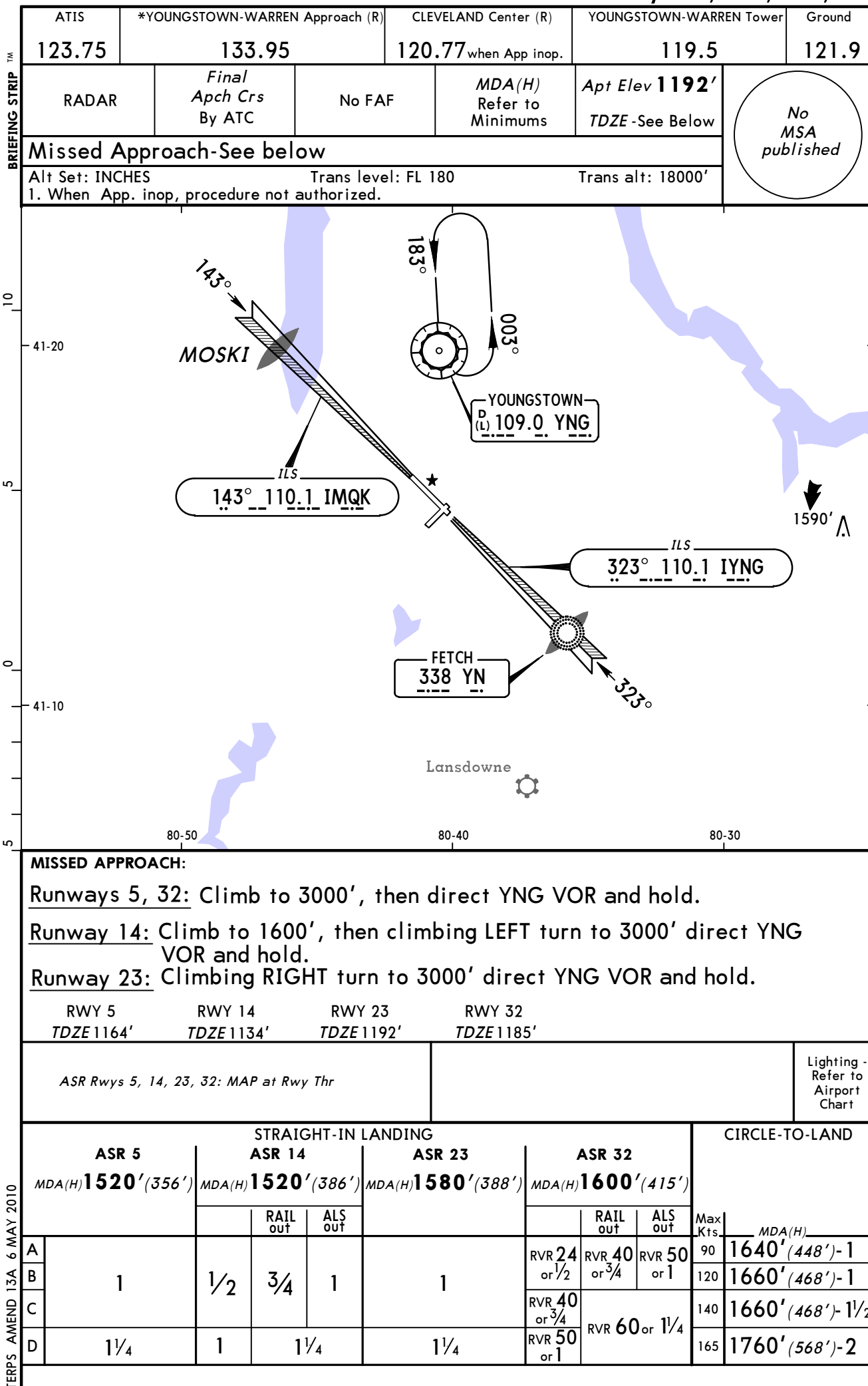
30 APR 10 (18-1)

JEPPESSEN YOUNGSTOWN/WARREN, OHIO

RADAR-1

YOUNGSTOWN-WARREN REGL

ASR Rwy 5, 14, 23, 32



YOUNGSTOWN-WARREN, OH (YOUNGSTOWN-WARREN RGNL - KYNG)

TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport KCAK

Type: Terminal

Effectivity: Temporary

Begin Date: Immediately

End Date: Until Further Notice

(20-9) Twy B1 clsd.

No Chart Change Notices for Airport KCLE

No Chart Change Notices for Airport KCMH

Chart Change Notices for Airport KCVG

Type: Terminal

Effectivity: Temporary

Begin Date: Immediately

End Date: Until Further Notice

(21-2) ILS or LOC Rwy 18L MM decmsnd.

Chart Change Notices for Airport KDAY

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

Rwy 06L PAPI-L (Angle 3.0°) added.

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

(11-2) ILS or LOC Rwy 18 LOC frequency changed to 108.3.

No Chart Change Notices for Airport KFFO

No Chart Change Notices for Airport KILN

Chart Change Notices for Airport KLCK

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

Rwy 23L TDZ lights removed.

Chart Change Notices for Airport KMFD

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

(11-1) ILS Rwy 32 ILS localizer unusable from 0.3 NM to Rwy 32 threshold.

Type: Terminal

Effectivity: Temporary

Begin Date: Immediately

End Date: Until Further Notice

(12-1) RNAV (GPS) Rwy 5 Amend 0A, reference date 16 DEC 2010.

No Chart Change Notices for Airport KSGH

No Chart Change Notices for Airport KTOL

No Chart Change Notices for Airport KYNG