

NDB RWY 18

MORGANTOWN MUNI-WALTER L. BILL HART FIELD
AL-479 (FAA) MORGANTOWN, WEST VIRGINIA

CLEVELAND CENTER

125.1 323.1

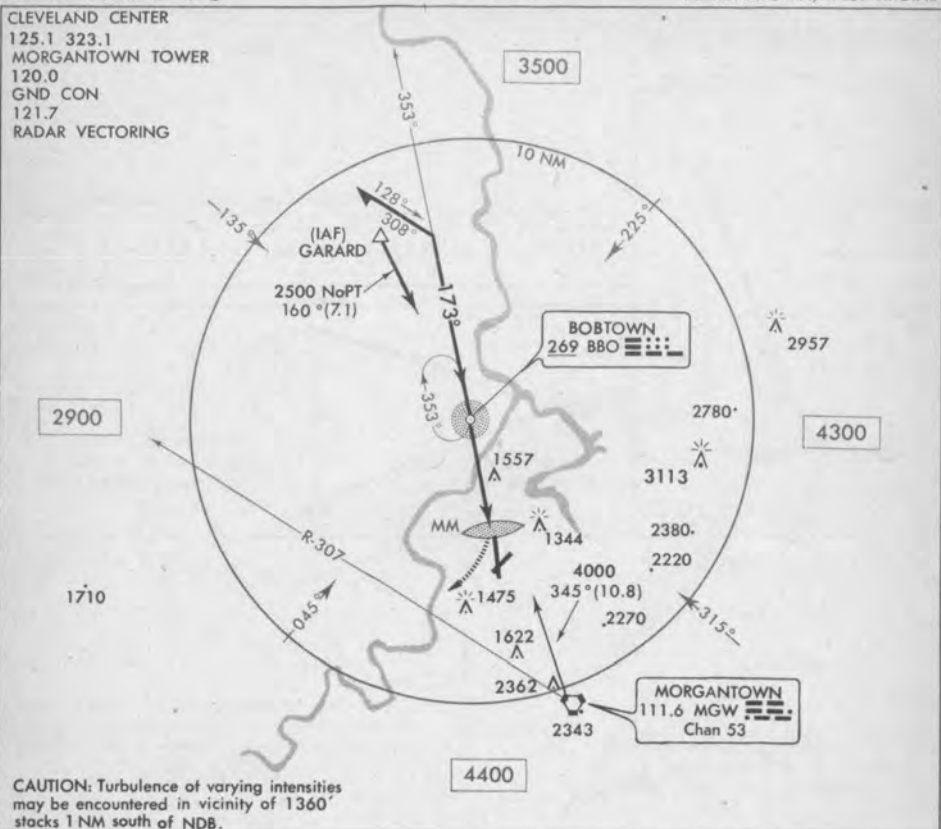
MORGANTOWN TOWER

120.0

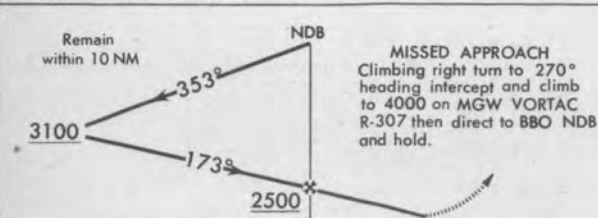
GND CON

121.7

RADAR VECTORED



CAUTION: Turbulence of varying intensities may be encountered in vicinity of 1360' stacks 1 NM south of NDB.



MISSED APPROACH
Climbing right turn to 270° heading intercept and climb to 4000 on MGW VORTAC R-307 then direct to BBO NDB and hold.

CATEGORY	A	B	C	D
S-18	1840-3/4	599 (600-3/4)		1840-1 599 (600-1)
CIRCLING	1840-1	592 (600-1)	1840-1 1/2 592 (600-1 1/2)	1960-2 712 (800-2)



ELEV 1248



REIL Rwy 18 1298
HIRL Rwy 18-36
LIRL Rwy 15-23

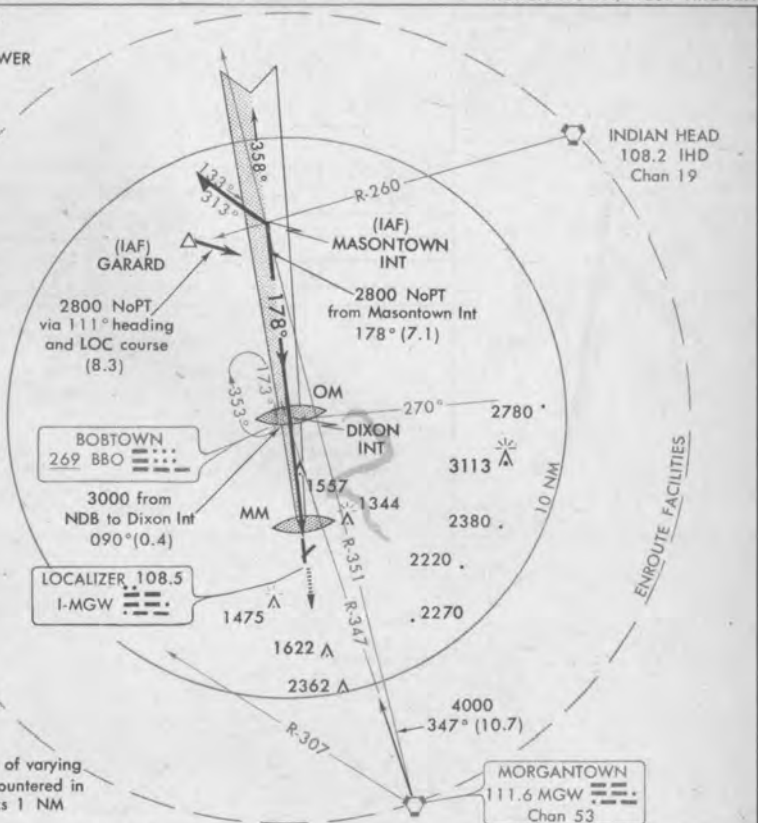
FAF TO MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

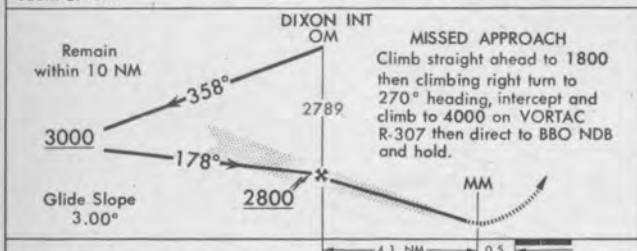
ILS RWY 18

MORGANTOWN MUNI-WALTER L. BILL HART FIELD
AL-479 (FAA)

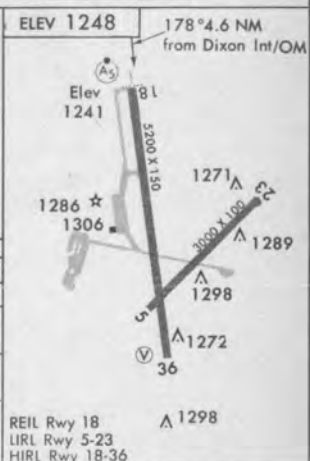
CLEVELAND CENTER
125.1 323.1
MORGANTOWN TOWER
120.0
GND CON
121.7
RADAR VECTORED



CAUTION: Turbulence of varying intensities may be encountered in vicinity of 1360' stacks 1 NM south of OM.



CATEGORY	A	B	C	D
S-ILS 18		1441-1/2	200 (200-1/2)	
S-LOC 18		1800-1 2 559 (600-1/2)		1800-1 559 (600-1)
CIRCLING	1800-1 552 (600-1)		1800-1 1/2 552 (600-1 1/2)	1960-2 712 (800-2)



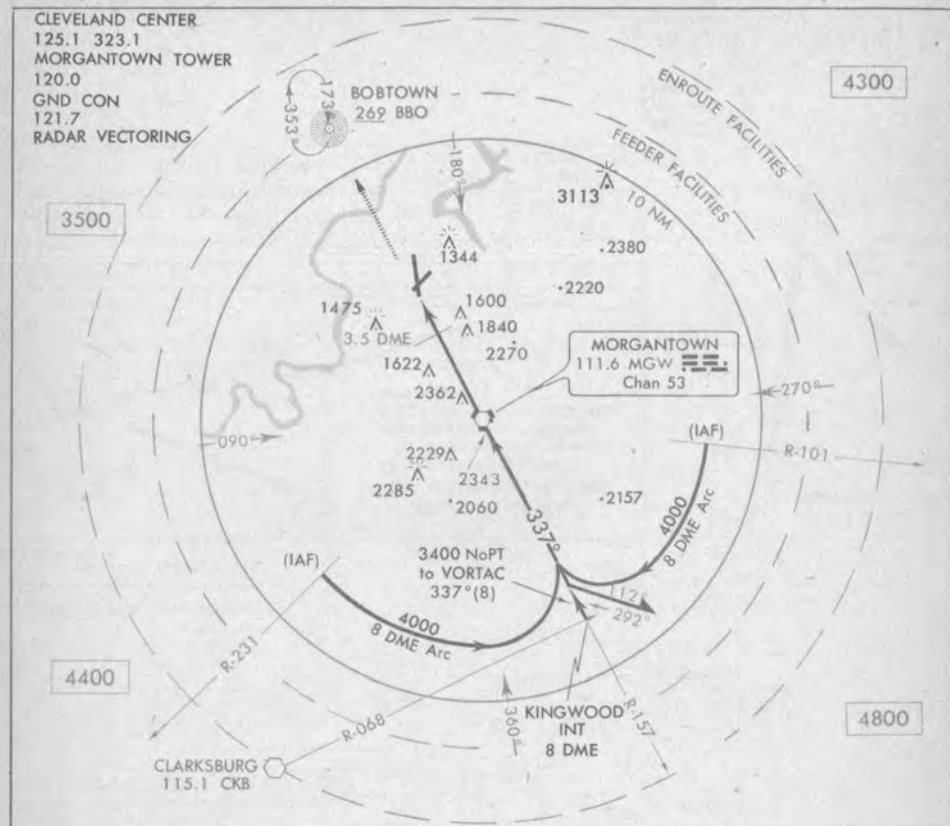
REIL Rwy 18
LIRL Rwy 5-23
HIRL Rwy 18-36

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

ILS RWY 18

39°38'N - 79°59'W

MORGANTOWN, WEST VIRGINIA
MORGANTOWN MUNI-WALTER L. BILL HART FIELD



MISSED APPROACH
Climb to 3000 direct to
BBO NDB and hold.

VORTAC

Remain
within 10 NM



CATEGORY	A	B	C	D
CIRCLING	2600-2	1352	(1400-2)	
DME MINIMA				
CIRCLING	1840-1	592 (600-1)	1840-1½ 592 (600-1½)	1960-2 712 (800-2)



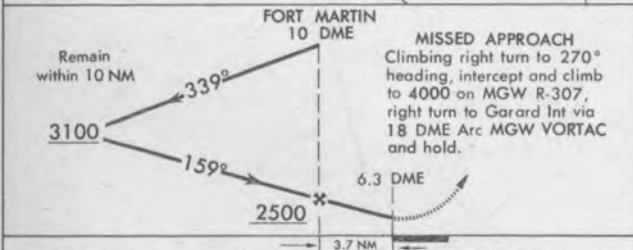
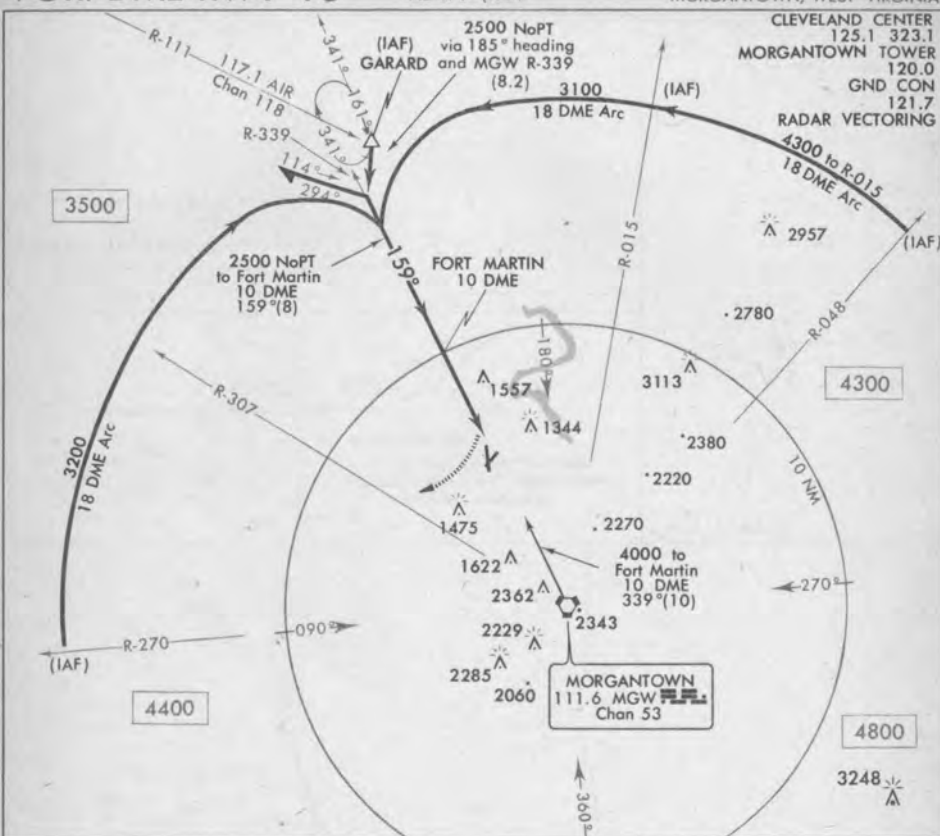
ELEV 1248



FAF TO MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

VOR/DME RWY 18

MORGANTOWN MUNI-WALTER L. BILL HART FIELD
AL-479 (FAA) MORGANTOWN, WEST VIRGINIA



CATEGORY	A	B	C	D
S-18	1800-3/4	559 (600-3/4)		1800-1 559 (600-1)
CIRCLING	1800-1	552 (600-1)	1800-1 1/2 552 (600-1 1/2)	1960-2 712 (800-2)

Knots	60	90	120	150	180
Min:Sec					



VOR/DME RWY 18

39°38'N-79°55'W

MORGANTOWN, WEST VIRGINIA

MORGANTOWN MUNI-WALTER L. BILL HART FIELD

COLUMBUS APP CON
118.2 353.9
RADAR VECTOREDTIVERTON
116.5 TWT
Chan 112

1650

1700

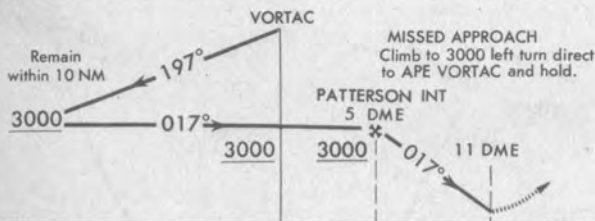
2700

2600

3100

APPLETON
116.7 APE
Chan 114PATTERSON
INT
5 DME

1584



ELEV 1192

10 4000 X 75 28

017° 6 NM from
PATTERSON
INT

MIRL Rwy 10-28

FAF to MAP 6 NM

Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

NDB RWY 32

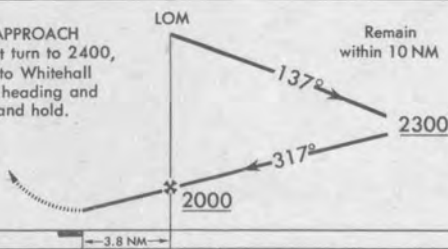
AL-278 (FAA)

MUSKEGON COUNTY
MUSKEGON, MICHIGAN

MUSKEGON APPROACH CONTROL
118.2 257.8
MUSKEGON TOWER
121.1 257.8
GND CON
121.9



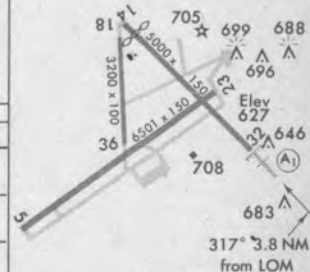
MISSED APPROACH
Climbing right turn to 2400,
and proceed to Whitehall
Int via 030° heading and
MKG R-328 and hold.



CATEGORY	A	B	C	D
S-32	1060 / 40 433 (500-¾)			1060 / 50 433 (500-1)
CIRCLING	1080-1 452 (500-1)		1180-1½ 552 (600-1½)	1180-2 552 (600-2)



ELEV 628 Rwy 14 ldg 4700'



HIRL Rwy 14-32
MIRL Rwy 5-23 and 18-36

FAF to MAP 3.8 NM					
Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

NDB RWY 32

43°10'N - 86°14'W

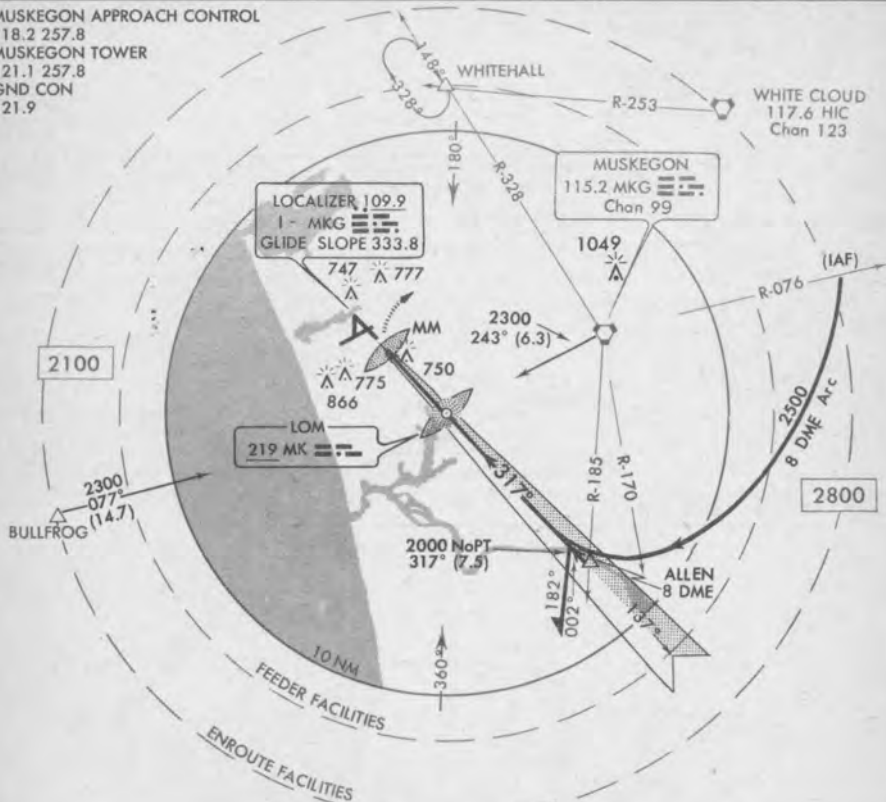
MUSKEGON, MICHIGAN
MUSKEGON COUNTY

ILS RWY 32

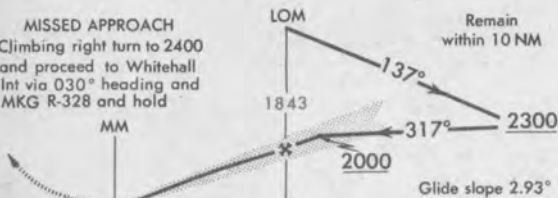
206
AL-278 (FAA)

MUSKEGON COUNTY
MUSKEGON, MICHIGAN

MUSKEGON APPROACH CONTROL
118.2 257.8
MUSKEGON TOWER
121.1 257.8
GND CON
121.9



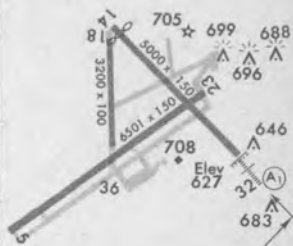
MISSED APPROACH
Climbing right turn to 2400
and proceed to Whitehall
Int via 030° heading and
MKG R-328 and hold



CATEGORY	A	B	C	D
S-ILS 32	827/24 200 (200-1/2)			
S-LOC 32	1000 / 24 373 (400-1/2)			1000 / 40 373 (400-3/4)
CIRCLING	1080-1	452 (500-1)	1180-1 1/2 552 (600-1 1/2)	1180-2 552 (600-2)

ELEV 628

Rwy 14 ldg 4700'



HIRL Rwy 14-32
MIRL Rws 5-23, and 18-36.

FAF to MAP 3.8 NM

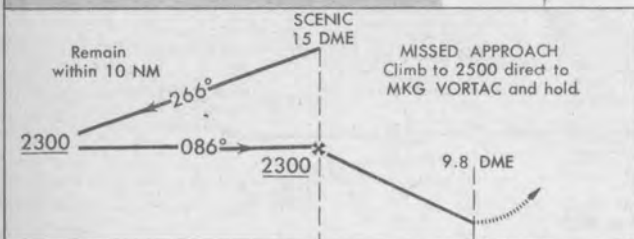
Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

ILS RWY 32

43°10'N-86°14'W

MUSKEGON, MICHIGAN

MUSKEGON APP CON
118.2 257.8
MUSKEGON TOWER
121.1 257.8
GND CON
121.9

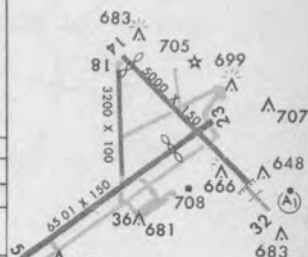


CATEGORY	A	B	C	D
S-5	1120-1	497 (500-1)		
CIRCLING	1120-1	492 (500-1)	1180-1½ 552 (600-1½)	1180-2 552 (600-2)

CAUTION: Unlighted 850 feet tower 2NM West of airport.
Inoperative table does not apply to REIL Rwy 5.



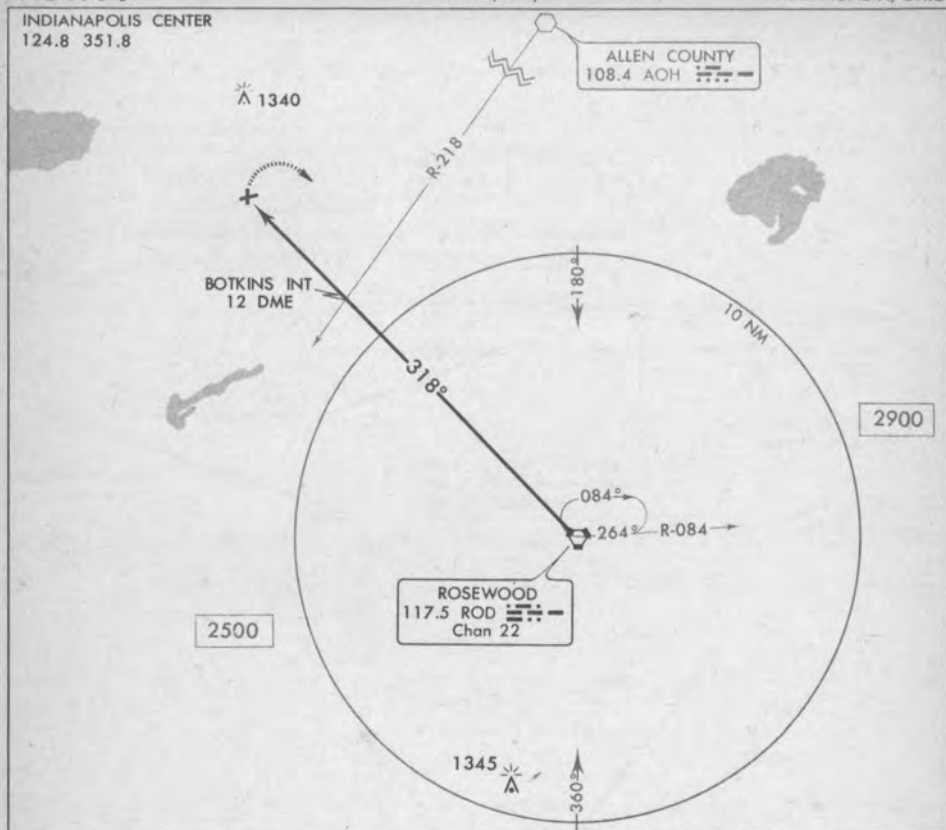
ELEV 628 Rwy 14 ldg 4700'
Rwy 23 ldg 5251'



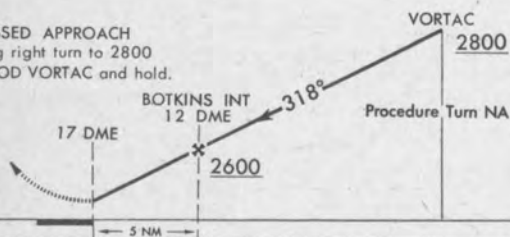
REIL Rwy 5, 23 and 14
HIRL Rwy 14-32
MIRL Rwy 5-23 and 18-36

Knots	60	90	120	150	180
Min:Sec					

INDIANAPOLIS CENTER
124.8 351.8



MISSED APPROACH
Climbing right turn to 2800
direct ROD VORTAC and hold.



CATEGORY	A	B	C	D
CIRCLING	1540-1	630 (700-1)	1540-1½ 630 (700-1½)	1540-2 630 (700-2)

Use Dayton, Ohio altimeter setting.
Night minimums not authorized Rwys 18 and 36.

▽
△ NA

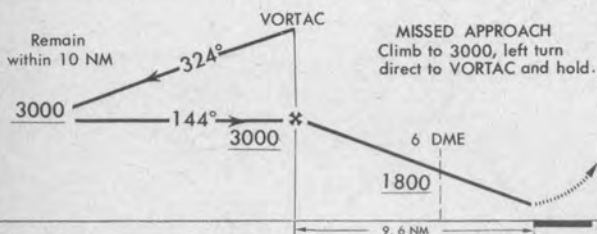
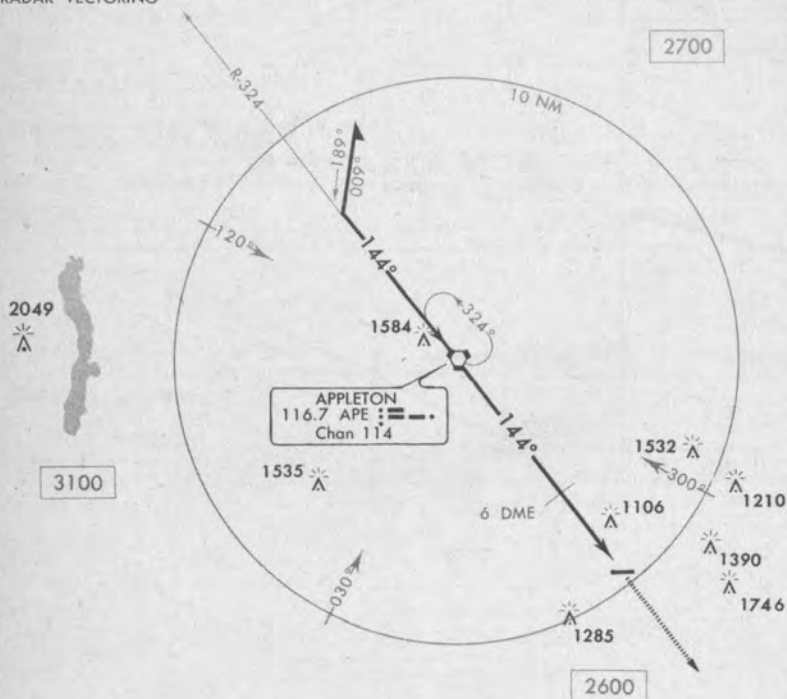
ELEV 910



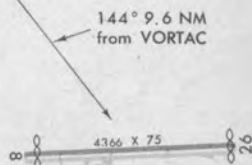
Rwy 18-36 unlighted
REIL Rwy: 8 and 26

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

COLUMBUS APP CON
118.2 353.9
RADAR VECTORED



ELEV 880
Rwy 8 ldg 4094'
Rwy 26 ldg 4250'



CATEGORY	A	B	C	D
CIRCLING	1800-1 1/4 920 (1000-1 1/4)	1800-1 1/2 920 (1000-1 1/2)	1800-1 3/4 920 (1000-1 3/4)	1800-2 920 (1000-2)
DME MINIMA				
CIRCLING	1520-1 640 (700-1)	1540-1 1/2 660 (700-1 1/2)	1780-2 900 (900-2)	

Use Columbus, Ohio altimeter setting.

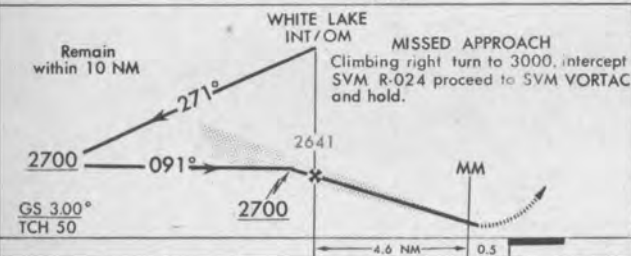
▽
△ NA

LIRL Rwy 8-26.

FAF to MAP 9.6 NM

Knots	60	90	120	150	180
Min:Sec	9:36	6:24	4:48	3:50	3:12

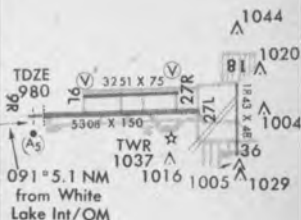
AL-5052 (FAA)



CATEGORY	A	B	C	D
S-ILS 9R	1180-1/2 200 (200-1/2)			
S-LOC 9R	1480-1/2 500 (500-1/2)			1480-1 500 (500-1)
CIRCLING	1480-1 500 (500-1)		1540-1 1/2 560 (600-1/2)	1540-2 560 (600-2)

When control zone not effective, the following applies: (a) Use Detroit, Michigan City Airport altimeter setting. (b) Increase S-ILS-9R VIS. to $\frac{3}{4}$ mile for all Cats (c) Increase all MDAs 100 feet. (d) Increase S-LOC-9R VIS. to 1 mile for Cat. A, B, and C; $\frac{1}{4}$ mile for Cat. D (e) Alternate minimums not authorized. Inoperative table does not apply to HIRLS Rwy 9R.

ELEV 980



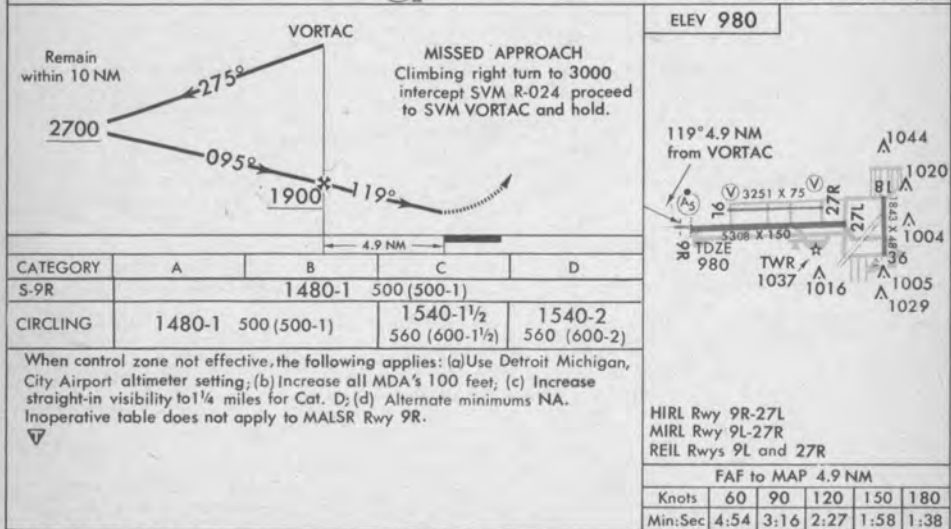
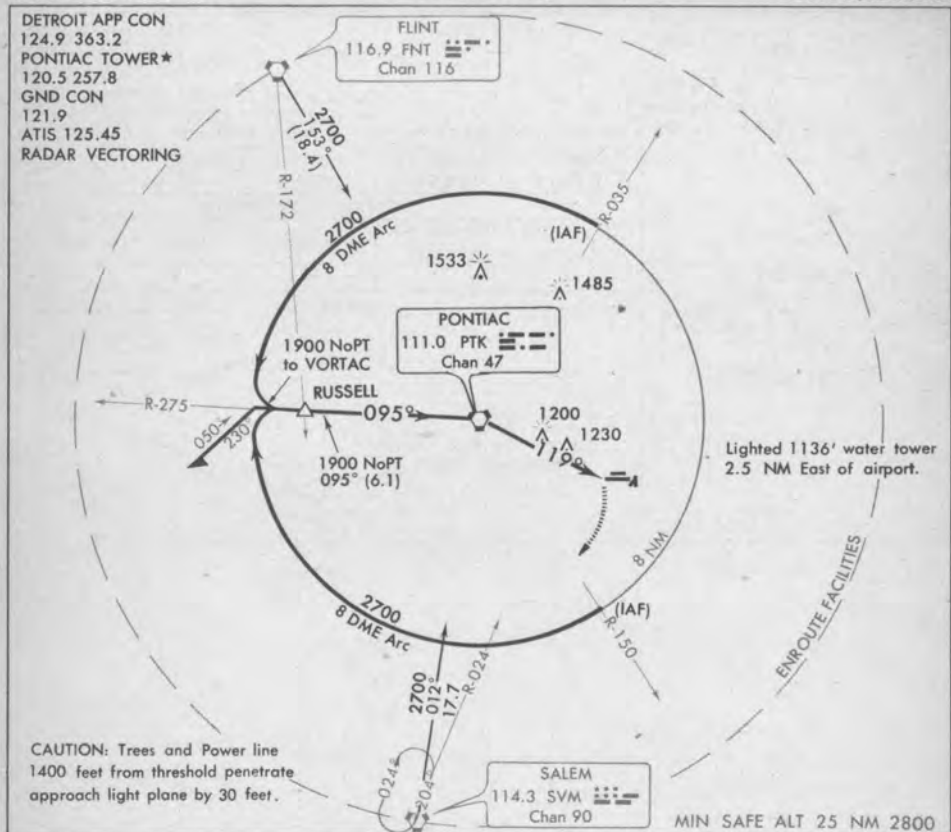
HIRL Rwy 9R-27L
MIRL Rwy 9L-27R
REIL Rwy 9L and 27R

FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

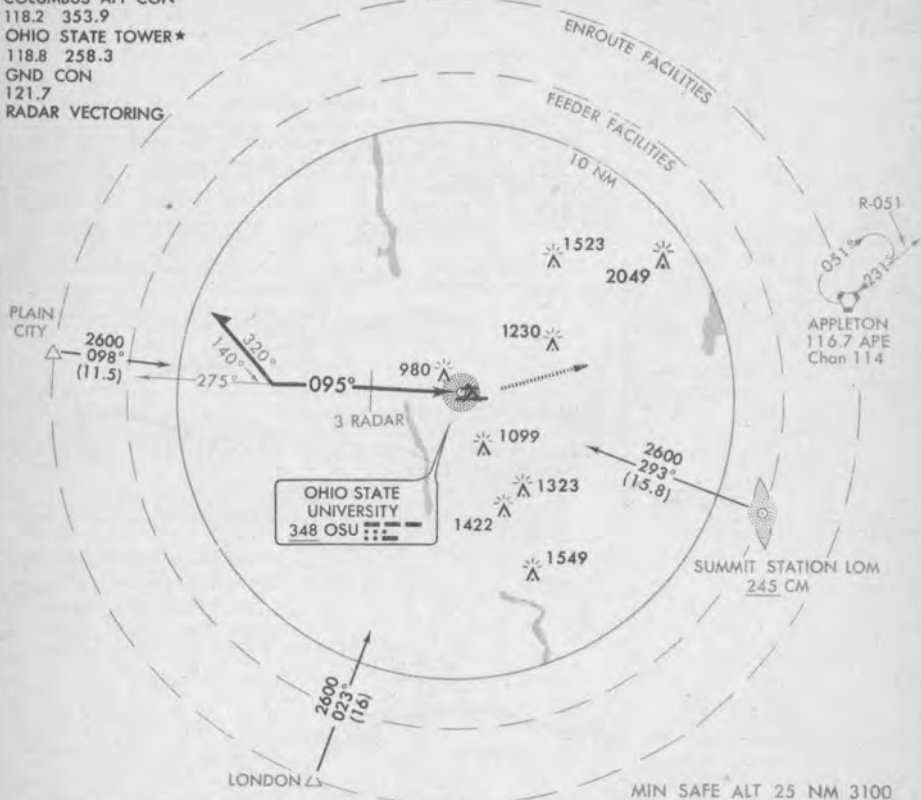
ILS RWY 9R

42°40'N – 83°25'W

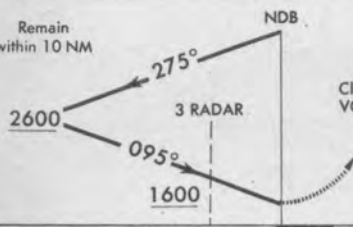
PONTIAC, MICHIGAN
OAKLAND-PONTIAC



COLUMBUS APP CON
118.2 353.9
OHIO STATE TOWER*
118.8 258.3
GND CON
121.7
RADAR VECTERING



Remain
within 10 NM



ELEV 905

095° to
OSU NDB



CATEGORY	A	B	C	D
CIRCLING*	1600-1	695 (700-1)	1600-1½ 695 (700-1½)	1600-2 695 (700-2)
RADAR FIX MINIMUMS				
CIRCLING*	1320-1 415 (500-1)	1360-1 455 (500-1)	1360-1½ 455 (500-1½)	1460-2 555 (600-2)

When control zone not effective, the following applies: (a) Use Columbus, Ohio altimeter setting (b) Increase all MDA's 20 feet.
Night minimums not authorized Rwy 9L/27R.

▽
△NA

MIRL Rwy 9L-27R and 14-32
HIRL Rwy 9R-27L
REIL Rwy 9R

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 27L

AL-5387 (FAA)

OHIO STATE UNIVERSITY
COLUMBUS, OHIO

COLUMBUS APP CON
118.2 353.9
OHIO STATE TOWER *
118.8 258.3
GND CON
121.7
RADAR VECTERING

ENROUTE FACILITIES

10 NM

PLAIN
CITY3000
098°
(11.5)

OHIO STATE
UNIVERSITY
348 OSU :: ::
LOM
GRANDVIEW
272 CB :: ::

1422

1523

2049

1230

980

1099

1323

1549

WORTHINGTON
INT

APPLETON

3000
262°
(22.3)

094°

LONDON

3000
023°
(16)

MIN SAFE ALT 25° NM 3100

MISSED APPROACH
Climb to 3000 right turn,
direct to OSU NDB and
hold.

†1600 when control
zone not effective.

NDB

Remain
within 10 NMWORTHINGTON
INT

3000

1580†

3.6 NM

CATEGORY

A

B

C

D

S-27L

1580-1 678 (700-1)

1580-1¼
678 (700-1¼)1580-1½
678 (700-1½)

CIRCLING

1580-1 675 (700-1)

1580-1½
675 (700-1½)1580-2
675 (700-2)

DUAL NDB or RADAR MINIMUMS

S-27L

1500-1 598 (600-1)

1500-1¼
598 (600-1¼)

When control zone not effective, the following applies: (a) Use Columbus, Ohio
altimeter setting. (b) All MDAs increased 20 feet.
Night minimums not authorized Rwy 9L/27R.

▽Δ NA

ELEV 905



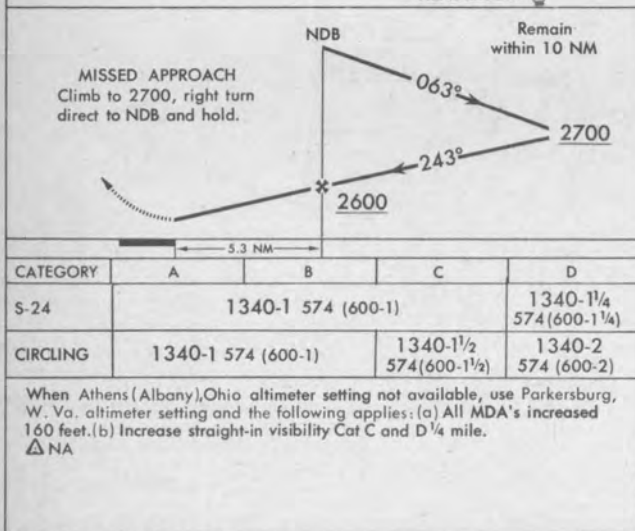
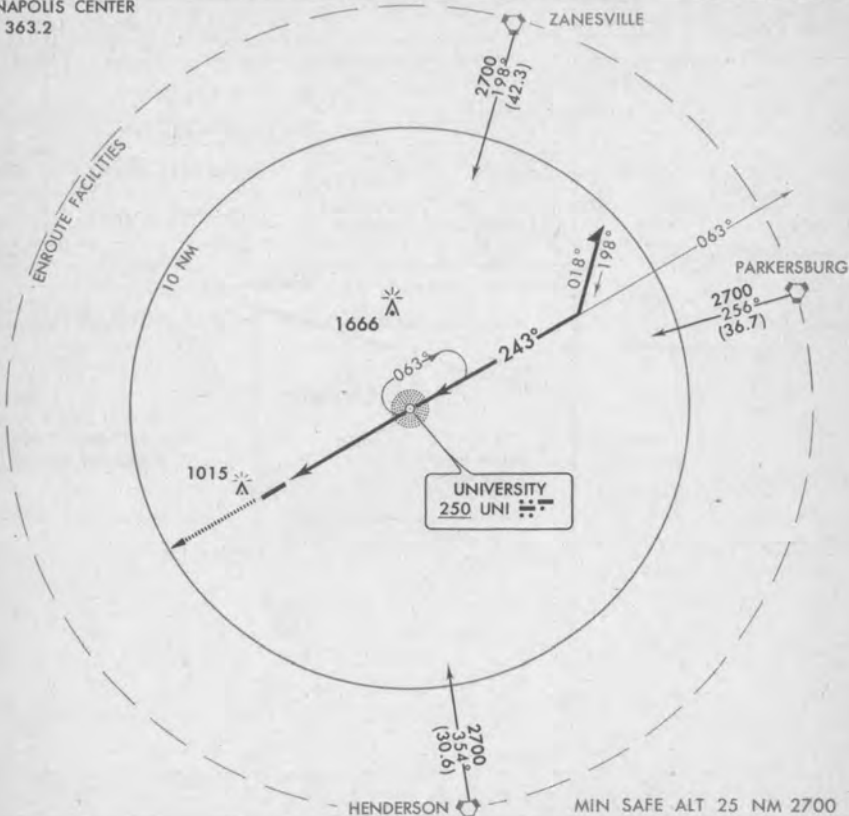
MIRL Rwy 9L-27R and 14-32
HIRL Rwy 9R-27L
REIL Rwy 9R

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 27L

40°05'N - 83°04'W

COLUMBUS, OHIO
OHIO STATE UNIVERSITY

NDB RWY 24216
AL-5861 (FAA)**OHIO UNIVERSITY**
ATHENS (ALBANY), OHIOINDIANAPOLIS CENTER
135.7 363.2**ELEV 766**MIRL Rwy 6-24
REIL Rwy 24

FAF to MAP 5.3 NM

Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

NDB RWY 24

39°13'N - 82°14'W

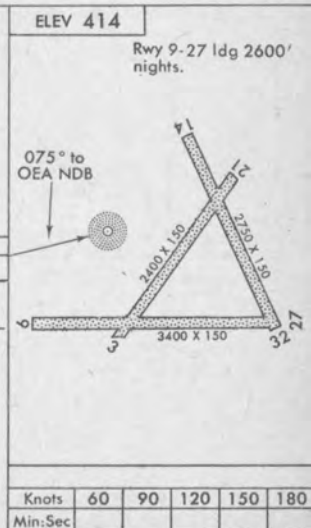
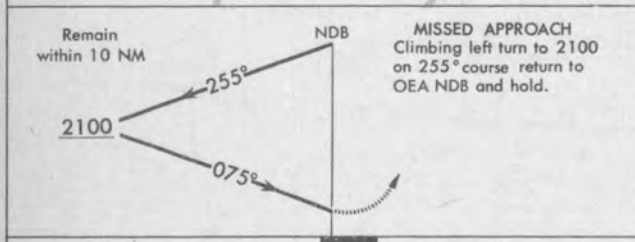
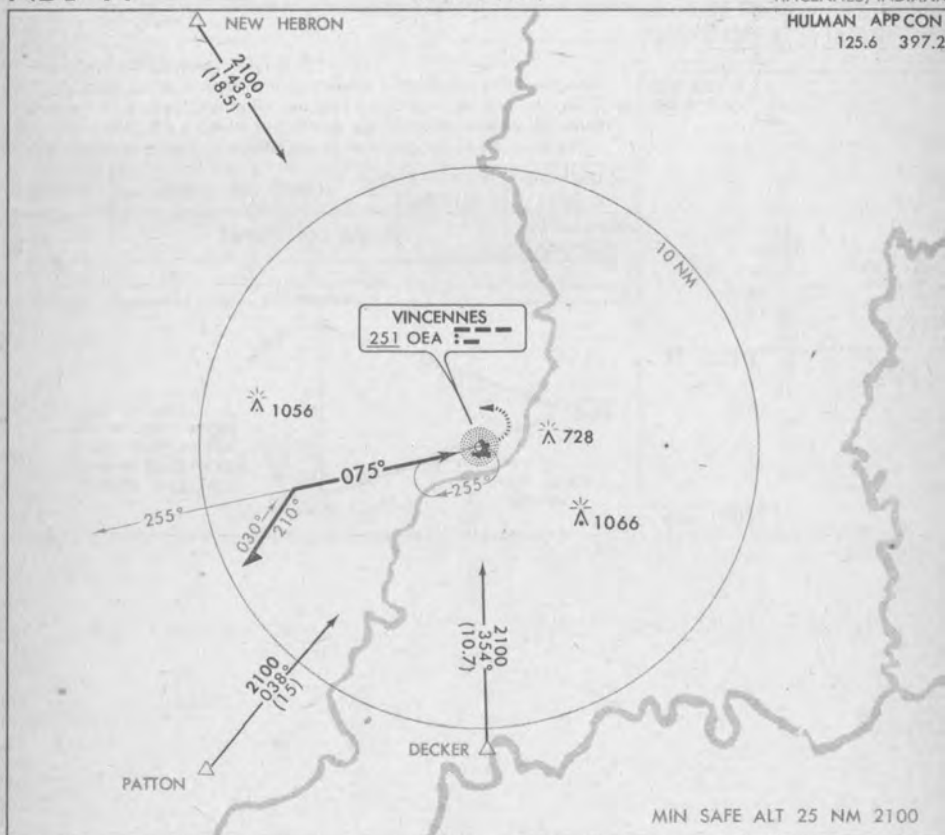
ATHENS (ALBANY), OHIO
OHIO UNIVERSITY

NDB -A

AL-5577 (FAA)

O'NEAL
VINCENNES, INDIANA

HULMAN APP CON
125.6 397.2



CATEGORY	A	B	C	D
CIRCLING*	1160-1	746 (800-1)	1160-1½ 746 (800-1½)	1200-2 786 (800-2)

Use Evansville, Indiana altimeter setting.
*Night minimums not authorized

▽
△ NA

NDB -A

38°41'N - 87°33'W

VINCENNES, INDIANA
O'NEAL

VOR RWY 27

AL-5373 (FAA)

GAYLORD, MICHIGAN

MINNEAPOLIS CENTER
134.6 323.0

IRONTON

2900
127°
(119.4)

10 NM

2800

1844

1470

1583

1629

R-268

090°

GAYLORD
109.2 GLR

268°

R-088

3500

360°

MISSED APPROACH
Climb to 2900 on GLR
R-268 within 10 NM,
left turn direct to GLR
VOR and hold.

VOR

Remain
within 10 NM

088°

2900



ELEV 1335

5000 X 75

81

Elev
1335268° to
GLR VOR

CATEGORY	A	B	C	D
S-27	1940-1 605 (700-1)			1940-1 1/4 605 (700-1 1/4)
CIRCLING	1940-1 605 (700-1)		1940-1 1/2 605 (700-1 1/2)	1940-2 605 (700-2)

Obtain Gaylord, Michigan altimeter setting on UNICOM 122.8. If unable, use Pellston, Michigan altimeter setting and the following applies: (a) Increase all MDA's 160 feet; (b) Increase straight-in visibility Cat. B to 1 1/4; Cat. C to 1 1/2; Cat. D to 1 3/4; (c) Increase Cat. B Circling visibility to 1 1/4; (d) Alternate minimums not authorized.



NA

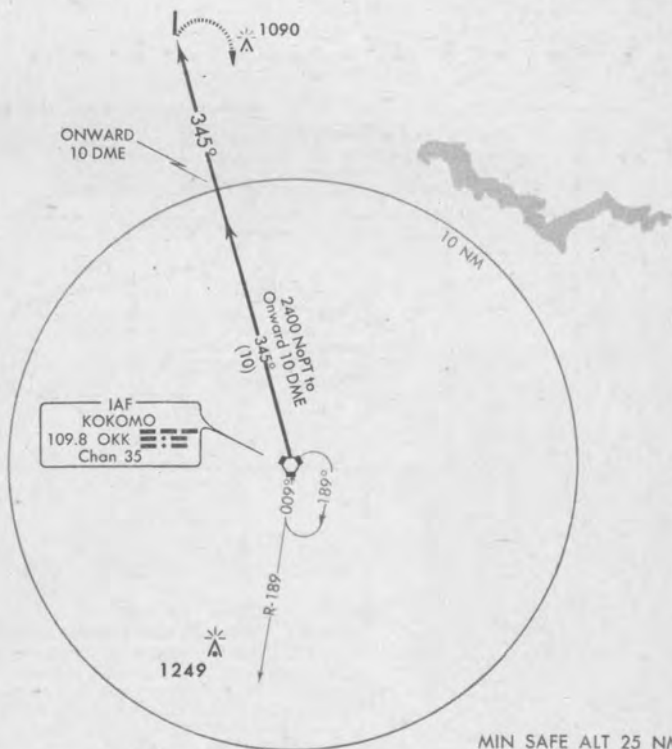
REIL Rwy 9
MIRL Rwy 9-27

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 27

45°01'N-84°42'W

GAYLORD, MICHIGAN
OTSEGO COUNTY



MIN SAFE ALT 25 NM 2300

MISSED APPROACH
Right climbing turn to
2400 within 5 NM, direct
OKK VORTAC and hold.

ONWARD
10 DME

VORTAC

100

8400

15.7 DME

Procedure Turn
NA

CATEGORY	A	B	C	D
S-36	1160-1	381 (400-1)	1160-1 1/4 381 (400-1 1/4)	1160-1 1/2 381 (400-1 1/2)
CIRCLING	1200-1 421 (500-1)	1240-1 461 (500-1)	1240-1 1/2 461 (500-1 1/2)	1340-2 561 (600-2)

Use Grissom AFB altimeter setting.

 Δ_{NA}

ELEV 779

LIRL Rwy 18-36

81

01

Elev
779

34

345° 5.7 NM
from Onward
10 DME —

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

COLLINS TOWER ★
120.9 236.6
GND CON
121.9 275.8



Remain
within 10 NM

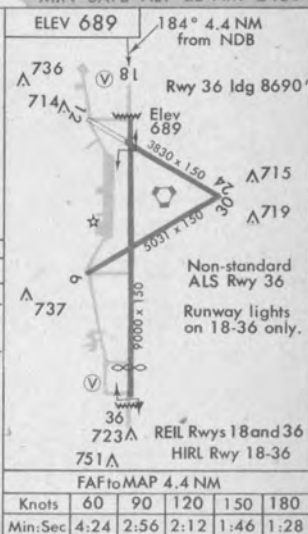
NDB

MISSED APPROACH
Climbing left turn to 2000
return to CNS NDB and hold.

MISSED APPROACH
Climbing left turn to 2000
return to CNS NDB and hold.

		← 4.4 NM →			
CATEGORY	A	B	C	D	
S-18	1080-1		391 (400-1)		
CIRCLING	1160-1	471 (500-1)	1160-1½ 471 (500-1½)	1240-2 551 (600-2)	

Procedure not authorized when control zone not effective.



NDB RWY 18

45°05'N-83°34'W

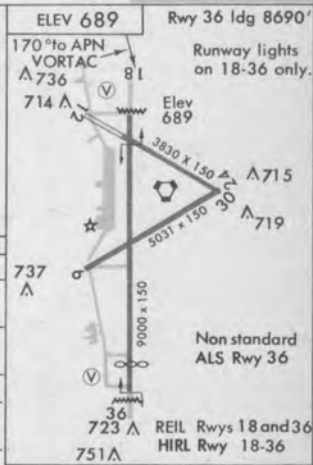
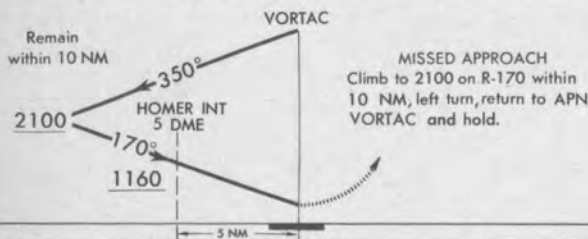
ALPENA, MICHIGAN
PHELPS COLLINS

COLLINS TOWER *
120.9 236.6
GND CON
121.9 275.8



*When control zone not effective, except for operators with approved weather reporting service: Obtain weather on UNICOM 123.0, if unable, use Wurtsmith AFB, Mich. altimeter and the following applies: Increase all MDA's 160 feet. VOR only, increase straight-in visibility Cat A and B to 1 mile; Cat C to 1 1/4 mile; Cat D to 1 1/2 mile. VOR/DME; Cat. A, B and C to 1 mile; Cat D to 1 1/4 mile. VOR/NDB minimums not authorized when control zone not in operation. Alternate minimums NA.

MIN SAFE ALT 25 NM 2400



CATEGORY	A	B	C	D
S-18*	1160-3/4	471 (500-3/4)		1160-1 471 (500-1)
CIRCLING*	1160-1	471 (500-1)	1160-1 1/2 471 (500-1 1/2)	1240-2 551 (600-2)
VOR/DME or VOR/NDB MINIMA				
S-18*	1100-3/4	411 (500-3/4)		1100-1 411 (500-1)

Inoperative Table does not apply to REIL Rwy 18

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 36

AL-718 (FAA)

PHELPS COLLINS

ALPENA, MICHIGAN

COLLINS TOWER*

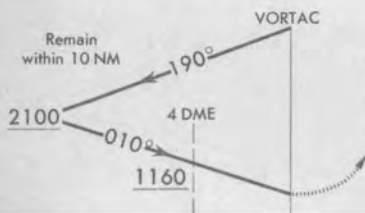
120.9 236.6

GND CON

121.9 275.8



MIN SAFE ALT 25 NM 2400



MISSED APPROACH
Climb to 2100 on R-010 within 10 NM, return to APN VORTAC and hold.

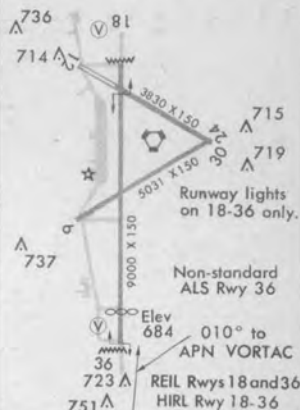
CATEGORY	A	B	C	D
S-36*	1160-3/4	476 (500-3/4)		1160-1 476 (500-1)
CIRCLING*	1160-1	471 (500-1)	1160-1 1/2 471 (500-1 1/2)	1240-2 551 (600-2)

VOR/DME MINIMA

S-36*	1100-3/4	416 (500-3/4)	1100-1 416 (500-1)
-------	----------	---------------	-----------------------

Inoperative table does not apply to REIL or ALS Rwy 36.

ELEV 689 Rwy 36 ldg 8690'



Knots	60	90	120	150	180
Min:Sec					

VOR RWY 36

45°05'N-83°34'W

ALPENA, MICHIGAN
PHELPS COLLINS

TACAN RWY 18-36

AL-718 (USAF)

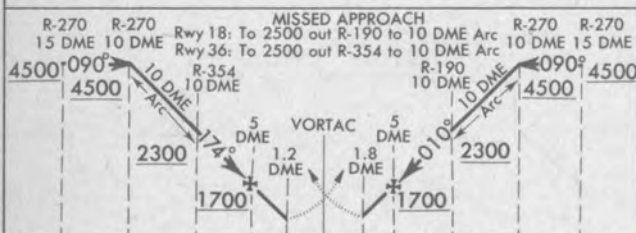
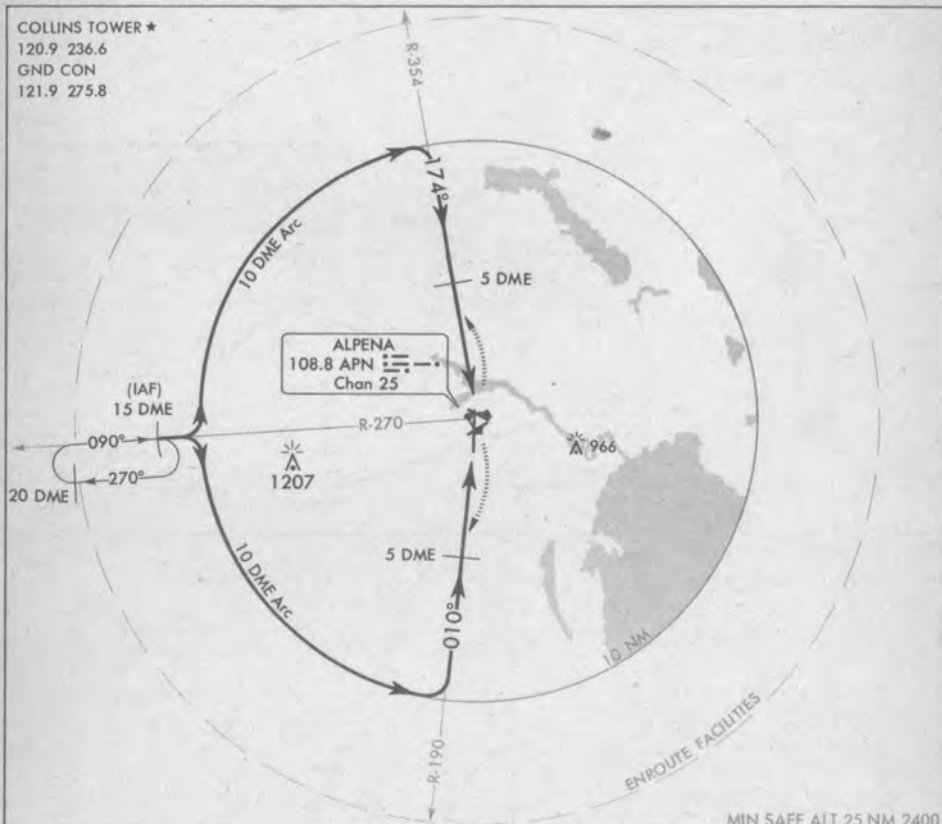
223
PHELPS-COLLINS
ALPENA, MICHIGAN

COLLINS TOWER ★

120.9 236.6

GND CON

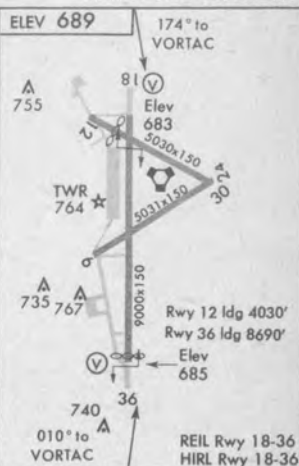
121.9 275.8



CATEGORY	A	B	C	D
S-36	1000-1	315	(400-1)	
S-18	1020-1	337	(400-1)	
CIRCLING	1140-1 451 (500-1)	1140-1½ 451 (500-1½)	1240-2 551 (600-2)	

When ctz not eff, use WURTSMITH AFB Mich, altimeter setting.

Increase all MDA's 160 ft. Increase all ceil 200 ft and vis to 2 SM.



TACAN RWY 18-36

45°05'N-83°34'W

ALPENA, MICHIGAN
PHELPS-COLLINS

Orig

NDB RWY 18

224

AL-5995 (FAA)

PICKAWAY COUNTY MEMORIAL
CIRCLEVILLE, OHIO

COLUMBUS APP CON

119.65 279.6

RADAR VECTING

LONDON

3000
21.1

003°

228°
048°

CIRCLEVILLE

366 CYO

183°

0.3°

3000
262°
(10.7)

TARLTON

10 NM

1536

MIN SAFE ALT 25 NM 2600

MISSED APPROACH
Climb to 2600 left turn direct
to NDB and hold.

NDB

Remain
within 10 NM

003°

183°

2600

ELEV 685

Rwy 36 ldg 4175'

183° to
CYO NDBElev
685

81

4360 x 75

36

CATEGORY

A

B

C

D

S-18

1340-1

655 (700-1)

1340-1 $\frac{1}{4}$ 655 (700-1 $\frac{1}{4}$)1340-1 $\frac{1}{2}$ 655 (700-1 $\frac{1}{2}$)

CIRCLING

1340-1

655 (700-1)

1340-1 $\frac{1}{2}$ 655 (700-1 $\frac{1}{2}$)

1340-2

655 (700-2)

Use Lockbourne AFB, Ohio altimeter setting.

△ NA

MIRL Rwy 18-36

Knots

60

90

120

150

180

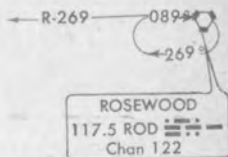
Min:Sec

NDB RWY 18

39°31'N - 82°59'W

CIRCLEVILLE, OHIO
PICKAWAY COUNTY MEMORIAL

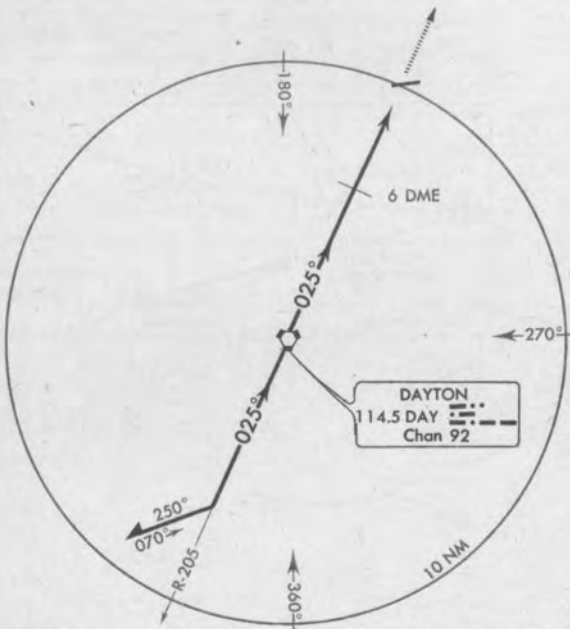
DAYTON APP CON
 134.45 327.1
 RADAR VECTORED



1345

2400

3100



Remain
 within 10 NM

VORTAC

MISSED APPROACH
 Climb to 2800 direct ROD
 VORTAC and hold.

3000 205° 025° 3000

6 DME

1620

9.6 NM

CATEGORY	A	B	C	D
CIRCLING	1620-1	619(700-1)	1620-1½ 619(700-1½)	1700-2 699(700-2)
VOR/DME MINIMA				
CIRCLING	1440-1 439(500-1)	1460-1 459(500-1)	1460-1½ 459(500-1½)	1560-2 559(600-2)

Use Dayton, Ohio altimeter setting.

Δ NA

ELEV 1001



FAF to MAP 9.6 NM

Knots	60	90	120	150	180
Min:Sec	9:36	6:24	4:48	3:50	3:12

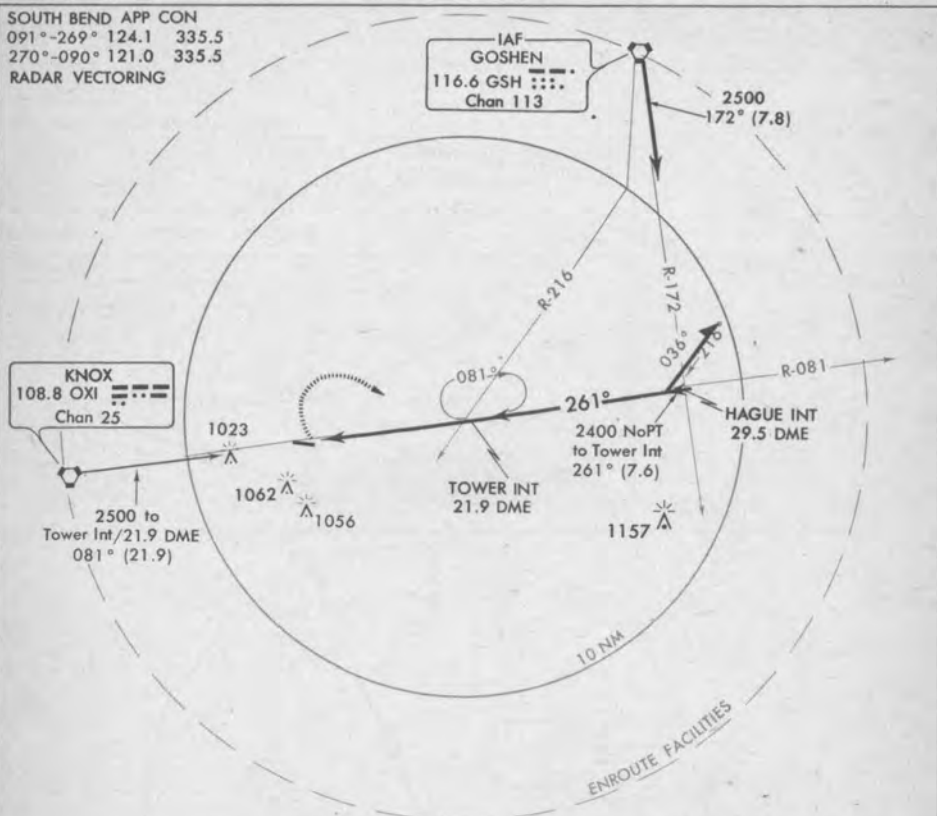
VOR-A

40°10'N-84°19'W

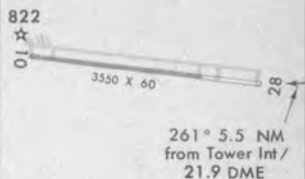
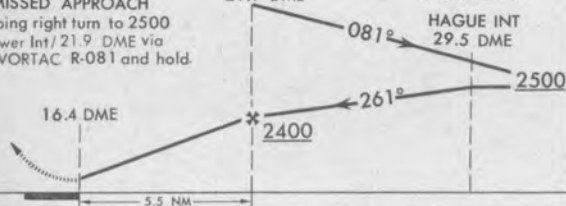
PIQUA, OHIO
 PIQUA

VOR RWY 28

AL-5658 (FAA)

PLYMOUTH MUNI
PLYMOUTH, INDIANASOUTH BEND APP CON
091°-269° 124.1 335.5
270°-090° 121.0 335.5
RADAR VECTERING**KNOX**
108.8 OXI
Chan 25**IAF**
GOSHEN
116.6 GSH
Chan 113**MISSED APPROACH**
Climbing right turn to 2500
to Tower Int/21.9 DME via
OXI VORTAC R-081 and hold.TOWER INT
21.9 DMERemain
within 10 NM

ELEV 796



CATEGORY	A	B	C	D
S-28	1220-1 424 (500-1)		1220-1 1/4 424 (500-1 1/4)	1220-1 1/2 424 (500-1 1/2)
CIRCLING	1280-1 484 (500-1)		1380-1 1/2 584 (600-1 1/2)	1380-2 584 (600-2)

Obtain local altimeter setting through UNICOM 122.8 MHz.
When not available, use South Bend, Indiana altimeter setting and increase all MDAs 80 feet.▽
△ NALIRL Rwy 10-28
REIL Rws 10 and 28

FAF to MAP 5.5 NM				
Knots	60	90	120	150 180
Min:Sec	5:30	3:40	2:45	2:12 1:50

VOR RWY 28

41°22'N - 86°18'W

PLYMOUTH, INDIANA
PLYMOUTH MUNI

VOR-A

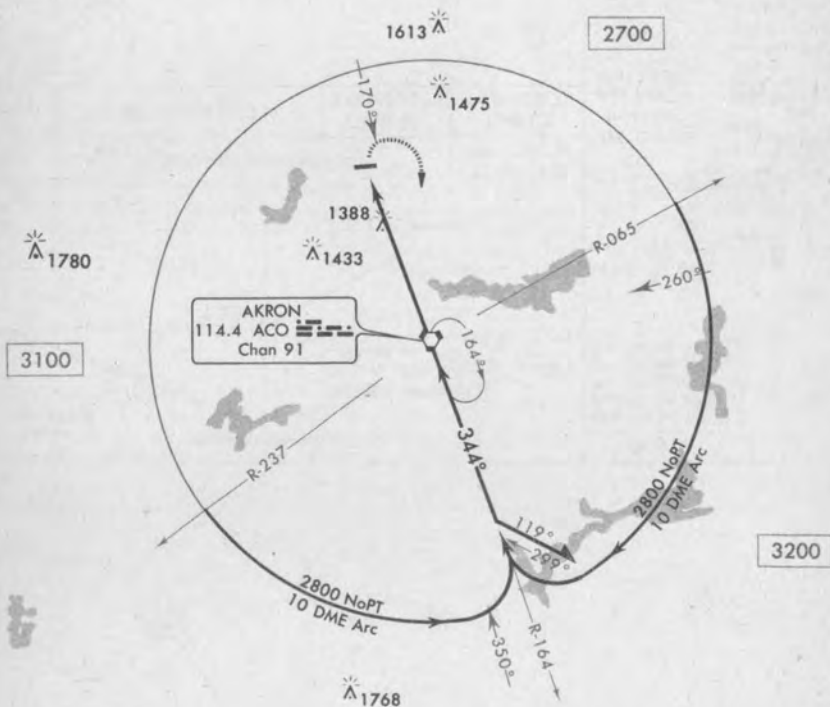
AL-5844 (FAA)

PORTAGE COUNTY
RAVENNA, OHIO

AKRON-CANTON APPROACH CONTROL

125.5 323.0

RADAR VECTORING



MISSED APPROACH
Climbing right turn to 2800
direct to VORTAC and hold.

VORTAC

Remain
within 10 NM

2800

2800

6.5 NM

CATEGORY	A	B	C	D
CIRCLING	1780-1 583 (600-1)	1780-1½ 583 (600-1½)	1780-2 583 (600-2)	1780-2 583 (600-2)

Use Akron, Ohio altimeter setting.

NA

ELEV 1197



REIL Rwy 9
MIRL Rwy 9-27

FAF to MAP 6.5 NM

Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10

VOR-A

41°13'N - 81°15'W

227

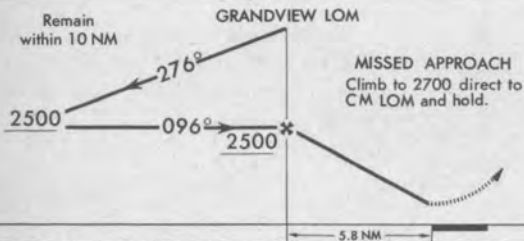
RAVENNA, OHIO
PORTAGE COUNTY

NDB RWY 10L

AL- 94 (FAA)

PORT COLUMBUS INTERNATIONAL
COLUMBUS, OHIO

COLUMBUS APP CON
276°-095° 118.2 353.9
096°-275° 119.65 353.9
COLUMBUS TOWER
120.5 257.8
GND CON
121.9 348.6
ASR
ATIS 109.1 135.4



CATEGORY	A	B	C	D
S-10L	1360/40 546 (600-3/4)			1360/60 546 (600-1 1/4)
CIRCLING	1360-1 544 (600-1)		1360-1 1/2 544 (600-1 1/2)	1380-2 564 (600-2)



ELEV 816

Rwy 1 ldg 3351'
Rwy 23 ldg 3900'
Rwy 5 ldg 4093'
Rwy 13 ldg 3683'
Rwy 31 ldg 3792'



FAF to MAP 5.8 NM

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

NDB RWY 10L

40°00'N-82°53'W

COLUMBUS, OHIO
PORT COLUMBUS INTERNATIONAL

NDB RWY 28L

COLUMBUS APP CON

270° - 089° 118.2 353.9

090° - 269° 119.65 279.6

COLUMBUS TOWER

120.5 257.8

GND CON

121.9 348.6

CLNC DEL

126.3

ASR

ATIS 109.1 135.4

IAF
APPLETON
116.7 APE: ---
Chan 114

2049

3100

1465
1352LOM
SUMMIT STATION
245 CM ---2700 NoPT to CM LOM
via APE R-186 and CM
LOM 096° bearing
(17)LOM
GRANDVIEW
272 CB ---1422
096
276
1549
13841115
1012
1008
1167

1012

1150

276°

096°

R-186

R-153

(IAF) HANOVER

R-277

2700 NoPT

276° (13.7)

ZANESVILLE

111.4 ZZW ---

Chan 51

2600

SUMMIT STATION LOM

MISSED APPROACH
Climb to 2500 direct to
CB LOM and hold.Remain
within 10 NM

096°

2700

276°

2700

5.4 NM

CATEGORY	A	B	C	D
S-28L	1420 / 40 606 (700-¾)			1420/60 606(700-1¼)
CIRCLING	1420-1 604(700-1)		1420-1½ 604(700-1½)	1420-2 604(700-2)

CAUTION: Vehicles on road 600 feet from threshold penetrate approach
light plane by 9 feet.

ELEV 816

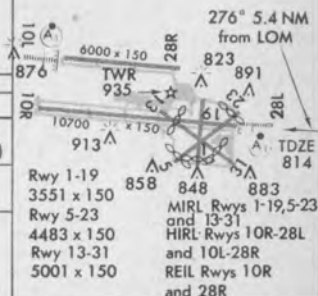
Rwy 1 ldg 3351'

Rwy 5 ldg 4093'

Rwy 23 ldg 3900'

Rwy 13 ldg 3683'

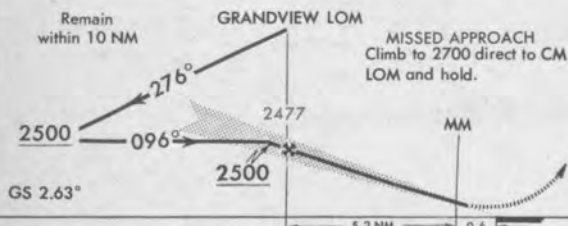
Rwy 31 ldg 3792'



FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

COLUMBUS APP CON
276°-095° 118.2 353.9
096°-275° 119.65 353.9
COLUMBUS TOWER
120.5 257.8
GND CON
121.9 348.6
ASR
ATIS 109.1 135.4

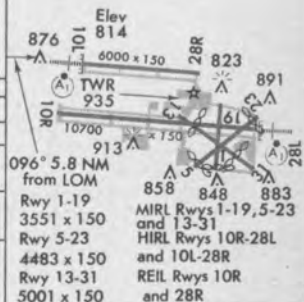


CATEGORY	A	B	C	D
S-1LS-10L	1014/24 200 (200-1/2)			
S-LOC-10L	1300/24 486 (500-1/2)		1300/40 486 (500-3/4)	
CIRCLING	1320-1 504 (600-1)		1320-1 1/2 504 (600-1 1/2)	1380-2 564 (600-2)



ELEV 816

Rwy 1 ldg 3351'
Rwy 5 ldg 4093'
Rwy 23 ldg 3900'
Rwy 13 ldg 3683'
Rwy 31 ldg 3792'



FAF to MAP 5.8 NM					
Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

ILS RWY 10L

40°00'N-82°53'W

COLUMBUS, OHIO

PORT COLUMBUS INTERNATIONAL

COLUMBUS APP CON		
270° - 089°	118.2	353.9
090° - 269°	119.65	279.6
COLUMBUS TOWER		
120.5	257.8	
GND CON		
121.9	348.6	
CLNC DEL		20
126.3		
ASR		
ATIS 109.1	135.4	

IAF
APPLETON
116.7 APE :: = -
Chan 114



MISSED APPROACH
Climb to 2500 direct to
CB LOM and hold.

SUMMIT
STATION LOM

Remain
within 10 NM



					
CATEGORY	<table><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D
A	B	C	D		
S-LS 28L	1014 / 24 200 (200-1/2)				
S-LOCALIZER 28L	1360 / 24 546 (600-1/2) 1360 / 50 546 (600-1)				
CIRCLING	1360-1 544 (600-1) 1360-1 1/2 544 (600-1 1/2) 1380-2 564 (600-2)				

Glide slope point of touchdown approximately 1600 feet in from approach end of runway.

Glide slope unusable for autopilot coupled approaches below 2150' MSL.

CAUTION: Vehicles on road 600 feet from threshold penetrate approach light plane by 9 feet.

ELEV 816

Rwy 1 ldg 3351'
Rwy 5 ldg 4093'
Rwy 23 ldg 3900'
Rwy 13 ldg 3683'
Rwy 31 ldg 3792'



FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

COLUMBUS APP CON
276° 095° 118.2 353.9
096° 275° 119.65 353.9
COLUMBUS TOWER
120.5 257.8
GND CON
121.9 348.6
ASR
ATIS 109.1 135.4

LOM
GRANDVIEW
272 CB

1422
096°
1549
1384
1008
1167

2049

1465
1115
1352

LOCALIZER 109.1
I-CBP

1150
COMO INT

LOM
SUMMIT STATION
245 CM

IAF
APPLETON
116.7 APE
Chan 114

2700 NoPT to
Como Int via
APE R-186 and
ILS course (16.5)

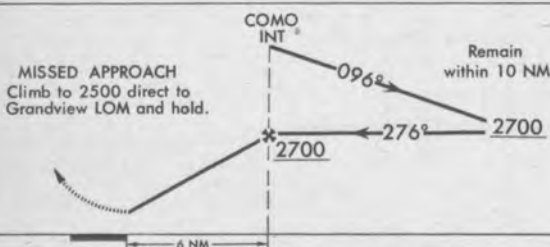
2700 NoPT to
Como Int via
320° and ILS
course (14)

(IAF)
HANOVER

ZANESVILLE
111.4 ZZV
Chan 51

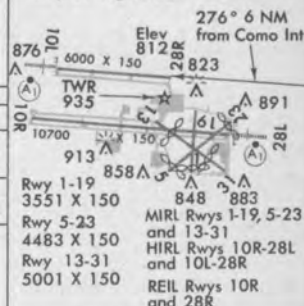
10 NM

BACK COURSE



ELEV 816

Rwy 1 ldg 3351'
Rwy 5 ldg 4093'
Rwy 23 ldg 3900'
Rwy 13 ldg 3683'
Rwy 31 ldg 3792'



CATEGORY	A	B	C	D
S-28R	1360-1	548 (600-1)		1360-1 1/4 548 (600-1 1/4)
CIRCLING	1360-1	544 (600-1)	1360-1 1/2 544 (600-1 1/2)	1380-2 564 (600-2)

Inoperative table does not apply to HIRL Rwy 28R.



FAF to MAP 6 NM

Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

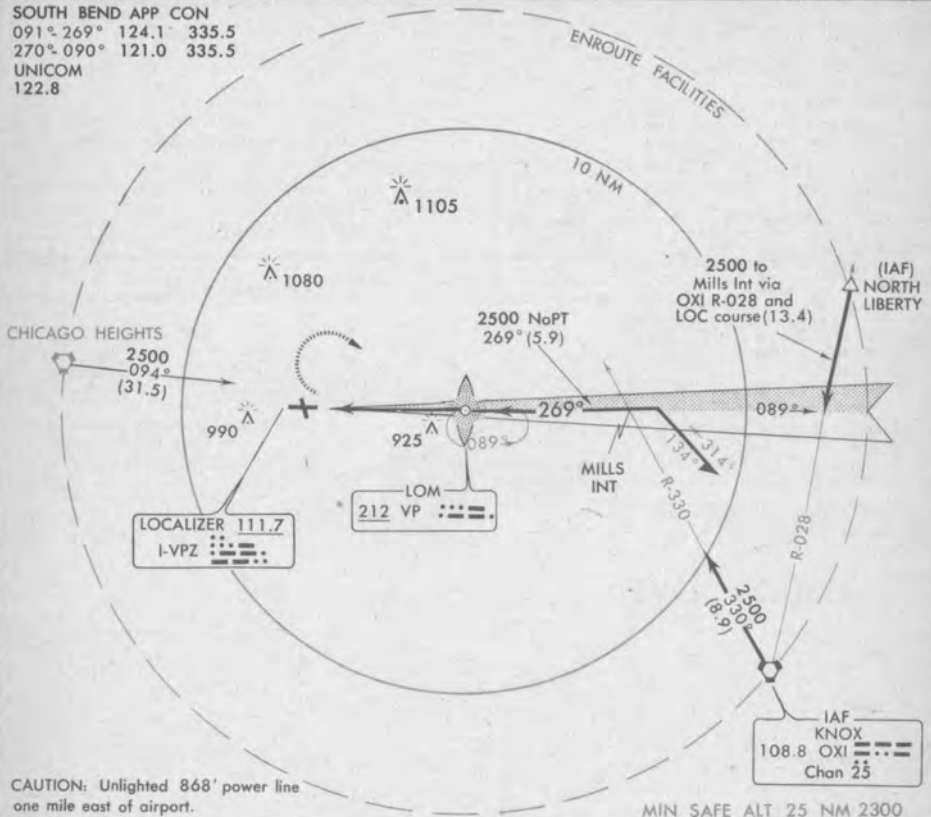
LOC RWY 27

AL-5460 (FAA)

PORTER COUNTY MUNI

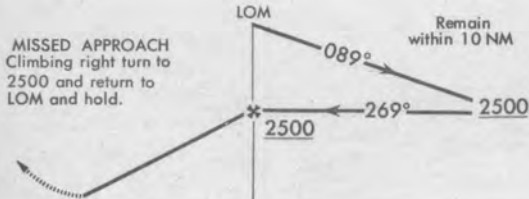
VALPARAISO, INDIANA

SOUTH BEND APP CON
 091° 269° 124.1 335.5
 270° 090° 121.0 335.5
 UNICOM
 122.8



CAUTION: Unlighted 868' power line
 one mile east of airport.

MIN SAFE ALT 25 NM 2300

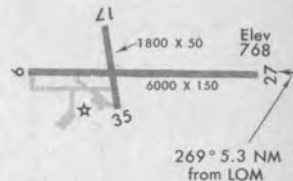


ELEV 768

CATEGORY	A	B	C	D
S-27	1120-1 352 (400-1)			
CIRCLING	1200-1 432 (500-1)	1220-1 452 (500-1)	1300-1½ 532 (600-1½)	1320-2 552 (600-2)

Use Valparaiso altimeter setting through UNICOM 122.8 MHz. When not available, use South Bend, Indiana altimeter setting and increase all MDA's 140 feet.

△ NA



REIL Rwy 27
 MIRL Rwy 9-27

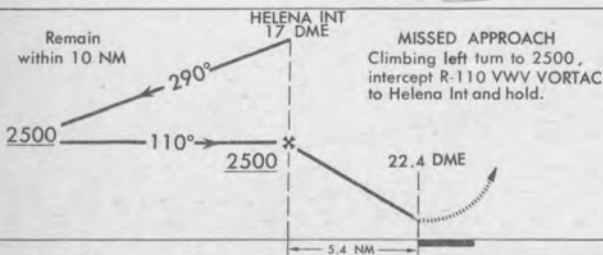
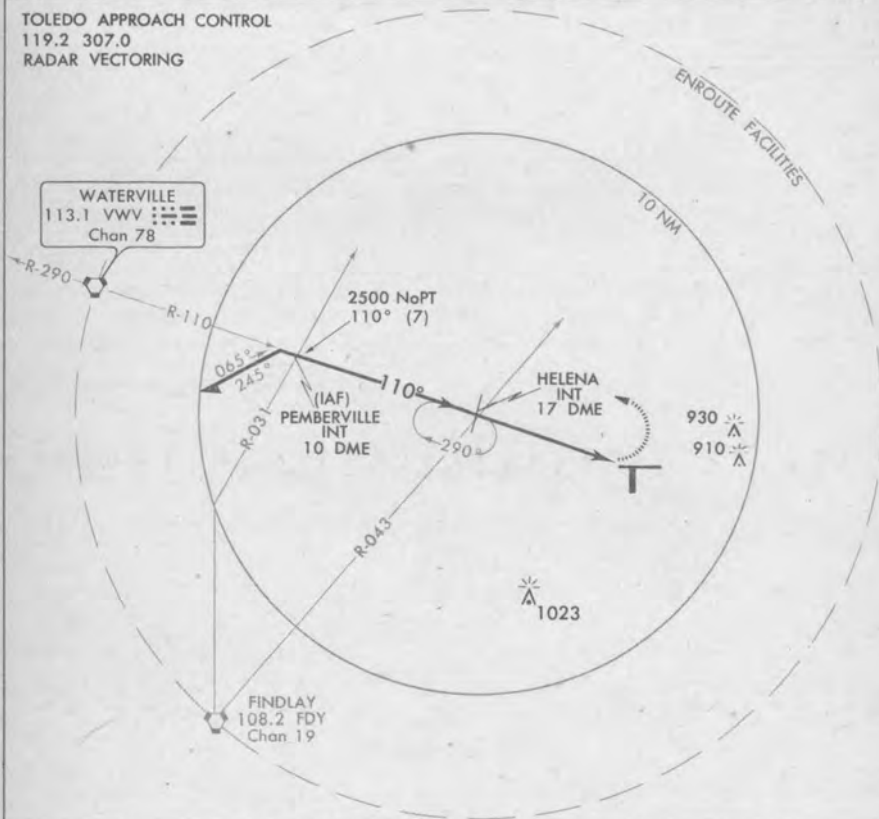
FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

LOC RWY 27

41° 27' N - 87° 00' W

VALPARAISO, INDIANA
PORTER COUNTY MUNI

TOLEDO APPROACH CONTROL
119.2 307.0
RADAR VECTORED



ELEV 662

110° 5.4 NM
from Helena Int
17 DME

Elev
662

2300 X 100

36

REIL Rwy 9
Runway 18-36 unlighted.

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

CATEGORY	A	B	C	D
S-9	1300-1 638 (700-1)	1300-1¼ 638 (700-1¼)	1300-1½ 638 (700-1½)	1300-1¾ 638 (700-1¾)
CIRCLING *	1300-1 638 (700-1)	1300-1¼ 638 (700-1¼)	1300-1½ 638 (700-1½)	1320-2 658 (700-2)

Use Toledo, Ohio altimeter setting.
Night minimums not authorized Rwy 18-36

NA

Remain within 10 NM

2300

278°

LOM

098°

2300

4.7 NM

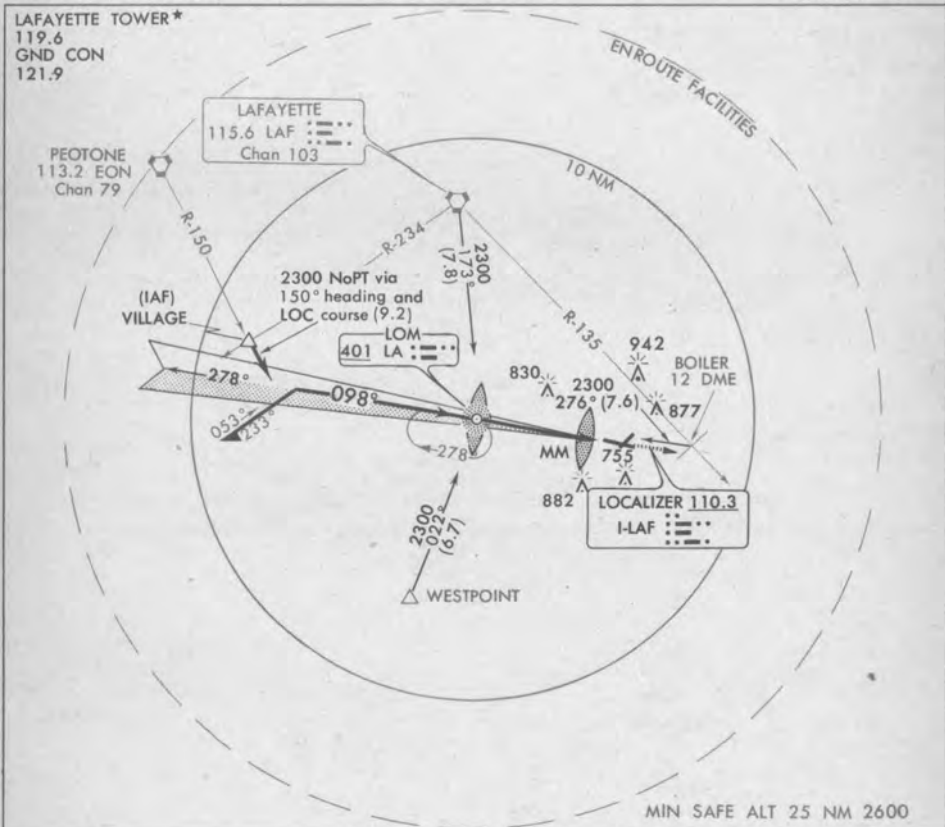
MISSED APPROACH
Climbing right turn to 2300
direct to LOM and hold.

FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NDB RWY 10

40°25'N-86°56'W

LAFAYETTE, INDIANA
PURDUE UNIVERSITY



Remain within 10 NM

LOM

278°

2170

2300

098°

2300

GS 3.00°
TCH 53

4.2 NM

0.5

MM

MISSED APPROACH
Climb to 1100, climbing right turn to 2300 direct to LA LOM and hold.

ELEV 602

10

Elev 600

6600 x 150

683°

690

663

647

646

28

5849 x 100

098° 4.7 NM from LOM

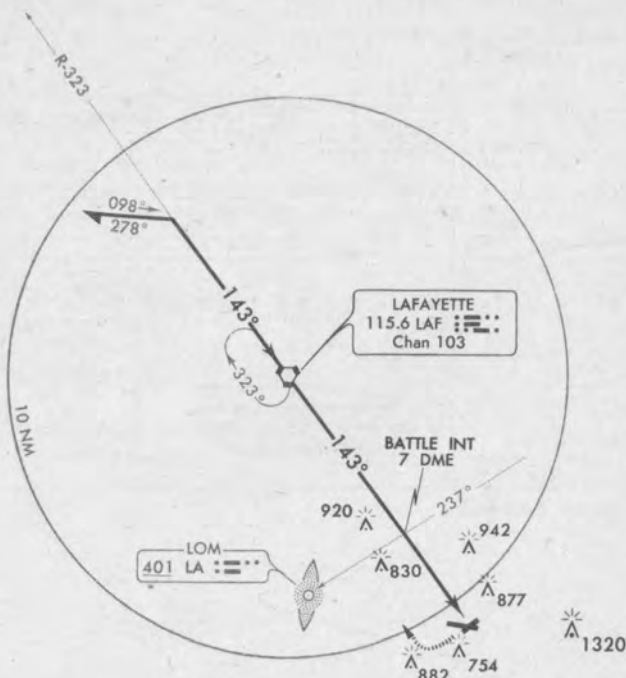
CATEGORY	A	B	C	D
S-ILS 10	800-1/2 200 (200-1/2)			
S-LOC 10	1040-1/2 440 (500-1/2)		1040-1 440 (500-1)	
CIRCLING	1180-1 578 (600-1)		1180-1 1/2 578 (600-1 1/2)	1260-2 658 (700-2)

REIL Rwy 10
MIRL Rwy 5-23 and 10-28

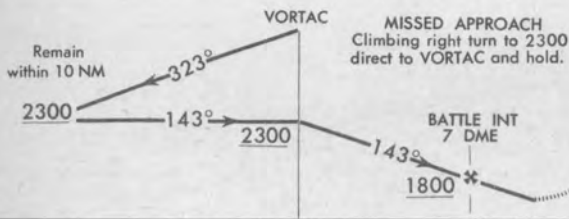
FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

LAFAYETTE TOWER*
119.6
GND CON
121.9



MIN SAFE ALT 25 NM 2600



ELEV 605

143° 3.6 NM
from Battle Int



CATEGORY	A	B	C	D
CIRCLING	1180-1	575 (600-1)	1180-1½ 575 (600-1½)	1260-2 655 (700-2)

VOR/DME or VOR/ADF receivers required.



REIL Rwy 10
MIRL Rwy 5-23 and 10-28

FAF to MAP 3.6 NM

Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

NDB RWY 23

AL-861 (FAA)

REYNOLDS MUNI
JACKSON, MICHIGAN

JACKSON APP CON
126.85
JACKSON TOWER ★
120.7 257.8
GND CON
121.9

ENROUTE FACILITIES

(IAF)
PINCKNEYSALEM
114.3 SVM
Chan 902600 NoPT
233°(10.6)LOM
212 JXJACKSON
109.6 JXN
Chan 33

1113
1146 2600
052°(5.4)
1120
1209
1325
1346

LITCHFIELD
111.2 LFD
Chan 49

MIN SAFE ALT 25 NM 3000

MISSED APPROACH
Climb to 3000 direct to LFD
VORTAC and hold.

LOM
053°
2600
233°
2600
Remain within 10 NM

ELEV 1000

Rwy 5 ldg 4386' Day
Rwy 5 ldg 4719' Night
Rwy 31 ldg 2668'

233° 5 NM
from LOM

1023

Elev
998

5278 X 150
3348 X 150
1042
1063
1085
1052
1063

CATEGORY	A	B	C	D
S-23	1620-3/4 622(700-3/4)			1620-1 1/4 622 (700-1 1/4)
CIRCLING	1620-1	620(700-1)	1620-1 1/2 620(700-1 1/2)	1640-2 640(700-2)

CAUTION: Power line 1900 feet from threshold penetrates approach light plane by 24 feet.



REIL Rwy 5
MIRL Rwy 5-23, and 13-31

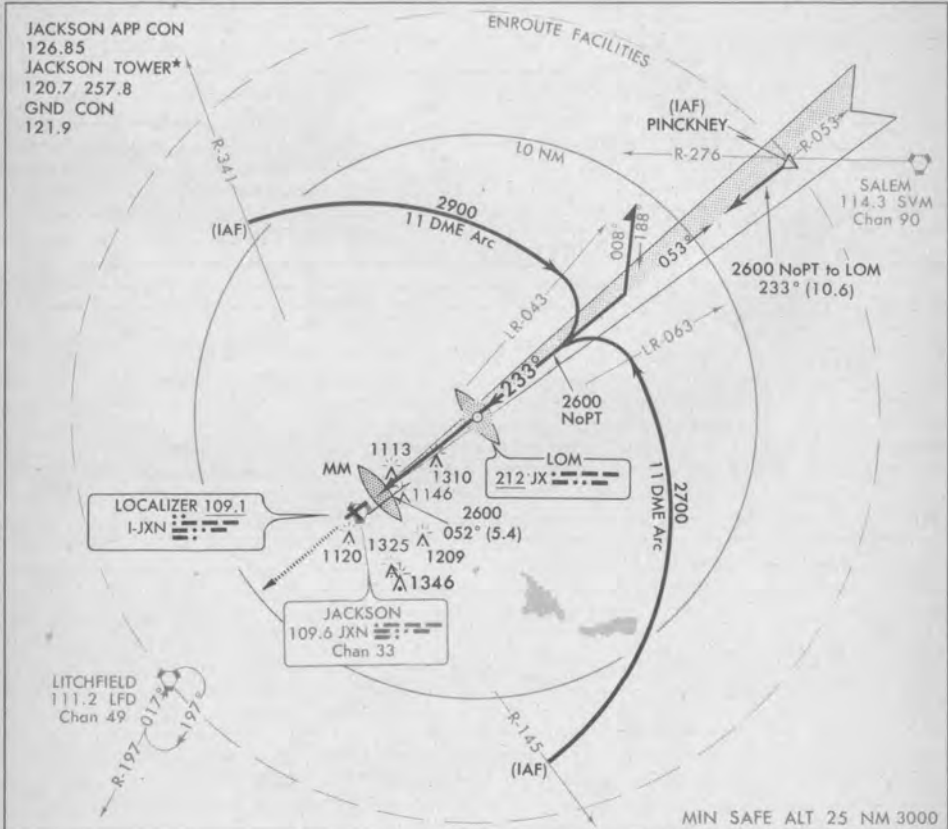
FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NDB RWY 23

42°16'N-84°28'W

JACKSON, MICHIGAN
REYNOLDS MUNI



MISSED APPROACH
Climb to 3000 direct to
LFD VORTAC and hold.

LOM

053°

2616

233°

2600

2600

GS 3.00°
TCH 48

MM

0.5 4.5 NM

Remain within 10 NM

ELEV 1000

Rwy 5 ldg 4386' Day
Rwy 5 ldg 4719' Night
Rwy 31 ldg 2668'

233° 5 NM
from LOM

△ 1023

△ 1042

△ 1063

△ 1052

△ 1085

5278 X 1500

3348 X 1500

Elev 998

CATEGORY	A	B	C	D
S-ILS 23	1198-1/2	200 (200-1/2)		
S-LOC 23	1400-1/2	402 (400-1/2)		1400-1 402 (400-1)
CIRCLING	1460-1	460 (500-1)	1460-1 1/2 460 (500-1 1/2)	1640-2 640 (700-2)

CAUTION: Power line 1900 feet from threshold penetrates approach light plane by 24 feet.

REIL Rwy 5
MIRL Rwy 5-23 and 13-31

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

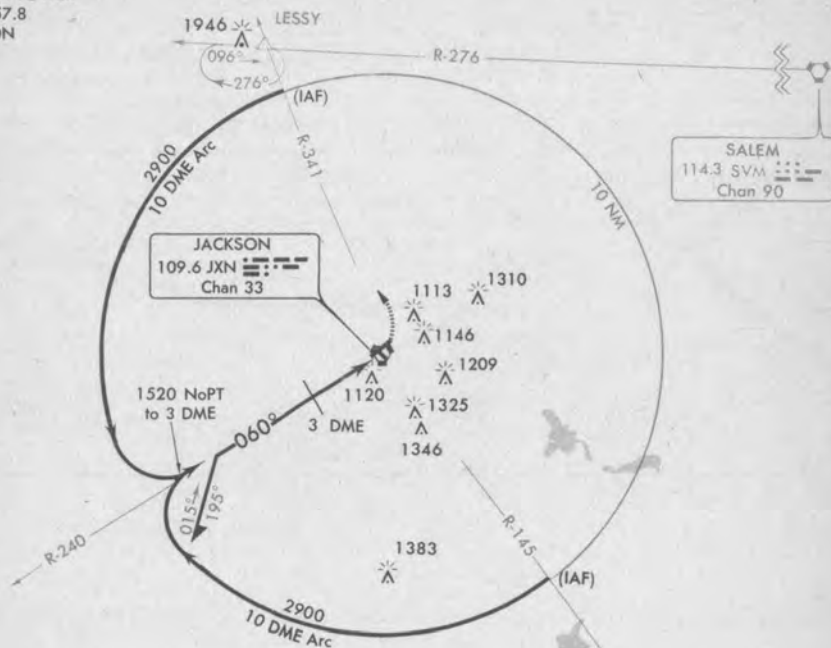
VOR RWY 5

AL-861 (FAA)

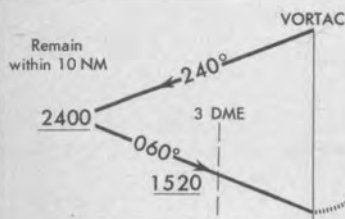
REYNOLDS MUNI

JACKSON, MICHIGAN

JACKSON APP CON
126.85
JACKSON TOWER*
120.7 257.8
GND CON
121.9



MIN SAFE ALT 25 NM 3000



MISSED APPROACH
Climbing left turn to 3000
direct to Lessy Int via JXN
R-341 and hold.

ELEV 1000

Rwy 5 ldg 4386' (Day)
Rwy 5 ldg 4719' (Night)
Rwy 31 ldg 2668'



CATEGORY	A	B	C	D
S-5	1520-1 522 (600-1)			1520-1 1/4 522 (600-1 1/4)
CIRCLING	1520-1	520 (600-1)	1520-1 1/2 520 (600-1 1/2)	1640-2 640 (700-2)
DME MINIMA				
S-5	1380-1 382 (400-1)			1640-2
CIRCLING	1460-1	460 (500-1)	1460-1 1/2 460 (500-1 1/2)	640 (700-2)



Knots	60	90	120	150	180
Min:Sec					

VOR RWY 5

42°16'N-84°28'W

JACKSON, MICHIGAN
REYNOLDS MUNI

AL-861 (FAA)

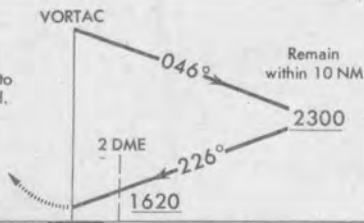
JACKSON
109.6 JXN
Chan 33

er lines 1900 feet from threshold
reach light plane by 24 feet.

MIN SAFE ALT 25 NM 300

MIN SAFE ALT 25 NM 3000

MISSED APPROACH
Climb to 3000 direct to
LFD VORTAC and hold.



ELEV 1000

Rwy 5 ldg 4368' (Day)
Rwy 5 ldg 4719' (Night)
Rwy 31 ldg 2668'



CATEGORY	A	B	C	D
S-23	1620-1/2 622 (700-1/2)			1620-1 3/4 622 (700-1 1/4)
CIRCLING	1620-1 620 (700-1)		1620-1 1/2 620 (700-1 1/2)	1640-2 640 (700-2)
DME MINIMUMS				
S-23	1400-1/2 402 (400-1/2)			1400-1 402 (400-1)
CIRCLING	1460-1 460 (500-1)		1460-1 1/2 460 (500-1 1/2)	1640-2 640 (700-2)

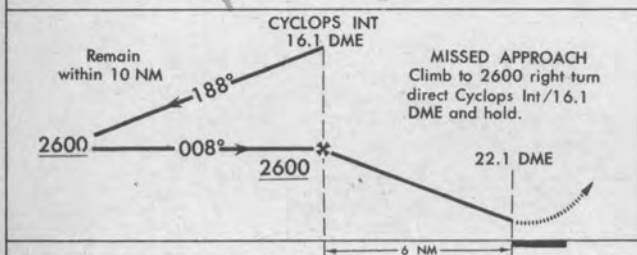
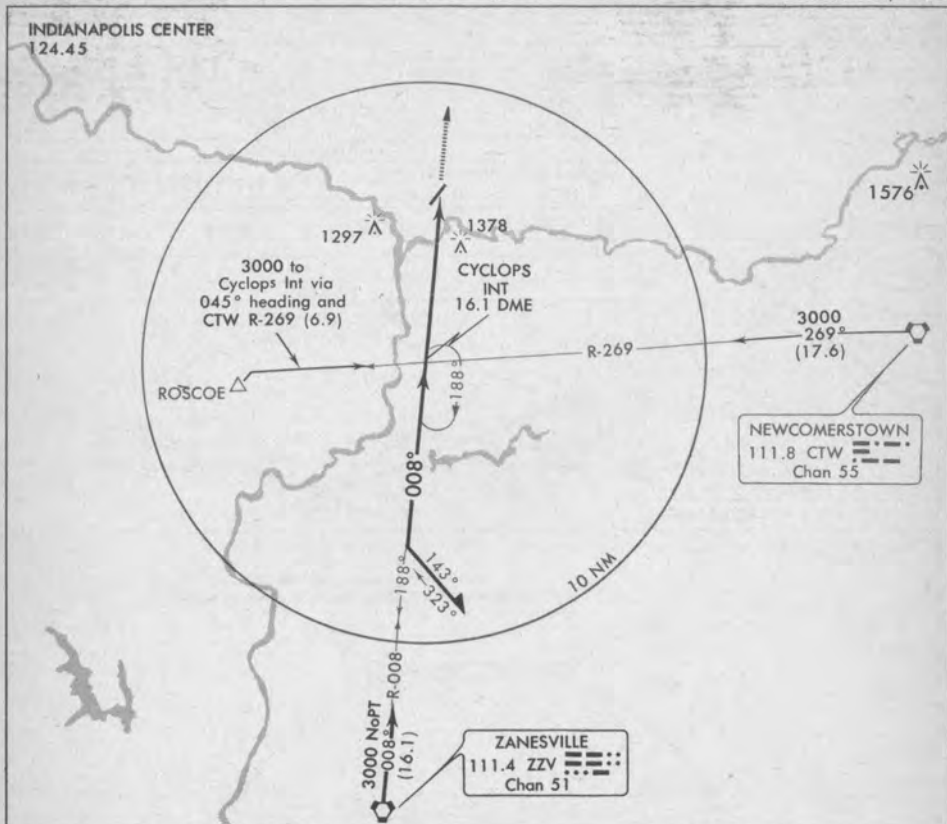
REIL Rwy 5
MIRL Rwy 5-23 and 13-31

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 23

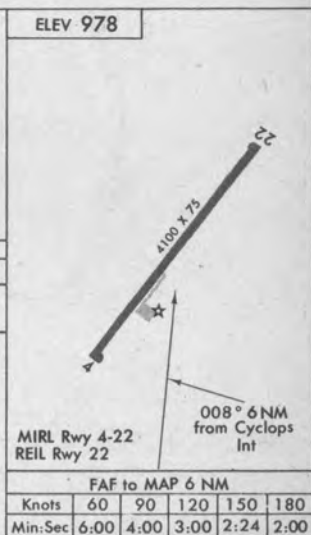
42°16'N-84°28'W

JACKSON, MICHIGAN
REYNOLDS MUNI



CATEGORY	A	B	C	D
CIRCLING	1720-1 742 (800-1)	1720-1¼ 742 (800-1¼)	1720-1½ 742 (800-1½)	1780-2 802 (900-2)

Use Zanesville, Ohio altimeter setting.
△ NA



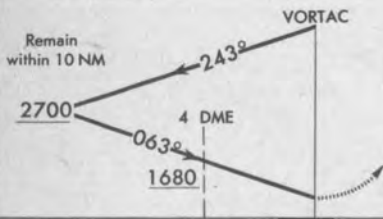
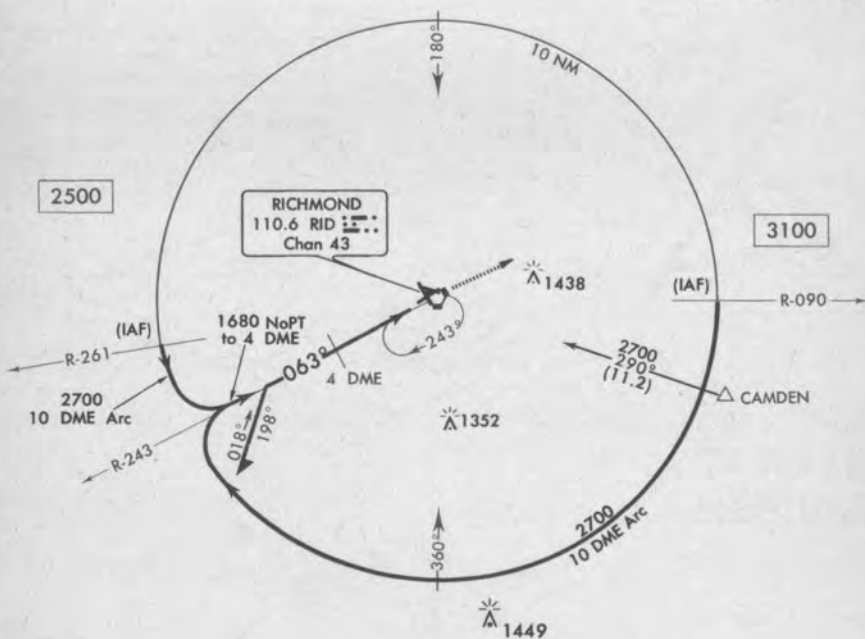
VOR RWY 5

AL-863 (FAA)

RICHMOND MUNI
RICHMOND, INDIANA

DAYTON APP CON
134.45 327.1

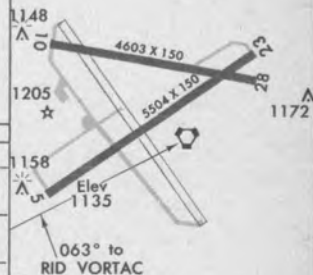
CANCELLED
25 SEP 75



CATEGORY	A	B	C	D
S-5	1680-1	545 (600-1)		1680-1 1/4 545 (600-1 1/4)
CIRCLING	1680-1	539 (600-1)	1680-1 1/2 539 (600-1 1/2)	1700-2 559 (600-2)
DME MINIMUMS				
S-5	1620-1	485 (500-1)		

Use Dayton, Ohio altimeter setting.
Inoperative table does not apply to REIL Rwy 5.
△ NA

ELEV 1141



REIL Rwy 5 and 23
MIRL Rwy 5-23 and 10-28

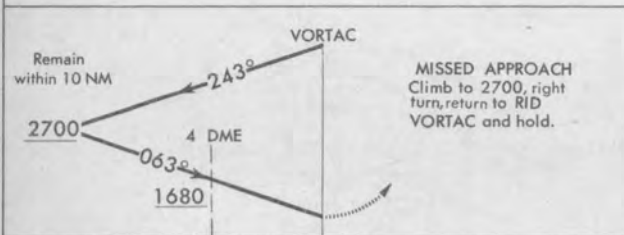
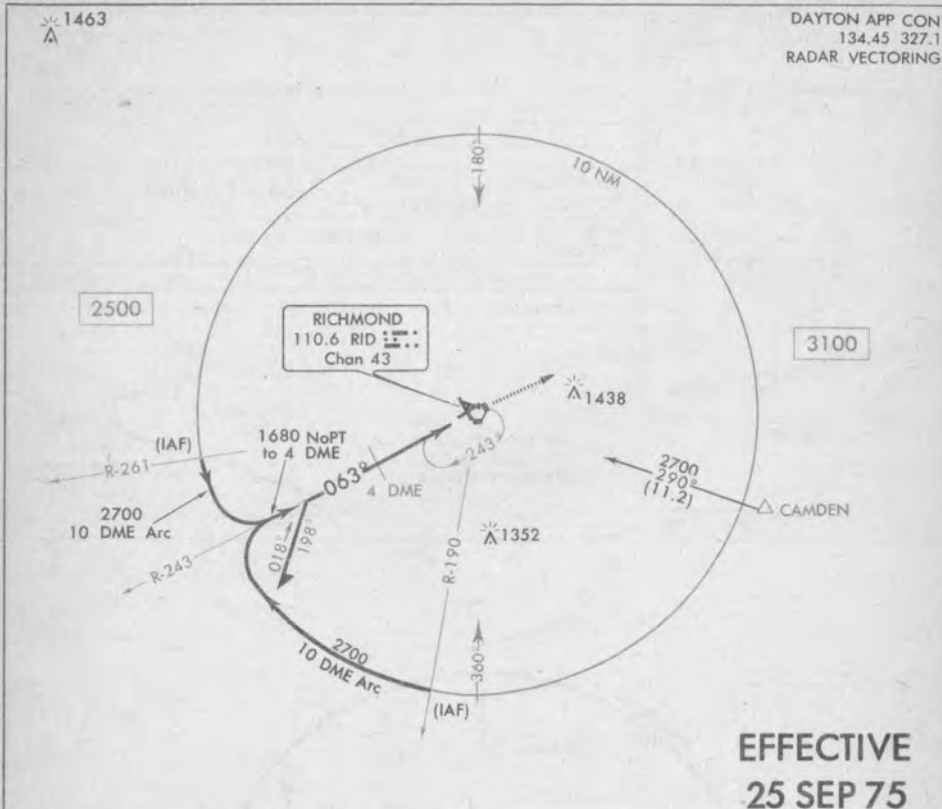
Knots	60	90	120	150	180
Min:Sec					

VOR RWY 5

39° 45' N-84° 51' W

RICHMOND, INDIANA
RICHMOND MUNI

DAYTON APP CON
134.45 327.1
RADAR VECTURING

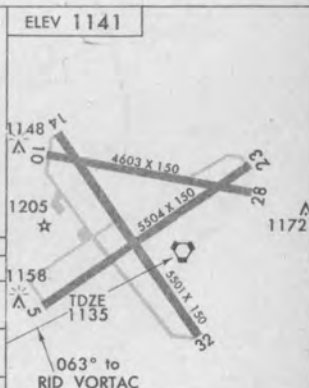


CATEGORY	A	B	C	D
S-5	1680-1 545 (600-1)			1680-1 $\frac{1}{4}$ 545 (600-1 $\frac{1}{4}$)
CIRCLING	1680-1 539 (600-1)		1680-1 $\frac{1}{2}$ 539 (600-1 $\frac{1}{2}$)	1700-2 559 (600-2)

DME MINIMUMS

S-5	1620-1 485 (500-1)
-----	--------------------

Use Dayton, Ohio altimeter setting.

 ΔNA 

REIL Rwy's 5, 23, 14 and 32
MIRL Rwy's 5-23, 10-28 and 14-32

Knots	60	90	120	150	180
Min:Sec					

RICHMOND, INDIANA
RICHMOND MUNI

VOR RWY 5

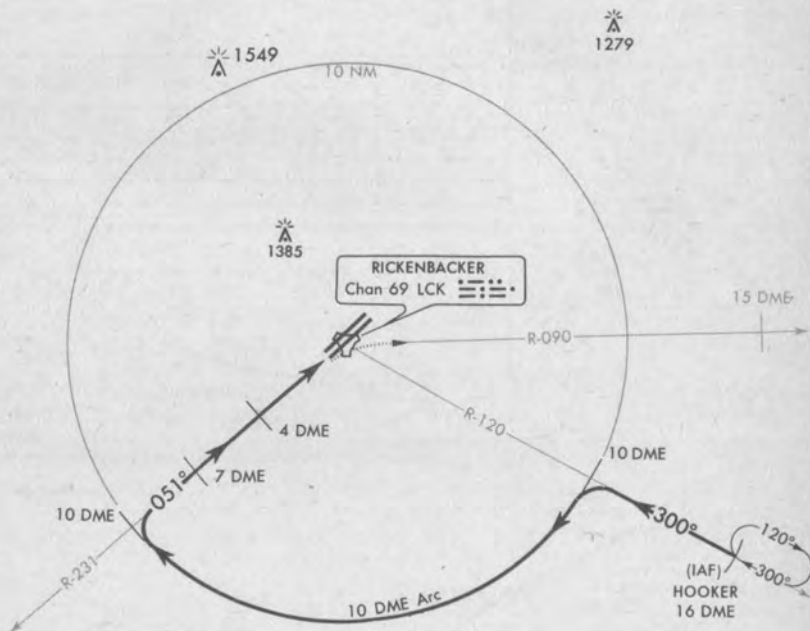
39°45'N-84°51'W

TACAN RWY 5R

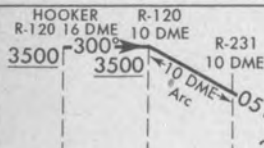
247
AL-93 (USAF)

RICKENBACKER AFB
COLUMBUS, OHIO

COLUMBUS APP CON
120.05 279.6
RICK TOWER
126.2 320.1
GND CON
275.8
ASR/PAR



MIN SAFE ALT 25 NM 3100



MISSED APPROACH
Right to 2500 out
R-090 to 15 DME Fix

TACAN

ELEV 744

CATEGORY	A	B	C	D
S-5R	1060-40	323 (400-3/4)		
CIRCLING	1260-1 516 (600-1)	1260-1 1/2 516 (600-1 1/2)	1300-2 556 (600-2)	



TACAN RWY 5R

39°49'N-82°56'W

247

COLUMBUS, OHIO
RICKENBACKER AFB

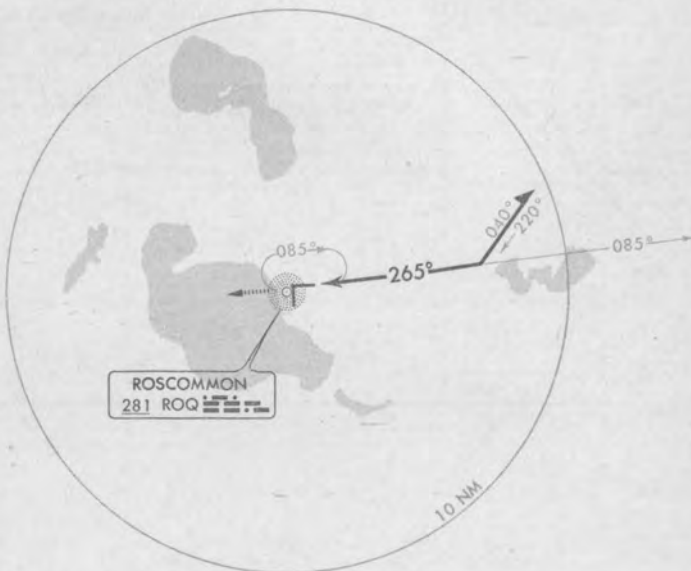
NDB RWY 27

AL-5517 (FAA)

ROSCOMMON COUNTY
HOUGHTON LAKE, MICHIGAN

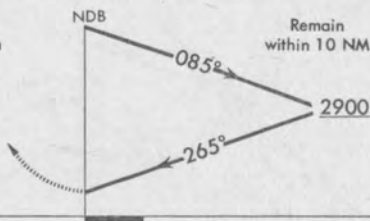
1791

2900
078°
(16.5)
LAKE CITY



MIN SAFE ALT 25 NM 2800

MISSED APPROACH
Climb to 2900, right turn
direct to ROQNDB and
hold.

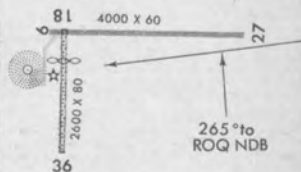


ELEV 1150

Rwy 18 Idg 2000'

CATEGORY	A	B	C	D
S-27	1760-1	610 (700-1)		1760-1 1/4 610 (700-1 1/4)
CIRCLING	1760-1	610 (700-1)	1760-1 1/2 610 (700-1 1/2)	1760-2 610 (700-2)

▽
△ NA



Knots	60	90	120	150	180
Min:Sec					

NDB RWY 27

44°21'N - 84°40'W
249

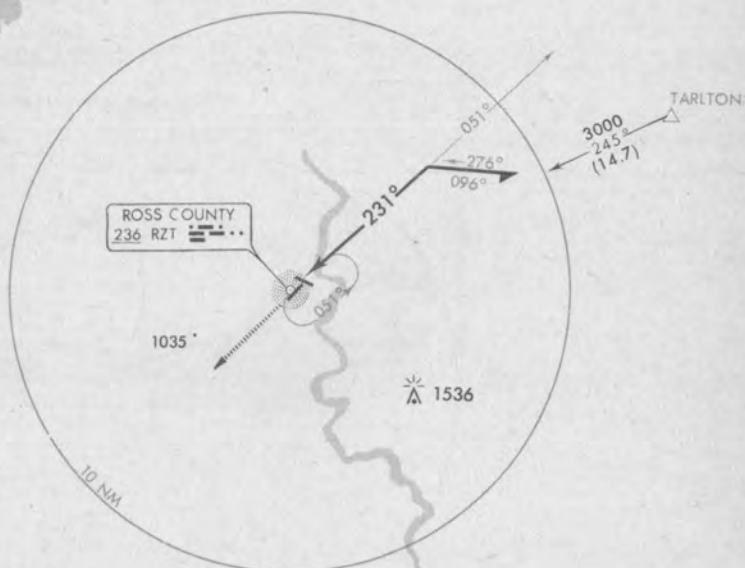
HOUGHTON LAKE, MICHIGAN
ROSCOMMON COUNTY

NDB RWY 22

AL-6138 (FAA)

ROSS COUNTY
CHILLICOTHE, OHIO

INDIANAPOLIS CENTER
135.7 363.2
RADAR VECTORING

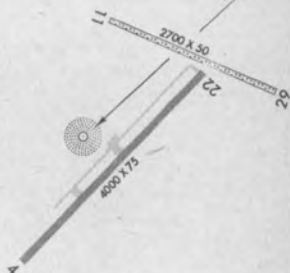


ELEV 725

MISSED APPROACH
Climb to 2800 left turn direct
to RZT NDB and hold.

Remain
within 10 NM

231° to
RZT NDB



CATEGORY	A	B	C	D
S-22	1460-1	735 (800-1)	1460-1¼ 735 (800-1¼)	1460-1½ 735 (800-1½)
CIRCLING	1460-1	735 (800-1)	1460-1½ 735 (800-1½)	1520-2 795 (800-2)

Use Lockbourne AFB, Ohio altimeter setting.



REIL Rwy 22
MIRL Rwy 4-22

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 22

39°26'N – 83°01'W

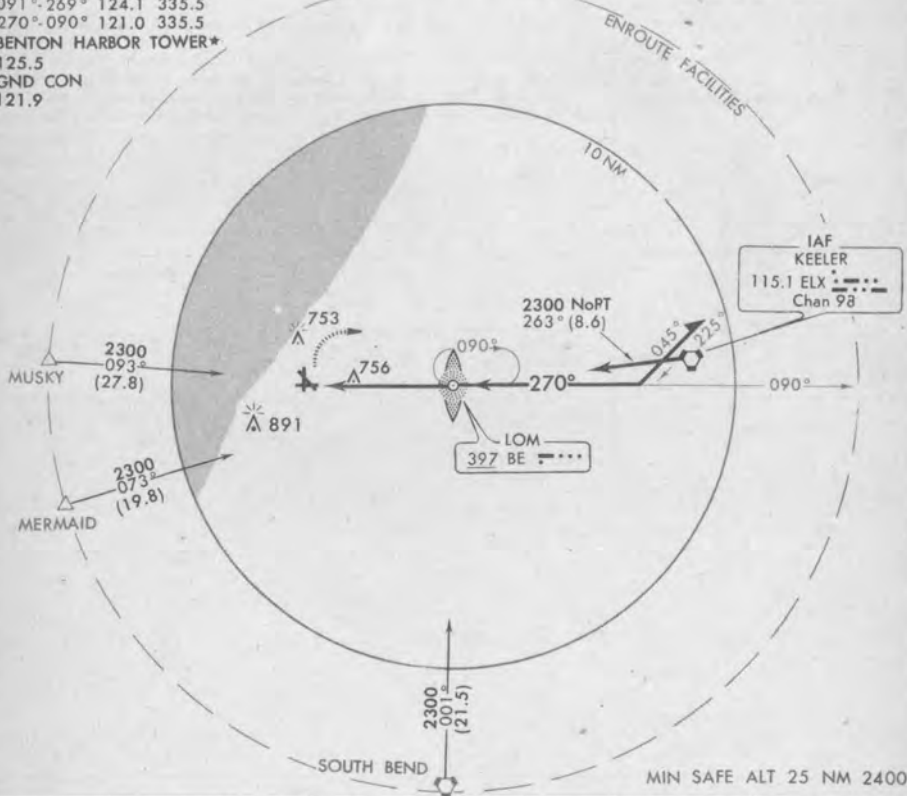
CHILlicothe, OHIO
ROSS COUNTY

NDB RWY 27

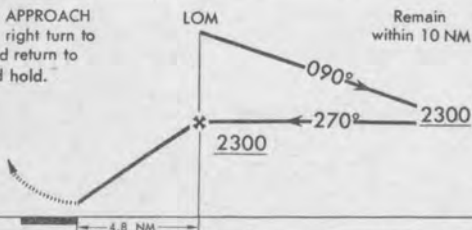
AL-721 (FAA)

ROSS FIELD
BENTON HARBOR, MICHIGAN

SOUTH BEND APP CON
091°-269° 124.1 335.5
270°-090° 121.0 335.5
BENTON HARBOR TOWER*
125.5
GND CON
121.9



MISSED APPROACH
Climbing right turn to
2300 and return to
LOM and hold.

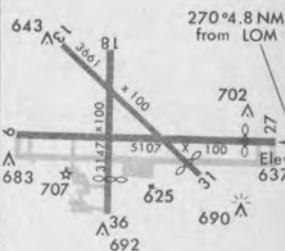


CATEGORY	A	B	C	D
S-27	1160-1	523(600-1)		1160-1 1/4 523(600-1 1/4)
CIRCLING	1160-1	517(600-1)	1160-1 1/2 517(600 1 1/2)	1200-2 557 (600-2)

When control zone not effective the following applies, except for operators with approved weather reporting service: (a) Use South Bend, Indiana altimeter setting. (b) Alternate minimums not authorized. (c) All MDAs increased 100 feet.

**ELEV 643**

Rwy 36 ldg 2497'
Rwy 31 ldg 3350'
Rwy 27 ldg 4538'



MIRL Rwy 13-31 and 18-36
HIRL Rwy 9-27
REIL Rwy 9 and 27

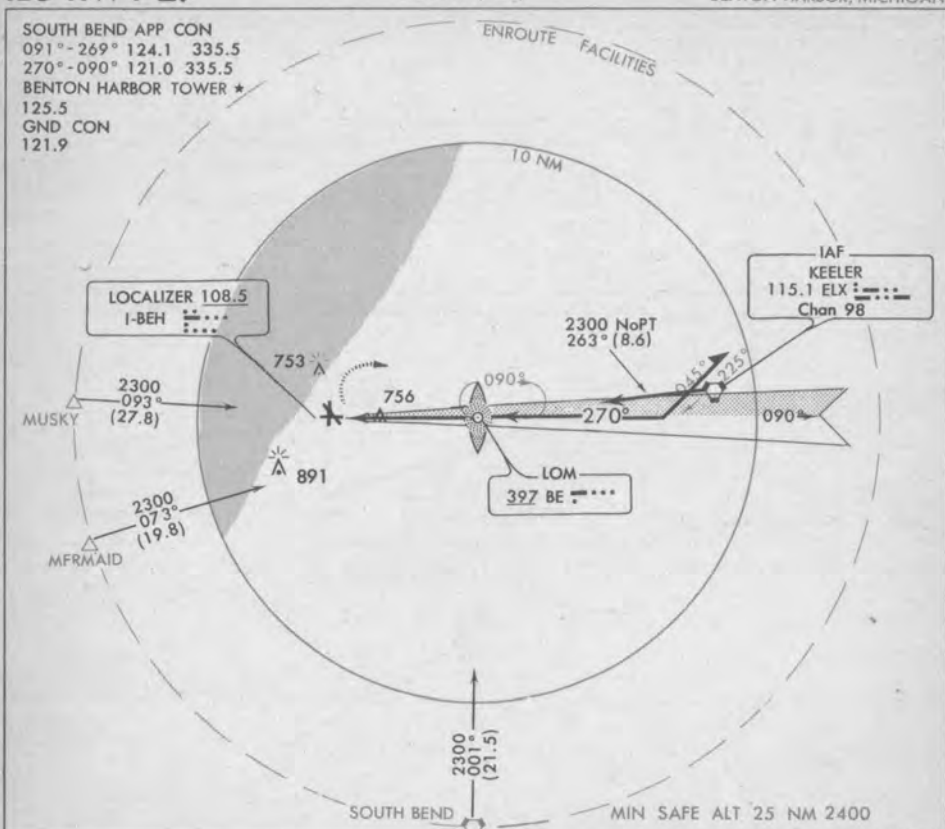
FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

NDB RWY 27

42°08'N-86°26'W

BENTON HARBOR, MICHIGAN
ROSS FIELD

SOUTH BEND APP CON
091° - 269° 124.1 335.5
270° - 090° 121.0 335.5
BENTON HARBOR TOWER ★
125.5
GND CON
121.9



MISSED APPROACH
Climbing right turn to 2300,
return to BE LOM and hold.

LOM  Remain within 10 NM

CATEGORY	A	B	C	D
S-LS 27*		937-1	300 (300-1)	
S-LOC 27**		1060-1	423 (500-1)	
CIRCLING**	1120-1 477 (500-1)	1160-1 517 (600-1)	1160-1½ 517 (600-1½)	1200-2 557 (600-2)

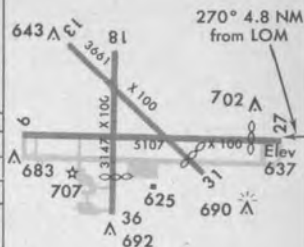
When control zone not effective the following applies, except for operators with approved weather reporting service: (1) Use South Bend, Indiana altimeter setting. (2) * All MDA's increased 100 feet. * ILS DH becomes 1037 feet. (3) Alternate minimums not authorized. (4) Increase S-27 LOC visibility Cat. D to 1 1/4 miles.

Inoperative table does not apply to HIRLS Rwy 27.



ELEV 643

Rwy 36	ldg	2497'
Rwy 31	ldg	3350'
Rwy 27	ldg	4538'



MIRL Rwy 13-31 and 18-36
HIRL Rwy 9-27
REIL Rwy 9 and 27

FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

LOC BC RWY 9

AL-721 (FAA)

BENTON HARBOR, MICHIGAN

SOUTH BEND APP CON
091°-269° 124.1 335.5
270°-090° 121.0 335.5
BENTON HARBOR TOWER *
125.5
GND CON
121.9

2200 NoPT to Dunes Int
19 DME via 130° heading
and BEH LOC (17.4)

(IAF) MUSKY

2200 NoPT to Dunes Int
19 DME via 030° heading
and BEH LOC (11.9)

(IAF) MERMAID

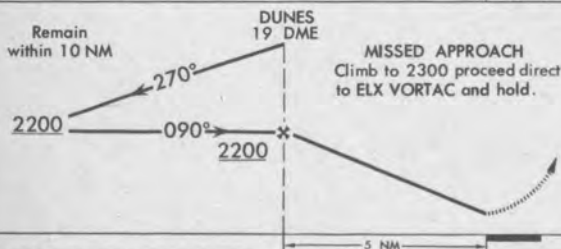
LOCALIZER 108.5
I-BEH

DUNES INT
19 DME

KEELER
115.1 ELX
Chan 98

SOUTH BEND
115.4 SBN
CHAN 101

BACK COURSE



ELEV 643 Rwy 36 ldg 2497'
Rwy 31 ldg 3350'
Rwy 27 ldg 4538'



CATEGORY	A	B	C	D
S-9	1020-3/4	390 (400-3/4)		1020-1 390 (400-1)
CIRCLING	1120-1 477 (500-1)	1160-1 517 (600-1)	1160-1 1/2 517 (600-1 1/2)	1200-2 557 (600-2)

When control zone not effective the following applies, except for operators with approved weather reporting service: (a) Use South Bend, Indiana altimeter setting. (b) All MDA's increased 100 feet. (c) Alternate minimums not authorized.

MIRL Rwy 13-31 and 18-36
HIRL Rwy 9-27
REIL Rwy 9 and 27

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

LOC BC RWY 9

42°08'N - 86°26'W

BENTON HARBOR, MICHIGAN

ROSS FIELD

VOR RWY 27

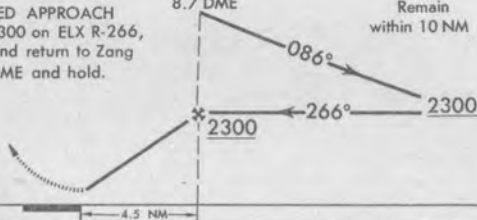
254
AL-721 (FAA)ROSS FIELD
BENTON HARBOR, MICHIGAN

SOUTH BEND APP CON
 091°-269° 124.1 335.5
 270°-090° 121.0 335.5
 BENTON HARBOR TOWER ★
 125.5
 GND CON
 121.9



MIN SAFE ALT 25 NM 2400

MISSED APPROACH
 Climb to 2300 on ELX R-266,
 left turn and return to Zang
 Int / 8.7 DME and hold.

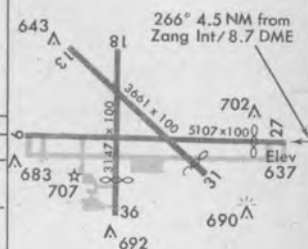
ZANG INT
8.7 DMERemain
within 10 NM

CATEGORY	A	B	C	D
S-27	1160-1 523 (600-1)			1160-1 1/4 523 (600-1/4)
CIRCLING	1160-1 517 (600-1)		1160-1 1/2 517 (600-1 1/2)	1200-2 557 (600-2)

When control zone not effective the following applies, except for operators with approved weather reporting service: (a) Use South Bend, Indiana altimeter setting (b) All MDA's increased 100 feet. (c) Alternate minimums not authorized.
 Inoperative table does not apply to REILs and HIRLs Rwy 27.

ELEV 643

Rwy 36 ldg 2497'
 Rwy 27 ldg 4538'
 Rwy 31 ldg 3350'



MIRL Rws 13-31 and 18-36
 HIRL Rwy 9-27
 REIL Rwy 9-27

FAF to MAP 4.5 NM

Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

VOR RWY 27

42°08'N-86°26'W

BENTON HARBOR, MICHIGAN
ROSS FIELD

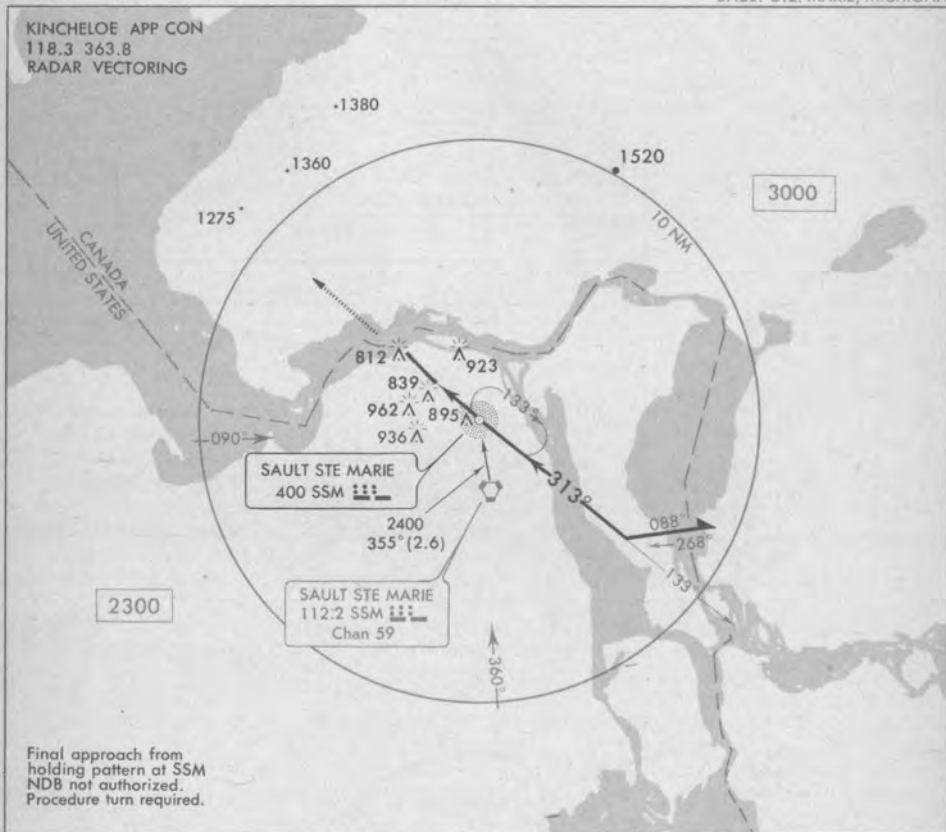
NDB RWY 32

AL-503 (FAA)

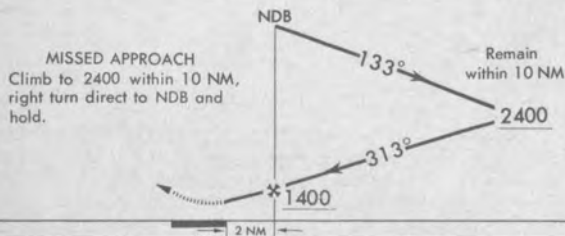
SAULT STE. MARIE CITY-COUNTY

SAULT STE. MARIE, MICHIGAN

KINCHELOE APP CON
118.3 363.8
RADAR VECTING



Final approach from
holding pattern at SSM
NDB not authorized.
Procedure turn required.



CATEGORY	A	B	C	D
S-32	1240-1	525 (600-1)		1240-1 1/4 525 (600-1 1/4)
CIRCLING	1240-1	525 (600-1)	1280-1 1/2 565 (600-1 1/2)	1280-2 565 (600-2)

ELEV 715

Non-standard sequence
flashing lights Rwy 32

902 ±



901 ±

☆ 777

A 708

5000 ± 100

0.4% DOWN

Elev 715

740 A

739 A

719 A

313° 2 NM
from NDB

841 A

769 A

MIRL Rwy 14-32
REIL Rwy 14

FAF to MAP 2 NM

Knots	60	90	120	150	180
Min:Sec	2:00	1:20	1:00	0:48	0:40

NDB RWY 32

46°29'N-84°22'W

SAULT STE. MARIE, MICHIGAN
SAULT STE. MARIE CITY-COUNTY

VOR RWY 32

AL 503 (FAA)

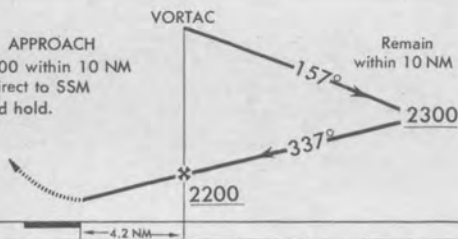
SAULT STE. MARIE CITY-COUNTY

SAULT STE. MARIE, MICHIGAN

KINCHELOE APP CON
118.3 363.8
RADAR VECTORED



MISSED APPROACH
Climb to 2300 within 10 NM
right turn direct to SSM
VORTAC and hold.



CATEGORY	A	B	C	D
S-32	1160-1 445 (500-1)			
CIRCLING	1240-1	525 (600-1)	1280-1½ 565 (600-1½)	1280-2 565 (600-2)

ELEV 715

Non standard sequence
flashing lights Rwy 32



FAF to MAP 4.2 NM

Knots	60	90	120	150	180
Min:Sec	4:12	2:48	2:06	1:41	1:24

VOR RWY 32

46°29'N-84°22'W

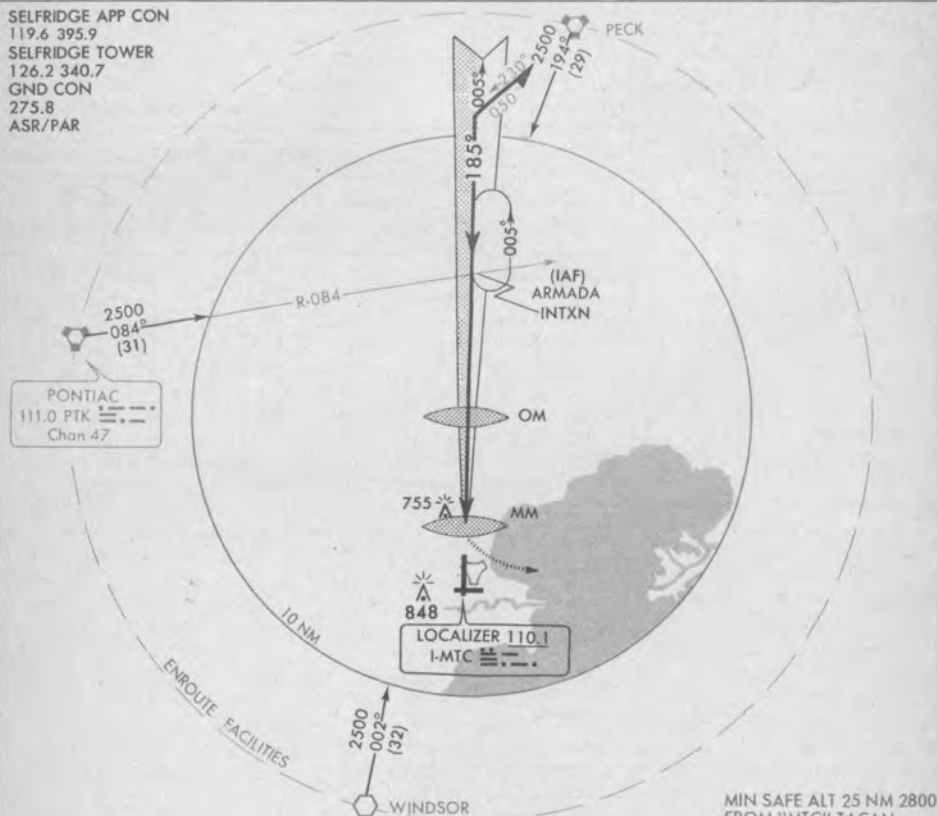
SAULT STE. MARIE, MICHIGAN
SAULT STE. MARIE CITY-COUNTY

ILS RWY 18

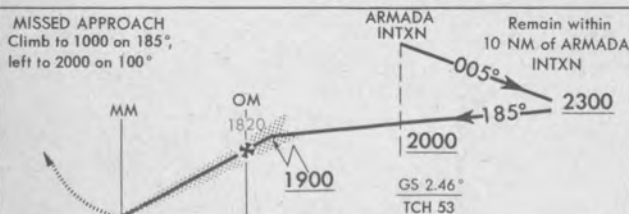
AL-276(USAF)

SELFREDGE ANGB
MT. CLEMENS, MICHIGAN

SELFREDGE APP CON
119.6 395.9
SELFREDGE TOWER
126.2 340.7
GND CON
275.8
ASR/PAR

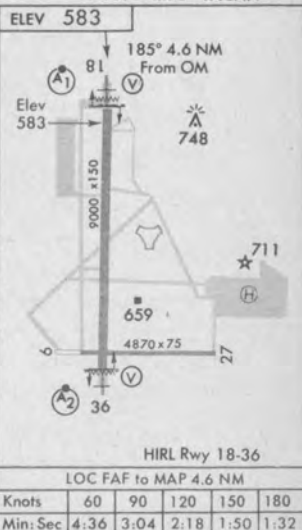


MISSED APPROACH
Climb to 1000 on 185°,
left to 2000 on 100°



CATEGORY	A	B	C	D
S-ILS-18	783/24	200	(200-1/2)	
S-LOC-18	960/24	377 (400-1/2)	960/40	377 (400-3/4)
CIRCLING*	1060-1	477 (500-1)	1060-1 1/2 477 (500-1 1/2)	1140-2 557 (600-2)

* Circling West of fld not auth.



Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

ILS RWY 18

42°36'N-82°50'W

MT. CLEMENS, MICHIGAN
SELFREDGE ANGB

TACAN/ILS RWY 18

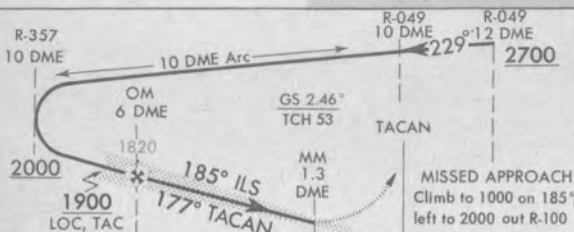
258

AL-276 (USAF)

SELFIDGE ANGB

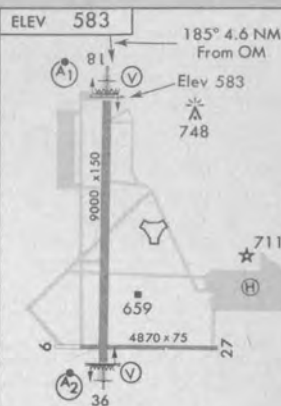
MT. CLEMENS, MICHIGAN

SELFIDGE APP CON
119.6 395.9
SELFIDGE TOWER
126.2 340.7
GND CON
275.8
ASR/PAR



CATEGORY	A	B	C	D
S-ILS-18	783/24		200	(200-1/2)
S-LOC-18	960/24	377 (400-1/2)	960/40	377 (400-3/4)
S-TAC-18	1020/24	437 (500-1/2)	1020/40	437 (500-3/4)
CIRCLING*	1060-1	477 (500-1)	1060-1 1/2 477 (500-1 1/2)	1140-2 557 (600-2)

* CIRCLING West of fld not auth.



HIRL Rwy 18-36

LOC FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

TACAN/ILS RWY 18

42°36'N-82°50'W

MT. CLEMENS, MICHIGAN

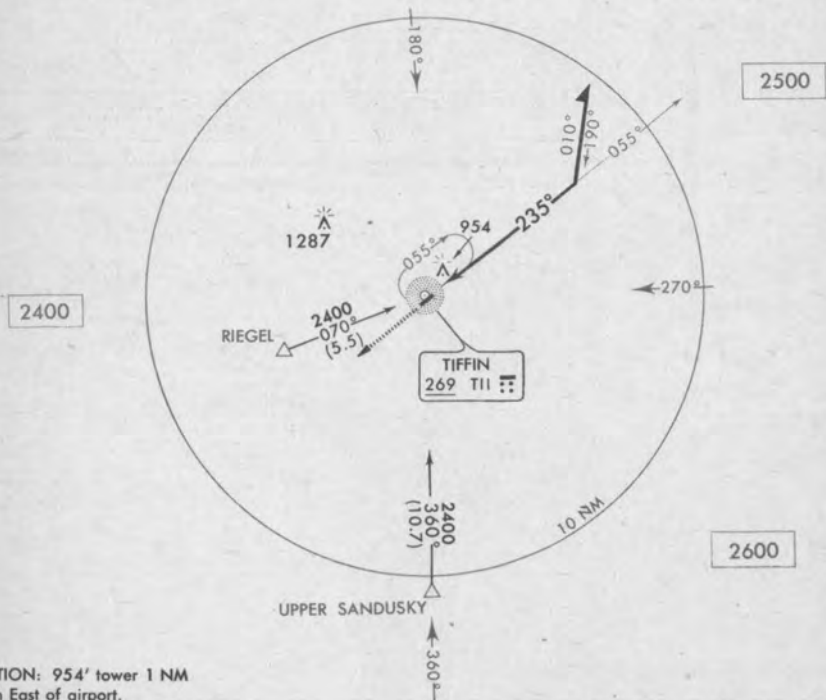
SELFIDGE ANGB

NDB RWY 24

260
AL-5645 (FAA)

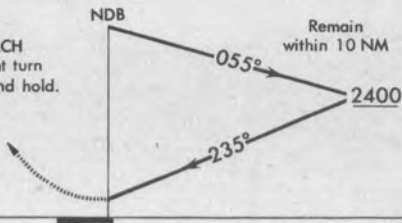
SENECA COUNTY
TIFFIN, OHIO

CLEVELAND CENTER
133.8 269.3



CAUTION: 954' tower 1 NM North East of airport.

MISSED APPROACH
Climb to 2400, right turn
direct to TII NDB and hold.



CATEGORY	A	B	C	D
S-24	1400-1 615 (700-1)			1400-1 1/4 615 (700-1 1/4)
CIRCLING	1400-1 613 (700-1)		1400-1 1/2 613 (700-1 1/2)	1400-2 613 (700-2)

Use Findlay, Ohio altimeter setting.

 Δ NA

ELEV 787	Rwy 24 ldg 3887'
----------	------------------

235° to
TII NDB

Elev

IRL Rwy 6-24
EIL Rwy 24

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 24

41°06'N – 83°13'W

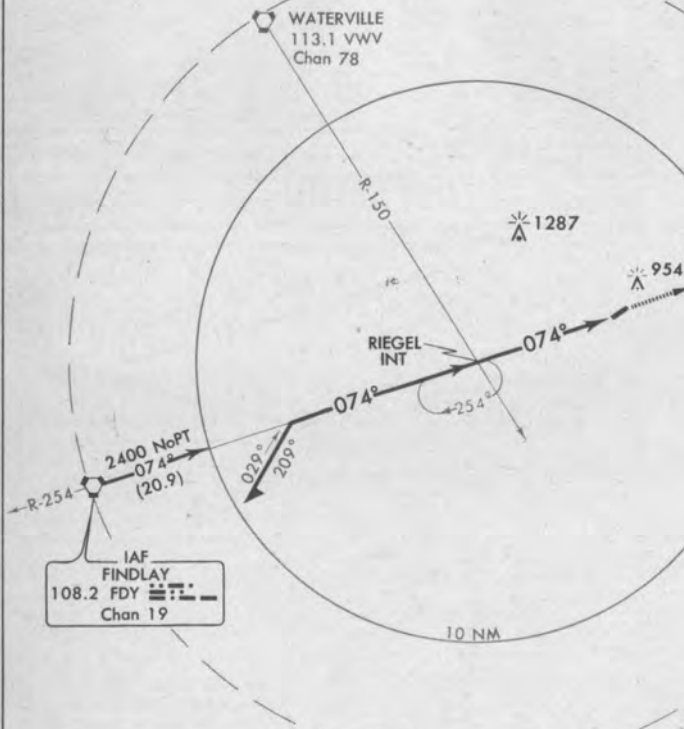
TIFFIN, OHIO
SENECA COUNTY

VOR RWY 6

AL-5645 (FAA)

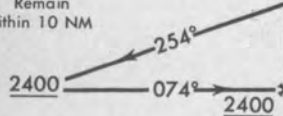
SENECA COUNTY

TIFFIN, OHIO

CLEVELAND CENTER
133.8 269.3

CAUTION: 954' tower 1 NM NE of airport.

ENROUTE FACILITIES

Remain
within 10 NMMISSED APPROACH
Climb to 2400, left turn direct
Riegel Int and hold.

5 NM

CATEGORY	A	B	C	D
S-6	1400-1 614 (700-1)	1400-1 1/4 614 (700-1 1/4)	1400-1 1/2 614 (700-1 1/2)	1400-2 614 (700-2)
CIRCLING	1400-1 613 (700-1)	1400-1 1/4 613 (700-1 1/4)	1400-1 1/2 613 (700-1 1/2)	1400-2 613 (700-2)

Use Findlay, Ohio altimeter setting



NA

ELEV 787

Rwy 24 ldg 3887'

Elev
786074° 5 NM from
Riegel IntLIRL Rwy 6-24
REIL Rwy 24

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

VOR RWY 6

41°06'N - 83°13'W

TIFFIN, OHIO

SENECA COUNTY

VOR RWY 18

262
AL-5514 (FAA)SHELBYVILLE MUNI
SHELBYVILLE, INDIANA

INDIANAPOLIS APP CON

SW/NW Active RWY* 124.65 343.9

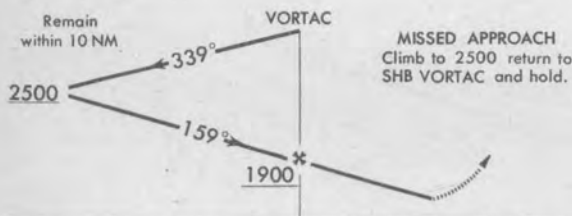
SE/NE Active RWY* 118.5 343.9

RADAR VECTORING

*of IND Muni Arpt



Final approach from holding
pattern at VORTAC not authorized
Procedure turn required.

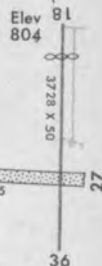


CATEGORY	A	B	C	D
S-18	1280-1 476 (500-1)			
CIRCLING	1320-1 516 (600-1)	1540-1 1/2 736 (800-1 1/2)	1540-2 736 (800-2)	

Use Indianapolis, Indiana altimeter setting.

▽
△ NA

ELEV 804 Rwy 18 ldg 3291'

159° 3.1 NM
from VORTAC

MIRL Rwy 18-36

FAF to MAP 3.1 NM

Knots	60	90	120	150	180
Min:Sec	3:06	2:04	1:33	1:14	1:02

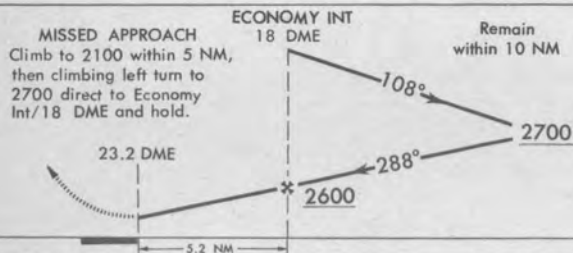
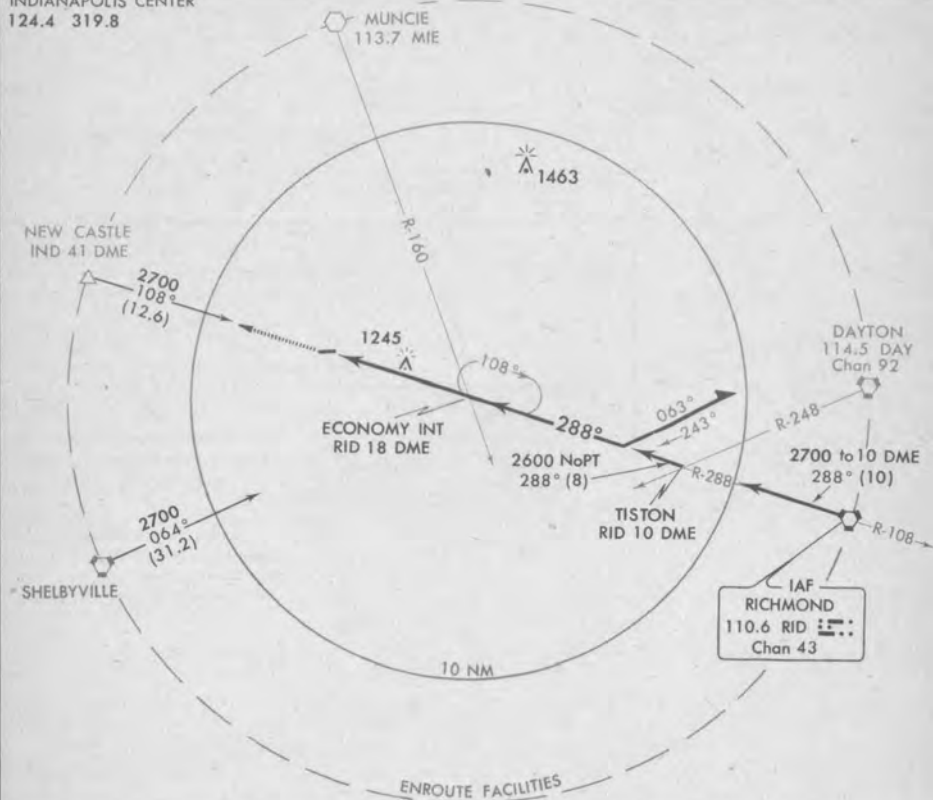
VOR RWY 18

39°35'N-85°48'W

SHELBYVILLE, INDIANA
SHELBYVILLE MUNI

VOR RWY 27

AL-6042 (FAA)

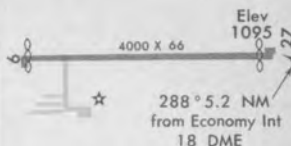
SKY CASTLE
NEW CASTLE, INDIANAINDIANAPOLIS CENTER
124.4 319.8

CATEGORY	A	B	C	D
S-27	1500-1 405 (500-1)	1500-1 1/4 405 (500-1 1/4)	1500-1 1/2 405 (500-1 1/2)	1500-1 3/4 405 (500-1 3/4)
CIRCLING	1520-1 425 (500-1)	1560-1 1/4 465 (500-1 1/4)	1560-1 1/2 465 (500-1 1/2)	1660-2 565 (600-2)

Obtain New Castle altimeter setting on UNICOM 122.8 MHz. If unable, use Indianapolis, Indiana altimeter setting and increase all MDA's 200 feet.

△ NA

ELEV 1095 Rwy 9 ldg 3960'
Rwy 27 ldg 3780'



LIRL Rwy 9-27

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

VOR RWY 27

39° 53' N - 85° 20' W

NEW CASTLE, INDIANA
SKY CASTLE

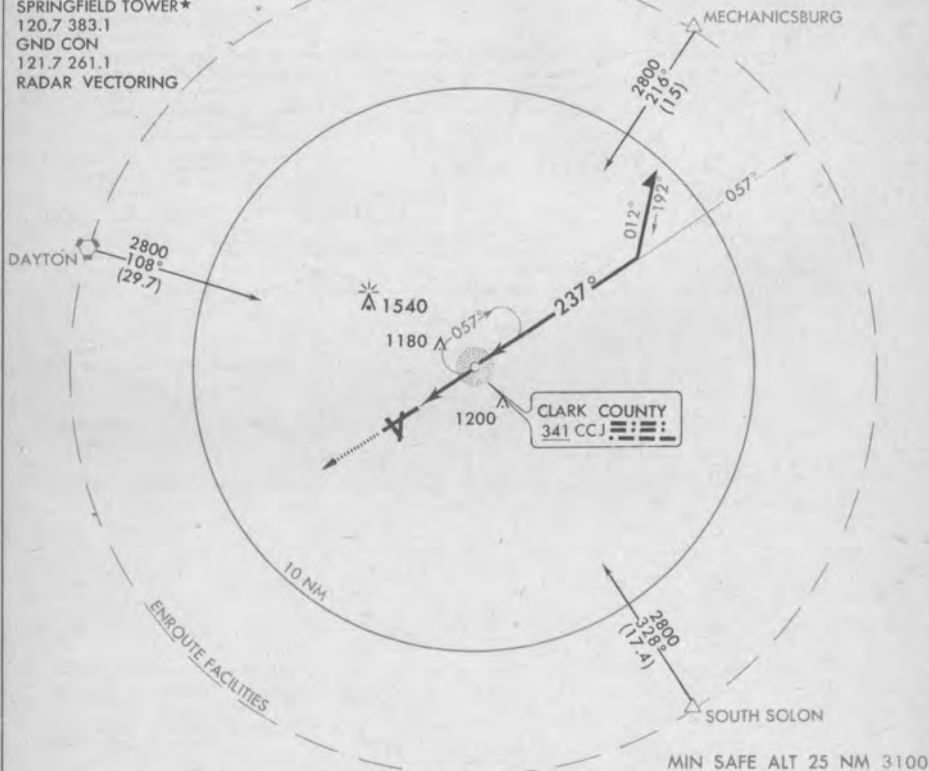
NDB RWY 24

AL-958 (FAA)

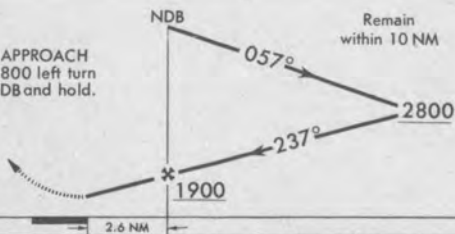
SPRINGFIELD MUNI

SPRINGFIELD, OHIO

DAYTON APP CON
118.4 327.1
SPRINGFIELD TOWER*
120.7 383.1
GND CON
121.7 261.1
RADAR VECTERING



MISSED APPROACH
Climb to 2800 left turn
direct to NDB and hold.



CATEGORY	A	B	C	D
S-24	1480-1 428 (500-1)	1520-1 468 (500-1)	1520-1½ 468 (500-1½)	1620-2 568 (600-2)

When Springfield tower not operating: (1) Use Wright-Patterson AFB altimeter setting. (2) All MDAs increased 40 feet.
Inoperative table does not apply.

Δ NA

ELEV 1052

Non standard
ALS Rwy 24



MIRL Rwy 15-33
HIRL Rwy 6-24
REIL Rwy 6 and 24

FAF to MAP 2.6 NM

Knots	60	90	120	150	180
Min:Sec	2:36	1:44	1:18	1:02	0:52

NDB RWY 24

39°51'N-83°50'W

SPRINGFIELD, OHIO
SPRINGFIELD MUNI

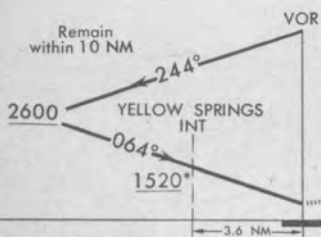
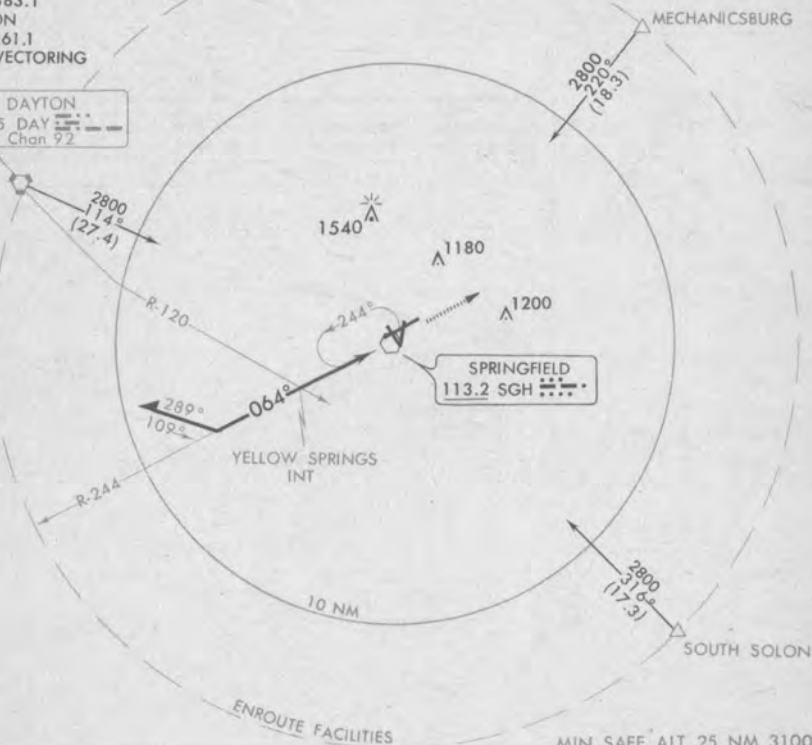
VOR RWY 6

AL-958 (FAA)

SPRINGFIELD MUNI
SPRINGFIELD, OHIO

DAYTON APP CON
118.4 327.1
SPRINGFIELD TOWER*
120.7 383.1
GND CON
121.7 261.1
RADAR VECTORING

DAYTON
114.5 DAY
Chan 92



MISSED APPROACH
Climb to 2600 left turn direct
to SGH VOR and hold.

*1560 when Springfield
tower not operating

CATEGORY	A	B	C	D
S-6	1520-1	468 (500-1)		
CIRCLING	1520-1	468 (500-1)	1520-1½ 468 (500-1½)	1620-2 568 (600-2)
DUAL VOR MINIMA				
S-6	1420-1	368 (400-1)		

When Springfield tower not operating: (1) Use Wright-Patterson AFB altimeter setting. (2) All MDA's increased 40 feet. (3) Increase single VOR straight-in visibility Cat.D to 1 ¼ miles.

Inoperative table does not apply.

Δ NA

MIN SAFE ALT 25 NM 3100

ELEV 1052 Non Standard
ALS Rwy 24



HIRL Rwy 6-24
MIRL Rwy 15-33
REIL Rwy 6 and 24

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 6

39°51'N - 83°50'W

SPRINGFIELD, OHIO
SPRINGFIELD MUNI

DAYTON APP CON

118.4 327.1

SPRINGFIELD TOWER*

120.7 383.1

GND CON

121.7 261.1

RADAR VECTORED



When Springfield tower not operating:

(1) Use Wright-Patterson AFB altimeter setting.

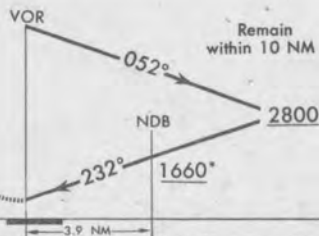
(2) All MDA's increased 40 feet.

(3) Increase VOR straight-in visibility Cat. C to 1¼, Cat. D to 1½ miles.

ENROUTE FACILITIES

MIN SAFE ALT 25 NM 3100'

MISSED APPROACH
Climb to 2800 left turn direct
to SGH VOR and hold.



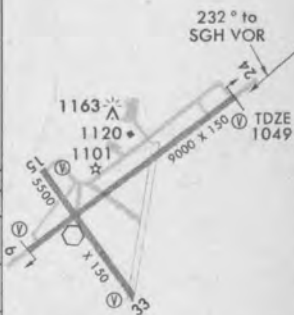
*1700 when Springfield
tower not operating.

CATEGORY	A	B	C	D
S-24	1660-1 611 (700-1)			1660-1¼ 611 (700-1¼)
CIRCLING	1660-1 608 (700-1)		1660-1½ 608 (700-1½)	1660-2 608 (700-2)
VOR/NDB MINIMA				
S-24	1460-1 411 (500-1)			
CIRCLING	1480-1 428 (500-1)	1520-1 468 (500-1)	1520-1½ 468 (500-1½)	1620-2 568 (600-2)

Inoperative table does not apply.

Δ NA

ELEV 1052 Non-Standard
ALS Rwy 24



HIRL Rwy 6-24
MIRL Rwy 15-33
REIL Rwy 6 and 24

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 24

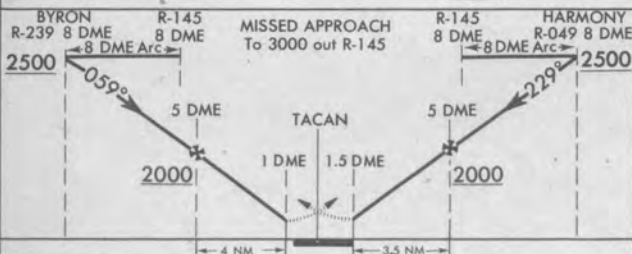
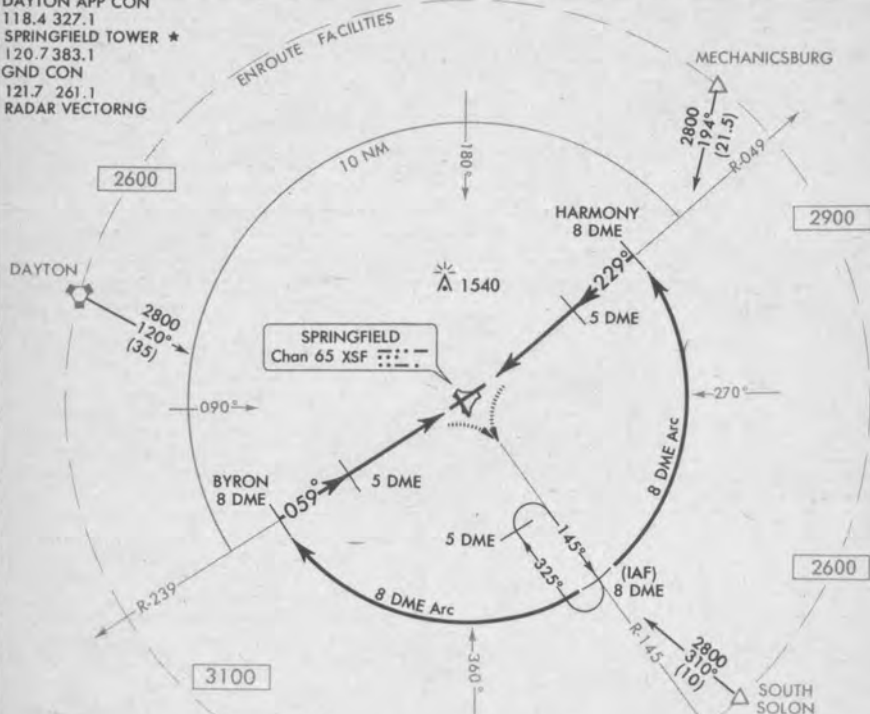
39°51'N - 83°50'W

TACAN RWY 6-24

AL-958 (USAF)

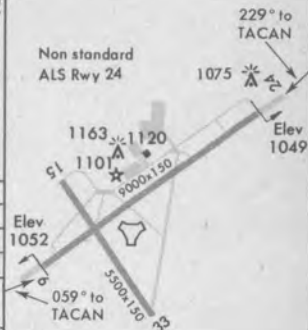
SPRINGFIELD MUNI
SPRINGFIELD, OHIO

DAYTON APP CON
118.4 327.1
SPRINGFIELD TOWER ★
120.7 383.1
GND CON
121.7 261.1
RADAR VECTORG



CATEGORY	A	B	C	D
S-6		1400-1	348 (400-1)	
S-24		1400-1	351 (400-1)	
CIRCLING	1460-1 408 (500-1)	1520-1 468 (500-1)	1520-1½ 468 (500-1½)	1620-2 568 (600-2)

ELEV 1052



MIRL Rwy 15-33
REIL Rws 6 and 24
HIRL Rwy 6-24

A 1111

KALAMAZOO APP CON
121.2 340.9

KEELER
115.1 E
Chan 98

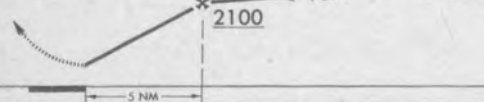
IAF
KALAMAZOO
109.0 AZO

SOUTH BEND

PARKVILLE INT

MISSED APPROACH
Climb to 2600 AZO R-187
return to Parkville Int and
hold.

Remain
within 10 NM



CATEGORY	A	B	C	D
CIRCLING	1320-1	496 (500-1)	1320-1½ 496 (500-1½)	1480-2 656 (700-2)

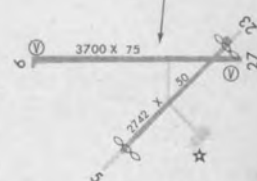
Use Kalamazoo, Michigan altimeter setting.
Final approach from Parkville Int holding pattern not authorized.
Procedure turn required.

△NA

ELEV 824

Rwy 5 ldg 2687'
Rwy 23 ldg 2642'

187° 5 NM from
Parkville Int



REIL Rws 9 and 27
LIRL Rwy 5 23
MIRL Rwy 9-27

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

EFFECTIVE
25 SEP 75

NDB RWY 7270
AL-184 (FAA)**TOLEDO EXPRESS**

TOLEDO, OHIO

TOLEDO APP CON
069°-248° 119.2 307.0
249°-068° 124.7 354.0
TOLEDO TOWER
118.1 392.0
GND CON
121.9 348.6
ASR
ATIS
133.55

3100

2500

10 NM

081°

HARBOR VIEW

2300
249°
(16.9)

993

869

LOM

219 TO ---

R-275

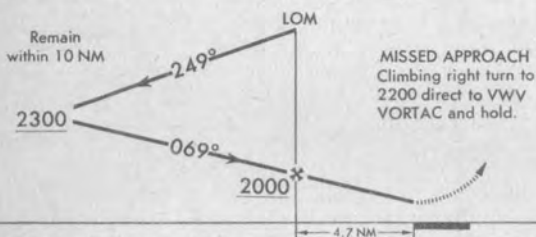
2300 NoPT
069° (12.5)(IAF)
GERALD
INT

1139

WATERVILLE
113.1 VVW : ---
Chan 78

McCLURE

2900



ELEV 684

CATEGORY	A	B	C	D
S-7	1180/40 499 (500-¾)			1180/50 499 (500-1)
CIRCLING	1180-1 496 (500-1)		1180-1½ 496 (500-1½)	1240-2 556 (600-2)



REIL Rwy 25 and 34
MIRL Rwy 16-34
HIRL Rwy 7-25

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NDB RWY 7

41°35'N-83°48'W

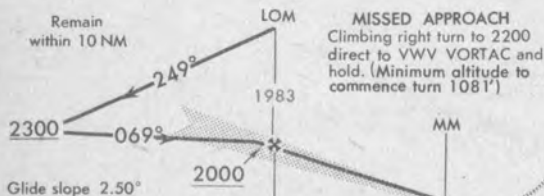
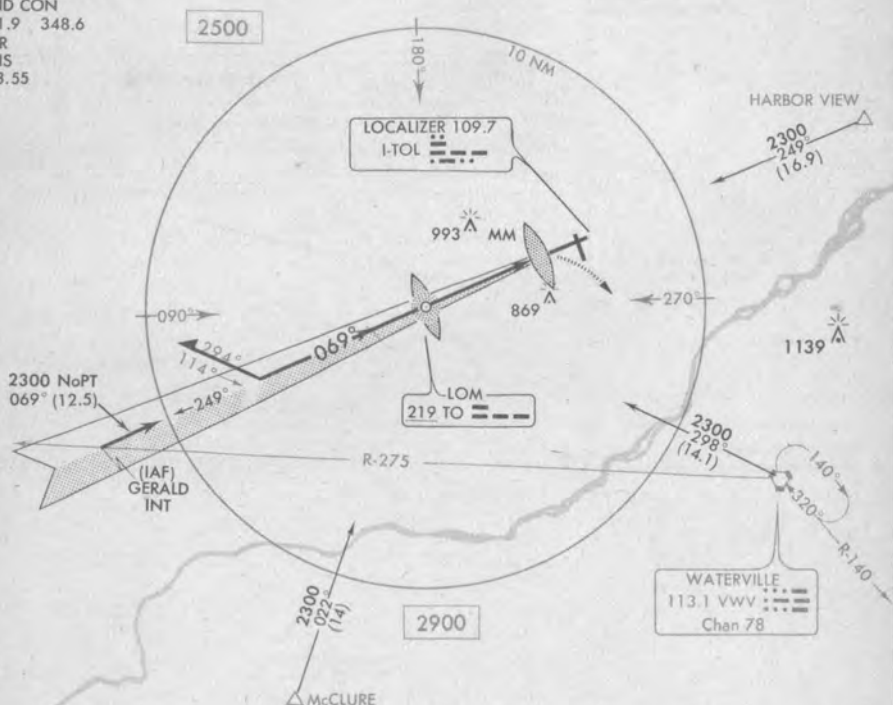
TOLEDO, OHIO
TOLEDO EXPRESS

André Lévesque

273

TOLEDO, OHIO

3100

ELEV 684

REIL Rwy 25 and 34
MIRL Rwy 16-34
HIRL Rwy 7-25

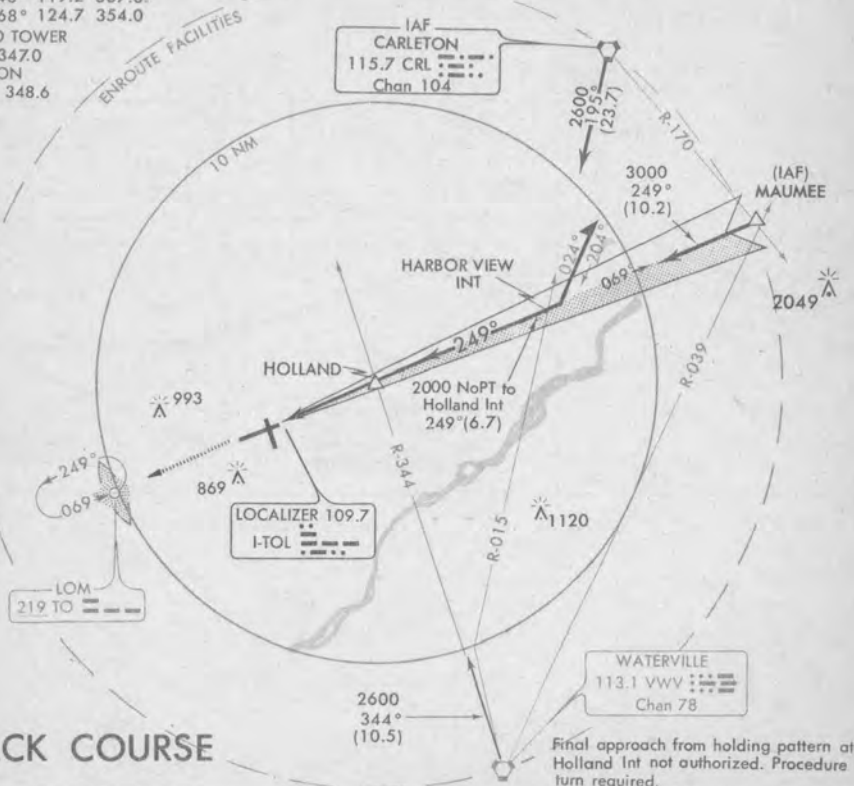
FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

41°35'N-83°48'W

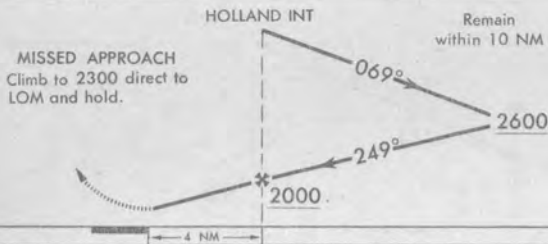
TOLEDO, OHIO
TOLEDO EXPRESS

AL-184 (FAA)

TOLEDO APP CON
069°248° 119.2 307.0
249°068° 124.7 354.0
TOLEDO TOWER
118.1 347.0
GND CON
121.9 348.6
ASR



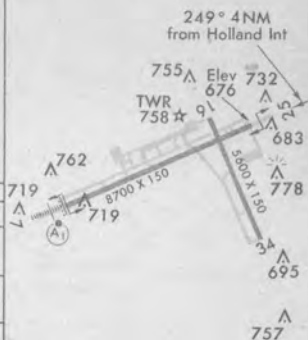
BACK COURSE



CATEGORY	A	B	C	D
S-25	1040 - 3/4 364 (400-3/4)			1040-1 364 (400-1)
CIRCLING	1180-1 496 (500-1)		1180-1 1/2 496 (500-1 1/2)	1240-2 556 (600-2)



ELEV 684



REIL Rwy 25 and 34
MIRL Rwy 16-34
HIRL Rwy 7-25

FAF to MAP 4 NM

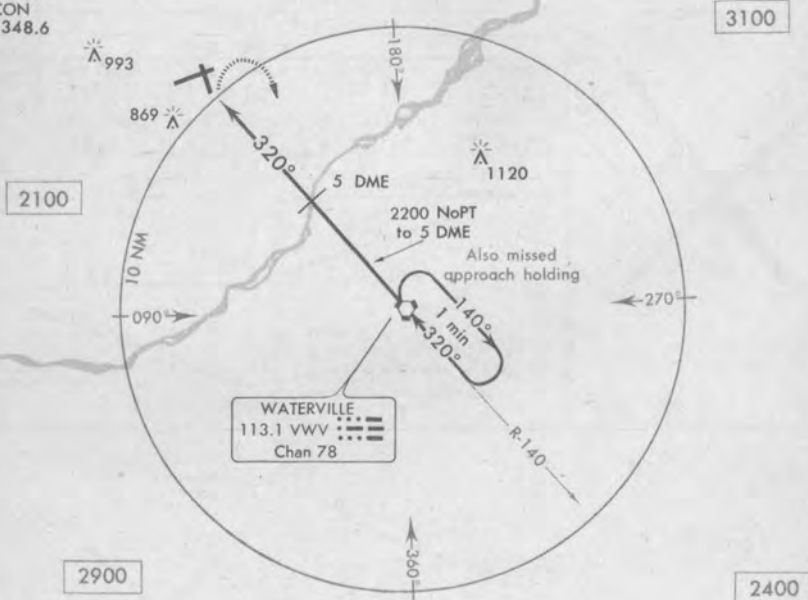
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

LOC BC RWY 25

41°35'N-83°48'W

TOLEDO, OHIO
TOLEDO EXPRESS

2049



2400 direct to
RTAC and hold.

10.4 DME

5 DME

320°

2200

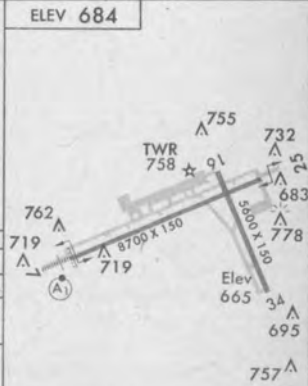
140°

320°

2200

Holding Pattern

CATEGORY	A	B	C	D
S-34	1020-1 355(400-1)			
CIRCLING	1180-1 496(500-1)		1180-1½ 496(500-1½)	1240-2 556(600-2)



REIL Rwy 25 and 34
MIRL Rwy 16-34
HIRL Rwy 7-25

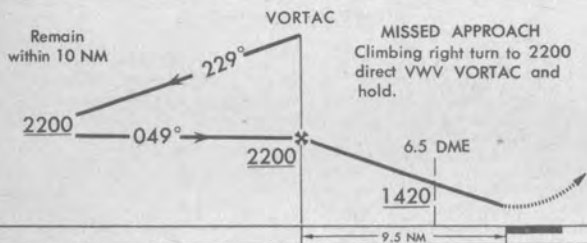
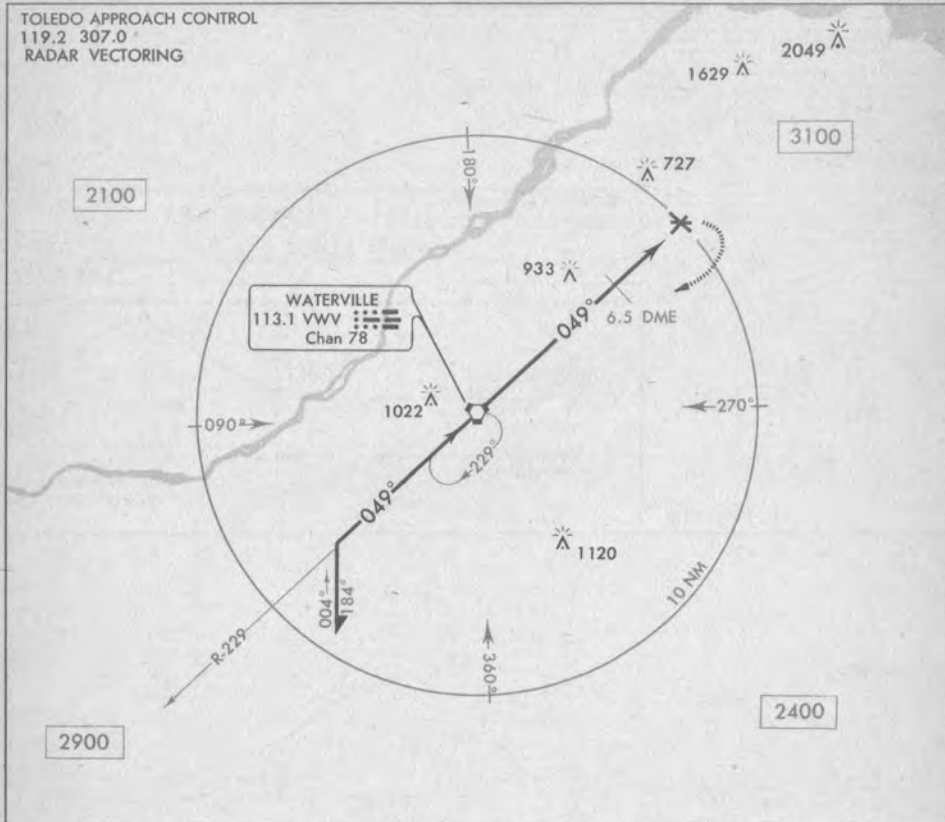
Knots	60	90	120	150	180
Min:Sec					

VOR RWY 4

274
AL-421 (FAA)

TOLEDO MUNI
TOLEDO, OHIO

TOLEDO APPROACH CONTROL
119.2 307.0
RADAR VECTERING

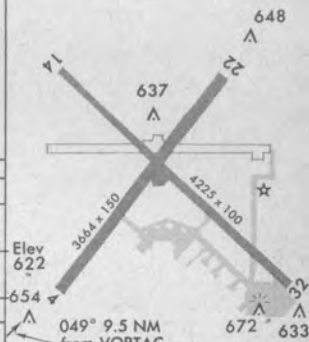


CATEGORY	A	B	C	D
S-4	1420-1 798 (800-1)	1420-1 1/4 798 (800-1 1/4)	1420-1 1/2 798 (800-1 1/2)	1420-1 3/4 798 (800-1 3/4)
CIRCLING	1420-1 798 (800-1)	1420-1 1/4 798 (800-1 1/4)	1420-1 1/2 798 (800-1 1/2)	1420-2 798 (800-2)
DME MINIMA				
S-4	1040-1 418 (500-1)			
CIRCLING	1100-1 478 (500-1)		1100-1 1/2 478 (500-1 1/2)	1180-2 558 (600-2)

Use Toledo Express Airport, Ohio altimeter setting.

▽
NA

ELEV 622



MIRL Rwy 4-22 and 14-32

FAF to MAP 9.5 NM

Knots	60	90	120	150	180
Min:Sec	9:30	6:20	4:45	3:48	3:10

VOR RWY 4

41°34'N-83°29'W

TOLEDO, OHIO
TOLEDO MUNI

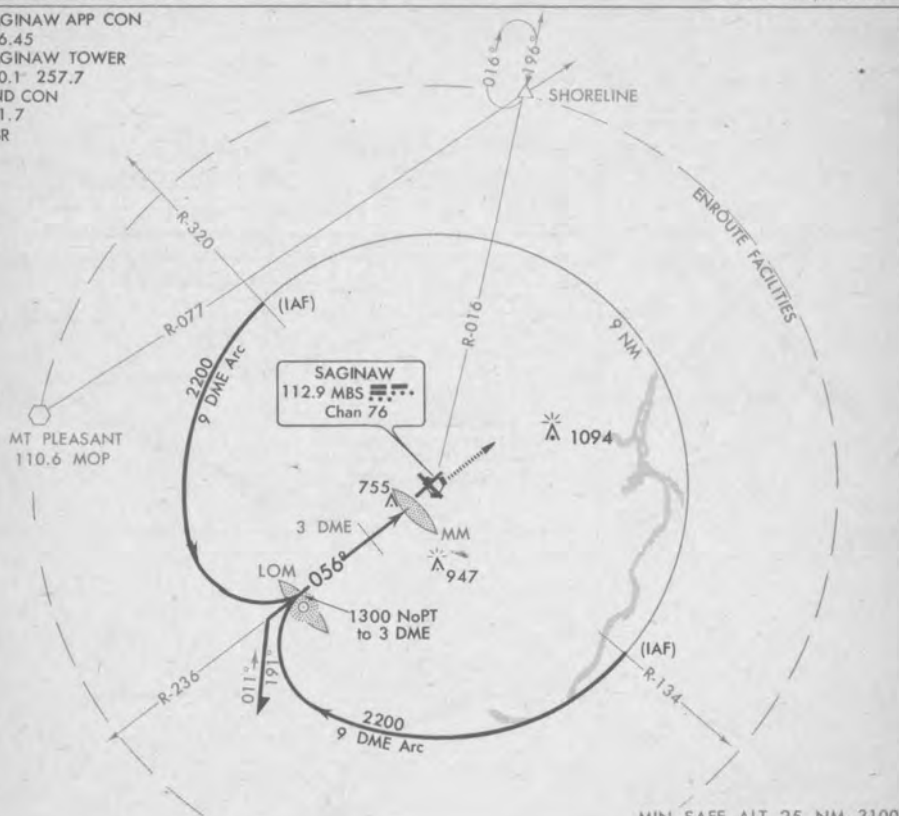
VOR RWY 5

AL-648 (FAA)

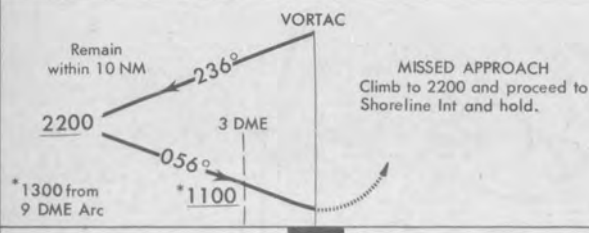
TRI-CITY

SAGINAW, MICHIGAN

SAGINAW APP CON
126.45
SAGINAW TOWER
120.1 257.7
GND CON
121.7
ASR



MIN SAFE ALT 25 NM 3100



ELEV 667



CATEGORY	A	B	C	D
S-5	1100/24	435 (500-1/2)		1100/50 435 (500-1)
CIRCLING	1100-1 433 (500-1)	1120-1 453 (500-1)	1120-1 1/2 453 (500-1 1/2)	1220-2 553 (600-2)
DME MINIMUMS				
S-5	1020/24	355 (400-1/2)		1020/50 355 (400-1)



Knots	60	90	120	150	180
Min:Sec					

VOR RWY 5

43°32'N-84°05'W

SAGINAW, MICHIGAN

TRI-CITY

VOR RWY 14

AL-648 (FAA)

SAGINAW, MICHIGAN

SAGINAW APP CON
126.45
SAGINAW TOWER
120.1 257.7
GND CON
121.7
ASR

2200 NoPT
to 9 DME Fix
via 180° heading
and MBS R-313
(8.8) /

MT PLEASANT
110.6 MOP

SAGINAW
112.9 MBS 
Chan 76

FLINT
FNT 116.9
Chan 116

MIN SAFE ALT 25 NM 3100

Remain
within 10 NM

VORTAC

22005

MISSED APPROACH
Climb to 2600 and proceed
to Reese Int via R-108 MBS
VORTAC and hold.

*1360 from
9 DME Arc

CATEGORY	A	B	C	D
S-14	1220-1 553 (600-1)			1220-1½ 553 (600-1½)
CIRCLING	1220-1 553 (600-1)		1220-1½ 553 (600-1½)	1220-2 553 (600-2)

DME MINIMUMS

S-14	1040-1 373 (400-1)
------	--------------------



ELEV 667

133° to
RS VORTAC 698 A



MIRL Rwy 14-32
HIRL Rwy 5-23
REIL Rwy 14, 23 and 32

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 14

43°32'N-84°05'W

SAGINAW, MICHIGAN
TRI-CITY

VOR RWY 23

AL-648 (FAA)

TRI-CITY

SAGINAW, MICHIGAN

SAGINAW APP CON

126.45

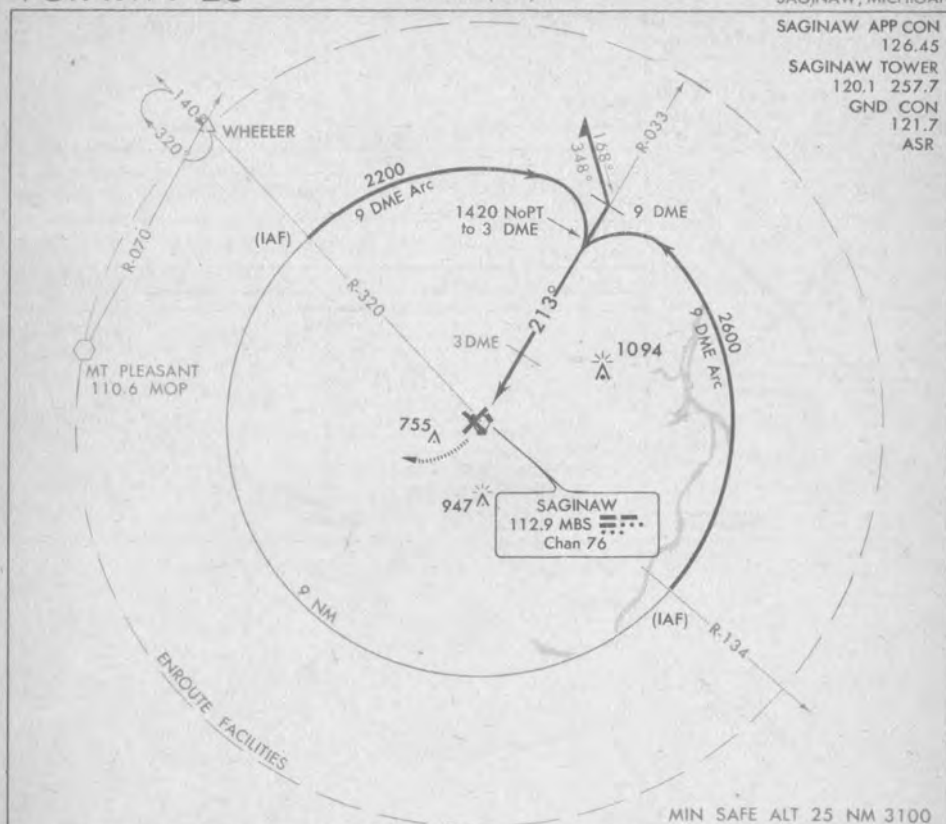
SAGINAW TOWER

120.1 257.7

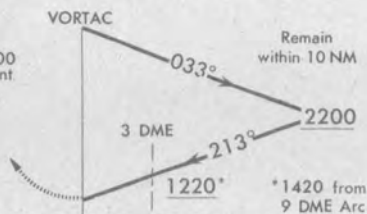
GND CON

121.7

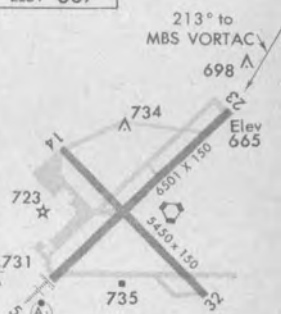
ASR



MISSED APPROACH
Climbing right turn to 2600
and proceed to Wheeler Int
via R-320 MBS VORTAC
and hold.



ELEV 667



CATEGORY	A	B	C	D
S-23	1220-1 553 (600-1)			1220-1 1/4 553 (600-1 1/4)
CIRCLING	1220-1	553 (600-1)	1220-1 1/2 553 (600-1 1/2)	1220-2 553 (600-2)
DME MINIMUMS				
S-23	1000-1 335 (400-1)			
CIRCLING	1080-1 413 (500-1)	1120-1 453 (500-1)	1120-1 1/2 453 (500-1 1/2)	1220-2 553 (600-2)

Inoperative table does not apply to HIRL Rwy 23.



MIRL Rwy 14-32
HIRL Rwy 5-23
REIL Rws 14, 23, and 32

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 23

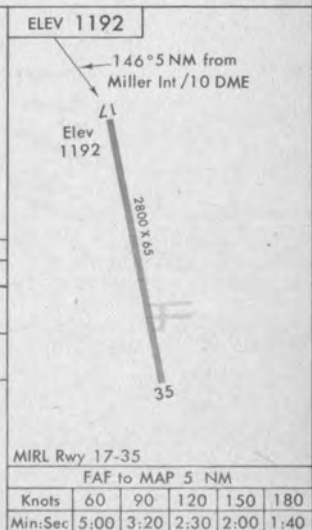
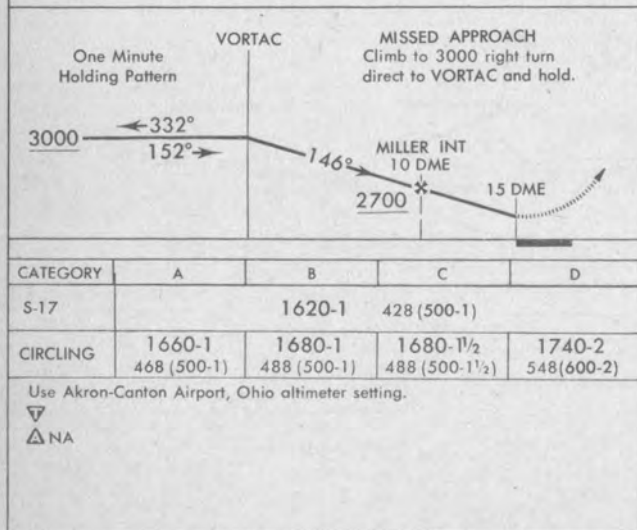
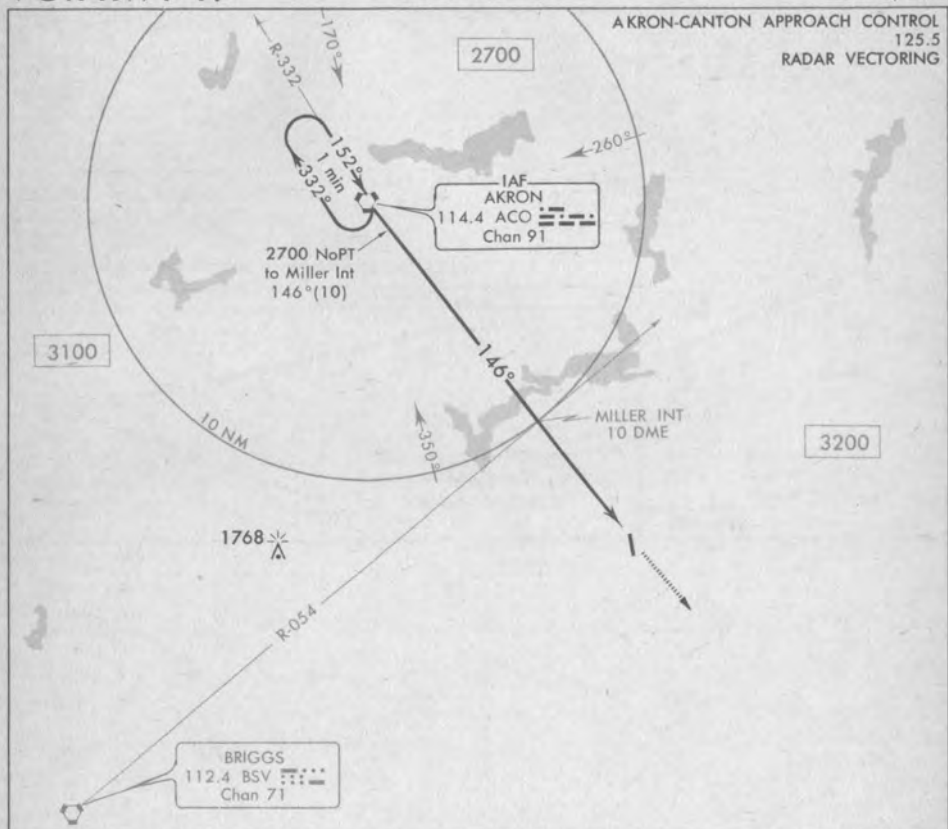
43°32'N-84°05'W

SAGINAW, MICHIGAN
TRI-CITY

VOR RWY 17

AL-5893 (FAA)

TRI-CITY
SEBRING, OHIO



VOR RWY 17

40°54'N - 81°00'W

SEBRING, OHIO
TRI-CITY

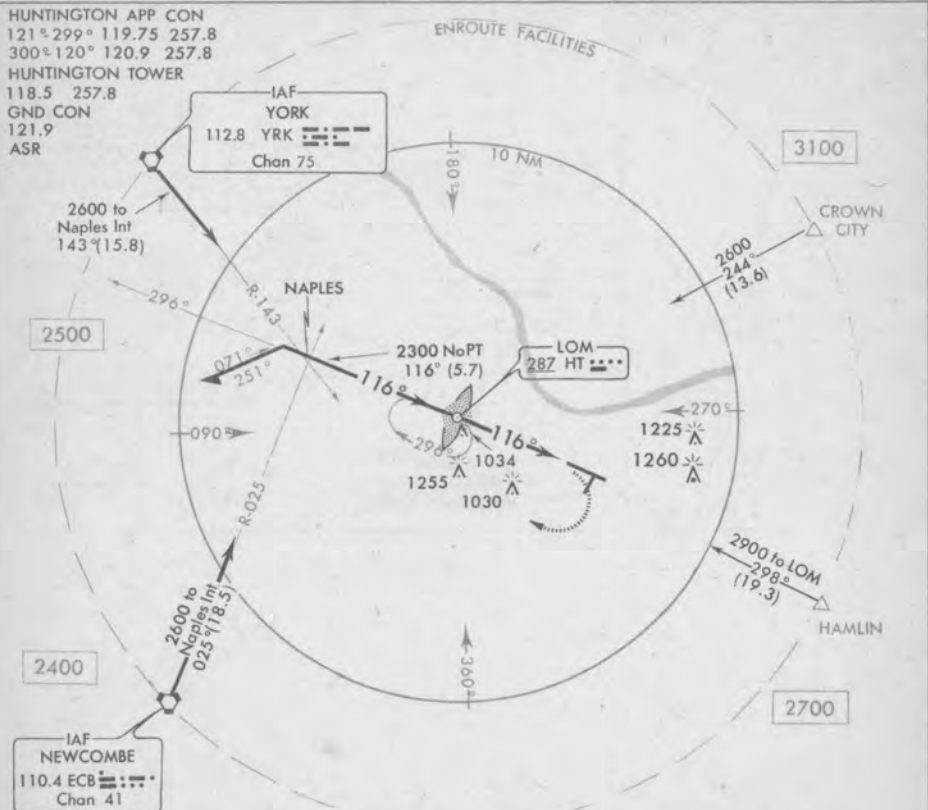
NDB RWY 12

AL-532 (FAA)

TRI-STATE (WALKER LONG FIELD)

HUNTINGTON, WEST VIRGINIA

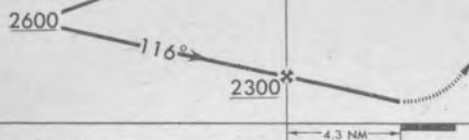
HUNTINGTON APP CON
121° 299° 119.75 257.8
300° 120° 120.9 257.8
HUNTINGTON TOWER
118.5 257.8
GND CON
121.9
ASR



Remain within 10 NM

LOM

MISSED APPROACH
Climbing right turn to 2600
direct to HT LOM and hold.



ELEV 828

REIL Rwy 3, 12, 21 and 30
HIRL Rwy 12-30
MIRL Rwy 3-21



CATEGORY	A	B	C	D
S-12	1340-1	512 (600-1)		1340-1 1/4 512 (600-1 1/4)
CIRCLING	1340-1	512 (600-1)	1340-1 1/2 512 (600-1 1/2)	1380-2 552 (600-2)

FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

NDB RWY 12

38° 22' N-82° 33' W

HUNTINGTON, WEST VIRGINIA
TRI-STATE (WALKER LONG FIELD)

ILS RWY 12

AL-532 (FAA)

TRI-STATE (WALKER LONG FIELD)
HUNTINGTON, WEST VIRGINIA

HUNTINGTON APP CON
121°-299° 119.75 257.8
300°-120° 120.9 257.8
HUNTINGTON TOWER
118.5 257.8
GND CON
121.9
ASR

IAF
YORK
112.8 YRK Chan 75

HENDERSON
111.2 HNN
Chan 49

3100

CROWN CITY

CHARLESTON
117.4 CRW
Chan 121

2700

HAMLIN
2900 to LOM
298° (19.3)

IAF
NEWCOMBE
110.4 ECB Chan 41

Remain within 10 NM
LOM
2262
2300
3.9 NM
0.4 NM

MISSED APPROACH
Climb straight ahead to 3000
to R-268 CRW VORTAC to
Barbe Int and hold.

ELEV 828



REIL Rwy 3, 12, 21 and 30
HIRL Rwy 12-30
MIRL Rwy 3-21

FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

CATEGORY	A	B	C	D
S-ILS-12		1078-3/4	250 (300-3/4)	
S-LOC-12		1240-1	412 (500-1)	
CIRCLING	1280-1	452 (500-1)	1320-1 1/2 492 (500-1 1/2)	1380-2 552 (600-2)

Inoperative table does not apply to HIRL or REIL Rwy 12.

ILS RWY 12

38°22'N-82°33'W

HUNTINGTON, WEST VIRGINIA
TRI-STATE (WALKER LONG FIELD)

LOC BC RWY 30

282

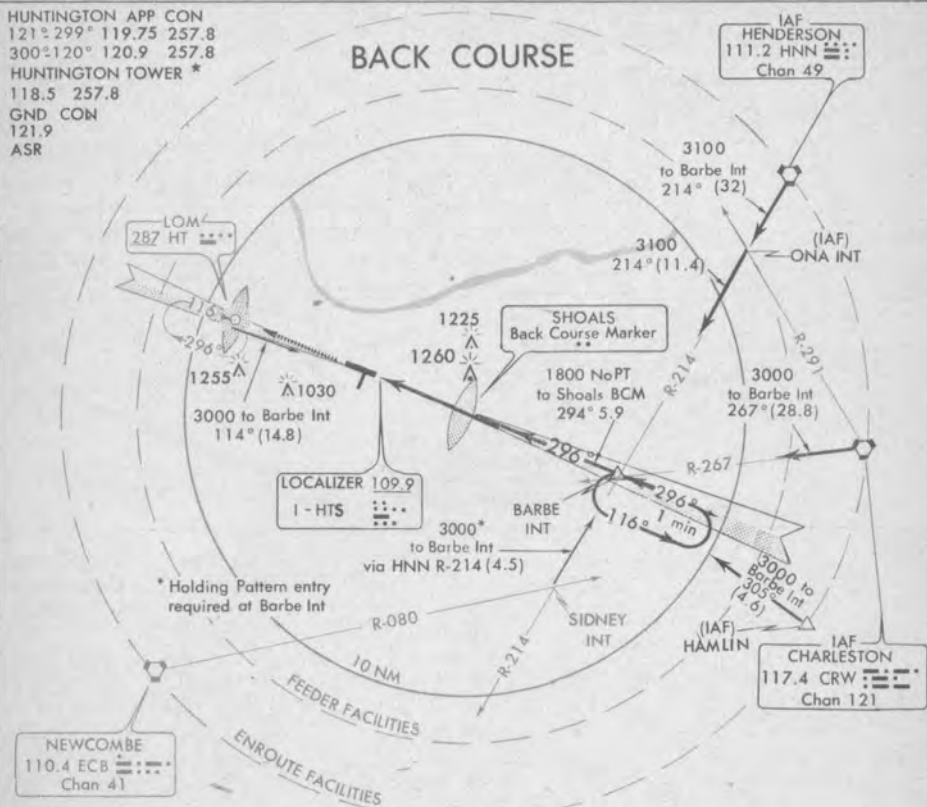
AL-532 (FAA)

TRI-STATE (WALKER LONG FIELD)

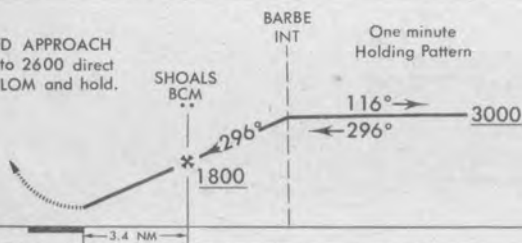
HUNTINGTON, WEST VIRGINIA

HUNTINGTON APP CON
121° 299° 119.75 257.8
300° 120° 120.9 257.8
HUNTINGTON TOWER *
118.5 257.8
GND CON
121.9
ASR

BACK COURSE



MISSED APPROACH
Climb to 2600 direct
to HT LOM and hold.



CATEGORY	A	B	C	D
S-30	1200-1	372 (400-1)		
CIRCLING	1280-1 452 (500-1)	1320-1½ 492 (500-1½)	1380-2 552 (600-2)	

Inoperative table does not apply HIRL or REIL Rwy 30.

ELEV 828

REIL Rwy 12, 21 and 30
HIRL Rwy 12-30
MIRL Rwy 3-21



FAF to MAP 3.4 NM

Knots	60	90	120	150	180
Min:Sec	3:24	2:16	1:42	1:21	1:08

LOC BC RWY 30

38° 22' N-82° 33' W

282

HUNTINGTON, WEST VIRGINIA

TRI-STATE (WALKER LONG FIELD)

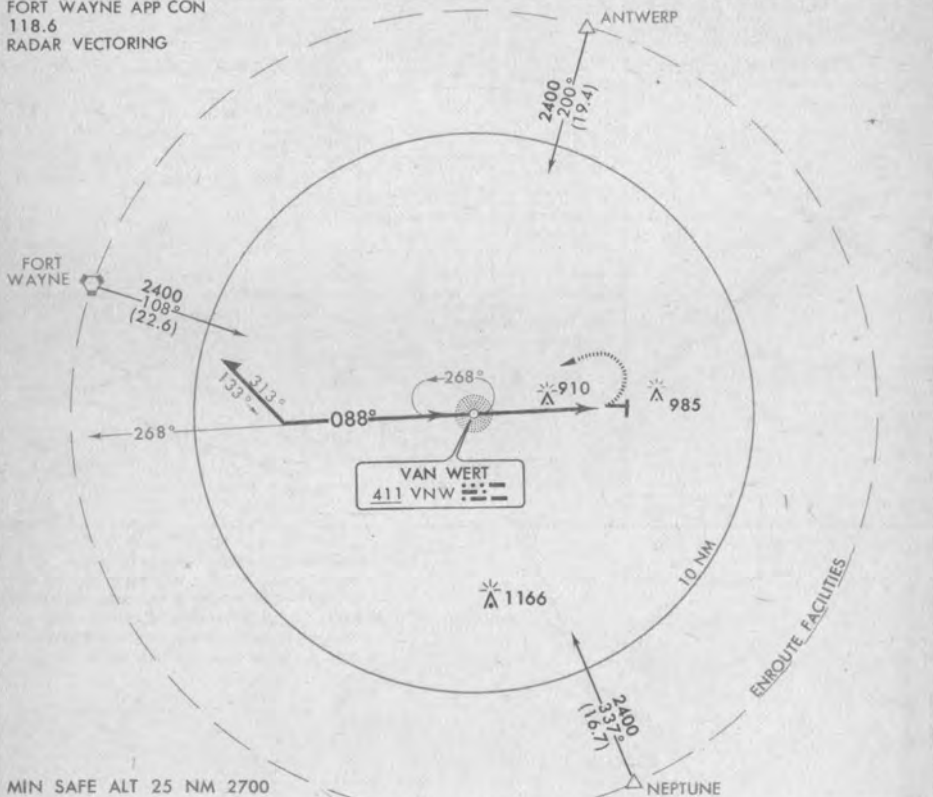
NDB RWY 9

AL-6033 (FAA)

FORT WAYNE APP CON

118.6

RADAR VECTORED

Remain
within 10 NM

NDB

2400

088°

2400

MISSED APPROACH
Climbing left turn to 2400
direct VNW NDB and hold.

4.7 NM

CATEGORY	A	B	C	D
S-9	1320-1 532(600-1)			1320-1 ¹ / ₄ 532(600-1 ¹ / ₄)
CIRCLING	1340-1 552(600-1)	1400-1 612(700-1)	1400-1 ¹ / ₂ 612(700-1 ¹ / ₂)	1400-2 612(700-2)

Use Fort Wayne, Indiana altimeter setting.



NA

ELEV 788

Elev
788

3200 x 75

81

27

2500 x 150

36

088° 4.7 NM
from NDB

LIRL Rwy 9-27

REIL Rwy 9

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NDB RWY 9

40° 52' N - 84° 36' W

VAN WERT, OHIO
VAN WERT MUNI

NDB RWY 13

AL-5546 (FAA)

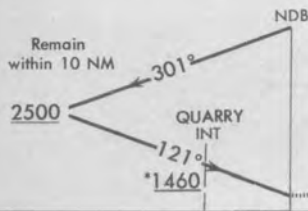
VIRGIL I. GRISSOM MUNI

BEDFORD, INDIANA

INDIANAPOLIS CENTER
132.2 307.1

Use Bloomington, Ind. altimeter setting. If unable, use Indianapolis, Ind. altimeter setting and the following applies: (a) Increase all MDA's 180 feet. (b) Increase NDB only straight-in and circling visibility Cat. A 1 1/4, Cat. B to 1 1/2, Cat. C to 1 3/4, Cat. D 2 miles. (c) Increase NDB/VOR straight-in visibility Cat. C to 1 1/4 and Cat. D to 1 1/2 mile.

MIN SAFE ALT 25 NM 2500



MISSED APPROACH
Climb to 2500 return to
BFR NDB and hold.

*1640 feet when BMG
altimeter setting not
available.

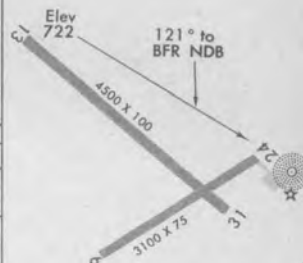
CATEGORY	A	B *	C	D
S-13	1460-1 738 (800-1)		1460-1 1/4 738 (800-1 1/4)	1460-1 1/2 738 (800-1 1/2)
CIRCLING	1460-1 732 (800-1)		1460-1 1/2 732 (800-1 1/2)	1460-2 732 (800-2)

NDB/VOR MINIMUMS

S-13	1280-1 558 (600-1)	1280-1 1/4 558 (600-1 1/4)
CIRCLING	1280-1 552 (600-1)	1280-2 552 (600-2)

Δ NA

ELEV 728



MIRL Rwy 13-31

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 13

38°50'N - 86°27'W

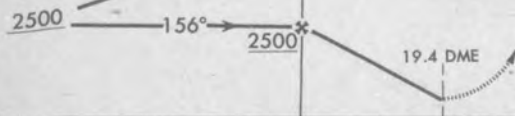
BEDFORD, INDIANA
VIRGIL I. GRISSOM MUNI

VOR/DME RWY 13

AL-5546 (FAA)

VIRGIL I. GRISSOM MUNI
BEDFORD, INDIANAINDIANAPOLIS CENTER
132.2 307.1Remain
within 10 NMPEERLESS
14 DMEMISSED APPROACH
Climb to 2500 within 25
DME, left turn direct to
Peerless 14 DME and hold.

ELEV 728



CATEGORY	A	B	C	D
S-13	1240-1 518 (600-1)	1240-1 518 (600-1)	1240-1 518 (600-1)	1240-1 518 (600-1)
CIRCLING	1240-1 512 (600-1)	1260-1 532 (600-1)	1280-1 552 (600-1)	1280-2 552 (600-2)

Use Bloomington, Ind. altimeter setting, if unable, use Indianapolis, Ind. altimeter setting and increase all MDAs 180 feet.

△ NA



MIRL Rwy 13-31

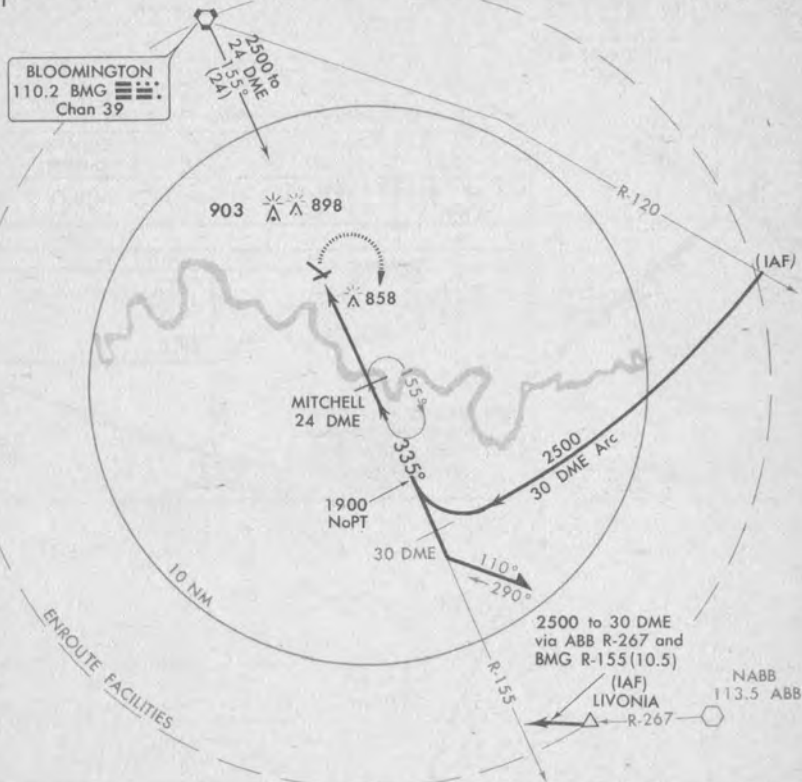
Knots	60	90	120	150	180
Min:Sec					

VOR/DME RWY 13

38°50'N - 86°27'W

BEDFORD, INDIANA
VIRGIL I. GRISSOM MUNI

INDIANAPOLIS CENTER
132.2 307.1



MISSED APPROACH
Climbing right turn to
2500 on R-155 BMG
VORTAC to Mitchell
24 DME and hold.

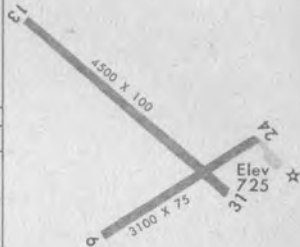
MITCHELL
24 DME

Remain
within 10 NM

20 DME

1900

ELEV 728



CATEGORY	A	B	C	D
S-31	1180-1 455 (500-1)		1180-1 $\frac{1}{4}$ 455 (500-1 $\frac{1}{4}$)	1180-1 $\frac{1}{2}$ 455 (500-1 $\frac{1}{2}$)
CIRCLING	1240-1 512 (600-1)	1260-1 532 (600-1)	1280-1 $\frac{1}{2}$ 552 (600-1 $\frac{1}{2}$)	1280-2 552 (600-2)

Use Bloomington, Indiana altimeter setting, if unable, use Indianapolis, Indiana altimeter setting and all MDAs increased 180 feet.

 ΔNA

MIRL Rwy 13-31

Knots	60	90	120	150	180
Min:Sec					

VOR/DME RWY 31

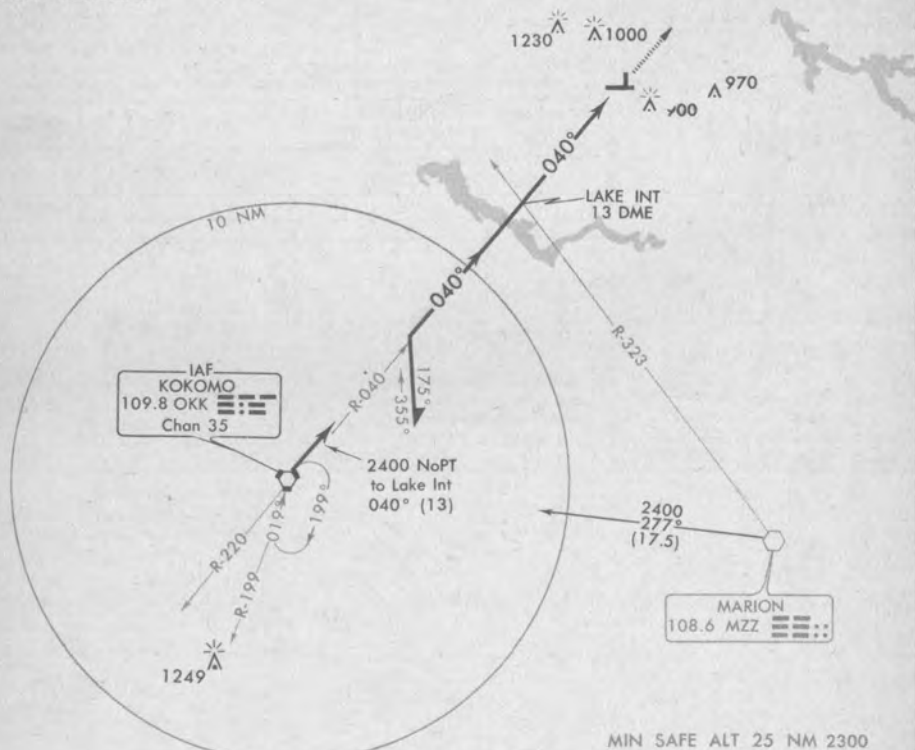
38°50'N – 86°27'W

BEDFORD, INDIANA

VIRGIL I. GRISSOM, MUNI

GRISSOM APP CON
120.0
RADAR VECTORING

CAUTION: 847 ft unlighted pole line,
0.3 NM West of airport.

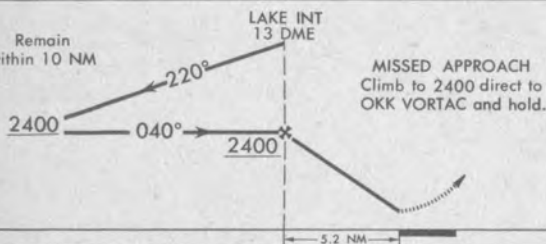


Remain
within 10 NM

LAKE INT
13 DME

MISSED APPROACH
Climb to 2400 direct to
OKK VORTAC and hold.

ELEV 793



CATEGORY	A	B	C	D
CIRCLING	1300-1 507 (600-1)	1320-1 527 (600-1)	1360-1½ 567 (600-1½)	1360-2 567 (600-2)

Use Grissom AFB altimeter setting.
Dual VOR or VOR/DME required



△ NA



FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

VOR-A

40°46'N – 85°48'W

287

WABASH, INDIANA
WABASH MUNI

VOR RWY 18

AL-5282 (FAA)

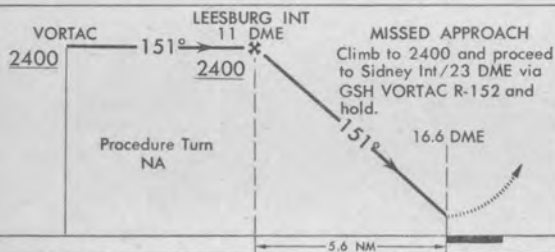
WARSAW MUNI

WARSAW, INDIANA

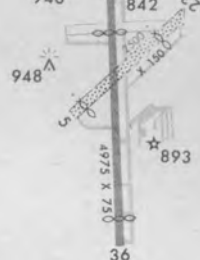
FORT WAYNE APP CON

126.1 284.6

RADAR VECTORIZING



ELEV 842
Rwy 18 ldg 4279'
Rwy 36 ldg 4300'
Rwy 5 ldg 2225'
Rwy 23 ldg 1900'



CATEGORY	A	B	C	D
S-18	1300-1 458 (500-1)		1300-1 1/4 458 (500-1 1/4)	1300-1 1/2 458 (500-1 1/2)
CIRCLING	1340-1 498 (500-1)		1340-1 1/2 498 (500-1 1/2)	1460-2 618 (700-2)

Obtain Warsaw, Indiana altimeter setting through UNICOM on 122.8 MHz; when not available, use South Bend, Indiana altimeter setting and increase all straight-in and circling MDA's 140 feet.

▽ NA
△ NA

MIRL Rwy 18-36
REIL Rwy 18 and 36

FAF to MAP 5.6 NM					
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

VOR RWY 18

41°17'N - 85°51'W

WARSAW, INDIANA

WARSAW MUNI

NDB RWY 27

AL-5663 (FAA)

WAYNE COUNTY
WOOSTER, OHIO

AKRON-CANTON APP CON

118.6

RADAR VECTORED

SHARON

2800
177°
(14.2)

2049

3100

SMITHVILLE
400 SLW

1485

DALTON

10 NM

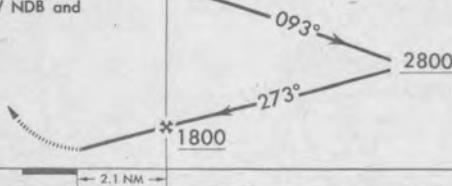
2600

BRIGGS
112.4 BSV
Chan 71

MISSED APPROACH
Climb to 2800, left turn,
proceed to SLW NDB and
hold

NDB

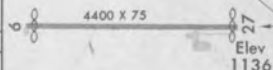
Remain
within 10 NM



ELEV 1136

Rwy 27 ldg 4350'
Rwy 9 ldg 4220'

273° 2.1 NM
from NDB



CATEGORY	A	B	C	D
S-27	1660-1	524 (600-1)		1660-1 1/4 524 (600-1 1/4)
CIRCLING	1660-1	524 (600-1)	1660-1 1/2 524 (600-1 1/2)	1700-2 564 (600-2)

Use Akron-Canton airport, Ohio altimeter setting.

NA

MIRL Rwy 9-27

FAF to MAP 2.1 NM

Knots	60	90	120	150	180
Min:Sec	2:06	1:24	1:03	0:50	0:42

NDB RWY 27

40°52'N - 81°53'W

WOOSTER, OHIO
WAYNE COUNTY

ILS RWY 3

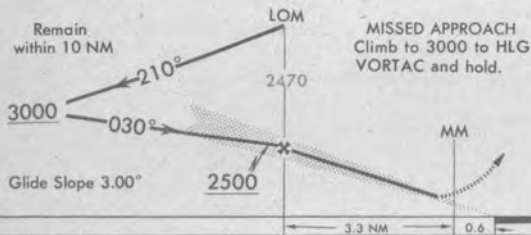
AL-650 (FAA)

WHEELING-OHIO COUNTY
WHEELING, WEST VIRGINIA

PITTSBURGH APP CON
125.9 388.0
WHEELING TOWER
118.1 257.8
GND CON
121.9
RADAR VECTORING



MIN SAFE ALT 25 NM 3100



CATEGORY	A	B	C	D
S-ILS 3	1421- ³ / ₄ 250 (300- ³ / ₄)			
S-LOC 3	1640- ³ / ₄ 469 (500- ³ / ₄)			1640-1 469 (500-1)
CIRCLING	1700-1 504 (600-1)		1740-1 ¹ / ₂ 544 (600-1 ¹ / ₂)	1760-2 564 (600-2)

Back course unusable.



ILS RWY 3

40°11'N-80°39'W

290

WHEELING, WEST VIRGINIA
WHEELING-OHIO COUNTY

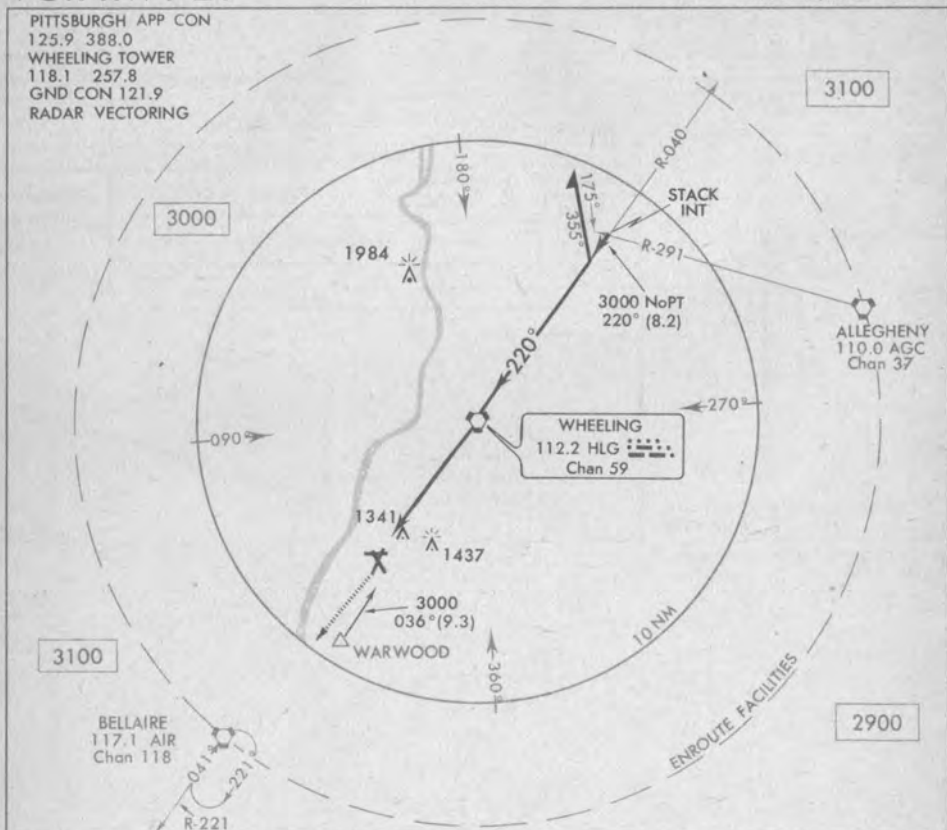
VOR RWY 21

AL-650 (FAA)

WHEELING-OHIO COUNTY

WHEELING, WEST VIRGINIA

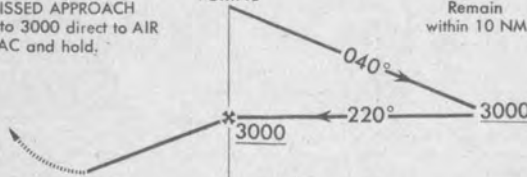
PITTSBURGH APP CON
125.9 388.0
WHEELING TOWER
118.1 257.8
GND CON 121.9
RADAR VECTORING



MISSED APPROACH
Climb to 3000 direct to AIR
VORTAC and hold.

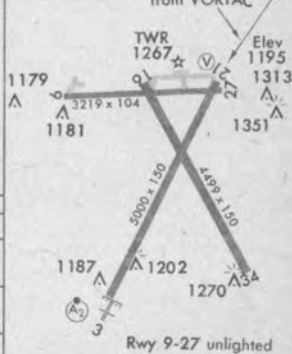
VORTAC

Remain
within 10 NM



CATEGORY	A	B	C	D
S-21	1700-1 505 (600-1)			1700-1 1/4 505 (600-1 1/4)
CIRCLING	1700-1 504 (600-1)		1740-1 1/2 544 (600-1 1/2)	1760-2 564 (600-2)

ELEV 1196

220° 5.8 NM
from VORTAC

REIL Rwy 21
HIRL Rwy 3-21
MIRL Rwy 16-34

FAF to MAP 5.8 NM

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

VOR RWY 21

40°11'N-80°39'W

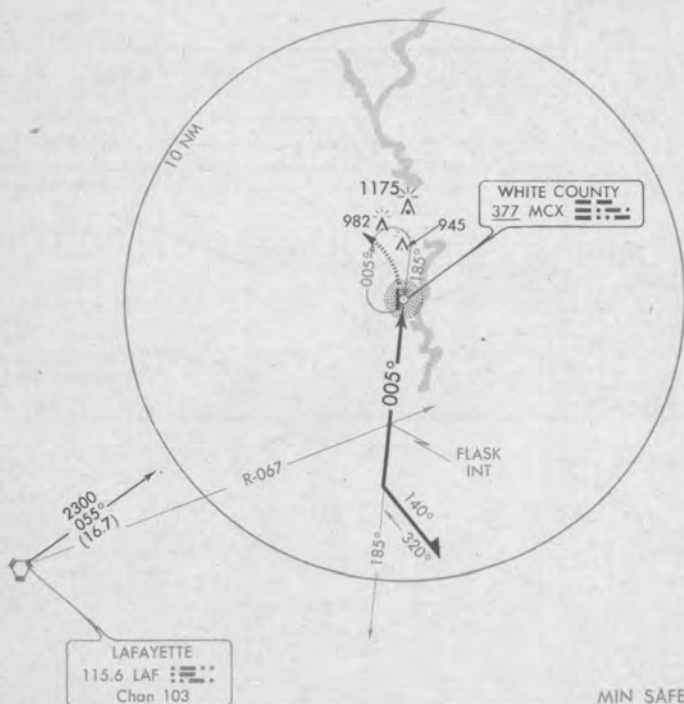
WHEELING, WEST VIRGINIA
WHEELING-OHIO COUNTY

Orig
NDB RWY 36

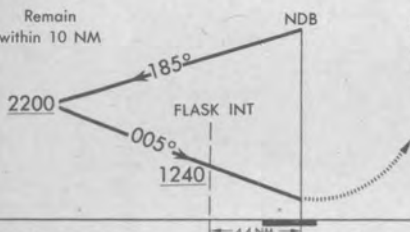
292
AL-6184 (FAA)

WHITE COUNTY
MONTICELLO, INDIANA

INDIANAPOLIS CENTER
134.6 319.2

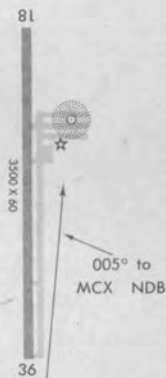


Remain
within 10 NM



MISSED APPROACH
Climbing left turn to
2200, return to MCX
NDB and hold.

ELEV 673



CATEGORY	A	B	C	D
S-36	1240-1 567 (600-1)			1240-1 1/4 567 (600-1 1/4)
CIRCLING	1240-1	567 (600-1)	1320-1 1/2 647 (700-1 1/2)	1320-2 647 (700-2)
NDB/VOR MINIMUMS				
S-36	1180-1 507 (600-1)			1180-1 1/4 507 (600-1 1/4)

Use Lafayette, Indiana altimeter setting.

NA

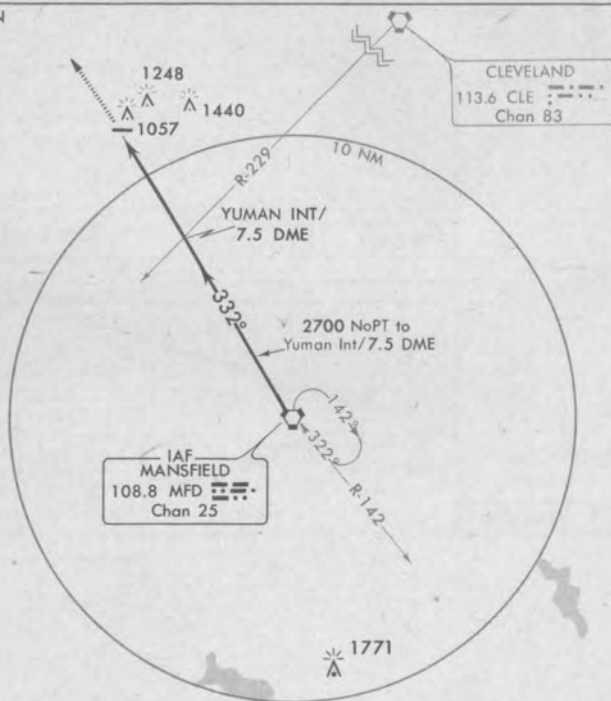
Knots	60	90	120	150	180
Min:Sec					

NDB RWY 36

40°42'N - 86°46'W

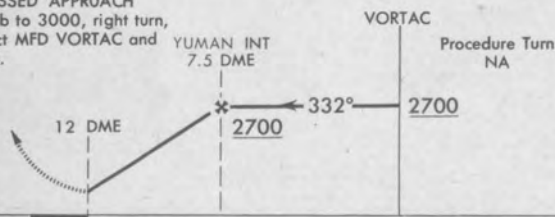
MONTICELLO, INDIANA
WHITE COUNTY

MANSFIELD APP CON
126.9 390.8



MIN SAFE ALT 25 NM 2800

MISSED APPROACH
Climb to 3000, right turn,
direct MFD VORTAC and
hold.



ELEV 967

CATEGORY	A	B	C	D
CIRCLING	1620-1 653 (700-1)		NA	

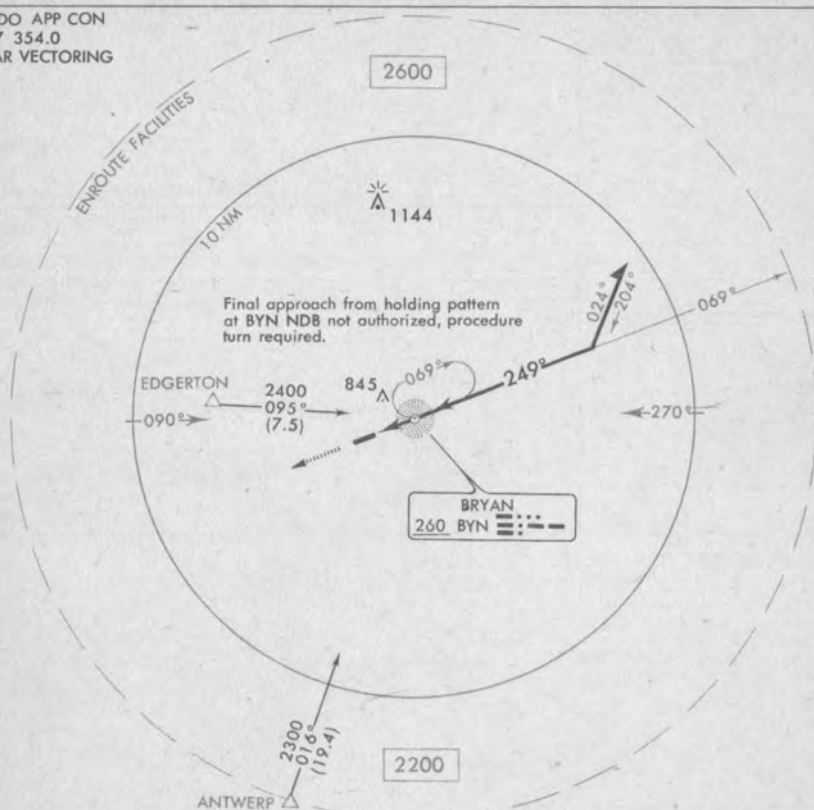
Use Mansfield, Ohio altimeter setting.

▽
△ NA

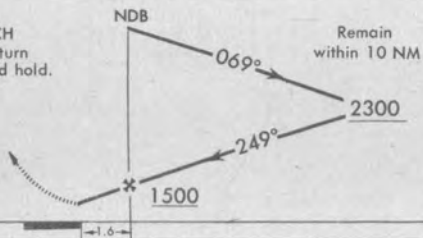
LIRL Rwy 9-27

FAF to MAP 4.5 NM

Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

NDB-A294
AL-5604 (FAA)**WILLIAMS COUNTY**
BRYAN, OHIOTOLEDO APP CON
124.7 354.0
RADAR VECTORED

MISSED APPROACH
Climb to 2300 left turn
direct BYN NDB and hold.



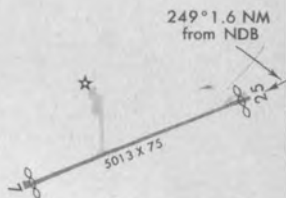
CATEGORY	A	B	C	D
CIRCLING	1320-1 589(600-1)	1320-1 1/2 589 (600-1 1/2)	1360-2 629(700-2)	

Use Toledo, Ohio altimeter setting.



NA

ELEV 731

Rwy 7 ldg 4843'
Rwy 25 ldg 4863'

REIL Rwy 7 and 25

FAF to MAP 1.6 NM

Knots	60	90	120	150	180
Min:Sec	1:36	1:04	0:48	0:38	0:32

BRYAN, OHIO

WILLIAMS COUNTY**NDB-A**

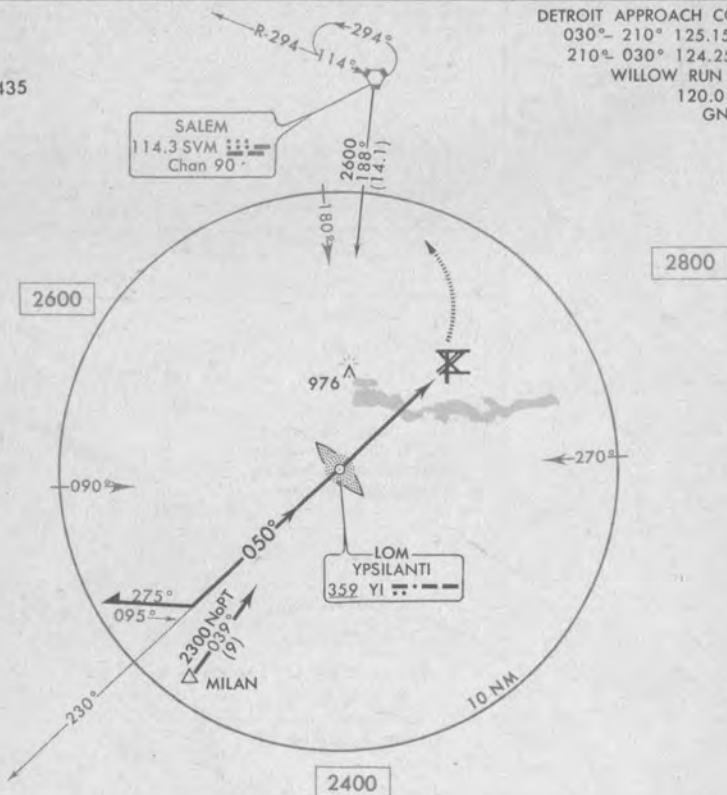
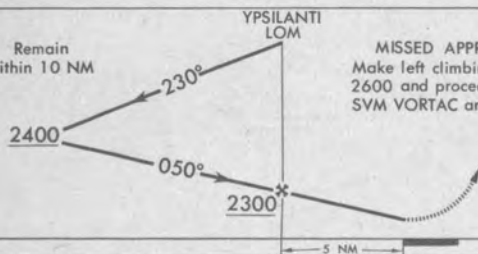
41°28'N - 84°30'W

NDB (ADF) RWY 5R

AL-467 (FAA)

WILLOW RUN
DETROIT, MICHIGAN

A 1435

SALEM
114.3 SVM
Chan 90DETROIT APPROACH CONTROL
030°- 210° 125.15 363.2
210°- 030° 124.25 363.2
WILLOW RUN TOWER
120.0 257.8
GND CON
121.9
ASRRemain
within 10 NMMISSED APPROACH
Make left climbing turn to
2600 and proceed direct to
SVM VORTAC and hold.

CATEGORY	A	B	C	D
S-5R	1200/40	485 (500-3/4)		1200/50 485 (500-1)
CIRCLING	1200-1	484 (500-1)	1200-1 1/2 484 (500-1 1/2)	1280-2 564 (600-2)



ELEV 716

REIL Rwy 23L
HIRL Rwy 5R-23L
MIRL Rwy 9R-27L,
14-32, 5L-23R, and 9L-27R.

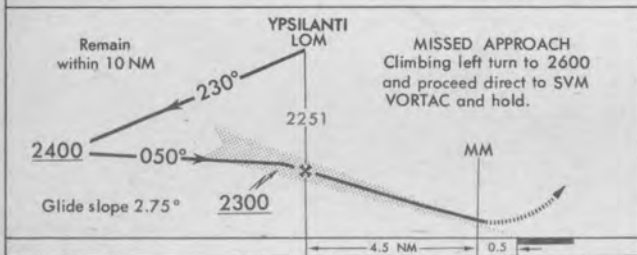
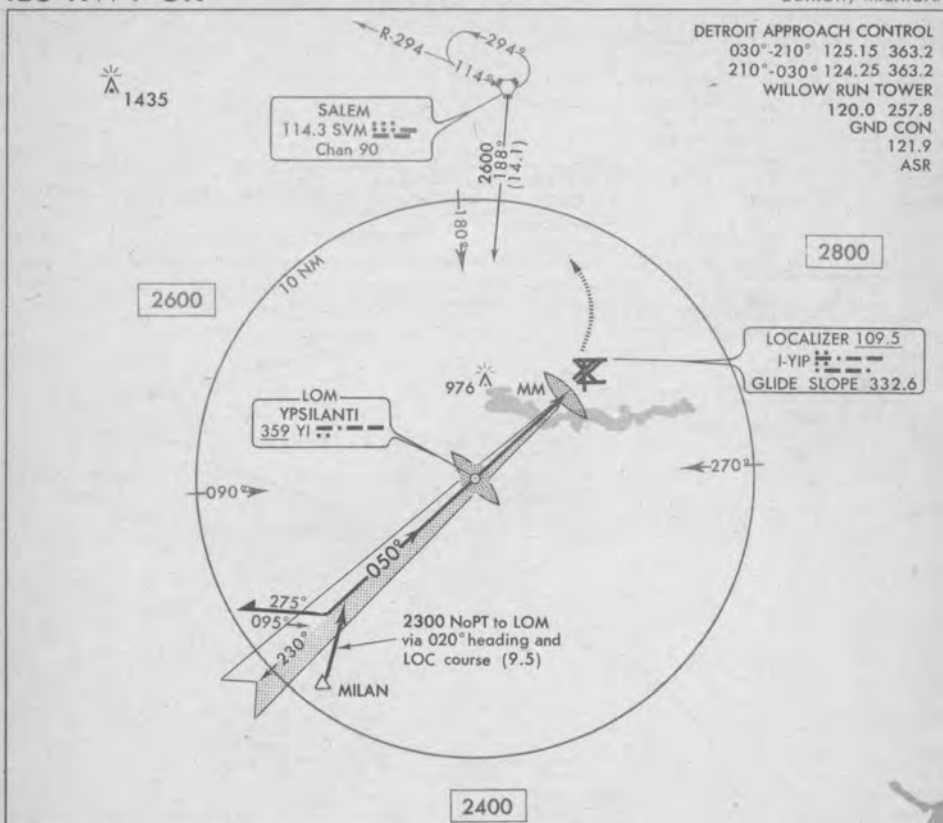
FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NDB (ADF) RWY 5R

42°14'N-83°32'W

DETROIT, MICHIGAN
WILLOW RUN



CATEGORY	A	B	C	D
S-115 5R	915/24 200 (200-1/2)			
S-LOC 5R	1100/24 385 (400-1/2)			1100/40 385 (400-3/4)
CIRCLING	1200-1	484 (500-1)	1200-1 1/2 484 (500-1 1/2)	1280-2 564 (600-2)

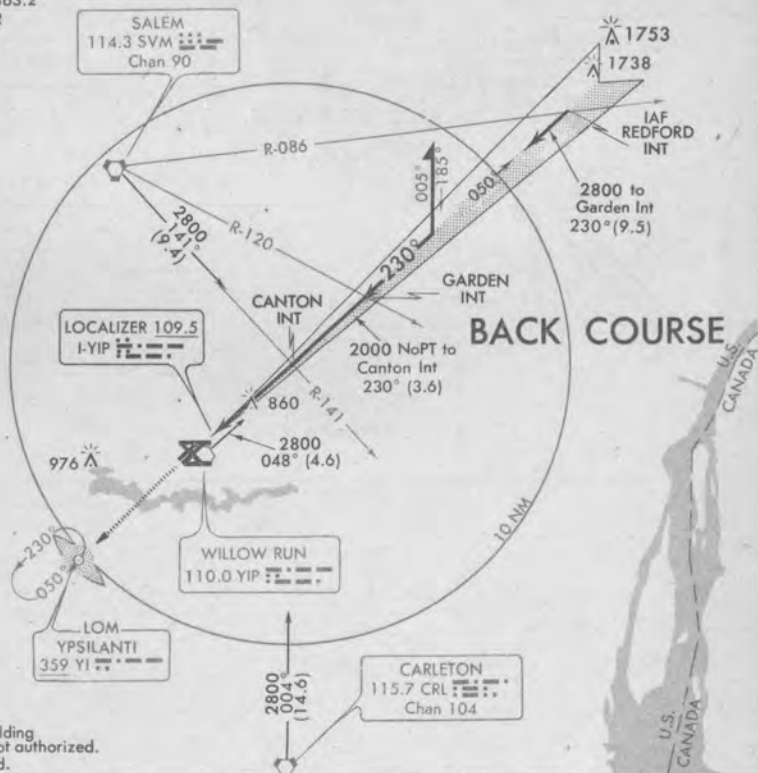


LOC BC RWY 23L

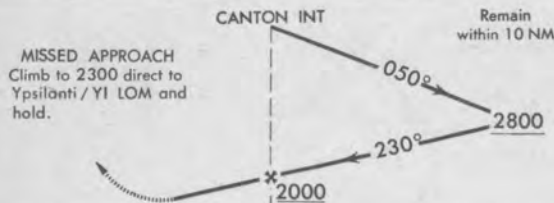
AL-467 (FAA)

WILLOW RUN
DETROIT, MICHIGAN

DETROIT APP CON
030° 210° 125.15 363.2
210° 030° 124.25 363.2
WILLOW RUN TOWER
120.0 257.8
GND CON
121.9
ASR
ATIS 110.0



Final approach from holding pattern at Canton Int not authorized. Procedure turn required.



CATEGORY	A	B	C	D
S-23L	1120-3/4	411 (500-3/4)		1120-1 411 (500-1)
CIRCLING	1200-1	484 (500-1)	1200-1 1/2 484 (500-1 1/2)	1280-2 564 (600-2)



ELEV 716

230° 4.1 NM
from Canton Int

REIL Rwy 23L
HIRL Rwy 5R-23L
MIRL Rwy 9R-27L, 14-32, 5L-23R,
and 9L-27R

FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

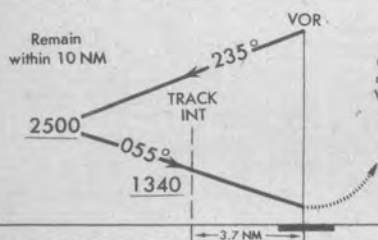
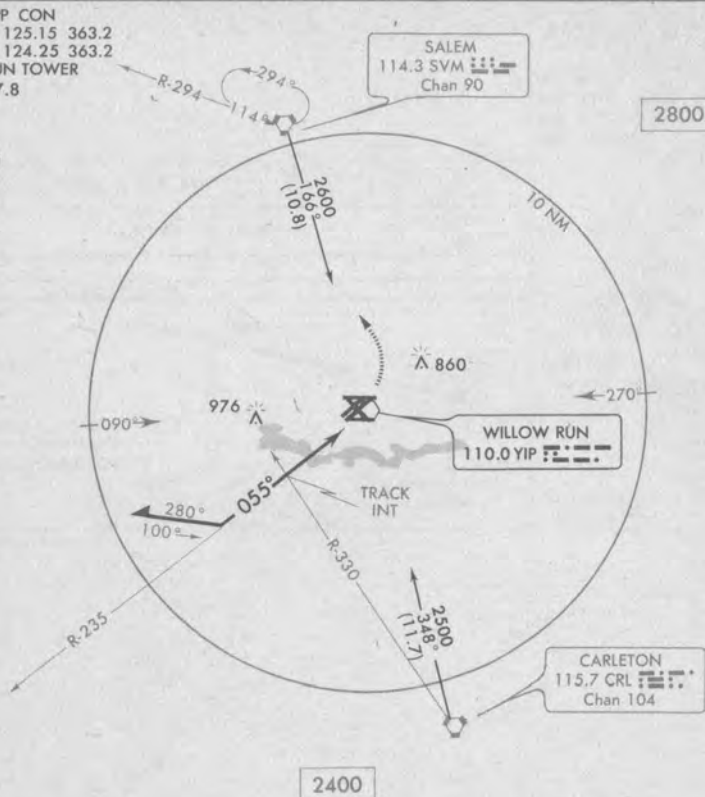
LOC BC RWY 23L

42° 14'N-83° 32'W

DETROIT, MICHIGAN
WILLOW RUN

VOR RWY 5R

DETROIT APP CON
030°-210° 125.15 363.2
210°-030° 124.25 363.2
WILLOW RUN TOWER
120.0 257.8
GND CON
121.9
ASR
ATIS 110.0



MISSED APPROACH
Climbing left turn to 2600
and proceed direct to SVM
VORTAC and hold

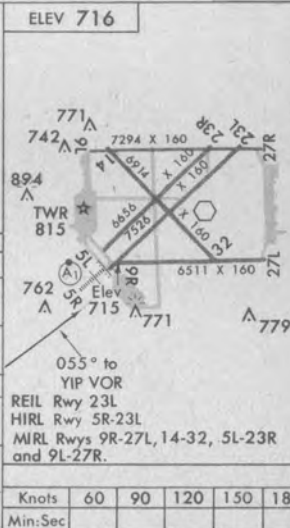
CATEGORY	A	B	C	D
S- 5R	1340/24	625 (700-1/2)		1340/50 625 (700-1)
CIRCLING	1340-1	624 (700-1)	1340-1 1/2 624 (700-1 1/2)	1340-2 624 (700-2)
DUAL VOR MINIMA				
S- 5R	1160/24	445 (500-1/2)		1160/50 445 (500-1)
CIRCLING	1200-1	484 (500-1)	1200-1 1/2 484 (500-1 1/2)	1280-2 564 (600-2)

When ALS inoperative, increase Cat. D Single Equipment straight-in visibility to 1¼ mile. ▽

VOR RWY 5R

42°14'N-83°32'W

298

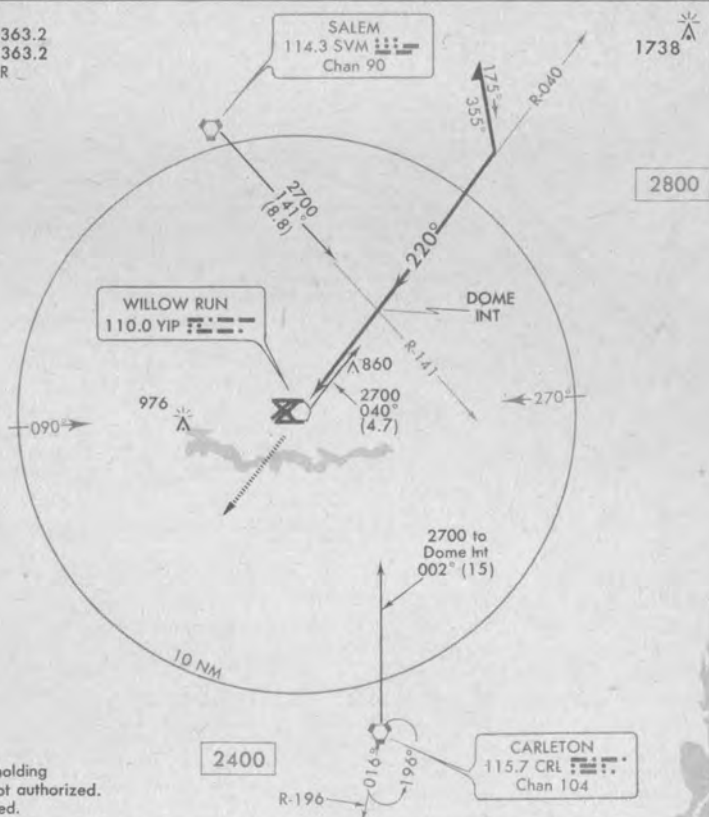
DETROIT, MICHIGAN
WILLOW RUN

VOR RWY 23L

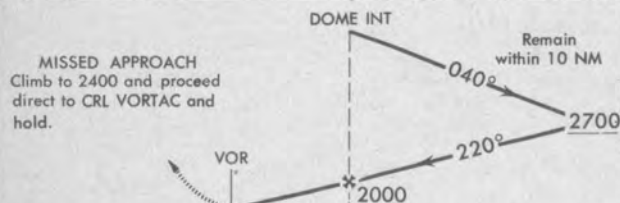
AL-467 (FAA)

WILLOW RUN
DETROIT, MICHIGAN

DETROIT APP CON
030° 210° 125.15 363.2
210° 030° 124.25 363.2
WILLOW RUN TOWER
120.0 257.8
GND CON
121.9
ASR
ATIS 110.0



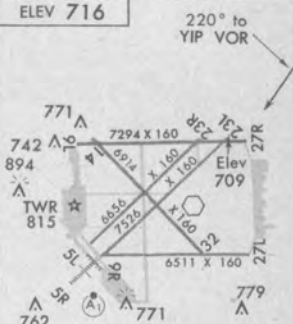
Final approach from holding
pattern at Dome Int not authorized.
Procedure turn required.



CATEGORY	A	B	C	D
S-23L	1120- $\frac{3}{4}$	411 (500- $\frac{3}{4}$)		1120-1 411 (500-1)
CIRCLING	1200-1	484 (500-1)	1200-1 $\frac{1}{2}$ 484 (500-1 $\frac{1}{2}$)	1280-2 564 (600-2)



ELEV 716



REIL Rwy 23L
HIRL Rwy 5R-23L
MIRL Rwy 9R-27L, 14-32,
5L-23R and 9L-27R

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 23L

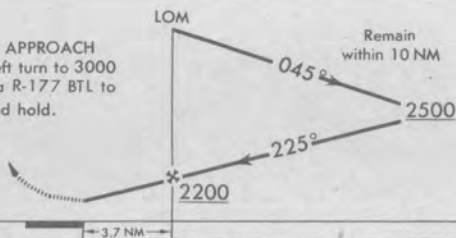
42° 14' N-83° 32' W

DETROIT, MICHIGAN
WILLOW RUN

KALAMAZOO APP CON	
121.2	257.8
BATTLE CREEK TOWER	
118.5	239.0
GND CON	
121.7	348.6



MISSED APPROACH
Climbing left turn to 3000
proceed via R-177 BTL to
Leroy Int and hold.



CATEGORY	A	B	C	D
S-22	1400-3/4 471 (500-3/4)			1400-1 471 (500-1)
CIRCLING	1400-1 459 (500-1)		1440-1/2 499 (500-1/2)	1500-2 559 (600-2)



REIL Rwy 4
HIRL Rwy 4-22
MIRL Rwy 13-31

FAF to MAP 3.7 NM					
Knots	60	90	120	150	180
Min:Sec	3:42	2:28	1:51	1:29	1:14

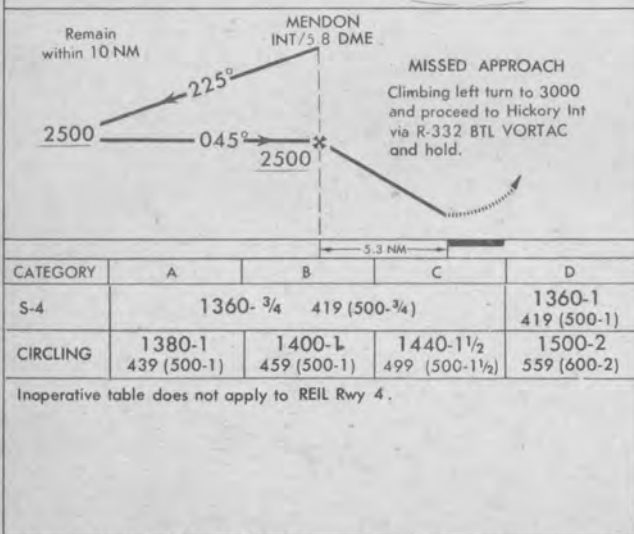
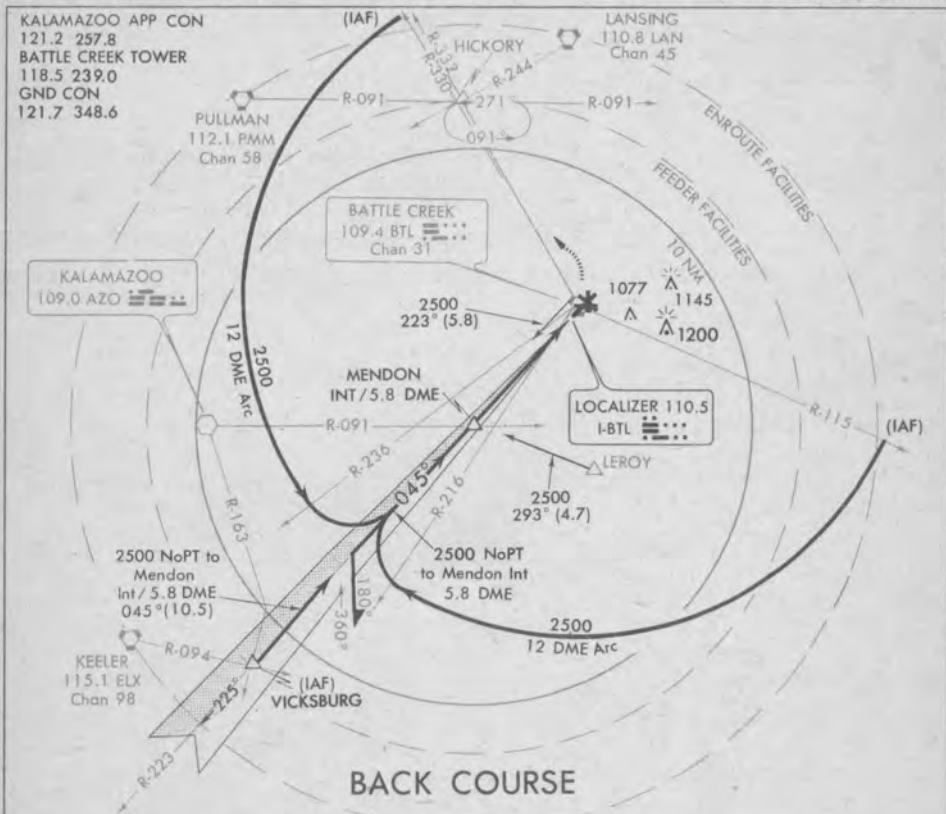
LOC BC RWY 4

302

AL-41 (FAA)

W. K. KELLOGG REGIONAL AIRFIELD

BATTLE CREEK, MICHIGAN

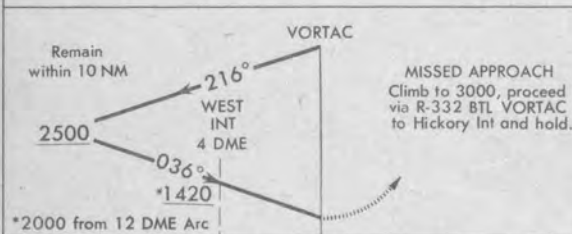
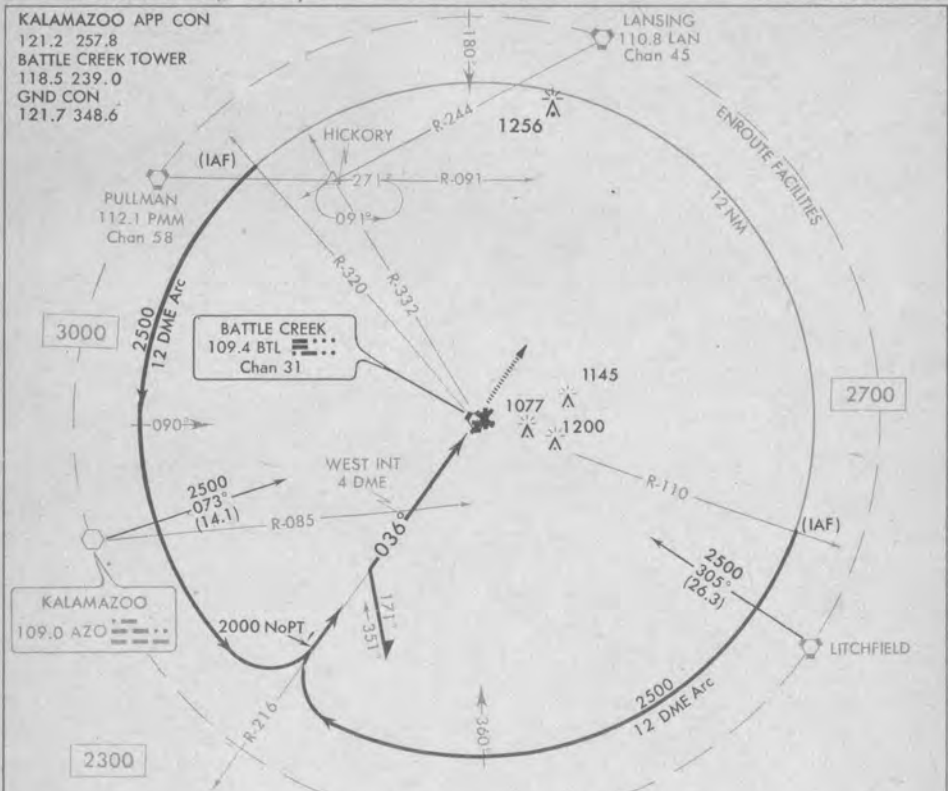


LOC BC RWY 4

42°19'N-85°15'W

302

BATTLE CREEK, MICHIGAN
W. K. KELLOGG REGIONAL AIRFIELD



CATEGORY	A	B	C	D
S-4	1420-3/4 479 (500-3/4)			1420-1 479 (500-1)
CIRCLING	1420-1 479 (500-1)	1440-1 1/2 499 (500-1 1/2)		1500-2 559 (600-2)
DUAL VOR OR DME MINIMA				
S-4	1360-3/4 419 (500-3/4)			1360-1 419 (500-1)
CIRCLING	1380-1 439 (500-1)	1400-1 459 (500-1)	1440-1 1/2 499 (500-1 1/2)	1500-2 559 (600-2)

036° to BTL VORTAC HIRL Rwy 4-22 MIRL Rwy 13-31 REIL Rwy 4					
Knots	60	90	120	150	180
Min:Sec					

VOR RWY 22 (TAC)

AL-41 (FAA)

W. K. KELLOGG REGIONAL AIRFIELD

BATTLE CREEK, MICHIGAN

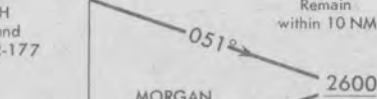
KALAMAZOO APP CON
121.2 257.8
BATTLE CREEK TOWER
118.5 239.0
GND CON
121.7 348.6



MISSED APPROACH
Climb to 3000, left turn, and
proceed to Leroy Int via R-177
BTL VORTAC and hold.

VORTAC

Remain
within 10 NM



*2000 from 12 DME Arc

CATEGORY	A	B	C	D
S-22*	1460-1/2	531 (600-1/2)		1460-1 531 (600-1)
CIRCLING	1460-1	519 (600-1)	1460-1 1/2 519 (600-1 1/2)	1500-2 559 (600-2)

DME MINIMA

S-22	1400-1/2	471 (500-1/2)	1400-1 471 (500-1)
CIRCLING	1400-1	459 (500-1)	1440-1 1/2 499 (500-1 1/2)
			1500-2 559 (600-2)

*With ALS inoperative increase visibility category D to 1 1/4.

ELEV 941 Rwy 13 ldg 4424'
Rwy 31 ldg 4424'



REIL Rwy 4
HIRL Rwy 4-22
MIRL Rwy 13-31

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 22 (TAC)

42°19'N-85°15'W

BATTLE CREEK, MICHIGAN

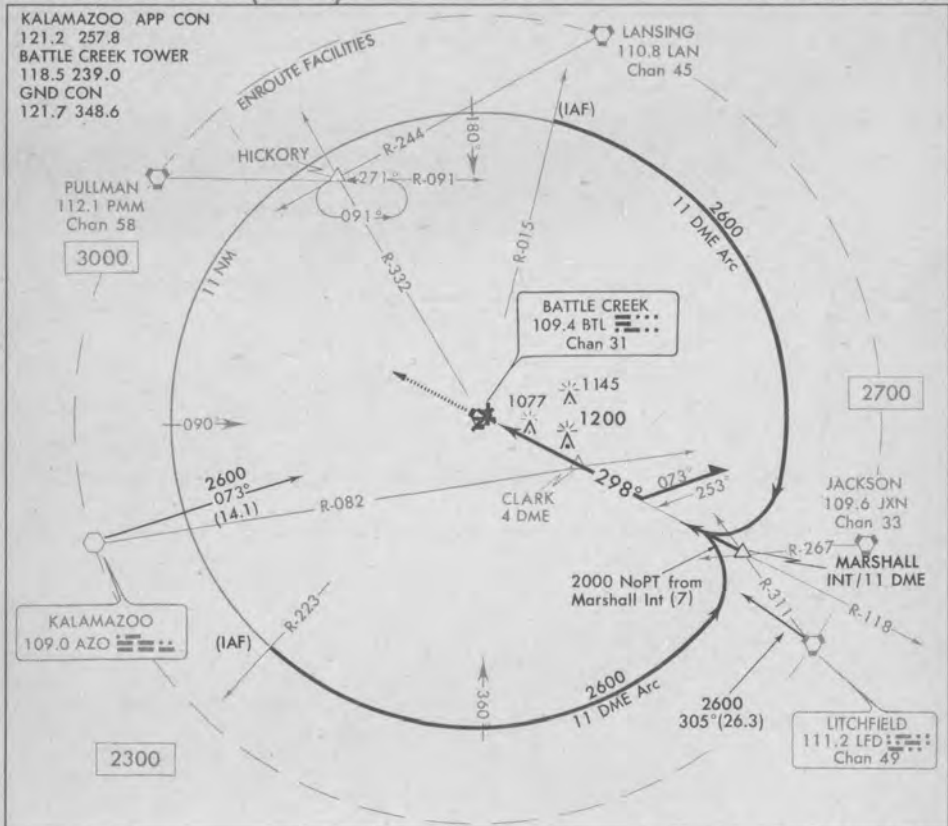
W. K. KELLOGG REGIONAL AIRFIELD

VOR RWY 31 (TAC)

AL-41 (FAA)

W. K. KELLOGG REGIONAL AIRFIELD

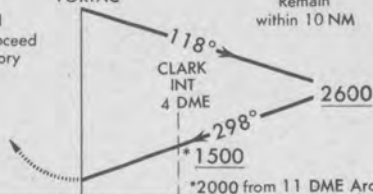
BATTLE CREEK, MICHIGAN



MISSED APPROACH
Climb to 3000 and proceed
via R-332 BTL to Hickory
Int and hold.

VORTAC

Remain
within 10 NM



CATEGORY	A	B	C	D
S-31	1500-1	571 (600-1)		1500-1/4 571 (600-1/4)
CIRCLING	1500-1	559 (600-1)	1500-1 1/2 559 (600-1 1/2)	1500-2 559 (600-2)
DUAL VOR or DME MINIMA				
S-31	1460-1	531 (600-1)		1460-1 1/4 531 (600-1 1/4)
CIRCLING	1460-1	519 (600-1)	1460-1 1/2 519 (600-1 1/2)	1500-2 559 (600-2)

ELEV 941

Rwy 13 ldg 4424'
Rwy 31 ldg 4424'



REIL Rwy 4
HIRL Rwy 4-22
MIRL Rwy 13-31

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 31 (TAC)

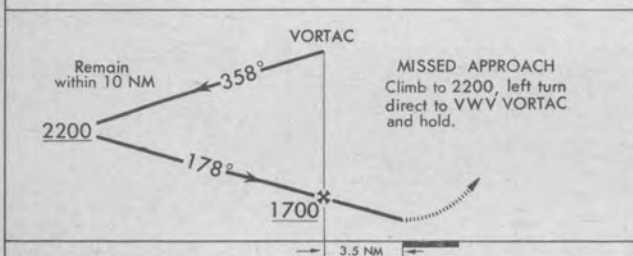
42°19'N-85°15'W

305

BATTLE CREEK, MICHIGAN

W. K. KELLOGG REGIONAL AIRFIELD

VOR RWY 18

306
AL-5009 (FAA)WOOD COUNTY
BOWLING GREEN, OHIOTOLEDO APP CON
119.2 307.0
RADAR VECTORING2049
A

CATEGORY	A	B	C	D
S-18	1120-1 445 (500-1)			
CIRCLING*	1300-1 625 (700-1)		1300-1½ 625 (700-1½)	1300-2 625 (700-2)

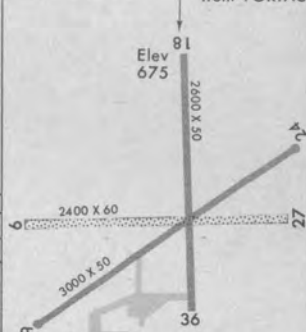
Use Toledo, Ohio altimeter setting.

*Night minimums not authorized for runway 9-27.



A NA

ELEV 675

178° 3.5 NM
from VORTAC

LIRL Rwy 6-24

Non-standard LIRL Rwy 18-36

FAF to MAP 3.5 NM					
Knots	60	90	120	150	180
Min:Sec	3:30	2:20	1:45	1:24	1:10

VOR RWY 18

41°23'N-83°38'W

BOWLING GREEN, OHIO
WOOD COUNTY

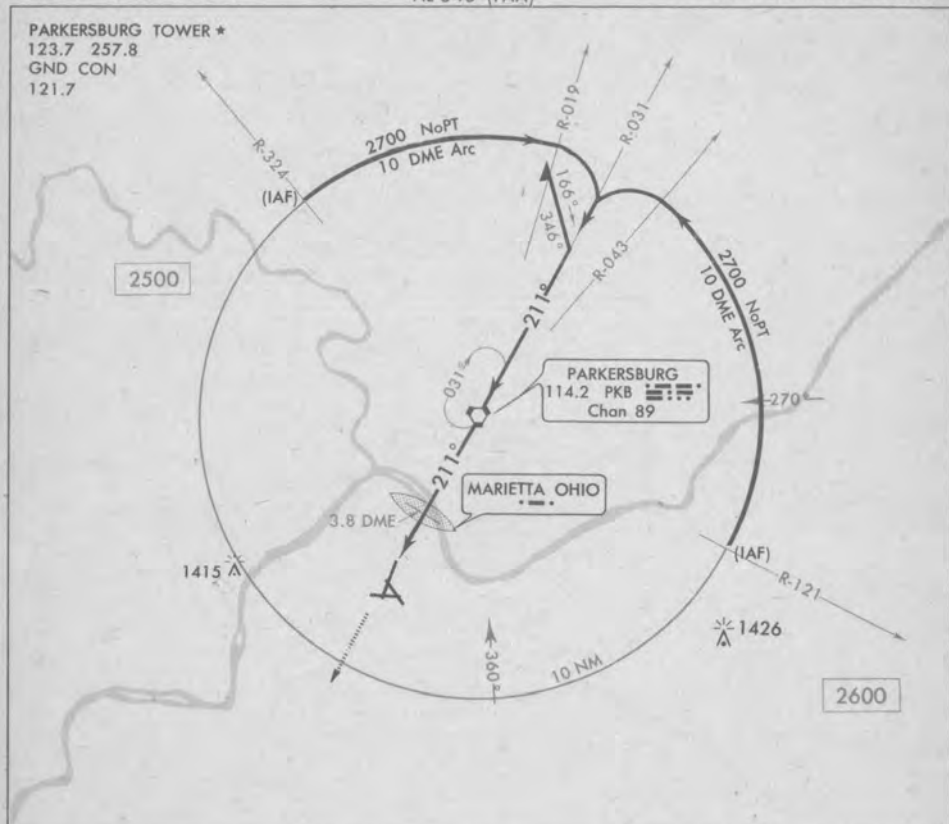
VOR RWY 21

WOOD COUNTY (GILL ROBB WILSON FIELD)

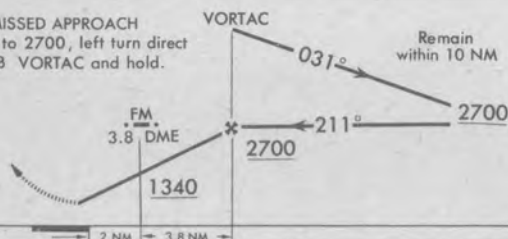
AL-646 (FAA)

PARKERSBURG, WEST VIRGINIA

PARKERSBURG TOWER ★
123.7 257.8
GND CON
121.7



MISSED APPROACH
Climb to 2700, left turn direct
to PKB VORTAC and hold.



CATEGORY	A	B	C	D
S-21	1340-1	482 (500-1)		
CIRCLING	1340-1 482 (500-1)	1380-1 522 (600-1)	1380-1½ 522 (600-1½)	1420-2 562 (600-2)
FM or DME MINIMA				
S-21	1220-¾	362 (400-¾)		1220-1 362 (400-1)
CIRCLING	1320-1 462 (500-1)	1380-1 522 (600-1)	1380-1½ 522 (600-1½)	1420-2 562 (600-2)



REIL Rwy 21
HIRL Rwy 3-21
MIRL Rwy 10-28

FAF to MAP 5.8 NM

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

VOR RWY 21

39°21'N-81°26'W

PARKERSBURG, WEST VIRGINIA

WOOD COUNTY (GILL ROBB WILSON FIELD)

VOR/ILS RWY 23

AL-108 (USAF)

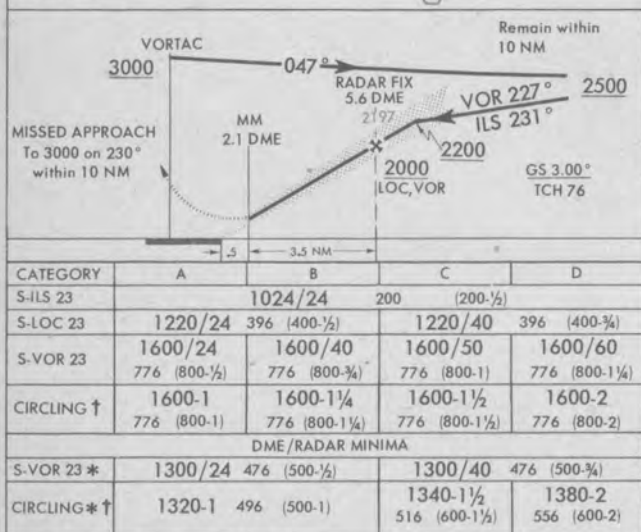
WRIGHT-PATTERSON AFB
DAYTON, OHIO

DAYTON APP CON
118.4 327.1
PATTERSON TOWER
126.7 289.6
GND CON
121.8 335.8
ASR/PAR



* When RADAR FIX or 5.6 DME received
† Circling not authorized SE of Rwy 5-23

RADAR or DME required
for ILS, LOC



VOR/ILS RWY 23

39° 50' N - 84° 03' W

309

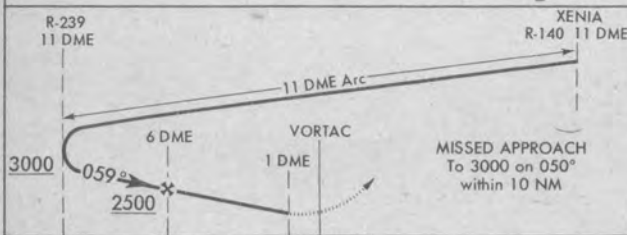
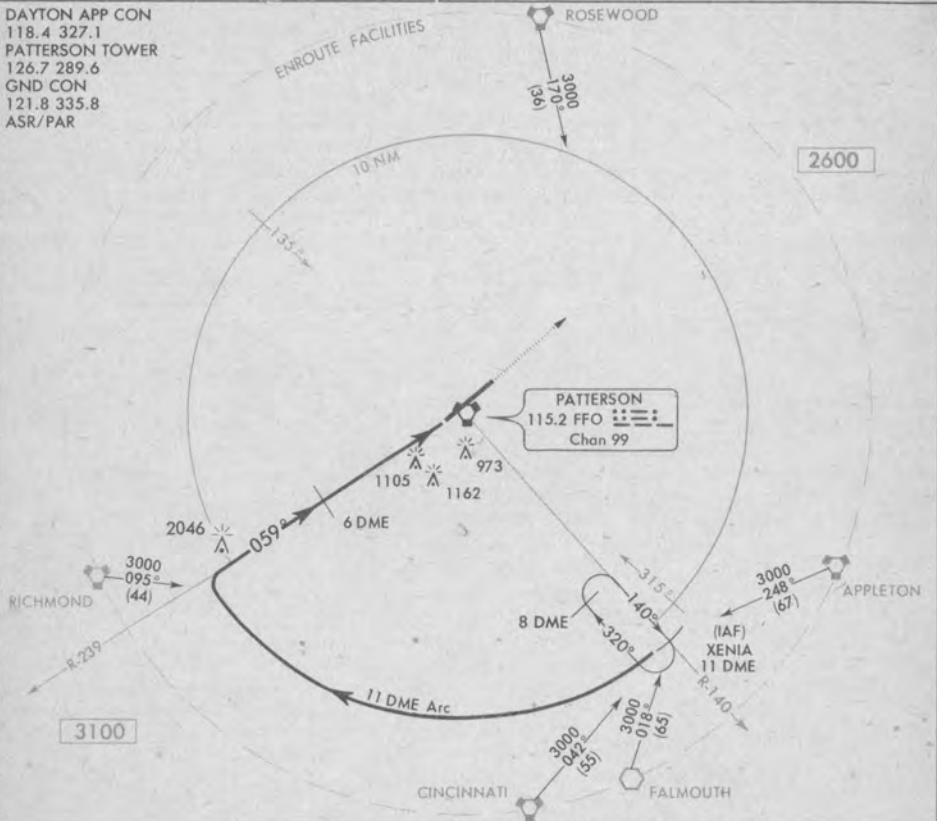
DAYTON, OHIO
WRIGHT-PATTERSON AFB

VORTAC RWY 5

AL-108 (USAF)

WRIGHT-PATTERSON AFB
DAYTON, OHIO

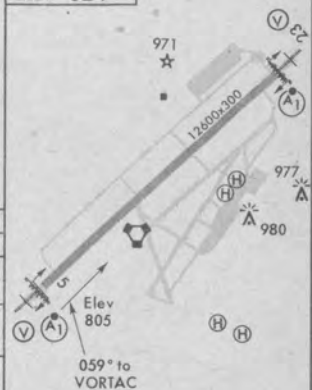
DAYTON APP CON
118.4 327.1
PATTERSON TOWER
126.7 289.6
GND CON
121.8 335.8
ASR/PAR



CATEGORY	A	B	C	D
S-5	1360/24	555 (600-½)	1360/40	555 (600-¾)
CIRCLING *	1360-1	536 (600-1)	1360-1½	1380-2
			536 (600-1½)	556 (600-2)

* Circling not authorized SE Rwy 5-23

ELEV 824



HIRL Rwy 5-23

VORTAC RWY 5

39° 50' N - 84° 03' W

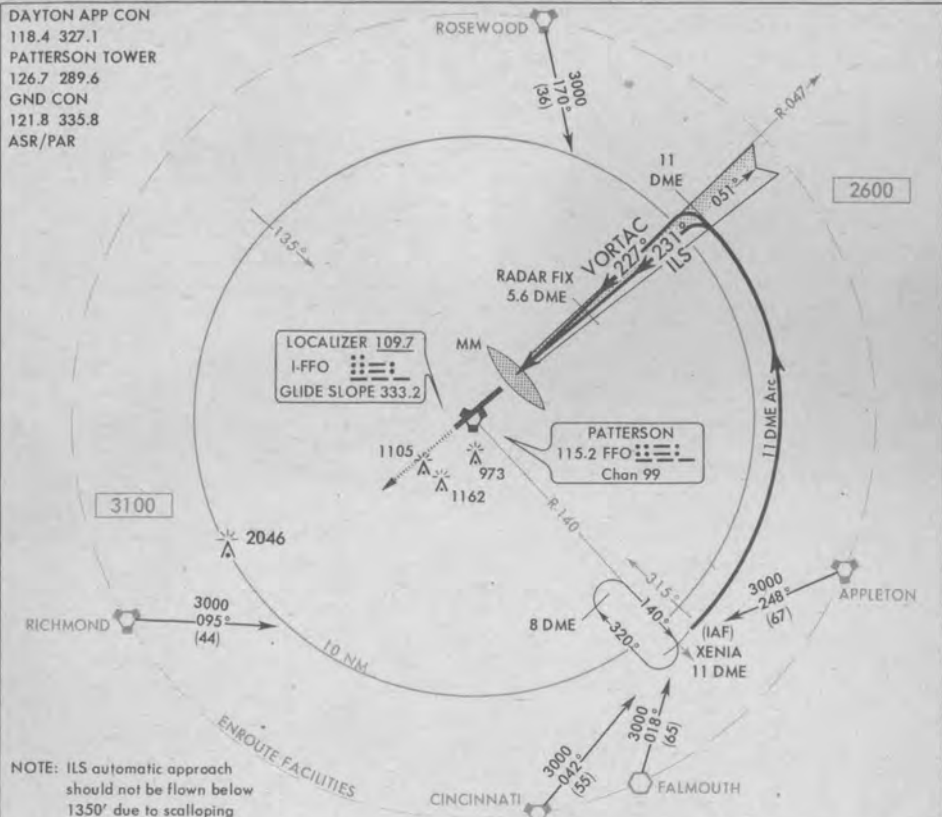
DAYTON, OHIO
WRIGHT-PATTERSON AFB

VORTAC/ILS RWY 23

AL-108 (USAF)

WRIGHT-PATTERSON AFB
DAYTON, OHIO

DAYTON APP CON
118.4 327.1
PATTERSON TOWER
126.7 289.6
GND CON
121.8 335.8
ASR/PAR



MISSED APPROACH
To 3000 on 230°
within 10 NM



CATEGORY	A	B	C	D
S-ILS 23	1024/24	200 (200-½)		
S-LOC 23	1220/24	396 (400-½)	1220/40	396 (400-¾)
S-VORTAC 23	1300/24	476 (500-½)	1300/40	476 (500-¾)
CIRCLING *	1320-1	496 (500-1)	1340-1½ 516 (600-1½)	1380-2 556 (600-2)

* Circling not authorized SE of Rwy 5-23

ELEV 824



HIRL Rwy 5-23

LOC FAF to MAP 4 NM

Knots	60	90	120	150	180
Min: Sec	4:00	2:40	2:00	1:36	1:20

VORTAC/ILS RWY 23

39° 50' N - 84° 03' W

311

DAYTON, OHIO
WRIGHT-PATTERSON AFB

VOR/ILS RWY 6

AL-32 (USAF)

WURTSMITH AFB
OSCODA, MICHIGAN

APPROACH CONTROL
123.8 301.5
TOWER
126.2 289.6
GND CON
275.8
ASR/PAR

2400

2200

2100

1005

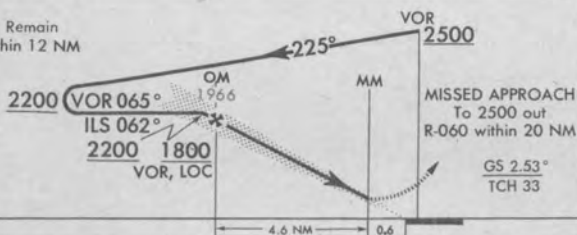
10 NM

LOCALIZER 109.5
I-OSC

IAF
WURTSMITH
116.1 OSC

ELEV 634

Remain
within 12 NM



MISSED APPROACH
To 2500 out
R-060 within 20 NM

GS 2.53°
TCH 33

CATEGORY	A	B	C	D
S-ILS-6	834/24 200 (200½)			
S-LOC-6	1000/24 366 (400-½)	1000/40 366 (400-¾)		
S-VOR-6	1060/24 426 (500-½)	1060/40 426 (500-¾)		
CIRCLING	1100-1 466 (500-1)	1100-1½ 466 (500-1½) 1180-2 546 (600-2)		



062° 5.2 NM
From OM

HIRL Rwy 6-24

LOC FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min: Sec	5:12	3:28	2:36	2:05	1:44

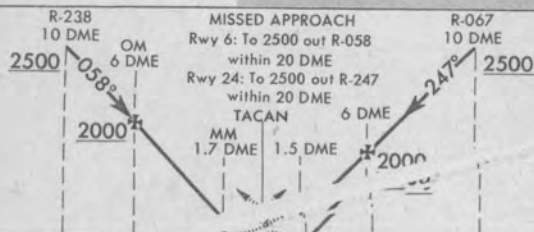
VOR/ILS RWY 6

44°27'N-83°24'W

OSCODA, MICHIGAN
WURTSMITH AFB

WURTSMITH AFB
OSCODA, MICHIGAN

2100



ELEV 634



HIRL Rwy 6-24

CATEGORY	A		B		C		D	
S-24	1020/40 398 (400- $\frac{3}{4}$)							
S-6	1040/24	406	(500- $\frac{1}{2}$)	1040/40	406	(500- $\frac{3}{4}$)		
CIRCLING	NOT AUTHORIZED							

OSCODA, MICHIGAN
WURTSMITH AFB

VOR/DME-A

AL-5448 (FAA)

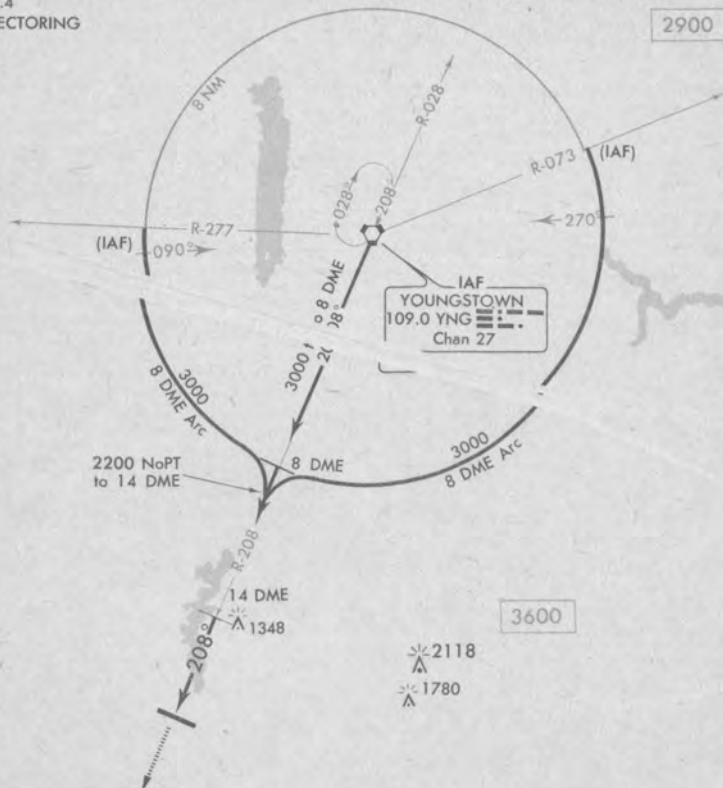
YOUNGSTOWN EXECUTIVE

YOUNGSTOWN, OHIO

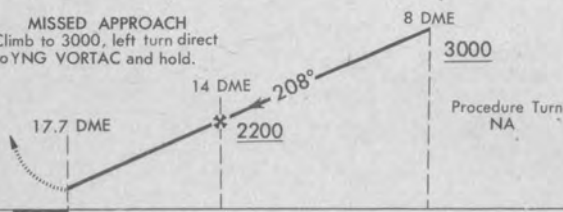
YOUNGSTOWN APP CON

120.2 381.4

RADAR VECTORED



MISSED APPROACH
Climb to 3000, left turn direct
to YNG VORTAC and hold.



CATEGORY	A	B	C	D
CIRCLING	1540-1	543 (600-1)	1580-1½ 583 (600-1½)	1640-2 643 (700-2)

Use Youngstown, Ohio altimeter setting.

Δ NA

ELEV 997

Rwy 11 ldg 3825'
Rwy 29 ldg 4055'



LIRL Rwy 11-29

Knots	60	90	120	150	180
Min:Sec					

VOR/DME-A

41°04'N-80°50'W

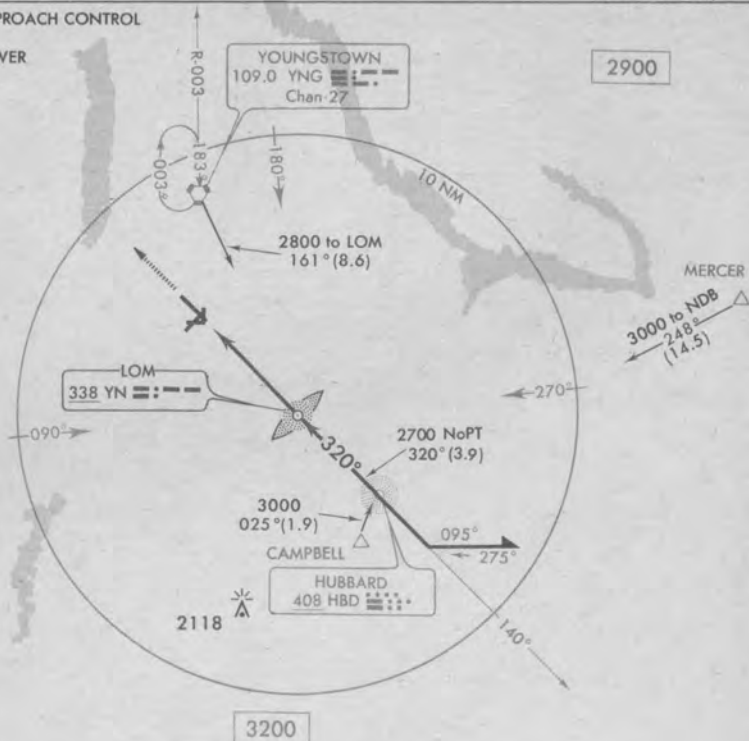
YOUNGSTOWN, OHIO
YOUNGSTOWN EXECUTIVE

NDB RWY 32

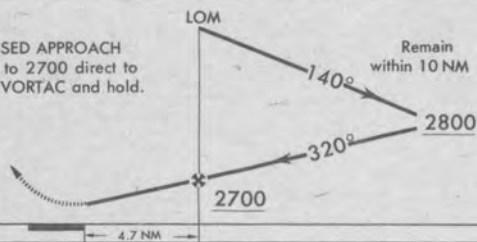
315
AL-466 (FAA)

YOUNGSTOWN MUNI
YOUNGSTOWN, OHIO

YOUNGSTOWN APPROACH CONTROL
120.2 381.4
YOUNGSTOWN TOWER
119.5 263.0
GND CON
121.9 275.8
ASR



MISSED APPROACH
Climb to 2700 direct to
YNG VORTAC and hold.



CATEGORY	A	B	C	D
S-32	1580 / 40 395 (400-¾)			1580 / 50 395 (400-1)
CIRCLING	1620-1 424 (500-1)	1660-1 464 (500-1)	1660-1½ 464 (500-1½)	1760-2 564 (600-2)



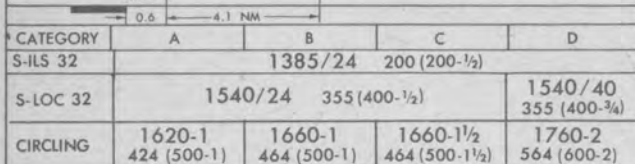
FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NDB RWY 32

41°16'N-80°41'W
315

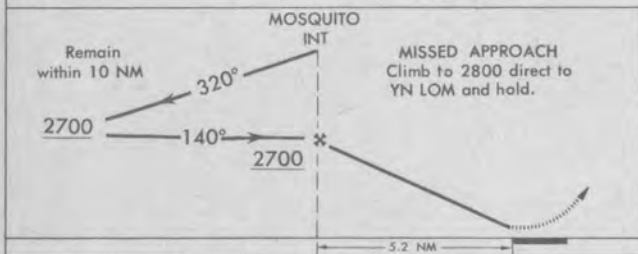
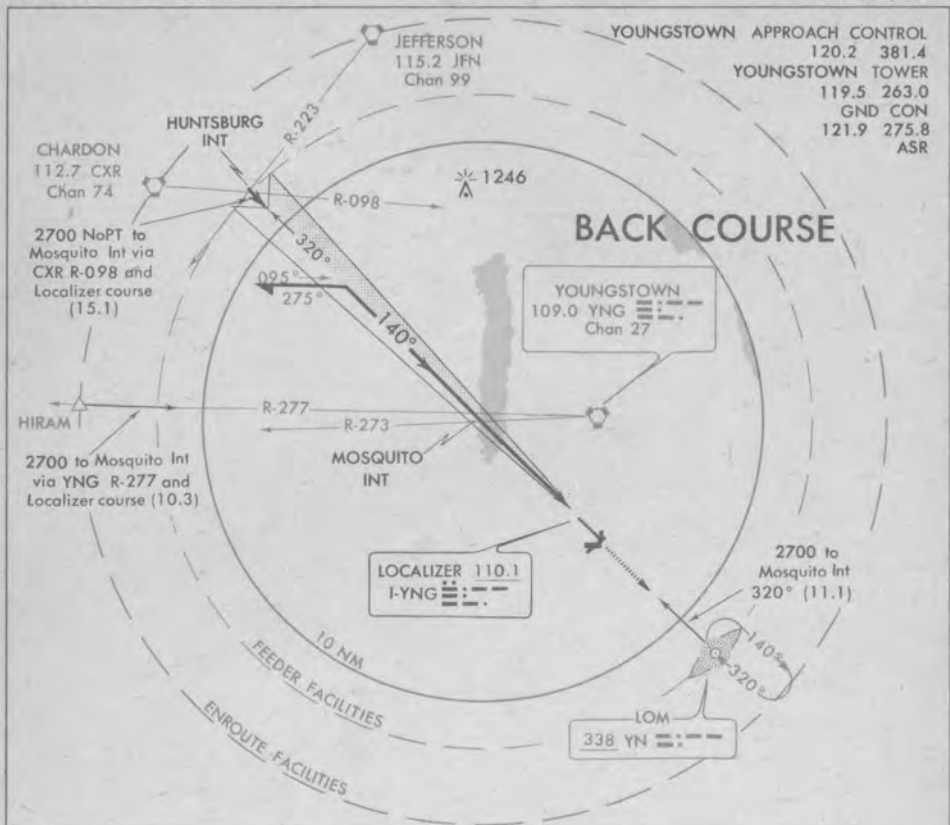
YOUNGSTOWN, OHIO
YOUNGSTOWN MUNI

3200

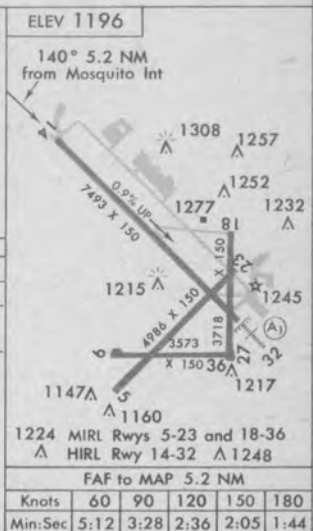


Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

YOUNGSTOWN, OHIO
YOUNGSTOWN MUNI



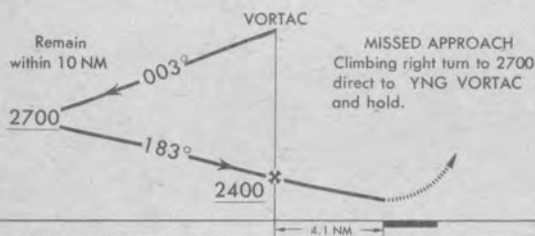
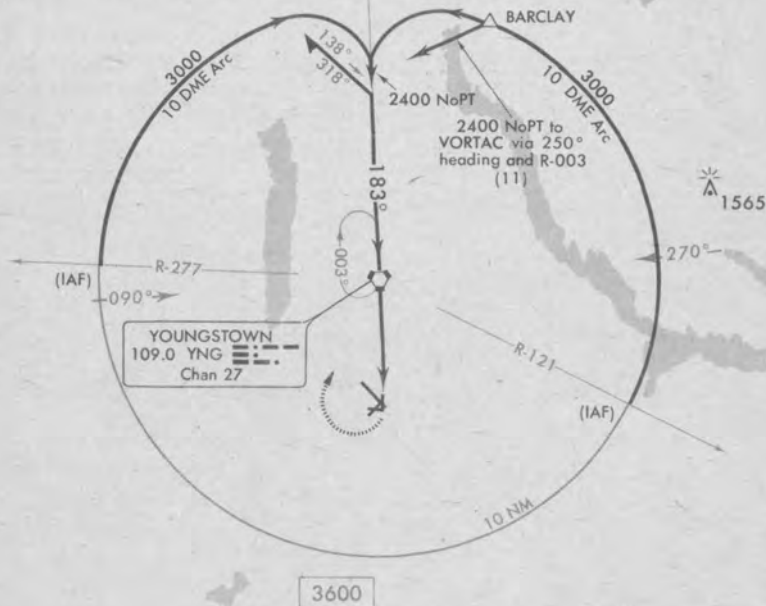
CATEGORY	A	B	C	D
S-LOC 14	1460-1 314 (300-1)			
CIRCLING	1620-1 424 (500-1)	1660-1 464 (500-1)	1660-1½ 464 (500-1½)	1760-2 564 (600-2)



VOR RWY 18

 318
 AL-466 (FAA)

 YOUNGSTOWN MUNI
 YOUNGSTOWN, OHIO

 YOUNGSTOWN APPROACH CONTROL
 120.2 381.4
 YOUNGSTOWN TOWER
 119.5 263.0
 GND CON
 121.9 275.8
 ASR


CATEGORY	A	B	C	D
S-18		1560-1	364 (400-1)	
CIRCLING	1620-1 424 (500-1)	1660-1 464 (500-1)	1660-1½ 464 (500-1½)	1760-2 564 (600-2)

Night minimums not authorized Rwy 9-27.



ELEV 1196


 1224 MIRL Rwy 5-23 and 18-36
 1248 HIRL Rwy 14-32

FAF to MAP 4.1 NM

Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

VOR RWY 18

41°16'N-80°41'W

 YOUNGSTOWN, OHIO
 YOUNGSTOWN MUNI

2600



Remain within 10 NM

2700

213°

NDB

033°

1700

MISSED APPROACH
Climb to 2700 then direct
to ZZV NDB and hold.

ELEV 900

A958



CATEGORY		A	B	C	D
S-4		1380-1		480(500-1)	
CIRCLING		1380-1	480(500-1)	1380-1 $\frac{1}{2}$ 480(500-1 $\frac{1}{2}$)	1460-2 560(600-2)

FAF to MAP 2.3 NM

Knots	60	90	120	150	180
Min:Sec	2:18	1:32	1:09	0:55	0:46

NDB RWY 4

319

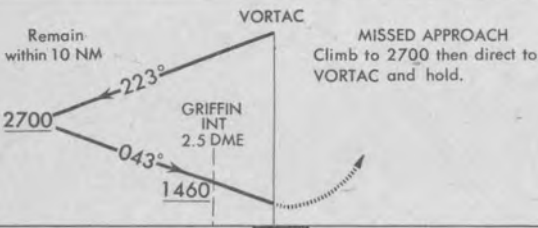
ZANESVILLE, OHIO
ZANESVILLE MUNI

VOR RWY 4

AL-864 (FAA)

ZANESVILLE MUNI

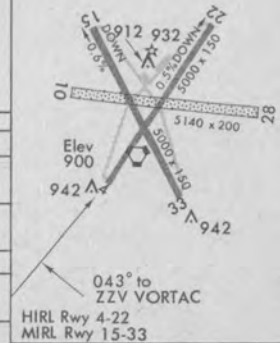
ZANESVILLE, OHIO

ZANESVILLE RADIO
122.2 255.4

CATEGORY	A	B	C	D
S-4	1460-1	560(600-1)		1460-1 1/4 560(600-1 1/4)
CIRCLING	1460-1	560(600-1)	1460-1 1/2 560(600-1 1/2)	1460-2 560(600-2)
VOR/NDB or DME MINIMA				
S-4	1320-3/4	420(500-3/4)		1320-1 420(500-1)
CIRCLING	1360-1	460(500-1)	1380-1 1/2 480(500-1 1/2)	1460-2 560(600-2)

ELEV 900

A 958



Knots	60	90	120	150	180
Min:Sec					

VOR RWY 4

39°57'N-81°53'W

320

ZANESVILLE, OHIO
ZANESVILLE MUNI

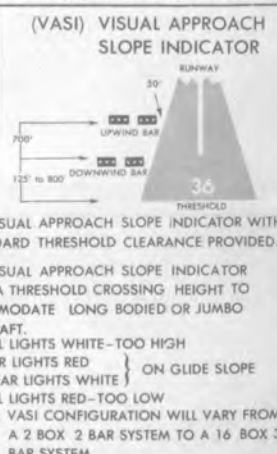
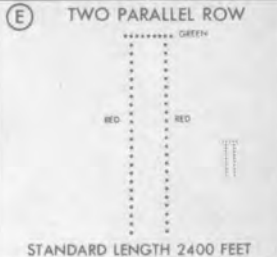
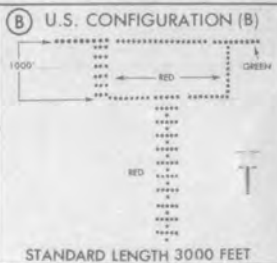
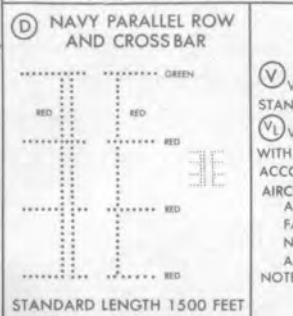
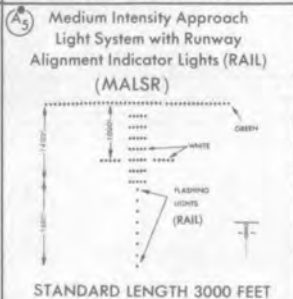
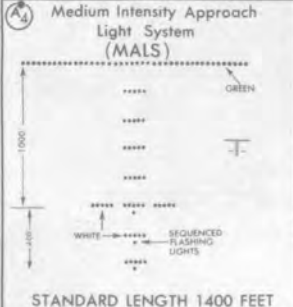
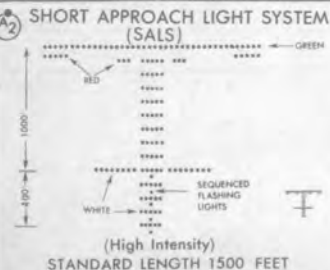
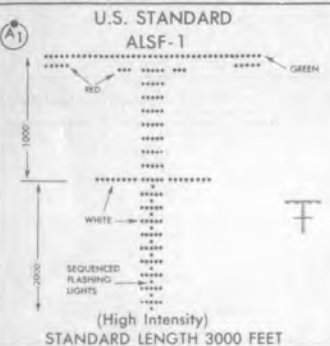
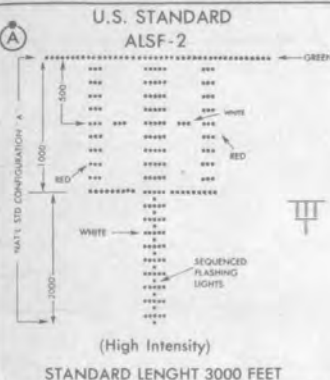
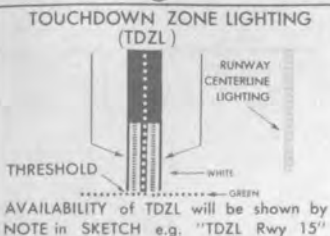
LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

APPROACH LIGHTING SYSTEMS - UNITED STATES

Each approach lighting system indicated on Airport Diagrams will bear system identification letter (A, B, etc.) indicated in legend.

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashers (F) installed with the approach lights e.g. (A1)



(V) VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.

(VL) VISUAL APPROACH SLOPE INDICATOR WITH A THRESHOLD CROSSING HEIGHT TO ACCOMMODATE LONG BODIED OR JUMBO AIRCRAFT.
ALL LIGHTS WHITE - TOO HIGH
FAR LIGHTS RED ON GLIDE SLOPE
NEAR LIGHTS WHITE
ALL LIGHTS RED - TOO LOW
NOTE: VASI CONFIGURATION WILL VARY FROM A 2 BOX 2 BAR SYSTEM TO A 16 BOX 3 BAR SYSTEM.

