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Airport Information For KMSP

Terminal Charts For KMSP

Revision Letter For Cycle 01-2015

Change Notices

Notebook

General Information

Location: Minneapolis MN USA
IATA Code: MSP
Lat/Long: N44° 52.9' W093° 13.3'
Elevation: 842 ft

Airport Use: Public
Magnetic Variation: 0.3°E
Sectional Chart: Twin Cities

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

Sunrise: 1351 Z
Sunset: 2247 Z,

Runway Information

Runway: 04
Length x Width: 11006 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 832 ft
Lighting: Edge, ALS
Displaced Threshold: 1550 ft
Stopway: 1000 ft

Runway: 12L
Length x Width: 8200 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 839 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 12R
Length x Width: 10000 ft x 200 ft
Surface Type: concrete
TDZ-Elev: 842 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 630 ft

Runway: 17
Length x Width: 8000 ft x 150 ft

Surface Type: concrete
TDZ-Elev: 840 ft
Lighting: Edge, Centerline, REIL

Runway: 22
Length x Width: 11006 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 828 ft
Lighting: Edge, ALS
Displaced Threshold: 1000 ft

Runway: 30L
Length x Width: 10000 ft x 200 ft
Surface Type: concrete
TDZ-Elev: 823 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 30R
Length x Width: 8200 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 822 ft
Lighting: Edge, ALS, Centerline
Displaced Threshold: 200 ft

Runway: 35
Length x Width: 8000 ft x 150 ft
Surface Type: concrete
TDZ-Elev: 834 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

ATIS 120.8
ATIS 135.35
Minneapolis Tower Tower 126.7
Minneapolis Tower Tower 123.95
Minneapolis Tower Tower 123.675
Minneapolis Tower Tower 132.525
Minneapolis Ground Meteri Ground Control 133.575
Minneapolis Ground Ground Control 127.925 (181°-360°)
Minneapolis Ground Ground Control 121.9 (91°-270°)
Minneapolis Ground Ground Control 121.8 (271°-90°)
Minneapolis Clearance Del Clearance Delivery 133.2
Minneapolis Clearance Del Pre-Taxi Clearance 133.2 Pre-Departure Clearance
Minneapolis Approach Approach Control 126.95 Arrival Service
Minneapolis Approach Approach Control 118.725 Arrival Service
Minneapolis Approach Approach Control 119.3 Arrival Service
Minneapolis App TCA 134.7 (91°-270°)
Minneapolis App TCA 126.5 (271°-360°)
Minneapolis App TCA 121.2 (1°-90°)
Minneapolis Departure Departure Control 124.7 Departure Service
Minneapolis Departure Departure Control 125.75 Departure Service
Minneapolis Departure Departure Control 132.975 Departure Service

Signature Flight Support Unicom 128.95
Minneapolis-St Paul Intl/ Unicom 122.95
Princeton Flight Service Station 122.3 RCO

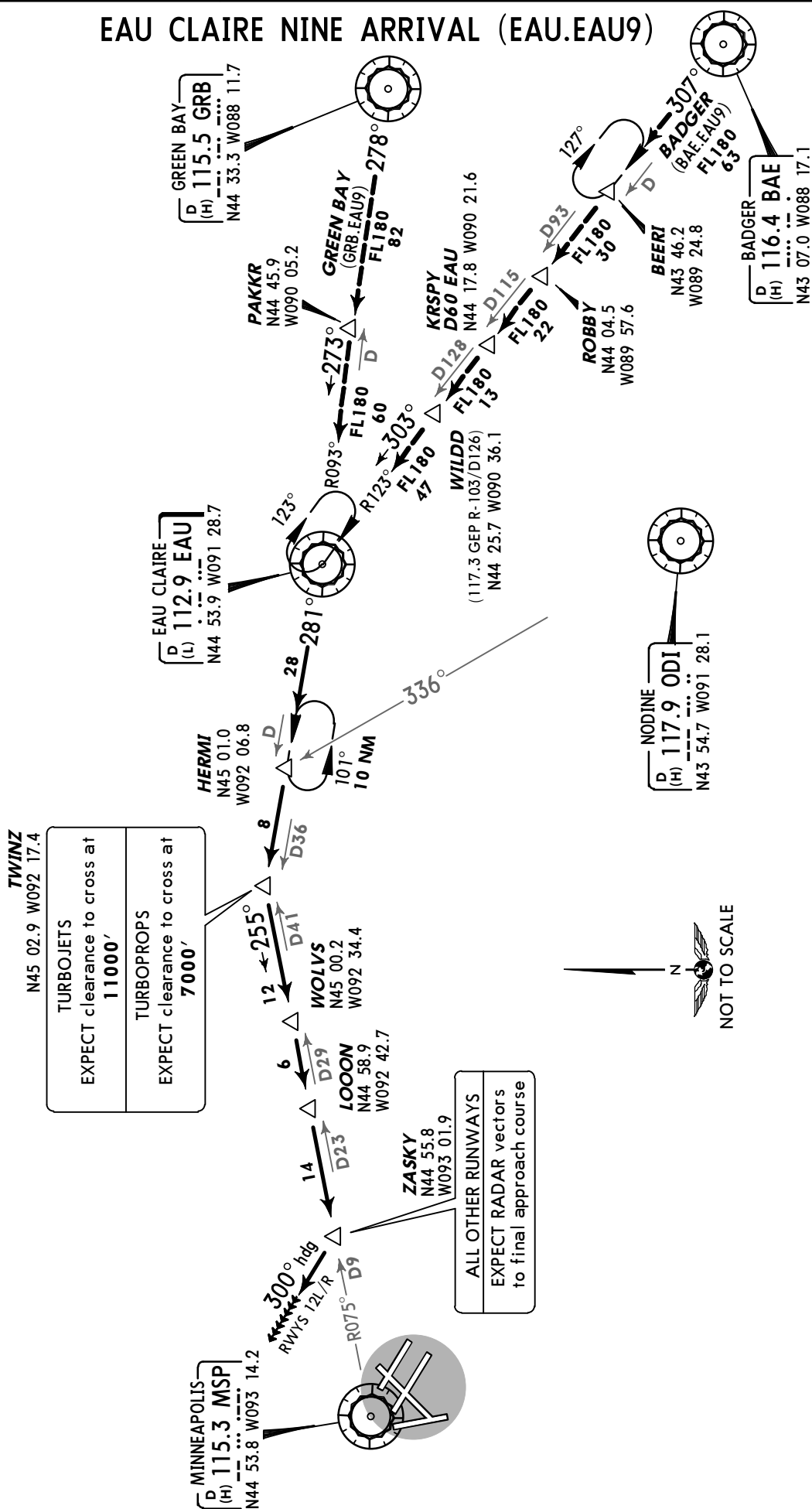
(NW) **Minneapolis App (R)** 126.5

D-ATIS
135.35

Apt Elev
842'

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

EAU CLAIRE NINE ARRIVAL (EAU.EAU9)



ROUTING	
From over EAU via EAU R-281 to TWINZ, then via MSP R-075 to ZASKY.	
RWY	LANDING
12L/R	After ZASKY via 300° heading for RADAR vectors.
ALL OTHER RUNWAYS	EXPECT RADAR vectors to final approach course.

D-ATIS
135.35

Apt Elev
See graphic

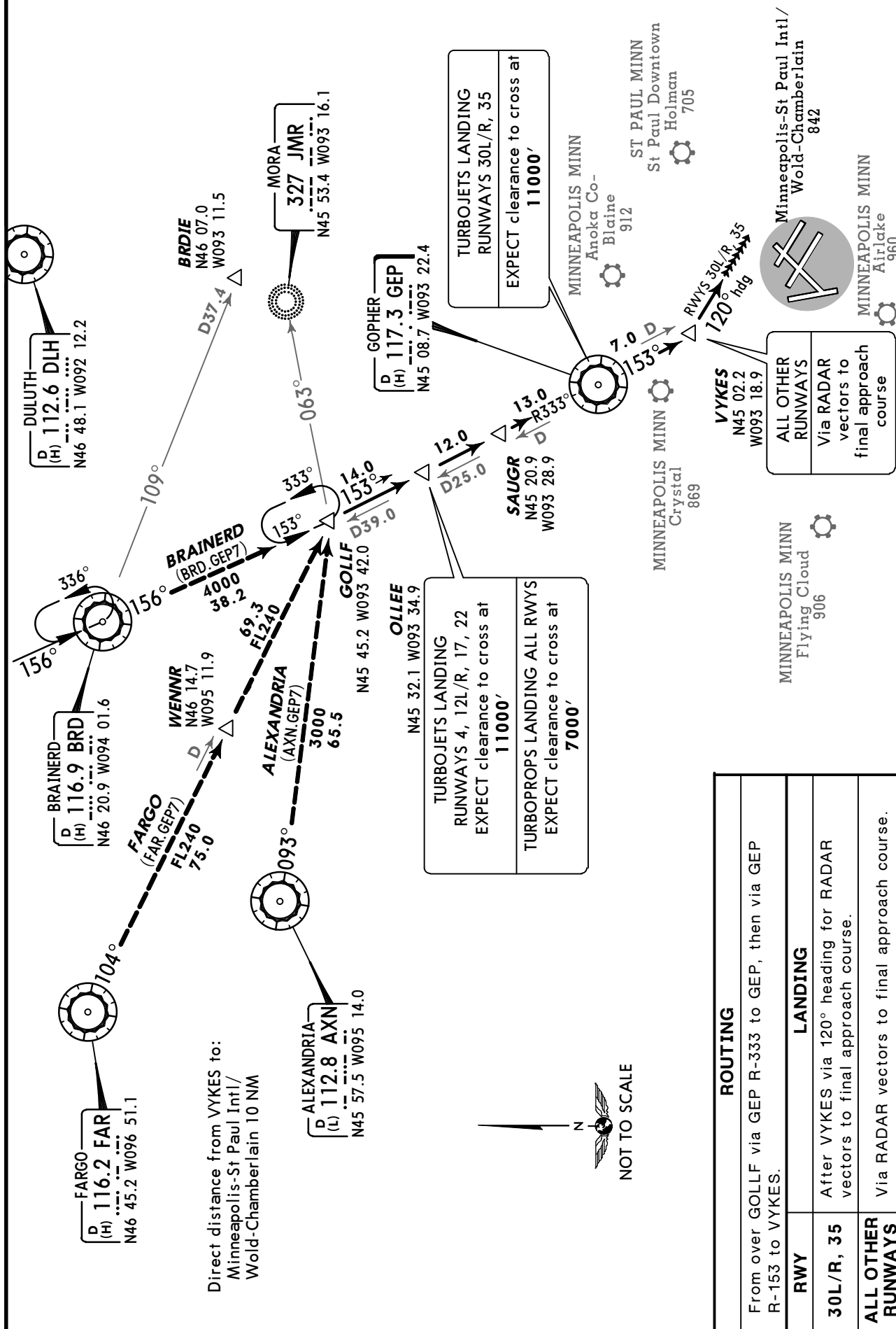
Alt Set: INCHES

Trans level: FL180 Trans alt: 18000'

1. RADAR required. 2. DME required.

3. ALEXANDRIA Transition: Turboprops only.

GOPHER SEVEN ARRIVAL (GEP.GEP7)

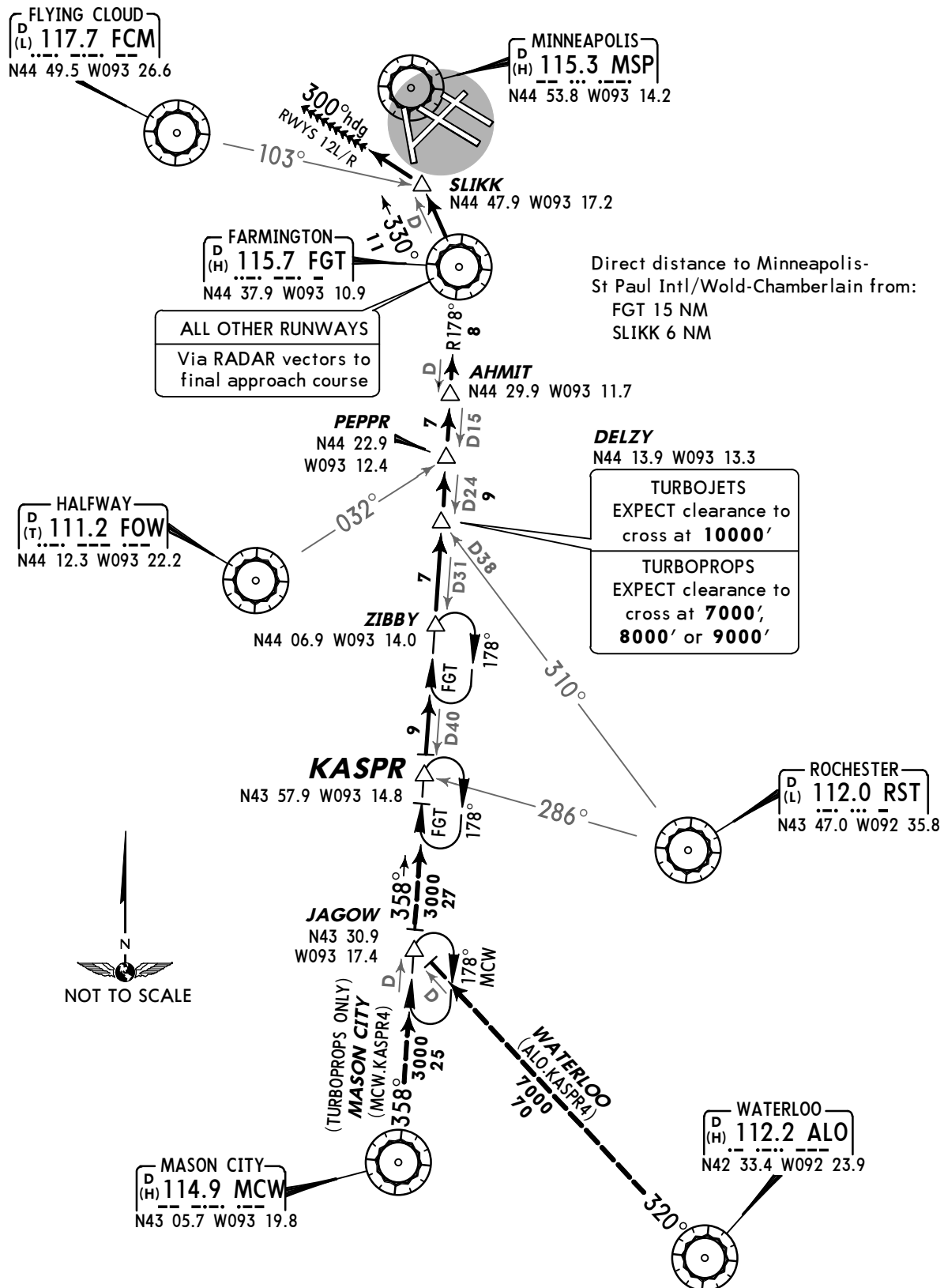


D-ATIS
135.35

Apt Elev
842'

Alt Set: INCHES
Trans level: FL180 Trans alt: 18000'
1. RADAR required.
2. DME required.
3. MASON CITY transition: Turboprops only.

KASPR FOUR ARRIVAL (KASPR.KASPR4)



ROUTING

From over KASPR via FGT R-178 to FGT.

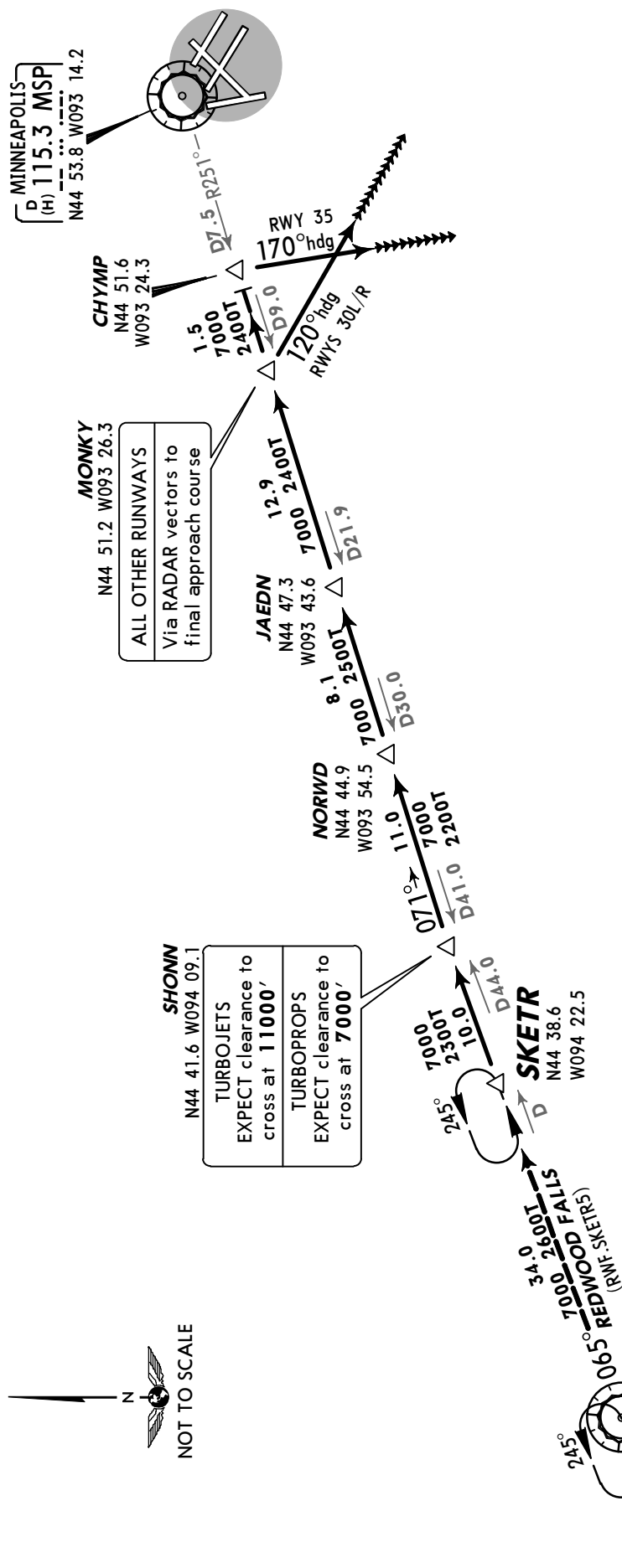
RWY	LANDING
12L/R	After FGT, via FGT R-330 to SLIKK, then via 300° heading for RADAR vectors to final approach course.
ALL OTHER RUNWAYS	At FGT, via RADAR vectors to final approach course.

D-ATIS
135.35

Apt Elev
842'

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

SKETR FIVE ARRIVAL (SKETR.SKETR5)



ROUTING

From over SKETR via RWY R-065 to SHONN, then via MSP R-251 to NORWD, then via MSP R-251 to JAEDN, then via MSP R-251 to MONKY.

LANDING

Depart MONKY heading 120° for RADAR vectors to final approach course.

Depart MONKY via MSP R-251 to CHYMP, then via heading 170° for RADAR vectors to final approach course.

At MONKY via RADAR vectors to final approach course.

RWY

30L/R

35

ALL OTHER RUNWAYS

MSA FCM VOR

From over TRGET via FGT R-201 to FGT, then via RADAR vectors to final approach course.

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[illegible]

MINNEAPOLIS Departure (R)

NORTH or WEST
of Dep Rwy

125.75

SOUTH or EAST
of Dep Rwy

124.7

132.97

Apt Elev
842'

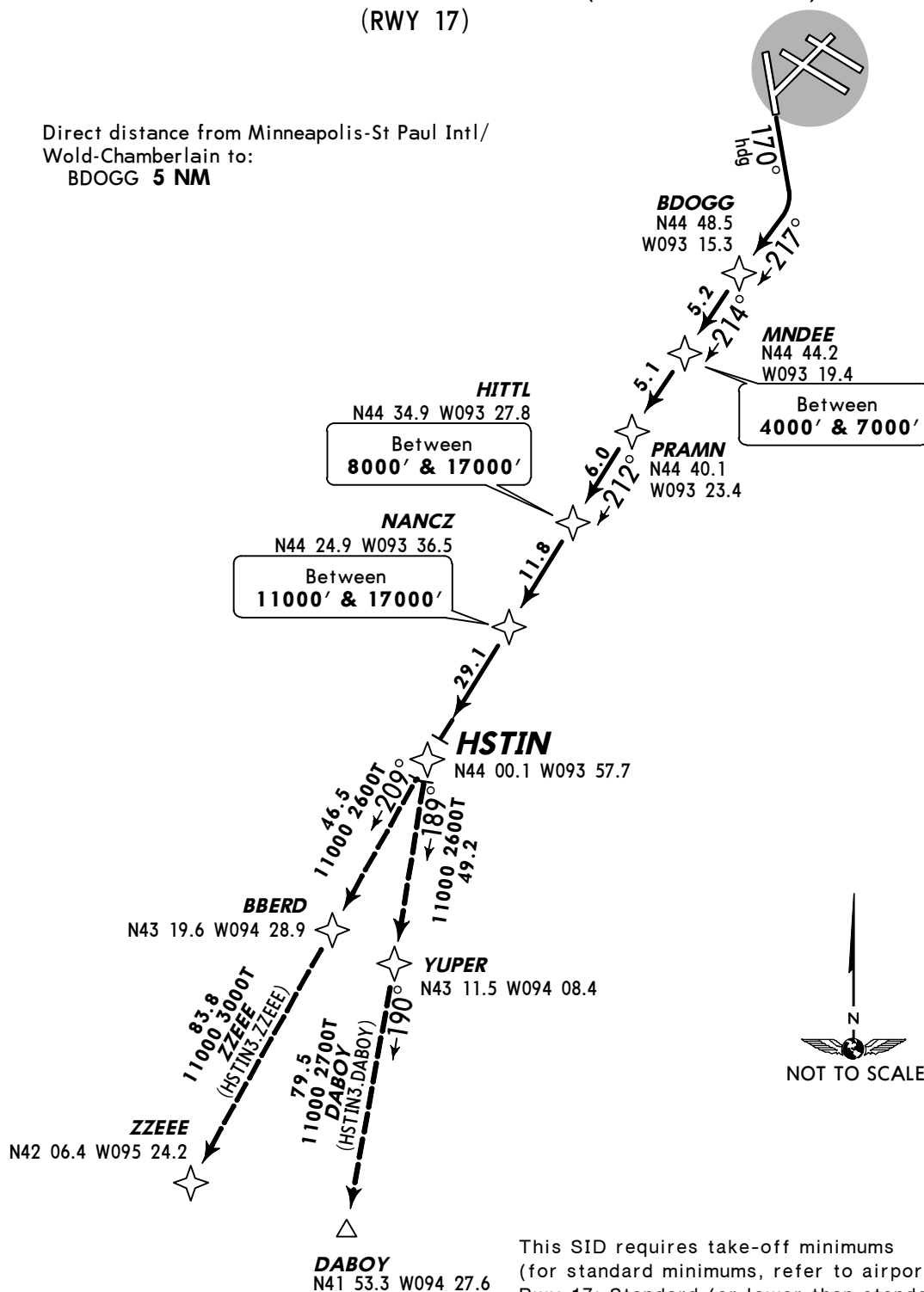
Trans level: FL180 Trans alt: 18000'

1. RADAR required. 2. RNAV 1.
3. DME/DME/IRU or GPS required.
4. For use by turbojet aircraft only.

HESTIN THREE RNAV DEPARTURE (HSTIN3.HSTIN)

(RWY 17)

Direct distance from Minneapolis-St Paul Intl/
Wold-Chamberlain to:
BDOGG 5 NM



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwy 17: Standard (or lower than standard, if
authorized) with minimum climb of 370' per NM
to **11000'**.

All other runways: Not authorized - Air traffic.

OBSTACLES

For TAKEOFF OBSTACLE NOTES see 10-3OB1.

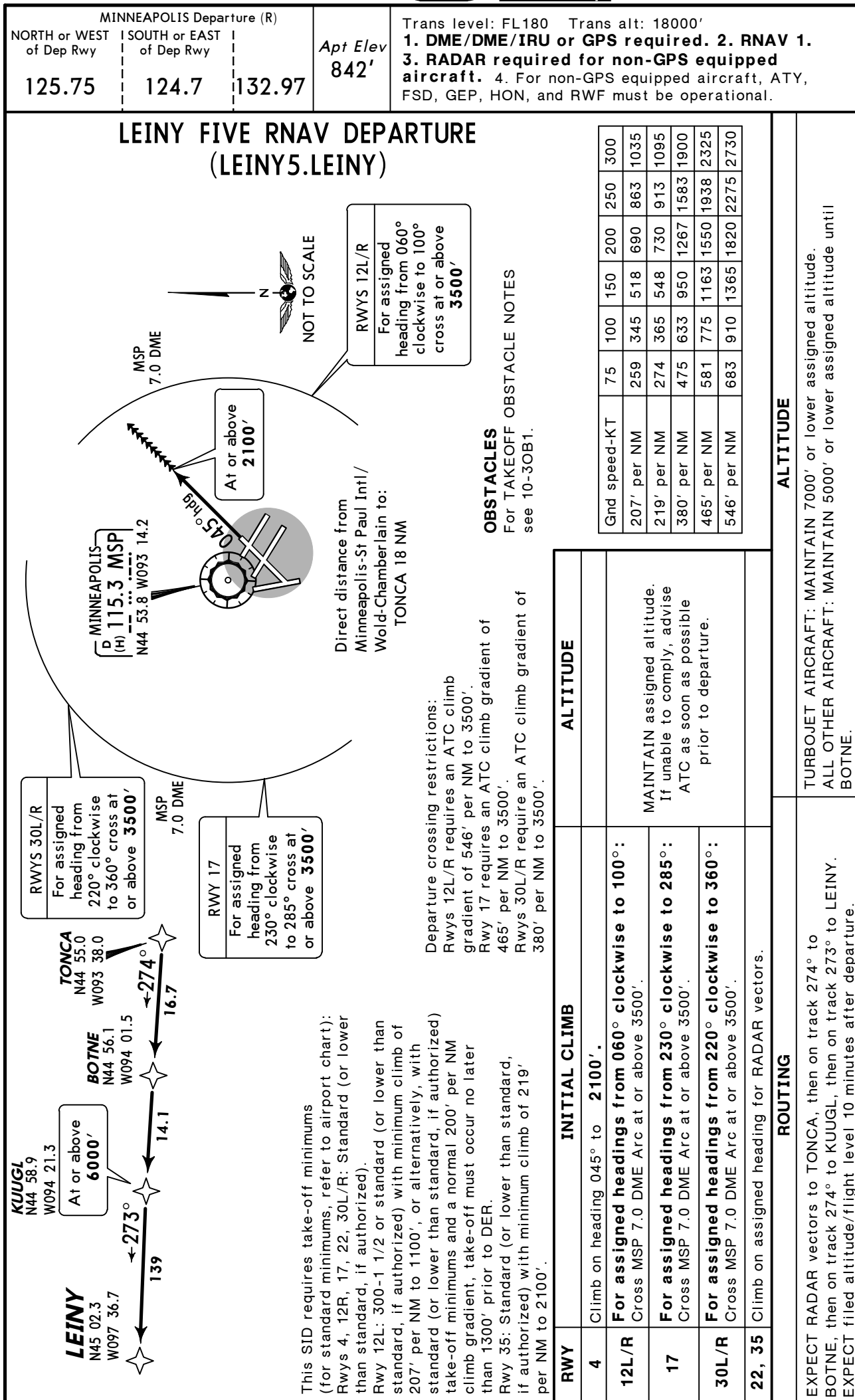
Gnd speed-KT	75	100	150	200	250	300
370' per NM	463	617	925	1233	1542	1850

INITIAL CLIMB

Climb heading 170° to intercept course 217° to BDOGG, then on track 214° to cross MNDEE
between **4000' & 7000'**, then on track 214° to PRAMN, then on track 212° to cross HITTL
between **8000' & 17000'**, then on track 212° to cross NANCZ between **11000' & 17000'**, then on
track 212° to HSTIN.

ROUTING

At HSTIN, via transition. **MAINTAIN 17000'**. EXPECT filed altitude 10 minutes after departure.



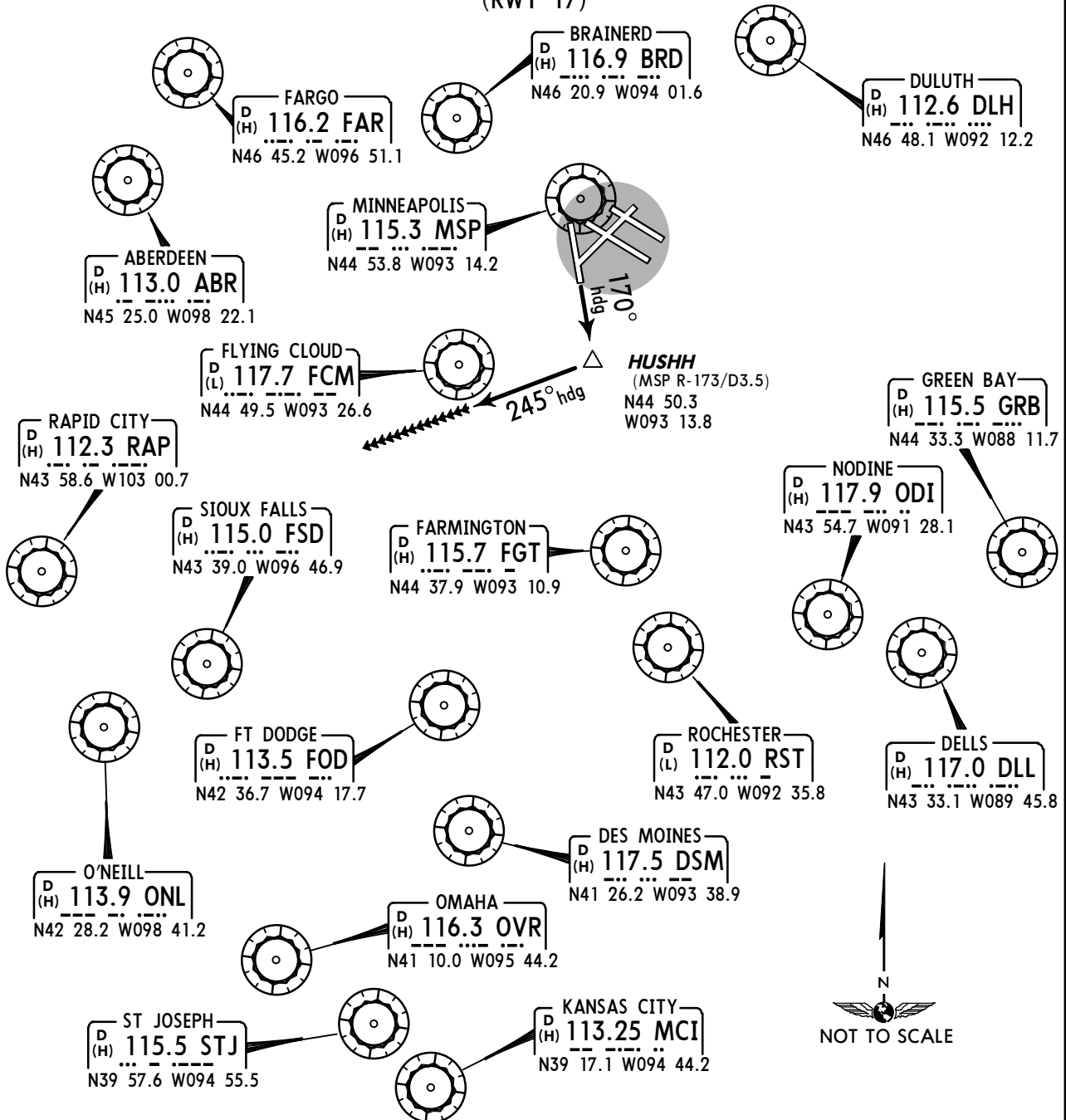
MINNEAPOLIS Departure (R)		
NORTH or WEST of Dep Rwy	SOUTH or EAST of Dep Rwy	
125.75	124.7	132.97

Apt Elev
842'

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

MEADOW LAKE TWO DEPARTURE (MEDOW2.MSP)

(RWY 17)



This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwy 17: Standard (or lower than standard, if
authorized) with a minimum ATC climb of
240' per NM to **5000'**.
All other runways: Not authorized - ATC request.

Gnd speed-KT	75	100	150	200	250	300
240' per NM	300	400	600	800	1000	1200

OBSTACLES

For TAKEOFF OBSTACLE NOTES SEE 10-30B1.

INITIAL CLIMB

Climb via heading 170° to HUSHH/D3.5
MSP, then RIGHT turn heading 245° and
continue climb.

ALTITUDE

TURBOJET AIRCRAFT: **MAINTAIN 7000'** or lower
as assigned.
ALL OTHER AIRCRAFT: **MAINTAIN 5000'** or lower
as assigned.

ROUTING

Then via vectors to assigned route/fix, EXPECT clearance to assigned altitude/flight
level 10 minutes after departure.

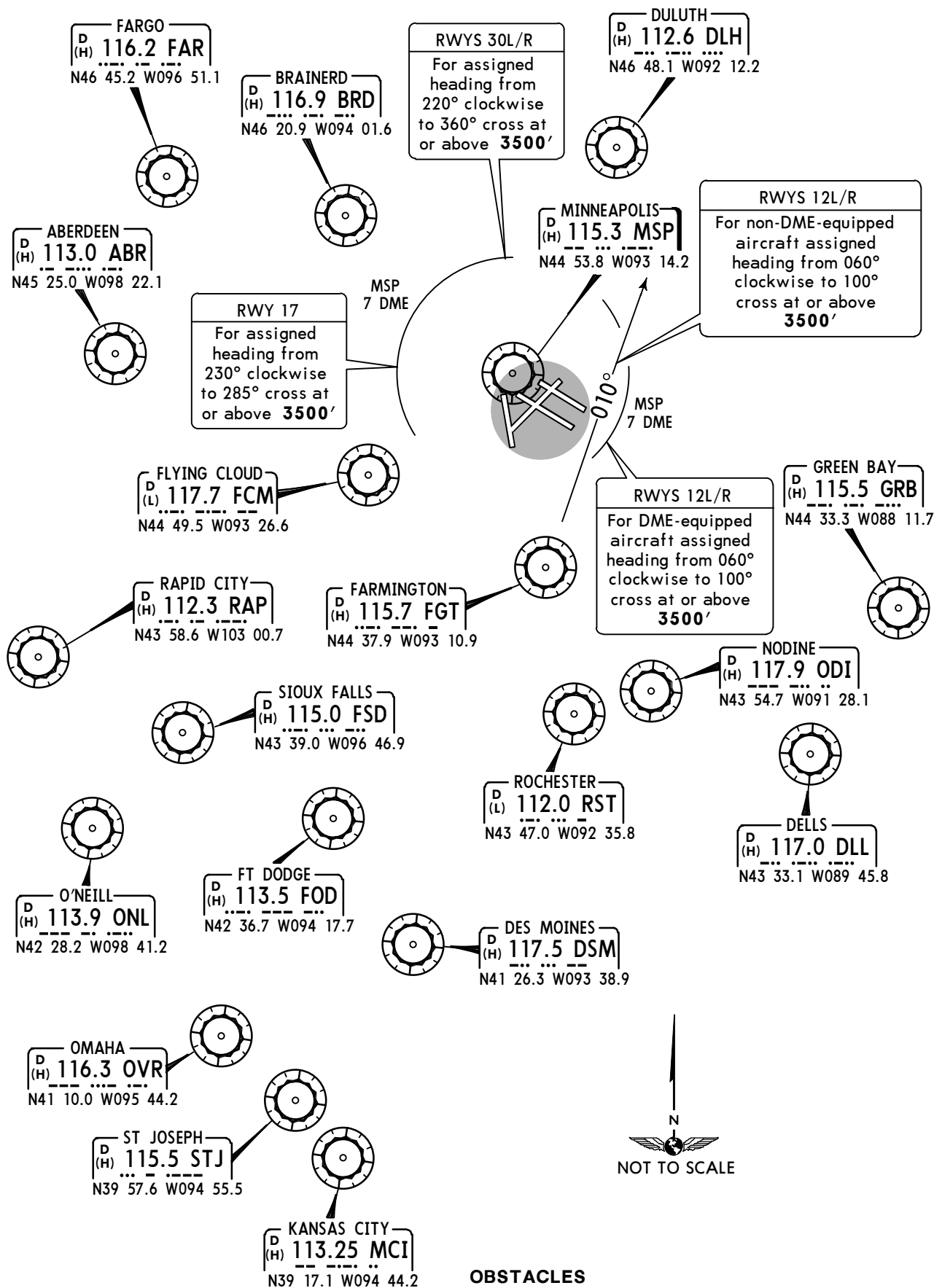
MINNEAPOLIS Departure (R)		
NORTH or WEST of Dep Rwy	SOUTH or EAST of Dep Rwy	
125.75	124.7	132.97

Apt Elev
842'

Trans level: FL180 Trans alt: 18000'
1. **RADAR required.**
2. **DME required for Rwy 17, 30L/R departure.**

MINNEAPOLIS SIX DEPARTURE (MSP6.MSP)

For Procedure Text and Takeoff Minimums see 10-3F-1



OBSTACLES

For TAKEOFF OBSTACLE NOTES see 10-3OB1.

MINNEAPOLIS SIX DEPARTURE (MSP6.MSP)For Procedure Graphic see 10-3F
PROCEDURE TEXT

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwys 4, 12R, 17, 22, 30L/R: Standard (or lower
than standard, if authorized).

Rwy 12L: 300-1 1/2 or standard (or lower than
standard, if authorized) with minimum climb of
207' per NM to **1100'**, or alternatively, with
standard (or lower than standard, if authorized)
take-off minimums and a normal 200' per NM
climb gradient, take-off must occur no later
than 1300' prior to DER.

Rwy 35: Standard (or lower than standard,
if authorized) with minimum climb of 219'
per NM to **2100'**.

Departure crossing restrictions:

Rwys 12L/R (DME aircraft) require an ATC
climb gradient of 546' per NM to **3500'**.

Rwys 12L/R (non-DME aircraft) require an
ATC climb gradient of 594' per NM to **3500'**.

Rwy 17 requires an ATC climb gradient of
465' per NM to **3500'**.

Rwys 30L/R require an ATC climb gradient of
380' per NM to **3500'**.

Gnd speed-KT	75	100	150	200	250	300
207' per NM	259	345	518	690	863	1035
219' per NM	274	365	548	730	913	1095
380' per NM	475	633	950	1267	1583	1900
465' per NM	581	775	1163	1550	1938	2325
546' per NM	683	910	1365	1820	2275	2730
594' per NM	743	990	1485	1980	2475	2970

INITIAL CLIMB**ALTITUDE****ALL RUNWAYS**

Fly assigned heading for
RADAR vectors to join
filed/assigned route.

TURBOJET AIRCRAFT: **MAINTAIN 7000'** or
lower assigned altitude.
ALL OTHER AIRCRAFT: **MAINTAIN 5000'** or
lower assigned altitude.

**DME EQUIPPED
AIRCRAFT
RWYS 12L/R**

**For assigned headings from
060° clockwise to 100°:**
Cross MSP 7 DME at or
above **3500'**.

**NON-DME
EQUIPPED
AIRCRAFT
RWYS 12L/R**

**For assigned headings from
060° clockwise to 100°:**
Cross FGT R-010 at or above
3500'.

RWY 17

**For assigned headings from
230° clockwise to 285°:**
Cross MSP 7 DME at or above
3500'.

RWYS 30L/R

**For assigned headings from
220° clockwise to 360°:**
Cross MSP 7 DME at or above
3500'.

MAINTAIN assigned altitude. If unable to
comply, advise ATC as soon as possible
prior to departure.

ROUTING

EXPECT clearance to assigned altitude/flight level 10 minutes after departure.

This SID requires take-off minimums for standard minimums, refer to airport chart): ways 4, 12R, 17, 22, 30L/R: Standard (or lower than standard, if authorized). way 12L: 300-1 1/2 or standard (or lower than

standard, if authorized) with minimum climb of 07' per NM to 1'00', or alternatively, with standard (or lower than standard, if authorized) take-off minimums and a normal 200' per NM climb gradient, take-off must occur no later than 1300' prior to DER.

authorized, with minimum climb of 219' per NM to 2100'.
Departure crossing restrictions:
ways 12L/R (DME aircraft) require an ATC limb gradient of 546' per NM to 3500'.
ways 12L/R (non-DME aircraft) require an

Gnd speed-KT	75	100	150	200	250	300
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	207 ^a per NM	259	345	518	690	863	1035
1219 ^b per NM	274	365	548	730	913	1095	
1380 ^c per NM	475	633	950	1267	1583	1900	
1465 ^d per NM	581	775	1163	1550	1938	2325	
1546 ^e per NM	683	910	1365	1820	2275	2730	

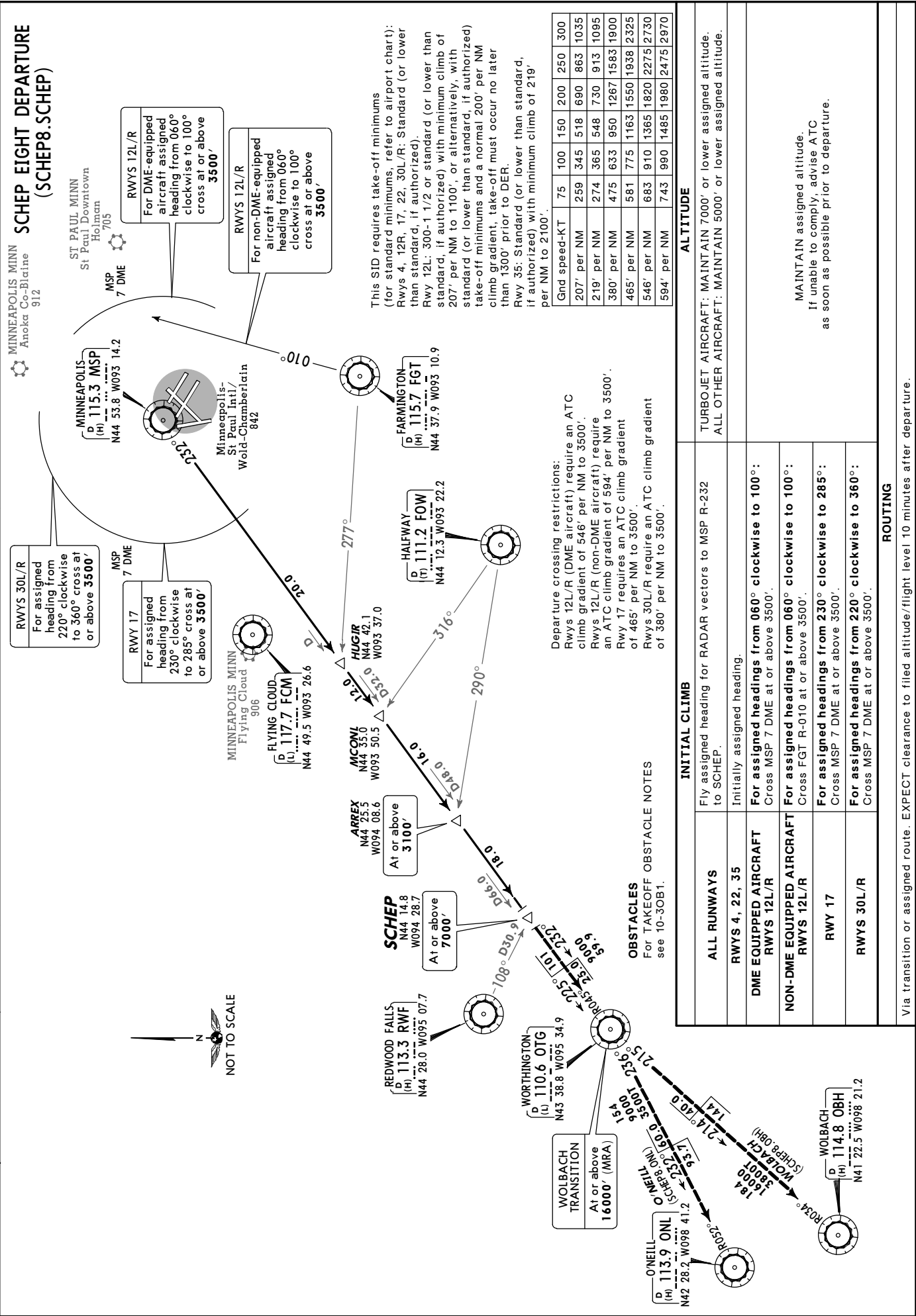
594' per NM	743	990	1485	1980	2475	2970
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Initially assigned heading.	RWYS 4, 22, 35
For assigned headings Cross MSP 7 DME at or above 1000 ft.	DME EQUIPPED AIRCRAFT RWYS 12L/R
For assigned headings Cross FGT R-010 at or above 1000 ft.	NON-DME EQUIPPED AIRCRAFT RWYS 12L/R

RWY 17	For assigned headings Cross MSP 7 DME at or a
RWYS 30L/R	For assigned headings Cross MSP 7 DME at or a

Via assigned transition or assigned route. EXPECT clearance to filed altitude/flight level 10 minutes after departure.	N42 33.4 W092 23.9
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MINNEAPOLIS Departure (R)		Apt Elev See graphic	Trans level: FL180 Trans alt: 18000'	RADAR required.
NORTH or WEST of Dep Rwy	SOUTH or EAST of Dep Rwy			
125.75	124.7			
		132.97		

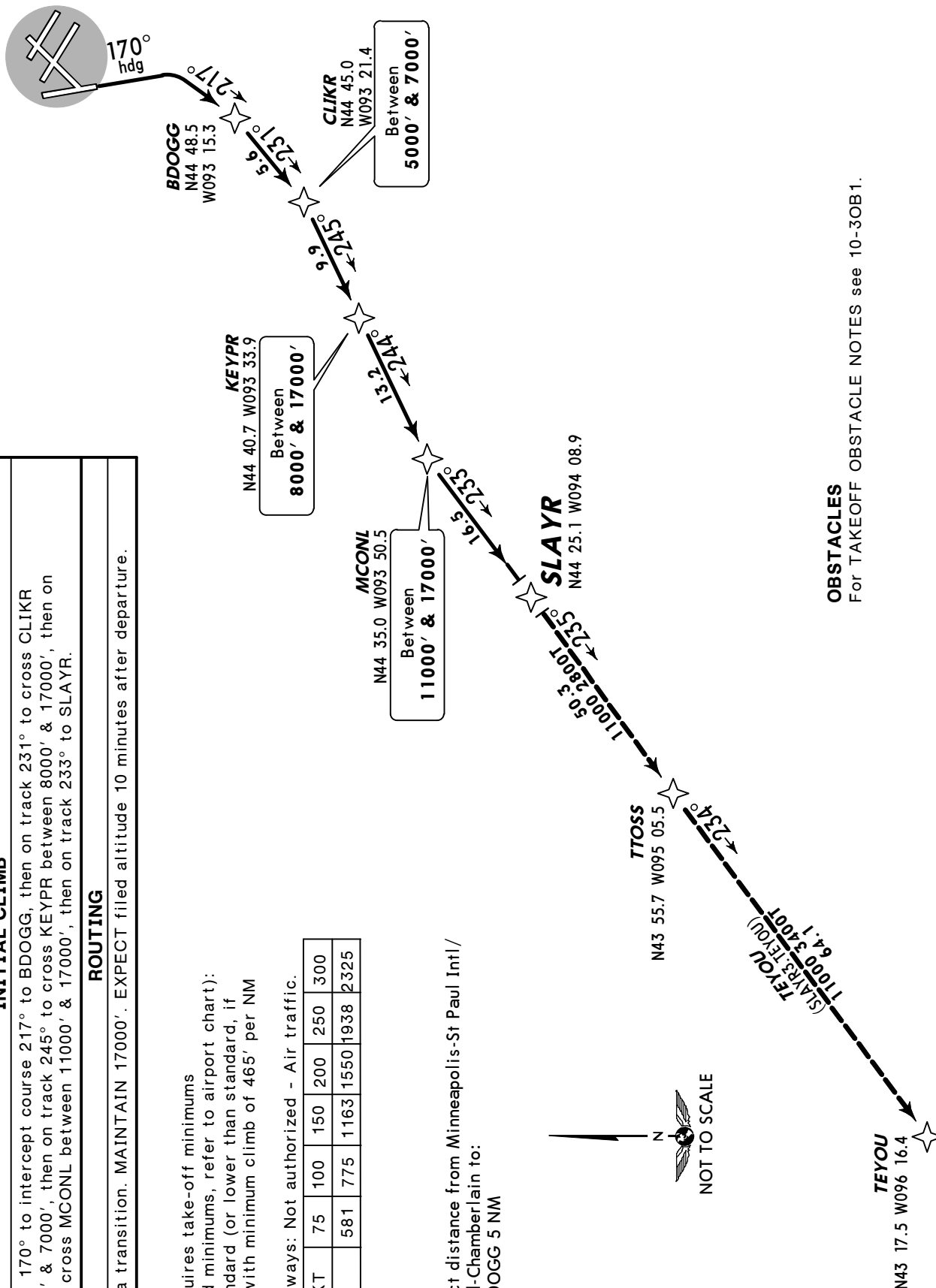


MINNEAPOLIS Departure (R)		
NORTH or WEST of Dep Rwy	SOUTH or EAST of Dep Rwy	
125.75	124.7	132.97

Apt Elev
842'

Trans level: FL180 Trans alt: 18000'
1. RADAR required. 2. RNAV 1.
3. DME/DME/IRU or GPS required.
4. For use by turbojet aircraft only.

SLAYER THREE RNAV DEPARTURE (SLAYR3.SLAYR) (RWY 17)



INITIAL CLIMB

Climb heading 170° to intercept course 217° to BDOGG, then on track 231° to cross CLIKR between 5000' & 7000', then on track 245° to cross KEYPR between 8000' & 17000', then on track 244° to cross MCONL between 11000' & 17000', then on track 233° to SLAYR.

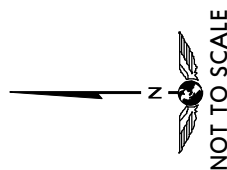
ROUTING

At SLAYR, via transition. MAINTAIN 17000'. EXPECT filed altitude 10 minutes after departure.

This SID requires take-off minimums (for standard minimums, refer to airport chart):
Rwy 17: Standard (or lower than standard, if authorized) with minimum climb of 465' per NM to 11000'.
All other runways: Not authorized - Air traffic.

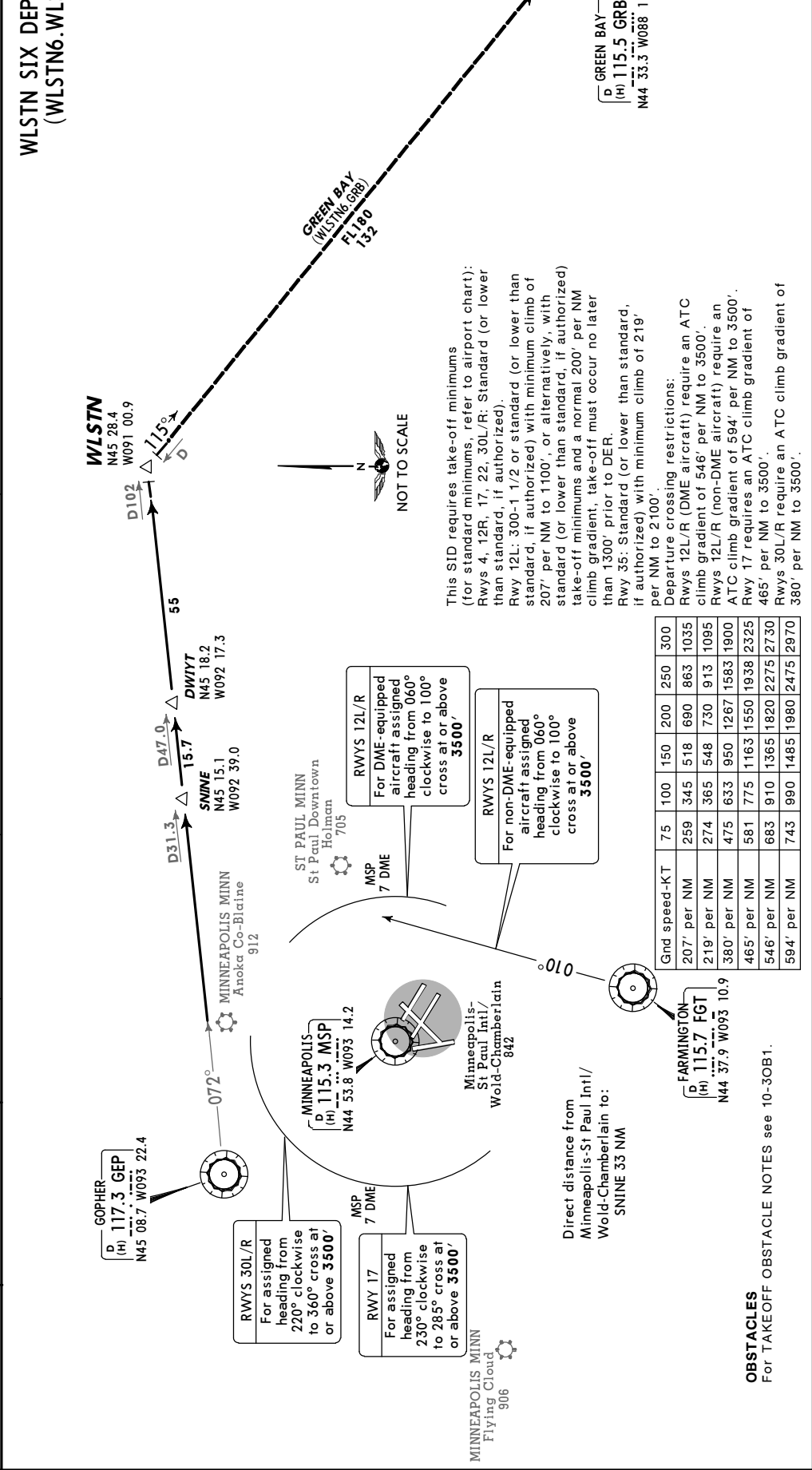
Gnd speed-KT	75	100	150	200	250	300
465' per NM	581	775	1163	1550	1938	2325

Direct distance from Minneapolis-St Paul Intl/
Wold-Chamberlain to:
BDOGG 5 NM



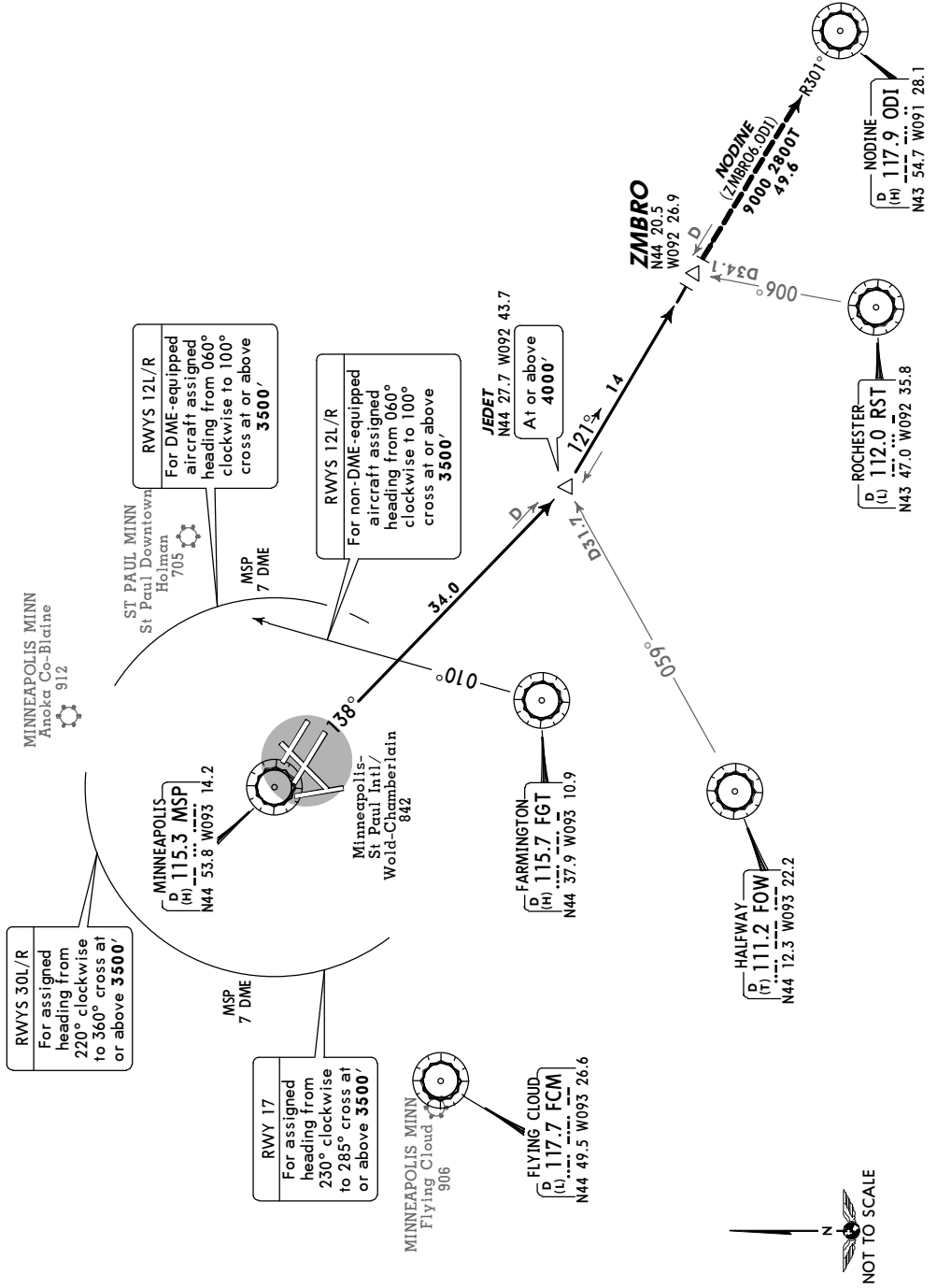
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MINNEAPOLIS Departure (R)		MINNEAPOLIS Departure (R)		MINNEAPOLIS Departure (R)		MINNEAPOLIS Departure (R)		MINNEAPOLIS Departure (R)		MINNEAPOLIS Departure (R)	
NORTH or WEST of Dep Rwy		SOUTH or EAST of Dep Rwy		ApI Elev		Trans level: FL180		Trans alt: 18000'		RADAR required.	
125.75		124.7		See graphic							



INITIAL CLIMB		ALTITUDE
ALL RUNWAYS	Fly assigned heading for RADAR vectors to GEP R-072 to WLSTN.	TURBOJET AIRCRAFT: MAINTAIN 7000' or lower assigned altitude. ALL OTHER AIRCRAFT: MAINTAIN 5000' or lower assigned altitude.
RWYS 4, 22, 35	Initially assigned heading.	
DME EQUIPPED AIRCRAFT RWYS 12L/R	For assigned headings from 060° clockwise to 100°: Cross MSP 7 DME at or above 3500'.	
NON-DME EQUIPPED AIRCRAFT RWYS 12L/R	For assigned headings from 060° clockwise to 100°: Cross FGT R-010 at or above 3500'.	
RWY 17	For assigned headings from 230° clockwise to 285°: Cross MSP 7 DME at or above 3500'.	MAINTAIN assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.
RWYS 30L/R	For assigned headings from 220° clockwise to 360°: Cross MSP 7 DME at or above 3500'.	
ROUTING		
Via transition or assigned route. EXPECT clearance to filed altitude/flight level 10 minutes after departure.		

ZMBRO SIX DEPARTURE
(ZMBRO6.ZMBRO)



INITIAL CLIMB

ALL RUNWAYS

RWYS 4, 22, 35

DME EQUIPPED AIRCRAFT
RWYS 12L/R

NON-DME EQUIPPED AIRCRAFT
RWYS 12L/R

RWY 17

RWYS 30L/R

ROUTING

Via transition or assigned route. EXPECT clearance to filed altitude/flight level 10 minutes after departure.

CHANGES: Procedure renumbered, reindexed.

TURBOJET AIRCRAFT: MAINTAIN 7000' or lower assigned altitude.

ALL OTHER AIRCRAFT: MAINTAIN 5000' or lower assigned altitude.

ALTITUDE

MAINTAIN assigned altitude.

If unable to comply, advise ATC

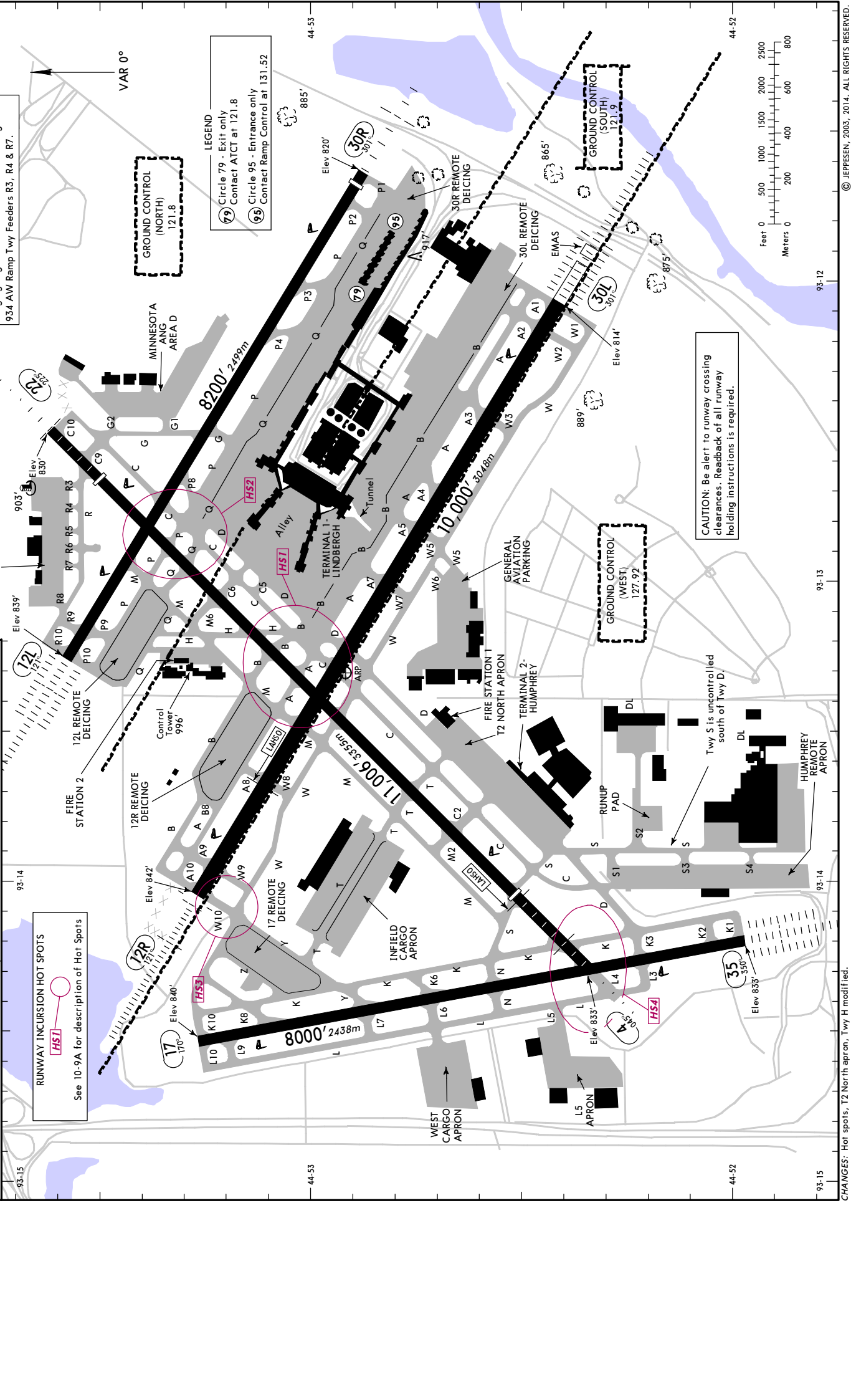
as soon as possible prior to departure.

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TAKEOFF OBSTACLE NOTES

- RWY 4:
TREES BEGINNING 800' FROM DER, 301' LEFT OF CENTERLINE, UP TO 75' AGL/925' MSL.
ROD ON BUILDING 2528' FROM DER, 1174' LEFT OF CENTERLINE, 78' AGL/922' MSL.
FENCE BEGINNING 13' FROM DER, 486' LEFT OF CENTERLINE, UP TO 6' AGL/860' MSL.
STACK 4535' FROM DER, 480' LEFT OF CENTERLINE, 139' AGL/949' MSL.
- RWY 12L:
TREE 1.1 NM FROM DER, 1691' LEFT OF CENTERLINE, 92' AGL/991' MSL. LIGHT POLE
AND CAMERA ON WALL BEGINNING 398' FROM DER, 561' RIGHT OF CENTERLINE, UP
TO 23' AGL/832' MSL.
- RWY 12R:
TREE 1479' FROM DER, 561' LEFT OF CENTERLINE, 86' AGL/855' MSL. OBSTACLE LIGHT
ON POLE 1002' FROM DER, 753' LEFT OF CENTERLINE, 53' AGL/852' MSL.
- RWY 17:
POLE 409' FROM DER, 530' RIGHT OF CENTERLINE, 29' AGL/866' MSL. BUILDING 2619'
FROM DER, 881' LEFT OF CENTERLINE, 97' AGL/918' MSL. BUILDING 1956' FROM DER,
904' LEFT OF CENTERLINE, 61' AGL/866' MSL. TREE 2619' FROM DER, ON CENTERLINE,
79' AGL/900' MSL.
- RWY 22:
TREES BEGINNING 2659' FROM DER, 867' RIGHT OF CENTERLINE, 94' AGL/934' MSL.
- RWY 30L:
ANTENNA ON TOWER 3555' FROM DER, 1334' LEFT OF CENTERLINE, 116' AGL/935' MSL.
- RWY 30R:
BILLBOARD SIGN 1463' FROM DER, 848' RIGHT OF CENTERLINE, 31' AGL/880' MSL.
- RWY 35:
TREES BEGINNING 2553' FROM DER, 770' RIGHT OF CENTERLINE, 100' AGL/919' MSL.
TREES BEGINNING 1989' FROM DER, 194' LEFT OF CENTERLINE, UP TO 87' AGL/906'
MSL. BUILDINGS BEGINNING 5.4 NM FROM DER, 1781' LEFT OF CENTERLINE, UP TO 889'
AGL/1743' MSL.

DEPARTURE D-ATIS	ACARS: D-ATIS TWIP PDC	MINNEAPOLIS Clearance (Cpt)	Metering	Ground	North	South	West
120.8		133.2	133.57	121.8	121.9	127.92	
MINNEAPOLIS Departure (R)							
Tower		North or West of Dep Rwy		South or East of Dep Rwy			
Rwys 4/22, 12R/30L	Rwy 17/35	123.95	123.67	125.75	124.7	132.97	
VOT 111.0 (Limited)							



GENERAL									
ASDE-X Surveillance System in use. Operate transponders with Mode C on all taxiways and runways.									
Low-level wind shear alert system.									
Terminal Doppler Weather Radar.									
No Stage 1 noise category civil aircraft.									
Training flights prohibited.									
All unscheduled aircraft at Terminal 2-Humphrey are required to contact Terminal 2 Gate Control at 122.95 or (612) 726-5742 prior to arrival.									
General aviation flights must terminate at the FBO or US Customs unless approved by the airport manager.									
All General Aviation aircraft with less than 20 passengers that need to clear US customs should contact Signature Flight Support at 128.95 or (612) 726-5700 prior to arrival.									
All aircraft are required to contact Ground Metering prior to pushback.									
Birds on and in the vicinity of airport.									
Vehicles parked along South end of Taxiway S.									
Runway Status Lights are in operation.									
ADDITIONAL RUNWAY INFORMATION									
RWY	LANDING BEYOND			USABLE LENGTHS		LAHSO Distance	TAKE-OFF	WIDTH	
	Threshold	Glide Slope							
4	1	HIRL MALSR PAPI-L (angle 3.0°)	RVR	9456' 2882m			8150' 2484m	150' 46m	
22				10,006' 3050m			Twy K		
1 Rwy grooved.									
12R	2	HIRL CL ALSF-I TDZ	3 PAPI-L RVR		8971' 2734m			200' 61m	
		30L	HIRL CL ALSF-II TDZ	3 PAPI-L RVR		8898' 2712m	Twys A9/W9		
2 Rwy grooved. 3 Angle 3.0°.									
12L	4	HIRL CL ALSF-II TDZ	5 PAPI-L RVR	67620' 2323m	6 6275' 1913m			150' 46m	
		30R	HIRL CL MALSF 5 PAPI-L RVR	8000' 2438m	6975' 2126m				
4 Rwy grooved. 6 Last 580' 177m is unavailable for landing distance computations.									
5 Angle 3.0°.									
17	35	HIRL CL REIL PAPI-R (angle 3.0°)	RVR					150' 46m	
		HIRL CL ALSF-II TDZ	3 PAPI-L RVR		6950' 2118m				
7 Rwy grooved. 3 Angle 3.0°.									

RUNWAY INCURSION HOT SPOTS

HS1

For information only, not to be construed as ATC instructions

HS1

Complex geometry at the intersection of Twy A, B, C, D, H and the Rwy 4/22 and Rwy 12R/30L intersection, requiring caution for Rwy crossings in this area.

HS2

Complex geometry at the intersection of Twy C, D, P, Q and the Rwy 4/22 and Rwy 12L/30R intersection, requiring caution for Rwy crossings in this area.

HS3

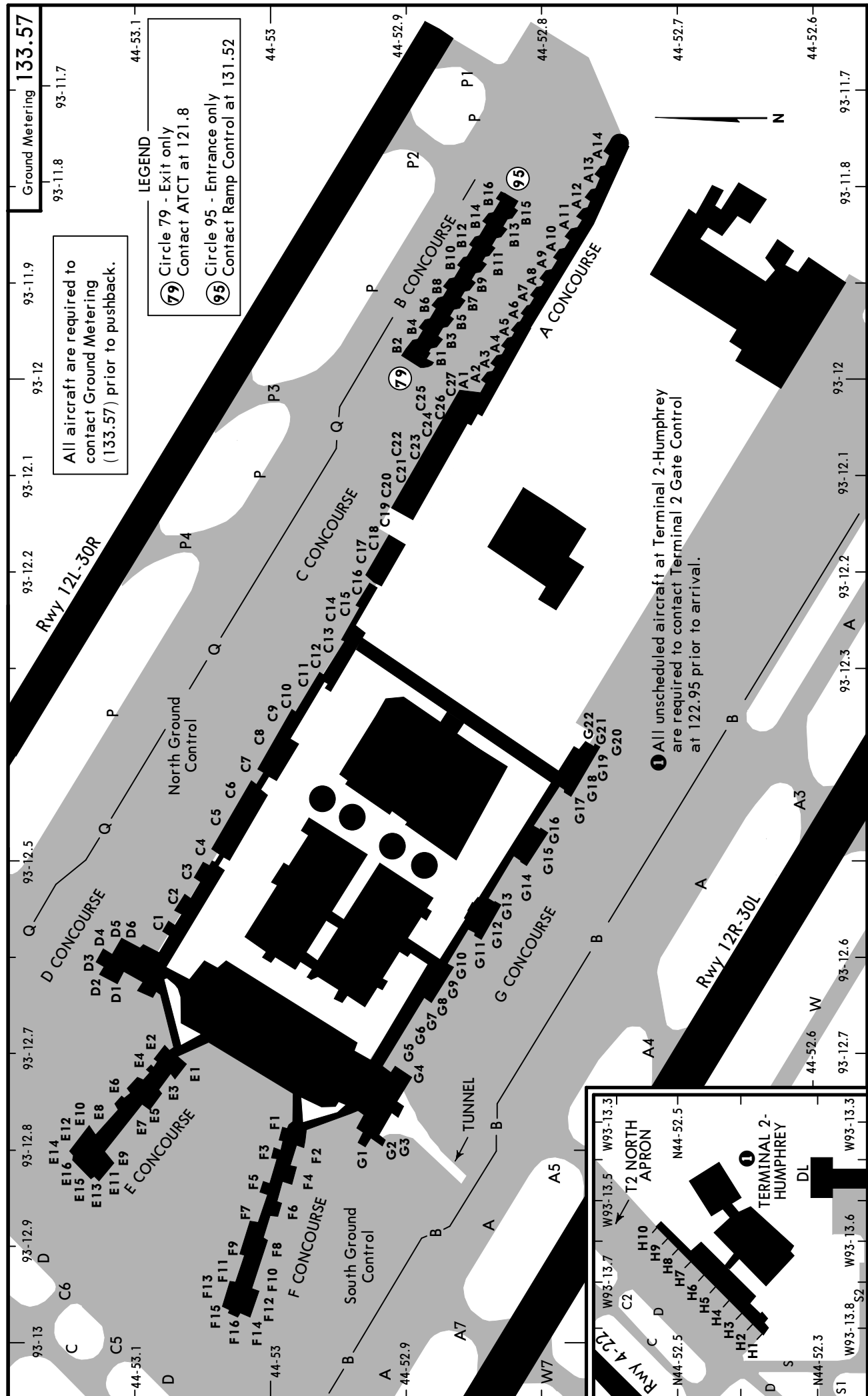
Twy/Rwy geometry and traffic flow.

HS4

Complex geometry at Rwy 4 approach end. Rwy 4 departures check compass to verify correct runway heading.

TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE											
Rwys 12R, 17, 30L/R											
2 operating RVRs are required All operating RVRs are controlling				Adequate Vis Ref		STD					
CL & HIRL		CL, or RCLM & HIRL				3 & 4 Eng		1 & 2 Eng			
TDZ RVR 5	TDZ RVR 10										
Mid RVR 5	Mid RVR 10										
Rollout RVR 5	Rollout RVR 10							RVR 24 or 1/2			
Rwy 12L											
1 With Min climb of 207' /NM to 1100'											
2 operating RVRs are required. All operating RVRs are controlling.				Adequate Vis Ref		STD				Other	
CL & HIRL		CL, or RCLM & HIRL				3 & 4 Eng		1 & 2 Eng			
TDZ RVR 5	TDZ RVR 10										
Mid RVR 5	Mid RVR 10							RVR 50 or 1			
Rollout RVR 5	Rollout RVR 10							RVR 24 or 1/2			
300-1 1/2											
2 Alternatively, with standard take-off minimums and a normal 200' /NM climb gradient, take-off must occur no later than 1300' prior to departure end of runway.											

FOR FILING AS ALTERNATE																	
A		ILS Rwy 12L/R		ILS Rwy 30R		ILS Rwy 30L		LOC Rwy 4 LOC Rwy 12L/R LOC Rwy 17 LOC Rwy 22 LOC Rwy 27 LOC Rwy 30R		RNAV (GPS) Rwy 4 RNAV (GPS) Rwy 12R RNAV (GPS) Rwy 22 RNAV (GPS) Rwy 30L/R RNAV (GPS) Z Rwy 35		LOC Rwy 30L RNAV (GPS) Rwy 12L		ILS Rwy 35 LOC Rwy 35		Other	
B		600-2		700-2		700-2		800-2		800-2		800-2		800-2		NA	
C		700-2		700-2 1/4		700-2 1/4		800-2 1/4		800-2 1/4		800-2 1/2		800-2 1/2		800-2 1/2	
D		700-2		700-2 1/4		700-2 1/4		800-2 1/4		800-2 1/4		800-2 1/2		800-2 1/2		800-2 1/2	



PARKING GATE COORDINATES

GATE No.	COORDINATES	GATE No.	COORDINATES
Concourse A		Concourse E	
A1 thru A6	N44 52.8 W093 12.0	E1 thru E6	N44 53.1 W093 12.7
A7 thru A11	N44 52.8 W093 11.9	E7 thru E11	N44 53.1 W093 12.8
A12	N44 52.7 W093 11.9	E12	N44 53.2 W093 12.8
A13, A14	N44 52.7 W093 11.8	E13	N44 53.1 W093 12.8
		E14	N44 53.2 W093 12.8
Concourse B		E15	N44 53.1 W093 12.8
B1, B2	N44 52.9 W093 12.0	E16	N44 53.2 W093 12.8
B3	N44 52.8 W093 12.0	Concourse F	
B4	N44 52.9 W093 12.0	F1 thru F5	N44 53.0 W093 12.8
B5	N44 52.8 W093 12.0	F6 thru F11	N44 53.0 W093 12.9
B6	N44 52.9 W093 12.0	F12 thru F16	N44 53.0 W093 13.0
B7 thru B16	N44 52.8 W093 11.9	Concourse G	
Concourse C		G1 thru G3	N44 52.9 W093 12.8
C1	N44 53.1 W093 12.6	G4 thru G8	N44 52.9 W093 12.7
C2 thru C4	N44 53.1 W093 12.5	G9, G10	N44 52.9 W093 12.6
C5	N44 53.0 W093 12.5	G11	N44 52.8 W093 12.6
C6 thru C9	N44 53.0 W093 12.4	G12 thru G16	N44 52.8 W093 12.5
C10 thru C14	N44 53.0 W093 12.3	G17 thru G21	N44 52.8 W093 12.4
C15 thru C20	N44 52.9 W093 12.2	G22	N44 52.8 W093 12.3
C21 thru C27	N44 52.9 W093 12.1	Terminal 2 - Humphrey	
Concourse D		H1 thru H4	N44 52.4 W093 13.8
D1 thru D6	N44 53.1 W093 12.6	H5	N44 52.4 W093 13.7
		H6 thru H7	N44 52.5 W093 13.7
		H8 thru H10	N44 52.5 W093 13.6

OVERFLOW AIRCRAFT PARKING AREAS

Minneapolis-Saint Paul International/Wold-Chamberlain Airport
Overflow Aircraft Parking Plan

Background

MAC, MSP ATCT and MSP users have entered into an agreement to identify parking areas and implement procedures which will allow accommodation of any arrival unable to proceed immediately to its assigned parking location or any departure aircraft unable to proceed immediately to a departure runway. The overflow aircraft parking plan allocates parking positions in specific areas as indicated on the airport diagram below. Parking positions are assigned so as to not impact flight operations, and to maintain taxiway access to/from runways and aircraft parking positions.

Procedures

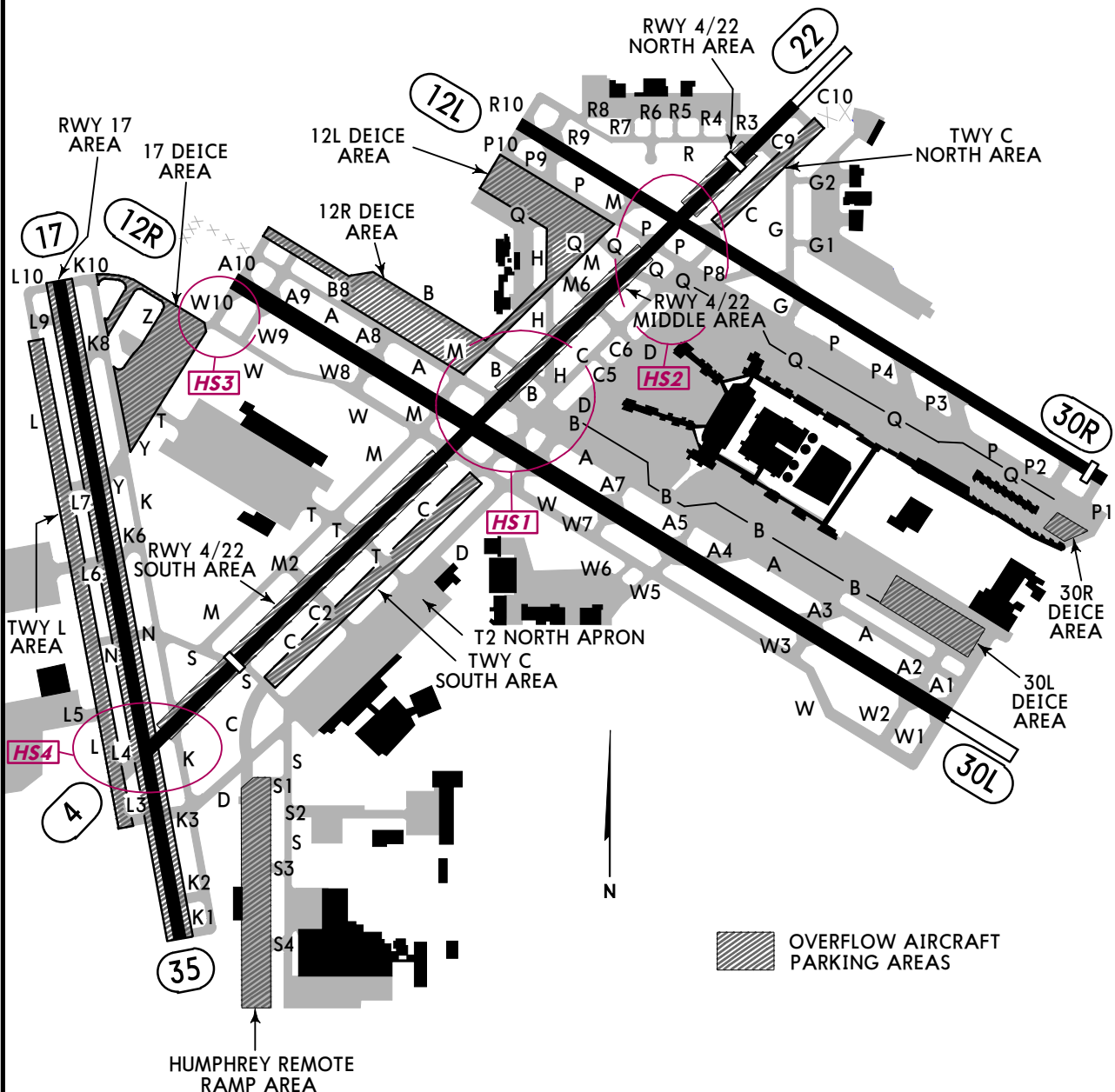
ASDE-X Surveillance System in use. Operate transponders with Mode C on all taxiways and runways.

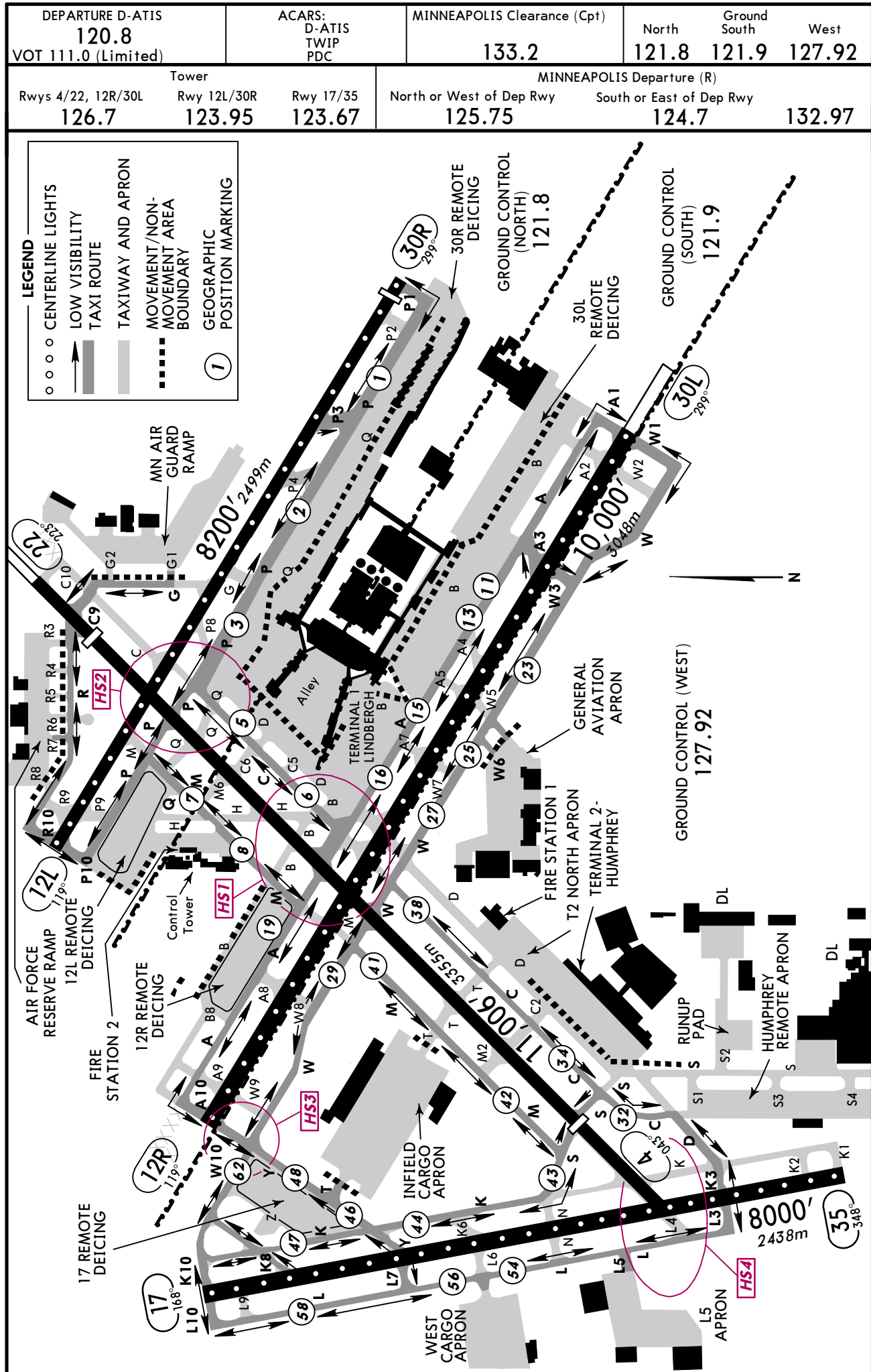
When ATIS announcement "overflow parking procedures in effect" is made, flight crews are to anticipate assignment to an overflow parking position if necessary.

Arrival aircraft report gate assignment on initial contact with Minneapolis ATCT.

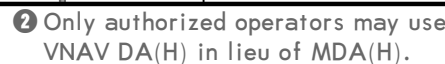
Upon landing, follow ATC directions to assigned overflow parking position.

Monitor MSP ATCT on assigned frequency while parked in overflow aircraft parking positions.





BRIEFING STRIP TM



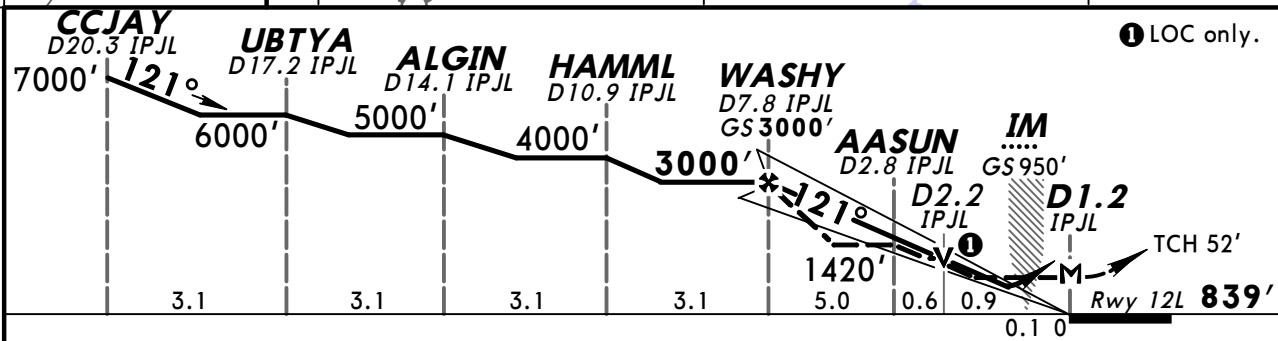
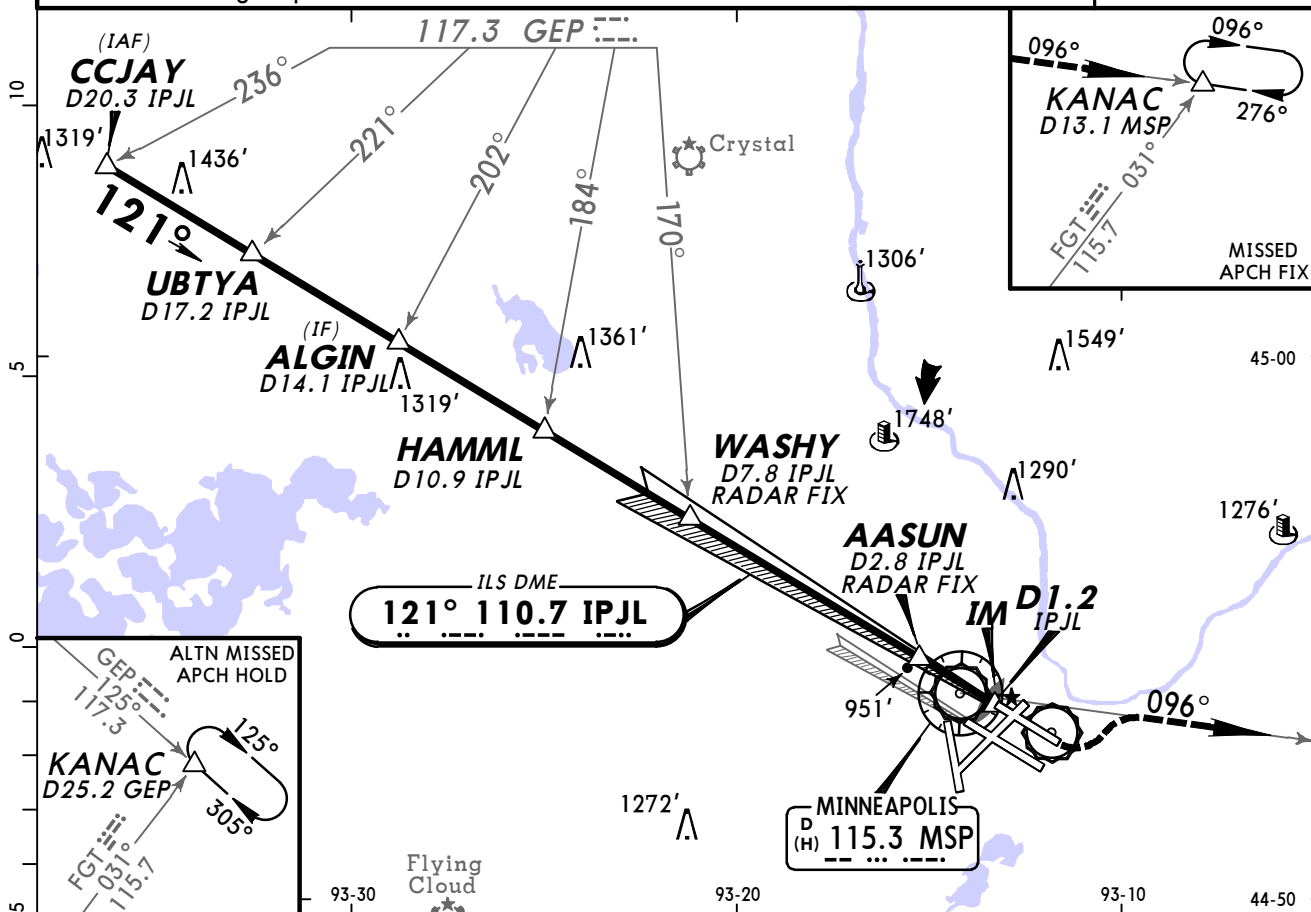
TERPS		STRAIGHT-IN LANDING RWY4			CIRCLE-TO-LAND	
		MDA(H) 1340' (508')				
		RAIL out	ALS out	Max Kts	MDA(H)	
A	RVR 24 or 1/2	RVR 40 or 3/4	RVR 55 or 1	90	1360' (518') - 1	
B				120		
C	RVR 55 or 1	1 1/4	1 3/8	140	1360' (518') - 1 1/2	
D				165	1460' (618') - 2	

TERPS AMEND 1A 2 MAY 2013

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KMSP/MSP MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN 26 APR 13 Eff 2 May 11-2 JEPPESSEN MINNEAPOLIS, MINN ILS or LOC Rwy 12L

BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
	135.35	119.3	Rwy 12L/30R 123.95	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	North 121.8	South 121.9	West 127.92	
	LOC IPJL 110.7	Final Apch Crs 121°	GS WASHY 3000' (2161')	ILS DA(H) 1039' (200')	Apt Elev 842' Rwy 12L 839'	 MSA MSP VOR			
	MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' outbound on MSP VOR R-096 to KANAC INT/D13.1 MSP and hold, or as directed by ATC.								
	Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Radar required. 2. Simultaneous approach authorized with Rwy 12R. 3. VGSI and ILS glidepath not coincident.								



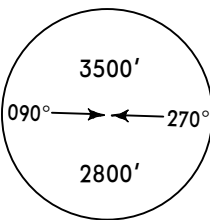
Gnd speed-Kts	70	90	100	120	140	160	ALS F-II PAPI		1300'	3000'	MSP 115.3
GS	3.00°	372	478	531	637	743			↑	LT	R-096
MAP at D1.2 IPJL or WASHY to MAP	6.6	5:39	4:24	3:58	3:18	2:50					

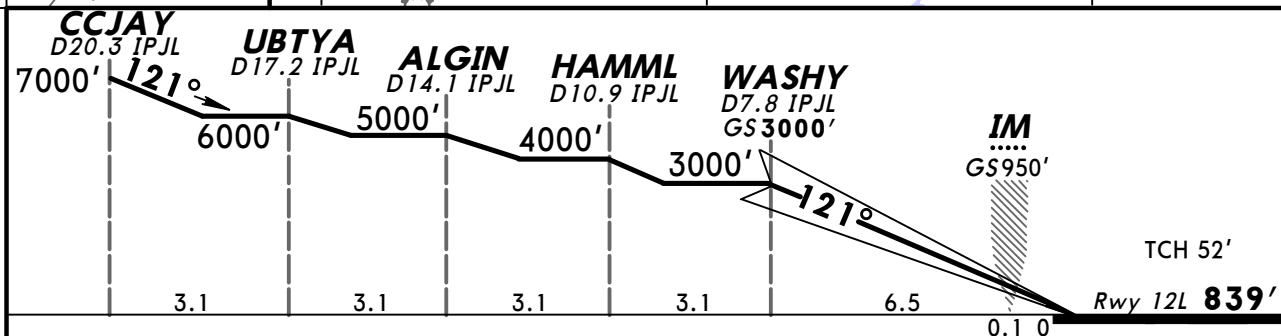
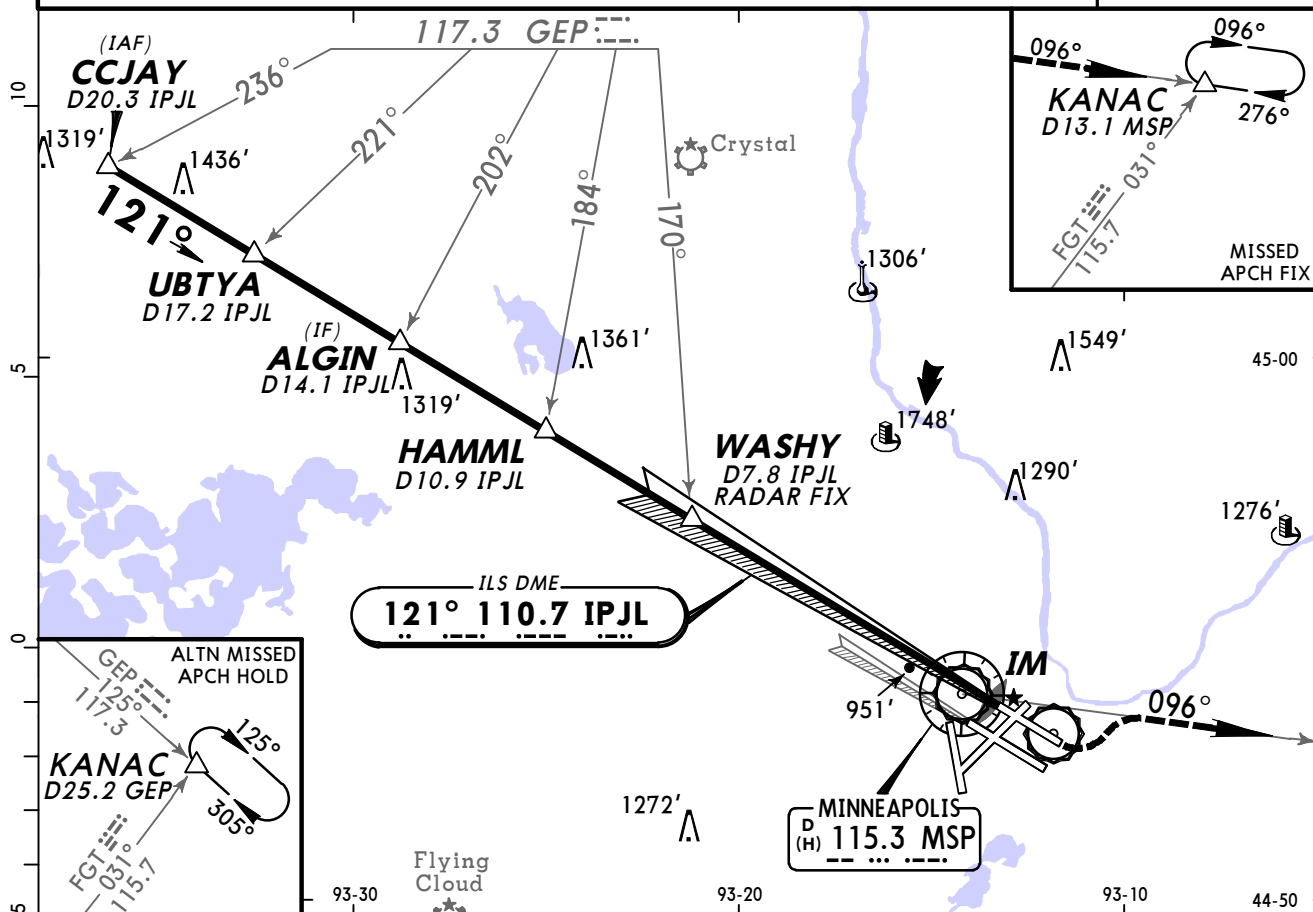
TERPS								STRAIGHT-IN LANDING RWY12L				CIRCLE-TO-LAND						
ILS				LOC (GS out)														
DA(H) 1039' (200')				MDA(H) 1240' (401')		MDA(H) 1420' (581')		With AASUN				Without AASUN						
FULL		TDZ or CL out		ALS out		ALS out		ALS out		Max Kts		MDA(H)		MDA(H)				
A	RVR 18 or 3/8		1 RVR 24 or 1/2		RVR 40 or 3/4		RVR 24	RVR 55	RVR 24	RVR 55	90	1360' (518')-1		1420' (578')-1				
or 1/2							or 1	or 1/2	or 1	120								
C							or 3/8	or 1/2	or 3/4	RVR 40	1 1/8					1 1/4	1 3/4	140
D							or 3/4	1 1/8	1 1/4	1 3/4	165							

KMSP/MSP MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN

JEPPESSEN MINNEAPOLIS, MINN

26 APR 13 Eff 2 May 11-2A ILS Rwy 12L CAT II & III

BRIEFING STRIP™	D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
	135.35		119.3		Rwy 12L/30R	Rwy 17/35	Rwys 4/22, 12R/30L	North	South	West
					123.95	123.67	126.7	121.8	121.9	127.92
	LOC	Final	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev		
	IPJL	Apch Crs	WASHY	NA	Refer to		RA91'	842'		
	110.7	121°	3000'		Minimums		DA(H)	Rwy 12L		
			(2161')				939' (100')	839'		
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' outbound on MSP VOR R-096 to KANAC INT/D13.1 MSP and hold, or as directed by ATC.										
Alt Set: INCHES										



Gnd speed-Kts	70	90	100	120	140	160	ALSFI-II		1300'	3000'	MSP
GS	3.00°	372	478	531	637	743	PAPI		↑	LT	on 115.3
											R-096

TERPS STRAIGHT-IN LANDING RWY 12L			
CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 91' DA(H) 939' (100')
NA	RVR 6	RVR 7	1 RVR 12

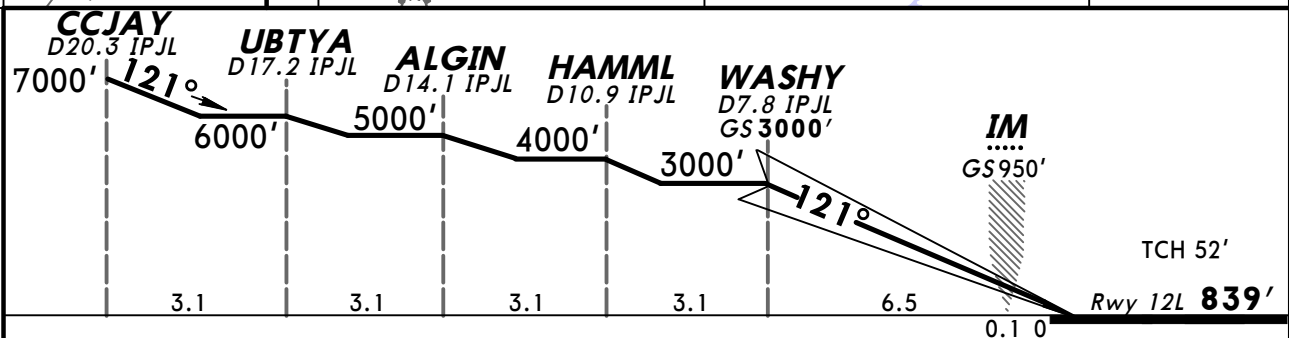
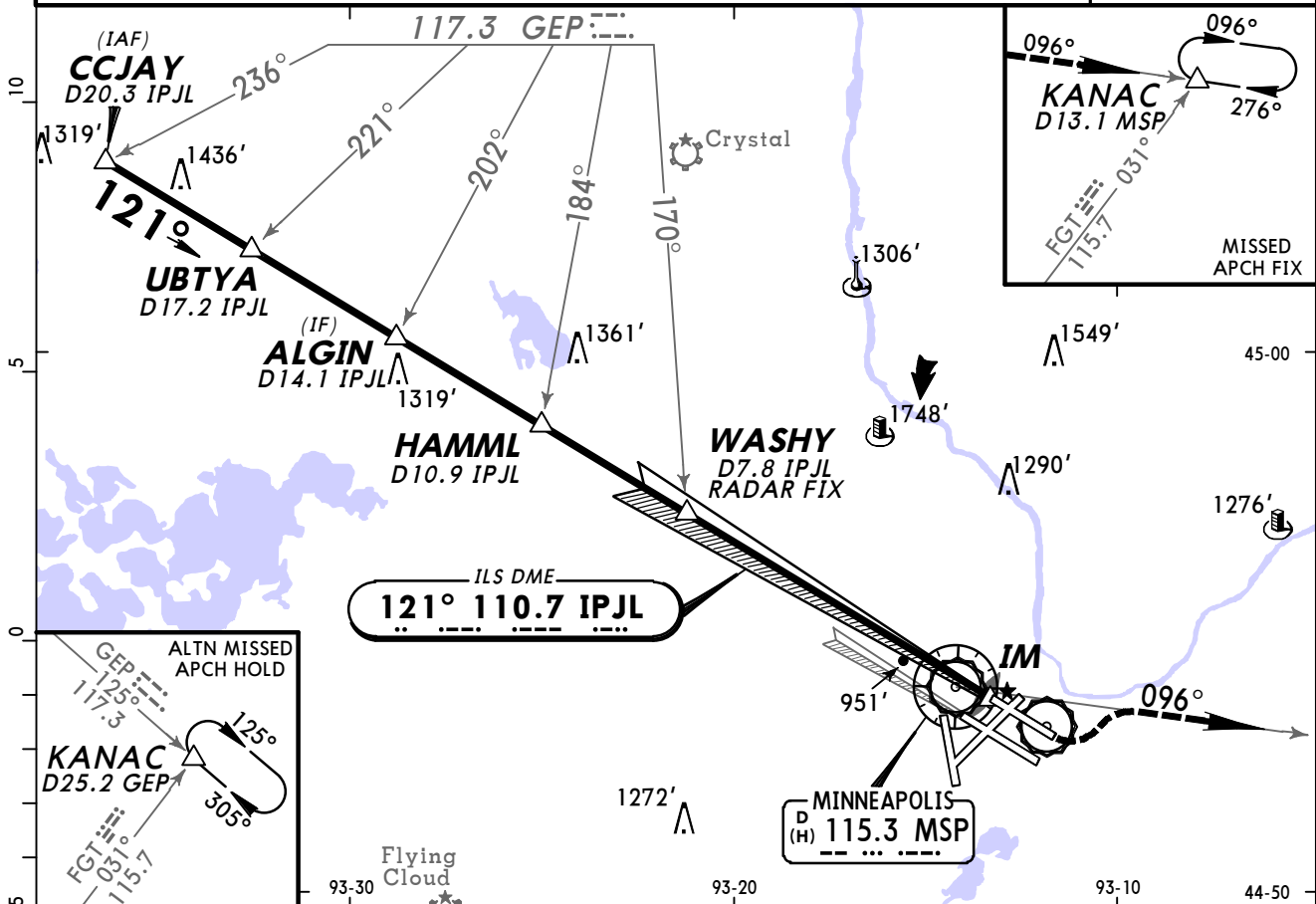
1 RVR 10 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

CHANGES: Procedure.

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TERPS AMEND 9 2 MAY 2013

D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground	
135.35	119.3	Rwy 12L/30R 123.95	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	North 121.8	South 121.9	West 127.92	
LOC IPJL 110.7	Final Apch Crs 121°	GS WASHY 3000' (2161')	SA CAT I ILS RA 147' DA(H) 989' (150')	Apt Elev 842' Rwy 12L 839'		3500' 090° → ← 270° 2800' MSA MSP VOR		
MISSED APCH: Climb to 1300', then climbing LEFT turn to 3000' outbound on MSP VOR R-096 to KANAC INT/D13.1 MSP and hold, or as directed by ATC.								
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'								
1. Special Aircrew & Acft Certification Required. 2. Radar required. 3. Simultaneous approach authorized with Rwy 12R. 4. VGSI and ILS glidepath not coincident.								



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	
<i>Gs</i> 3.00°	372	478	531	637	743	849	

TERPS

STRAIGHT-IN LANDING RWY 12L

1 SA CAT I ILS
RA 147'

 $DA_{(H)} \mathbf{989'} (150')$

RVR 14

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

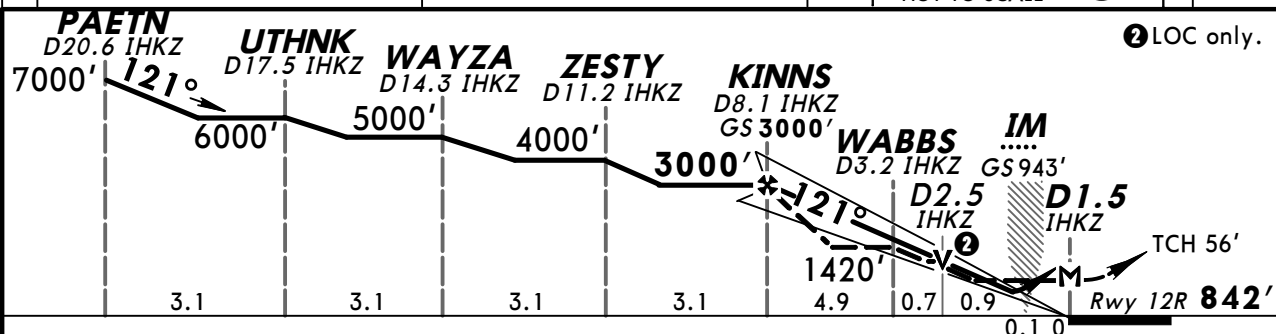
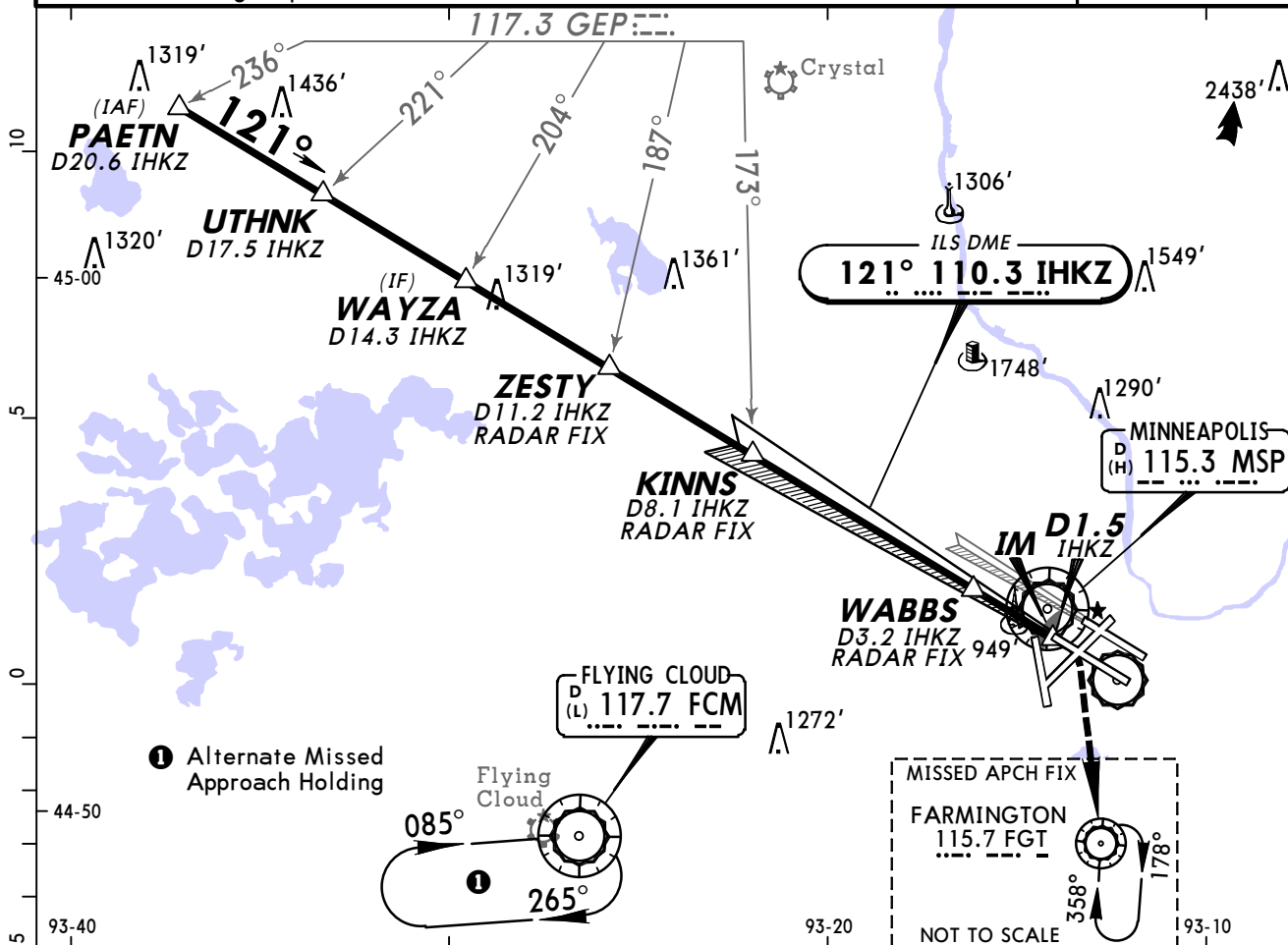
CHANGES: New procedure.

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KMSP/MSP MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN 26 APR 13 Eff 2 May 11-3 JEPPESSEN MINNEAPOLIS, MINN ILS or LOC Rwy 12R

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
135.35	126.95		Rwys 4/22, 12R/30L	Rwy 17/35	Rwy 12L/30R	North	South	West
			126.7	123.67	123.95	121.8	121.9	127.92
LOC IHKZ 110.3	Final Apch Crs 121°	GS KINNS 3000' (2158')	ILS DA(H) 1042' (200')	Apt Elev 842' Rwy 12R 842'		3500' 090° → ← 270° 2800' MSA MSP VOR		
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct								
FGT VOR and hold, or as directed by ATC.								
Alt Set: INCHES								



Gnd speed-Kts	70	90	100	120	140	160	ALS-I	1300'	3000'	FGT
GS	3.00°	372	478	531	637	743	PAPI	↑	RT	115.7
MAP at D1.5 IHKZ or KINNS to MAP	6.6	5:39	4:24	3:58	3:18	2:50				

TERPS							CIRCLE-TO-LAND			
STRAIGHT-IN LANDING RWY12R										
ILS			LOC (GS out)				With WABBS		Without WABBS	
DA(H) 1042' (200')			MDA(H) 1240' (398')		MDA(H) 1420' (578')					
			With WABBS		Without WABBS					
FULL	TDZ or CL out	ALS out	ALS out	ALS out	ALS out	ALS out	Max Kts	MDA(H)	MDA(H)	
A							90	1360' (518')-1	1420' (578')-1	
B	RVR 18	RVR 24	RVR 40	RVR 24	RVR 55	RVR 55	120	1360' (518')-1 1/2	1420' (578')-1 3/4	
C	or 3/8	or 1/2	or 3/4	RVR 35	RVR 60	1 1/4	140	1460' (618')-2	1460' (618')-2	
D				or 5/8	or 1 1/8	1 5/8	165			

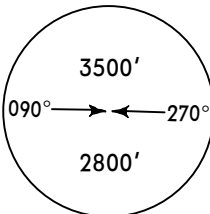
1 RVR 18 with Flight Director or Autopilot or HUD to DA.

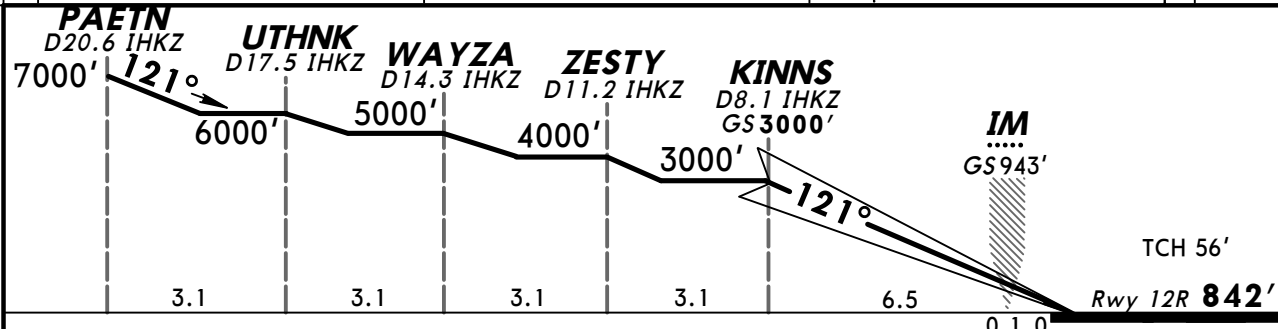
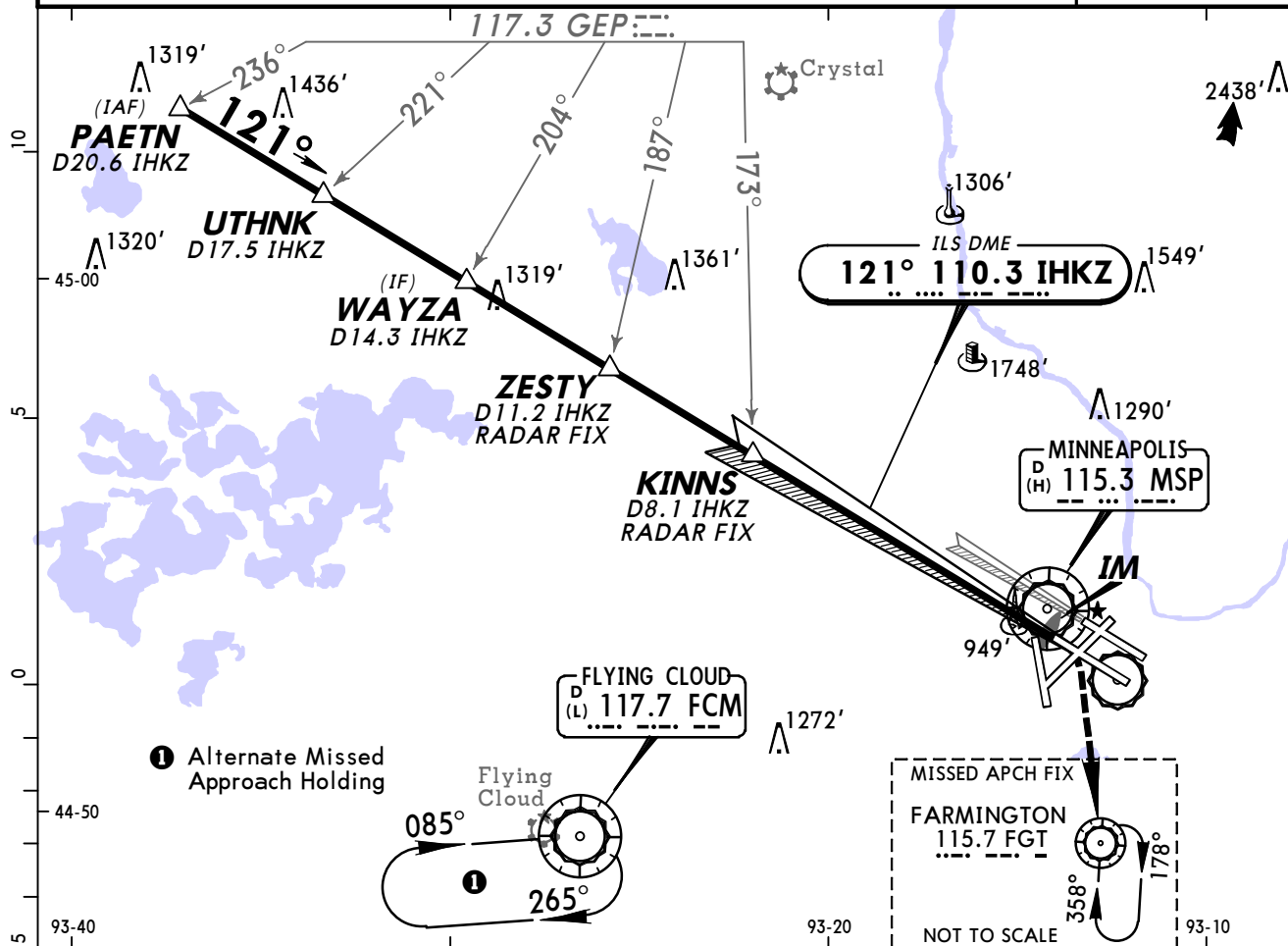
CHANGES: Procedure.

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KMSP/MSP MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN

26 APR 13 Eff 2 May 11-3A ILS Rwy 12R CAT II & III

BRIEFING STRIP	D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
					Rwys 4/22, 12R/30L	Rwy 17/35	Rwy 12L/30R	North	South	West
	135.35		126.95		126.7		123.67	123.95	121.8	121.9 127.92
	LOC	Final	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev		
	IHKZ	Apch Crs	KINNS	NA	Refer to Minimums		RA 102'	842'		
	110.3	121°	3000'				DA(H)	Rwy 12R		
		(2158')				942'(100')	842'			
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct FGT VOR and hold, or as directed by ATC.										
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'										
1. Special Aircrew & Acft Certification Required. 2. Radar required.										
3. Simultaneous approach authorized with Rwy 12L.4. VGSI and ILS glidepath not coincident.										
MSA MSP VOR										



Gnd speed-Kts	70	90	100	120	140	160	ALSFI	1300'	3000'	D	FGT
GS	3.00°	372	478	531	637	743	849	↑	RT	→	115.7

TERPS			
STRAIGHT-IN LANDING RWY 12R			
CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS
NA	NA	RVR 7	RA 102' DA(H) 942'(100')
NA	NA	RVR 12	1 RVR 12

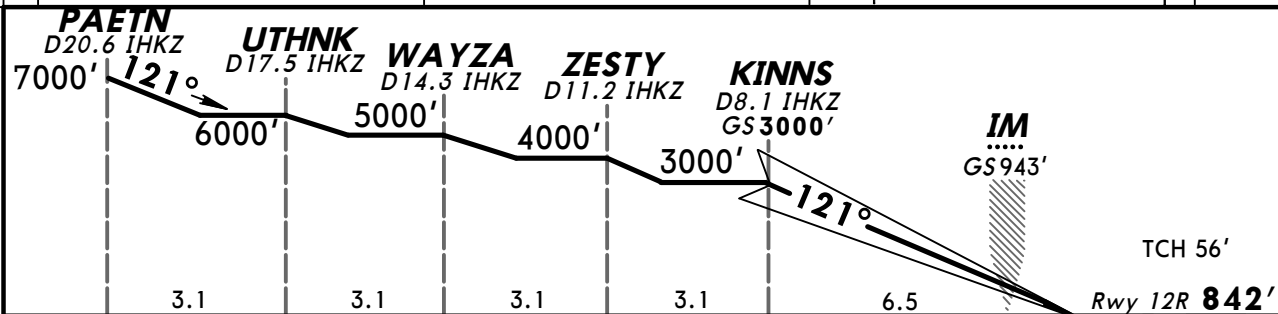
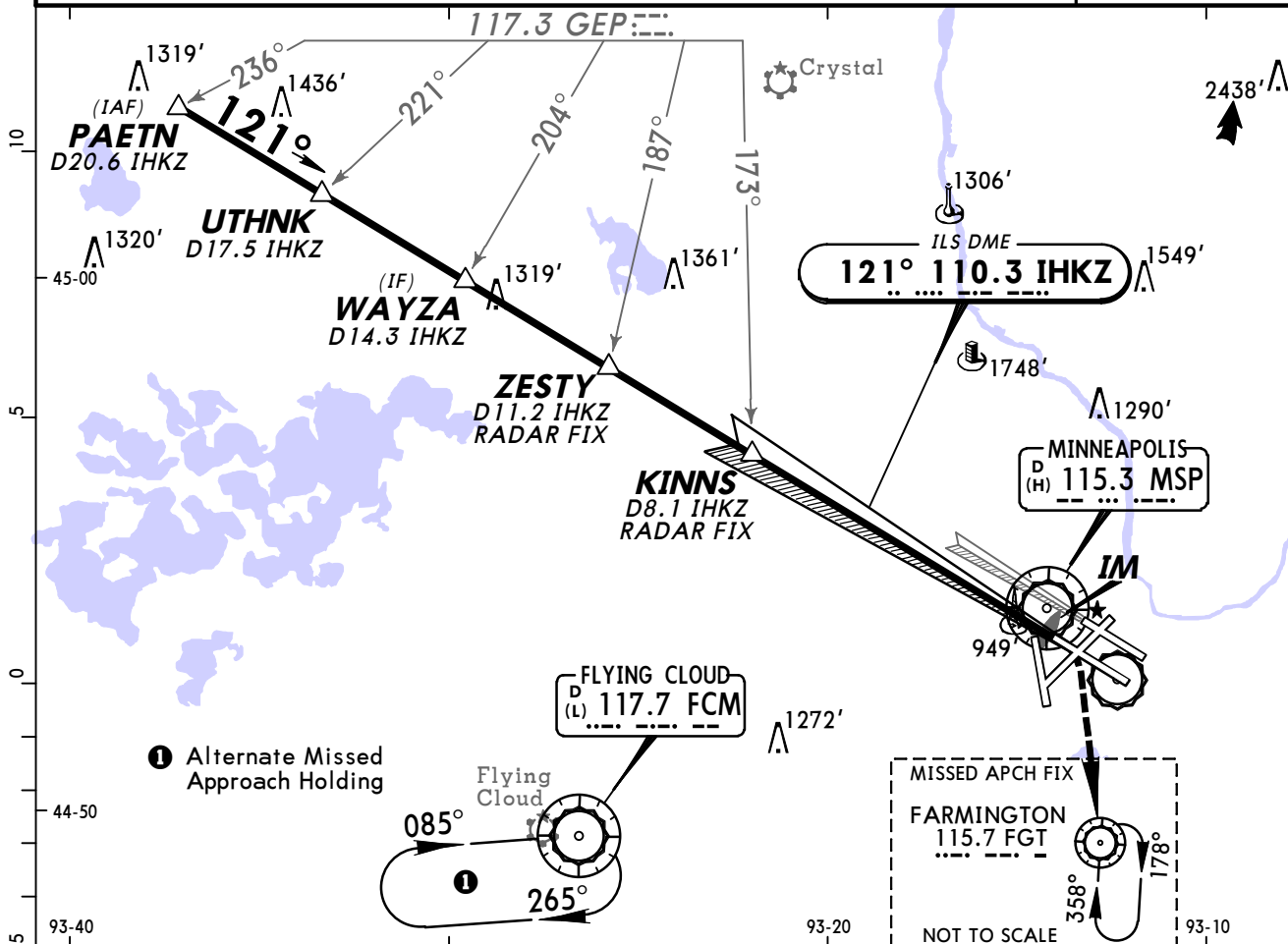
1 RVR 10 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

CHANGES: Procedure.

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KMSP/MSP MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN 26 APR 13 Eff 2 May 11-3B MINNEAPOLIS, MINN ILS Rwy 12R SA CAT I

BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
	135.35	126.95		Rwys 4/22, 12R/30L	Rwy 17/35	Rwy 12L/30R	North	South	West
				126.7	123.67	123.95	121.8	121.9	127.92
	LOC IHKZ	Final Apch Crs	GS KINNS	SA CAT I ILS RA 175'		Apt Elev 842'		3500' 090° → ← 270° 2800' MSA MSP VOR	
	110.3	121°	3000' (2158')	DA(H) 992' (150')		Rwy 12R 842'			
	MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct FGT VOR and hold, or as directed by ATC.								
	Alt Set: INCHES			Trans level: FL 180		Trans alt: 18000'			
1. Special Aircrew & Acft Certification Required. 2. Radar required. 3. Simultaneous approach authorized with Rwy 12L.4. VGSI and ILS glidepath not coincident.									



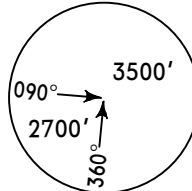
Gnd speed-Kts	70	90	100	120	140	160	ALSFI	1300'	3000'	D	FGT 115.7
GS	3.00°	372	478	531	637	743	PAPI	↑	RT		

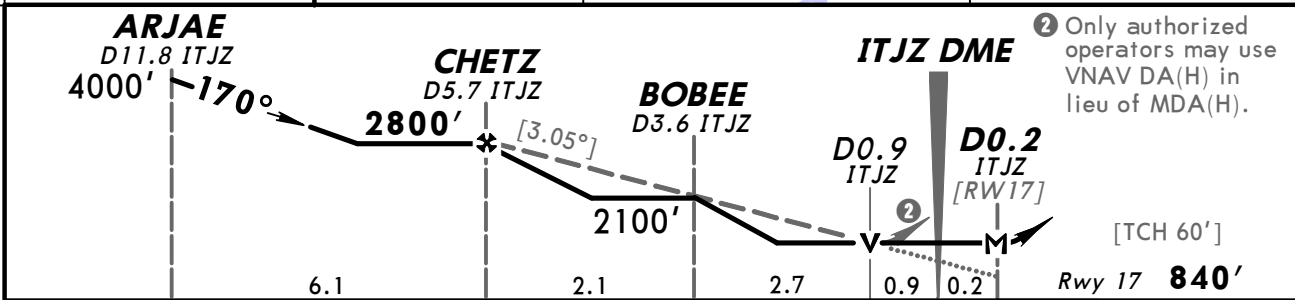
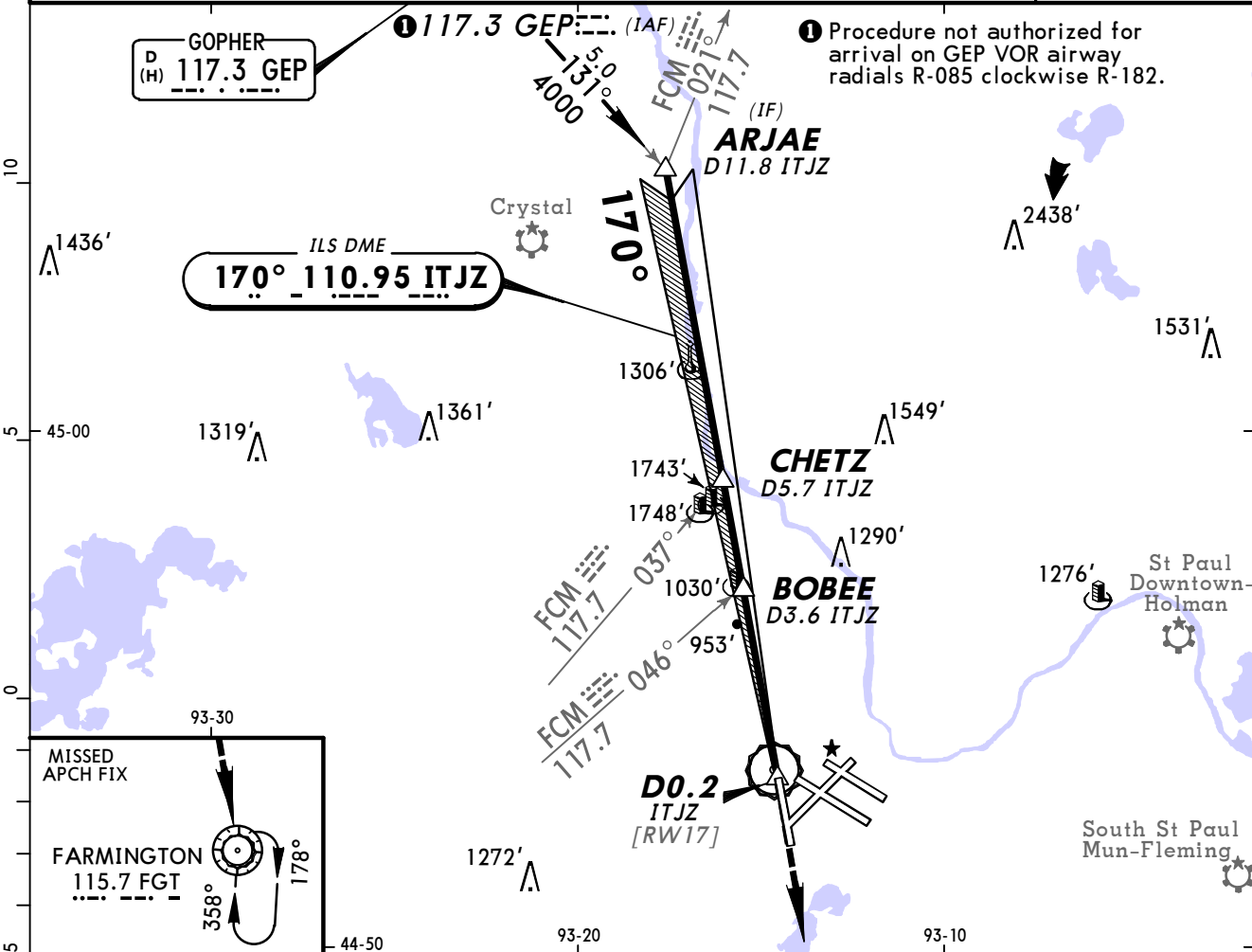
TERPS STRAIGHT-IN LANDING RWY 12R

1 SA CAT I ILS
RA 175'
DA(H) 992' (150')

RVR 14

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

BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground	South	West
	135.35	119.3	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	Rwy 12L/30R 123.95	North 121.8	121.9	127.92	
	LOC ITJZ 110.95		Final Apch Crs 170°	Minimum Alt CHETZ 2800' (1960')	MDA(H) (CONDITIONAL) 1220' (380')	Apt Elev 842' Rwy 17 840'			
	MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct FGT VOR and hold.								
	Alt Set: INCHES			Trans level: FL 180		Trans alt: 18000'			
	1. Helicopters visibility reduction below RVR 40 not authorized.								
	MSA GEP VOR								

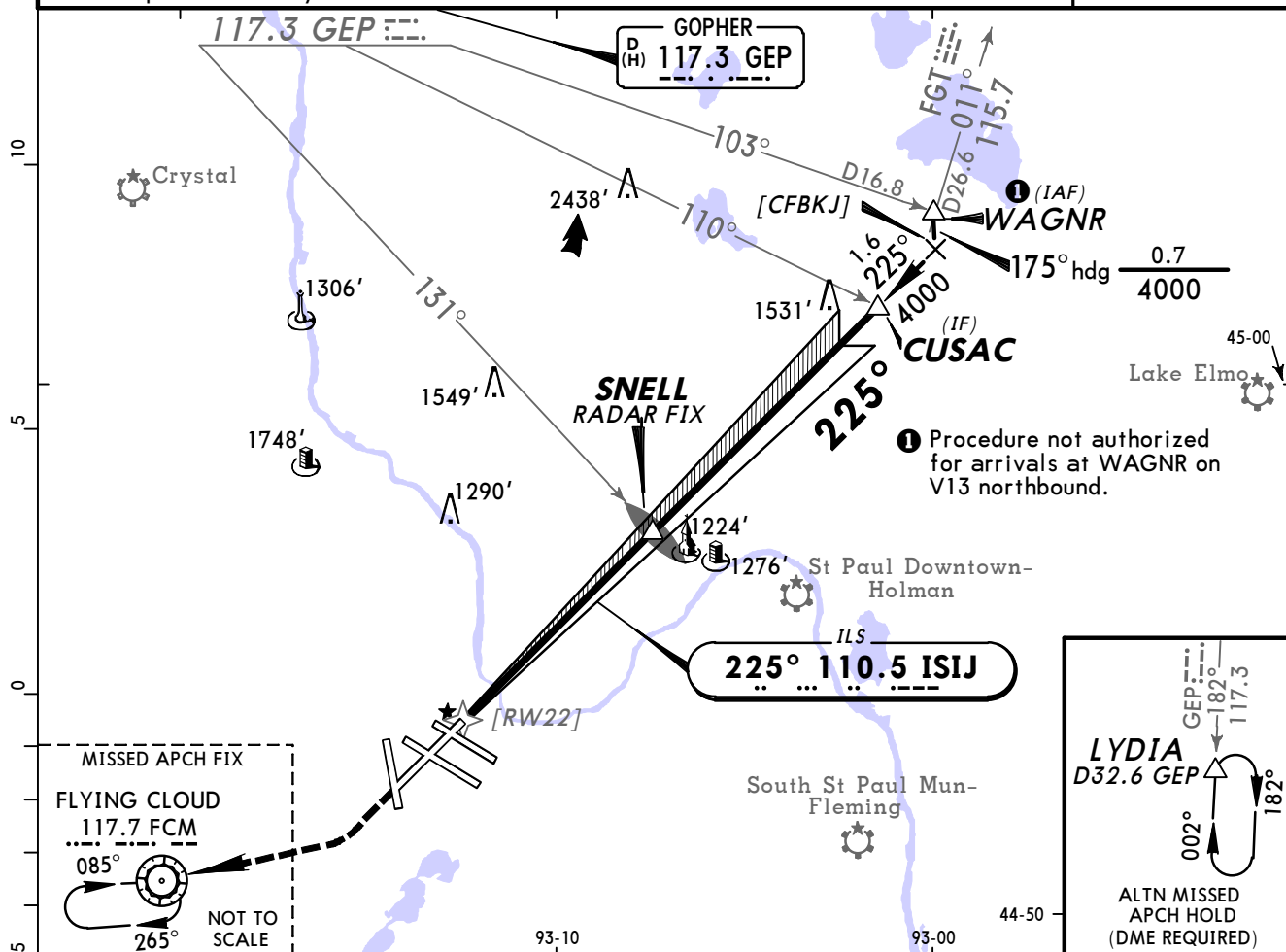


Gnd speed-Kts	70	90	100	120	140	160	REIL PAPI-R		1300'	3000'	FGT 115.7
Descent angle [3.05°]	378	486	540	648	755	863			↑	RT	
MAP at D0.2 ITJZ or CHETZ to MAP	5.9	5:03	3:56	3:32	2:57	2:32	2:13				

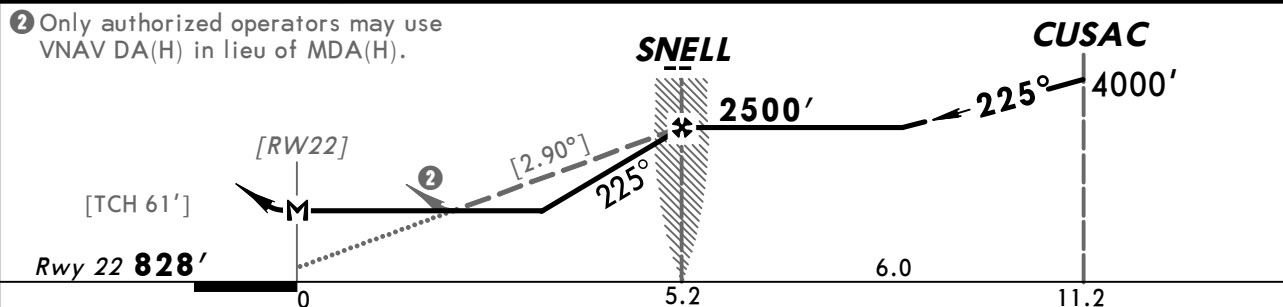
TERPS				STRAIGHT-IN LANDING RWY 17				CIRCLE-TO-LAND			
		MDA(H) 1220' (380')		MDA(H) 2100' (1260')		1 With BOBEE		Without BOBEE			
		1 With BOBEE		Without BOBEE		Max Kts		MDA(H)		MDA(H)	
A	RVR 55 or 1			RVR 60 or 1¼		90		1360' (518')-1		2100' (1258')-1¼	
B				1½		120				2100' (1258')-1½	
C				3		140		1360' (518')-1½			
D						165		1460' (618')-2		2100' (1258')-3	

BRIEFING STRIP™

D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
				Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	North	South	West
135.35		119.3 126.95		126.7	123.95	123.67	121.8	121.9	127.92
LOC ISIJ 110.5		Final Apch Crs 225°		Minimum Alt SNELL 2500' (1672')	MDA(H) 1420' (592')		Apt Elev 842' Rwy 22 828'		 MSA GEP VOR
MISSED APCH: Climb to 2000', then climbing RIGHT turn to 3000' direct FCM VOR and hold, or as directed by ATC.									
Alt Set: INCHES				Trans level: FL 180		Trans alt: 18000'			
1. Helicopters visibility reduction below RVR 40 not authorized.									



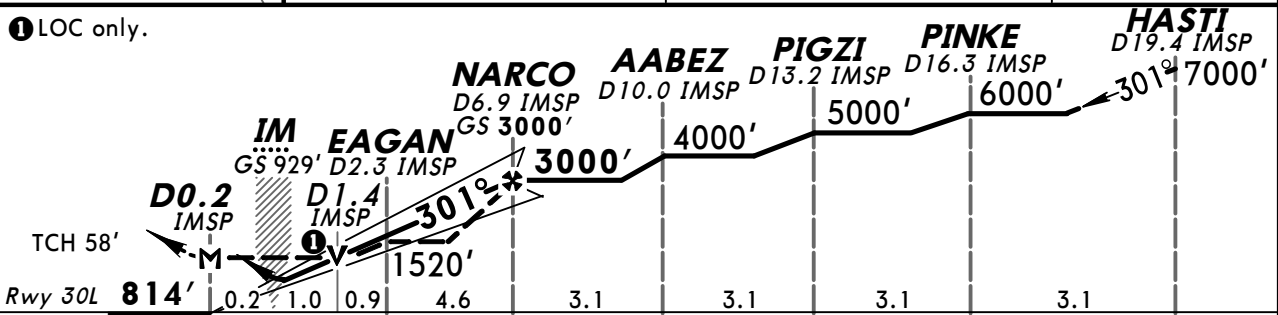
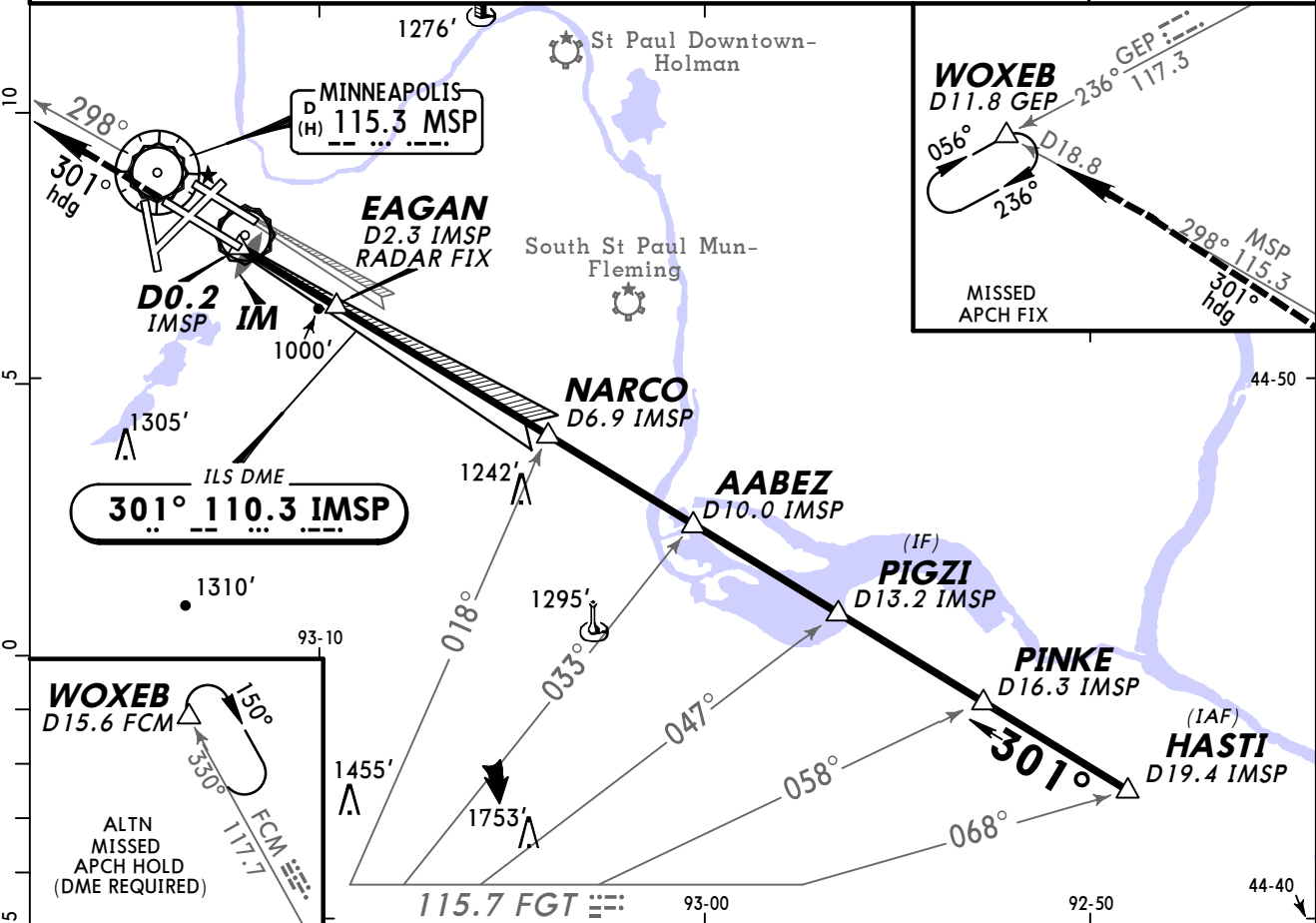
② Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



Gnd speed-Kts	70	90	100	120	140	160	MALSR				FCM 117.7	
Descent angle [2.90°]	359	462	513	616	718	821	PAPI					
SNELL to MAP	5.2	4:27	3:28	3:07	2:36	2:14	1:57					

TERPS						CIRCLE-TO-LAND			
STRAIGHT-IN LANDING RWY 22									
MDA(H) 1420' (592')									
RAIL out			ALS out			Max Kts	MDA(H)		
A	RVR 40 or 3/4		RVR 50 or 1			90	1420' (578')-1		
B						120			
C	1 1/4		1 3/8			140	1420' (578')-1 3/4		
D						165	1460' (618')-2		

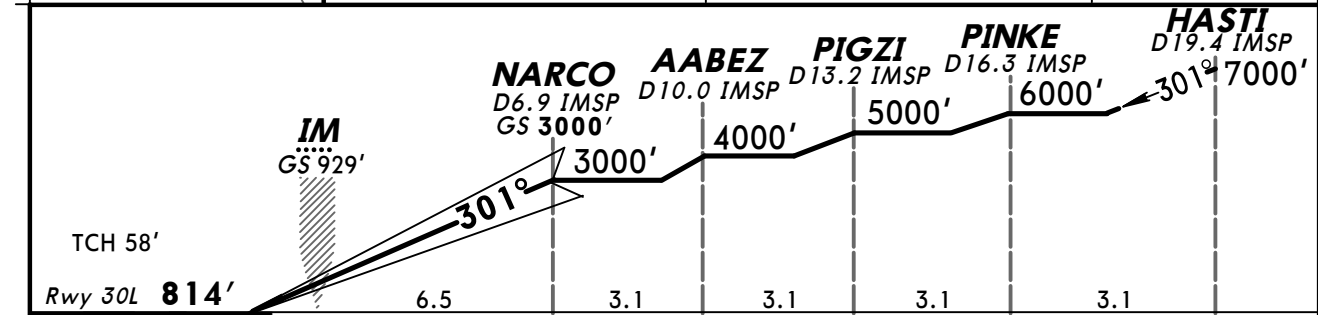
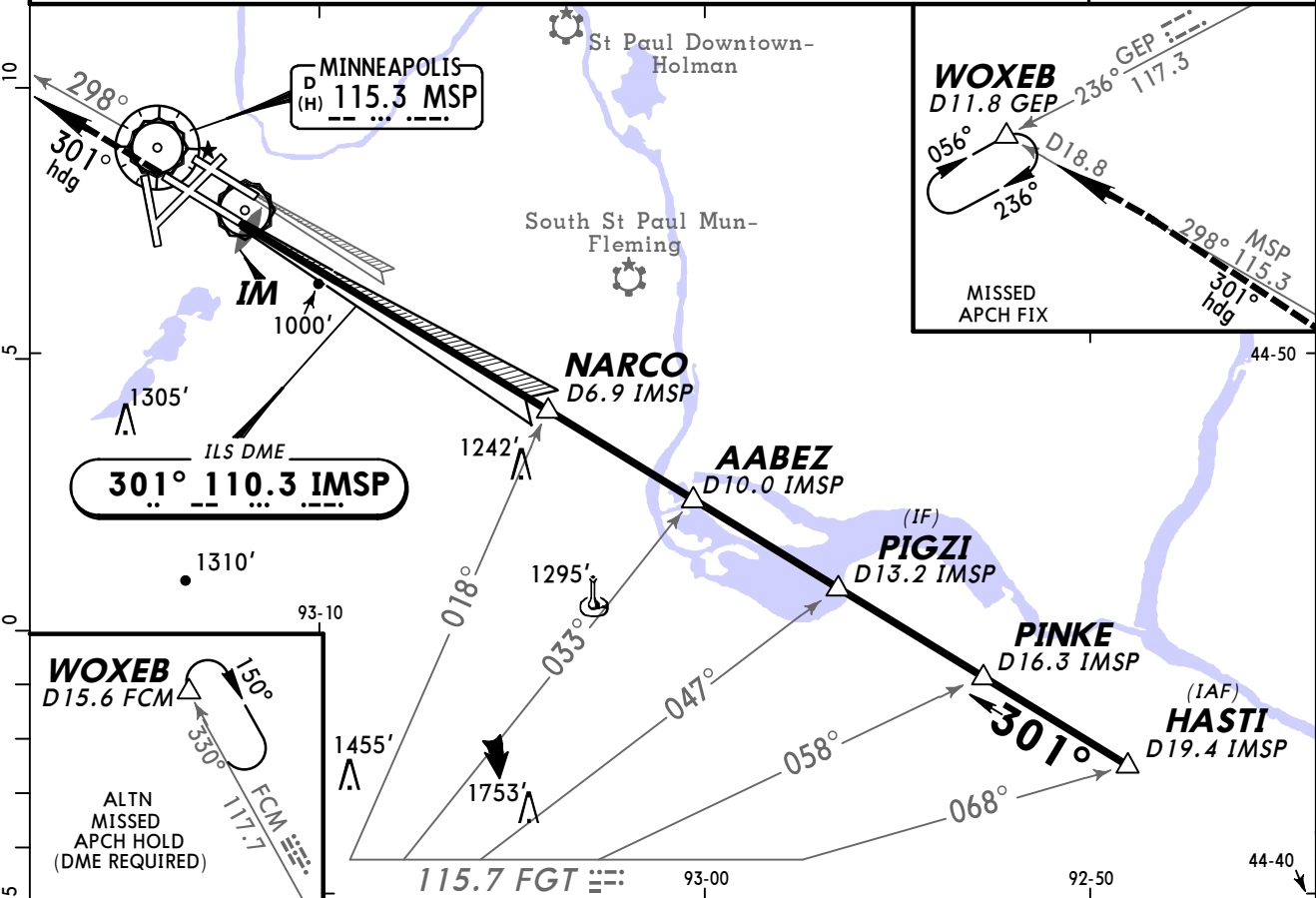
BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground	West
	135.35	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	121.8	121.9	127.92
	LOC IMSP	Final Apch Crs	GS NARCO	ILS DA(H)	Apt Elev 842'	3500' 090° → ← 270° 2800' MSA MSP VOR		
	110.3	301°	3000' (2186')	1014' (200')	Rwy 30L 814'			
	MISSED APCH: Climb to 1300', then climb to 3000' on heading 301° and outbound on MSP VOR R-298 to WOXEB INT/D11.8 GEP and hold, or as directed by ATC.							
	Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
	1. Radar required. 2. Simultaneous approach authorized with Rwy 30R. 3. VGSI and ILS glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II PAPI	1300'	3000'	301°	MSP
GS	3.00°	372	478	531	637	849		↑	↑	hdg	115.3
MAP at D0.2 IMSP or											
NARCO to MAP	6.7	5:45	4:28	4:01	3:21	2:52					R-298

TERPS								STRAIGHT-IN LANDING RWY30L								CIRCLE-TO-LAND								
ILS						LOC (GS out)						With EAGAN				Without EAGAN								
DA(H) 1014'(200')						MDA(H) 1280'(466') With EAGAN			MDA(H) 1520'(706') Without EAGAN			Max Kts.				MDA(H)								
FULL		TDZ or CL out		ALS out		ALS out		ALS out		ALS out		90		1360'(518')-1				1520'(678')-1						
A	RVR 18		RVR 24		RVR 40		RVR 24 or 1/2		RVR 55 or 1		RVR 24 or 1/2		RVR 55 or 1		120		1360'(518')-1				1520'(678')-1			
B	or 3/8		or 1/2		or 3/4		RVR 50 or 1		1 3/8		1 5/8		2		140		1360'(518')-1 1/2				1520'(678')-2			
C															165		1460'(618')-2				1520'(678')-2 1/4			
D																								

BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
	135.35	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	121.8	121.9	127.92
	LOC IMSP 110.3	Final Apch Crs 301°	GS NARCO 3000' (2186')	CAT II ILS RA104' DA(H) 914' (100')	Apt Elev 842' Rwy 30L 814'	3500' 090° → ← 270° 2800' MSA MSP VOR		
	MISSED APCH: Climb to 1300', then climb to 3000' on heading 301° and outbound on MSP VOR R-298 to WOXEB INT/D11.8 GEP and hold, or as directed by ATC.							
	Alt Set: INCHES							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II			1300'	3000'	301°	MSP
GS	3.00°	372	478	531	637	743	PAPI			↑	↑	hdg	and 115.3
													R-298

TERPS

STRAIGHT-IN LANDING RWY30L

CAT II ILS

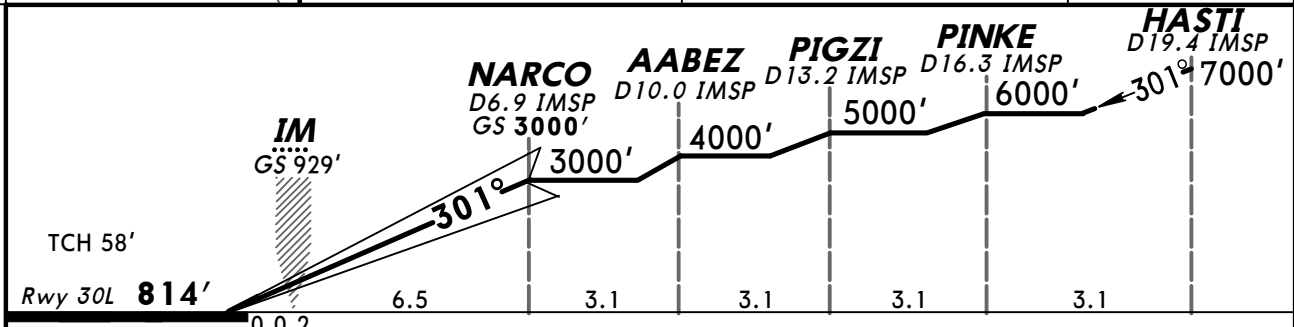
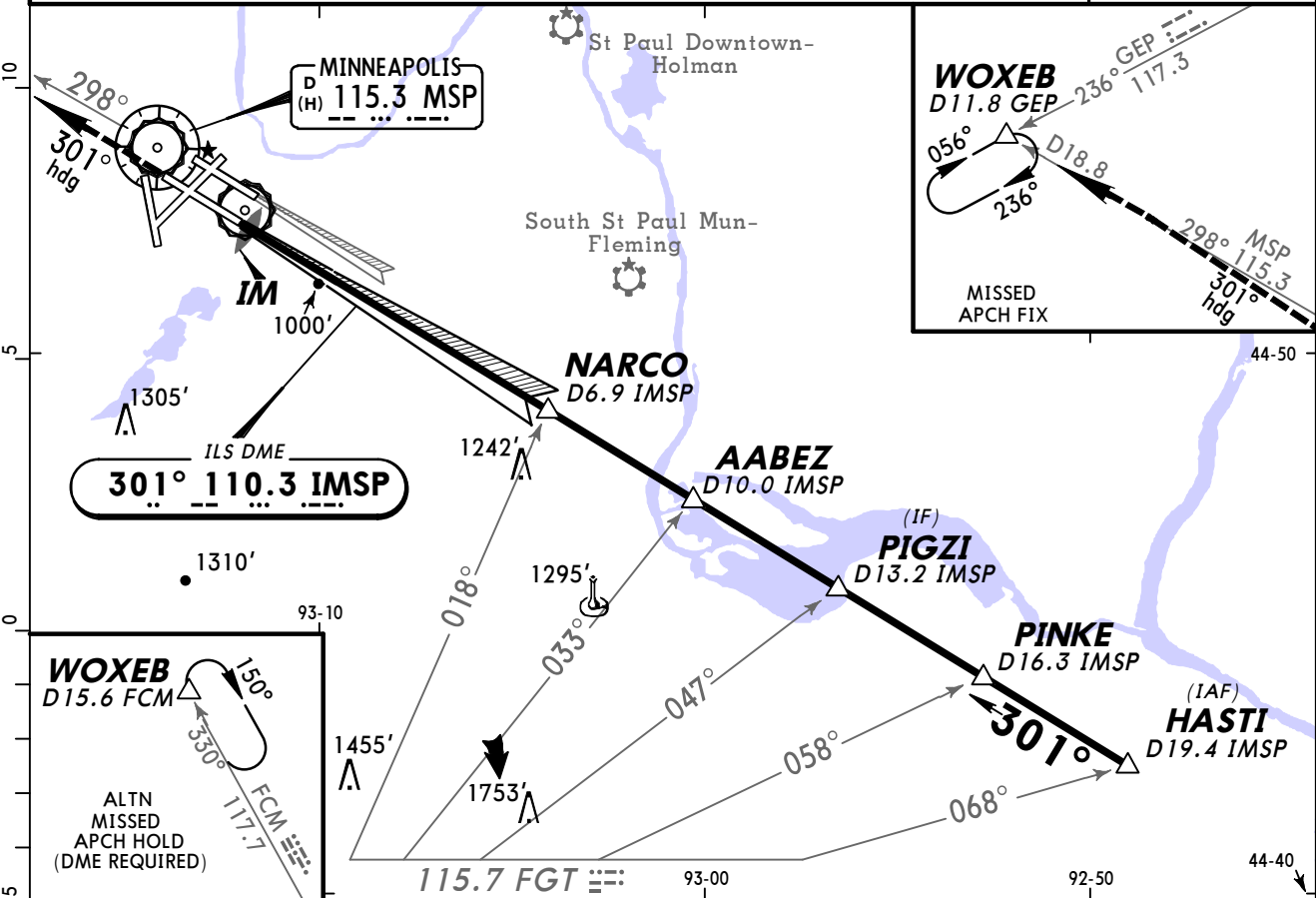
RA 104'

DA(H) 914' (100')

1 RVR 12

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

BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
	135.35	126.95	Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35	121.8	121.9	127.92
	LOC IMSP 110.3	Final Apch Crs 301°	GS NARCO 3000' (2186')	SA CAT I ILS RA246'	Apt Elev 842'	3500' 090° → ← 270° 2800' MSA MSP VOR		
	MISSED APCH: Climb to 1300', then climb to 3000' on heading 301° and outbound on MSP VOR R-298 to WOXEB INT/D11.8 GEP and hold, or as directed by ATC.							
	Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'			
	1. Special Aircrew & Acft Certification Required. 2. Radar required.							
	3. Simultaneous approach authorized with Rwy 30R. 4. VGSI and ILS glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II		1300'	3000'	301°	MSP
GS	3.00°	372	478	531	637	743	PAPI		↑	↑	hdg	R-298

TERPS

STRAIGHT-IN LANDING RWY30L

1

SA CAT I ILS

RA 246'

DA(H) 964' (150')

RVR 14

1

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

TERPS AMEND 45 2 MAY 2013

KMSP/MSP

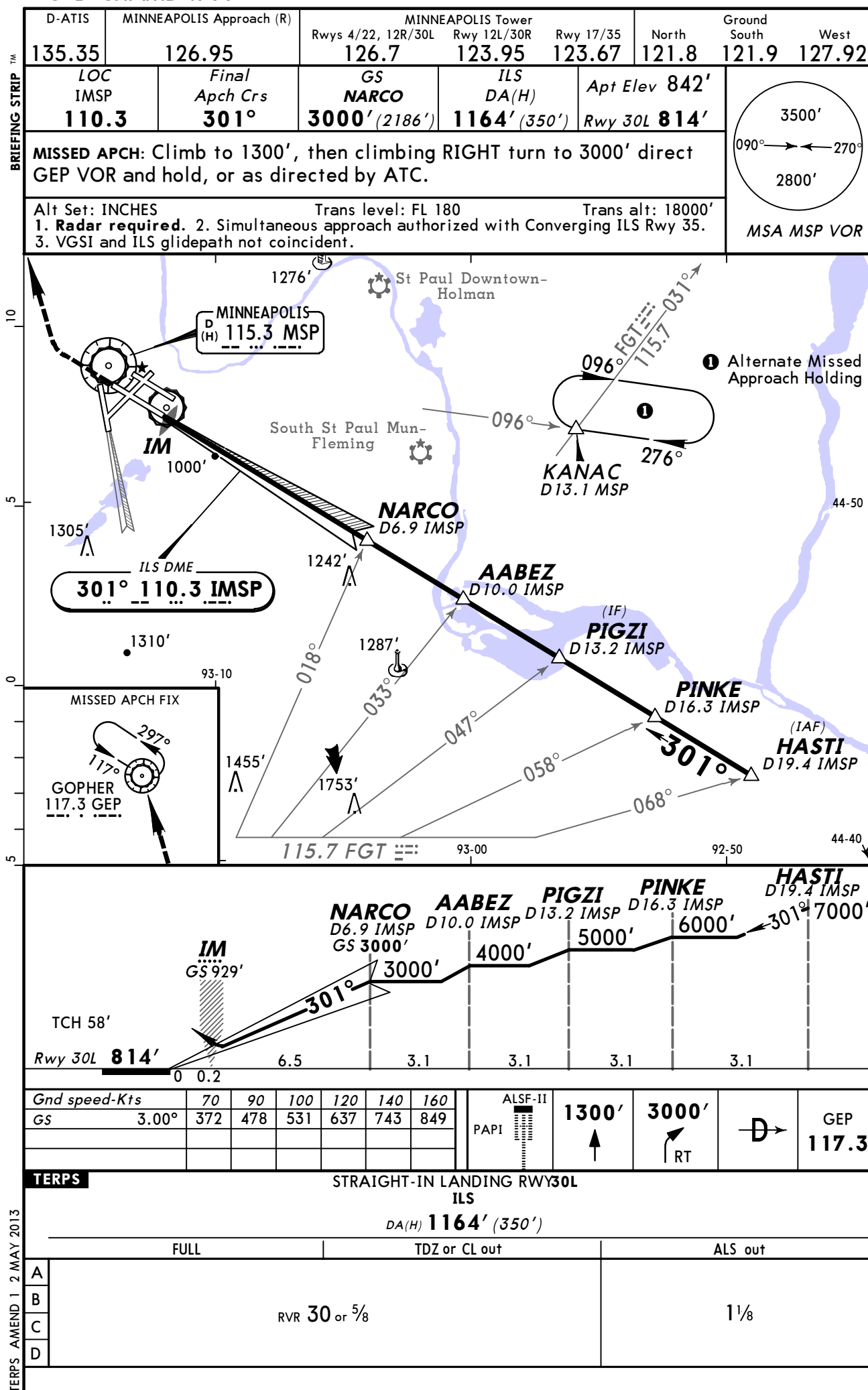
MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN

JEPPESEN

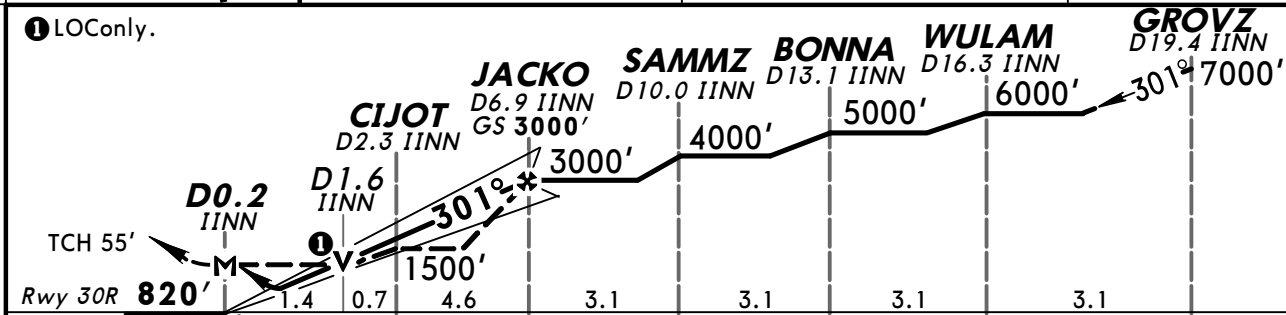
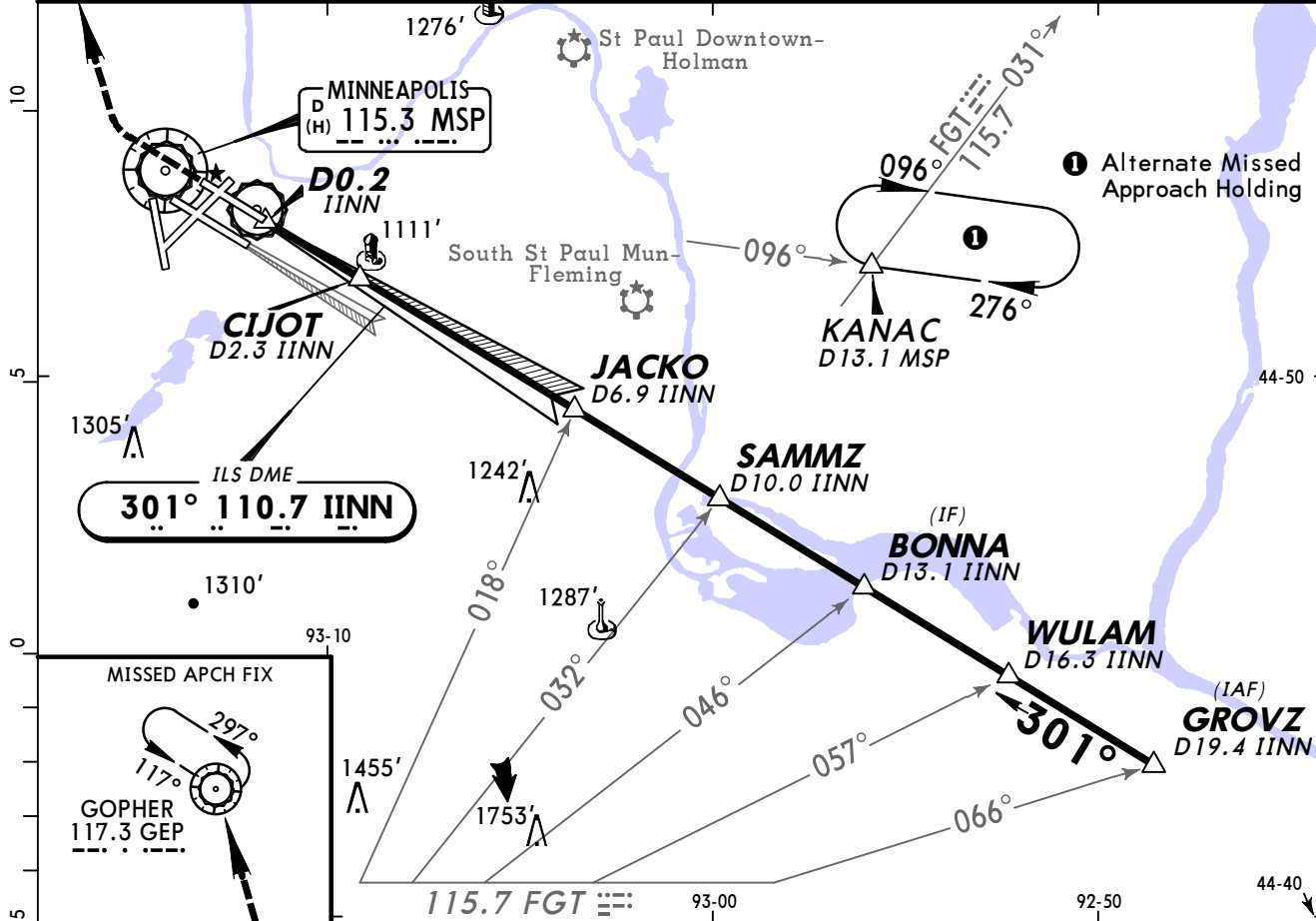
MINNEAPOLIS, MINN

11 APR 14 (11-7)

CONVERGING ILS Rwy 30L



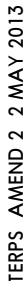
D-ATIS	MINNEAPOLIS Approach (R)	Rwy 12L/30R	MINNEAPOLIS Tower Rwys 4/22, 12R/30L	Rwy 17/35	North	Ground South	West
135.35	119.3	123.95	126.7	123.67	121.8	121.9	127.92
LOC IINN 110.7	Final Apch Crs 301°	GS JACKO 3000' (2180')	ILS DA(H) 1070' (250')	Apt Elev 842' Rwy 30R 820'			
MISSED APCH: Climb to 1300', then climbing RIGHT turn to 3000' direct GEP VOR and hold, or as directed by ATC.							MSA MSP VOR
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. Radar required. 2. Simultaneous approach authorized with Rwy 30L. 3. VGSI and ILS glidepath not coincident.							



Gnd speed-Kts	70	90	100	120	140	160	MALSF	1300'	3000'	GEP
GS	3.00°	372	478	531	637	743	PAPI	↑	RT	117.3
MAP at D0.2 IINN or JACKO to MAP	6.7	5:45	4:28	4:01	3:21	2:52				

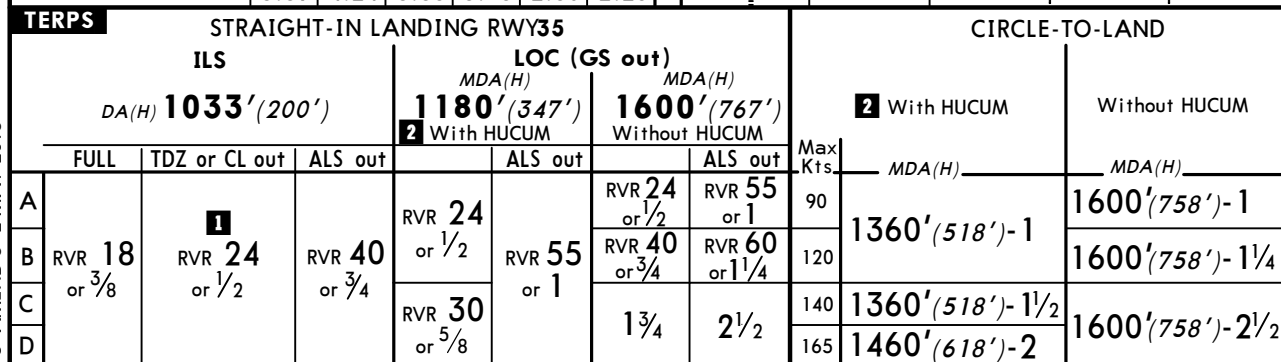
TERPS STRAIGHT-IN LANDING RWY30R						CIRCLE-TO-LAND	
ILS		LOC (GS out)				With CIJOT	Without CIJOT
DA(H) 1070' (250')		MDA(H) 1340' (520')		MDA(H) 1500' (680')		Max Kts	
		With CIJOT		Without CIJOT			
FULL		ALS out	ALS out	ALS out	ALS out		
A		RVR 40	RVR 55	RVR 40	RVR 55	90	1360' (518') - 1
B	RVR 40 or 3/4	or 3/4	or 1	or 3/4	or 1	120	1500' (658') - 1
C		1 1/4	1 3/8	1 3/4	1 7/8	140	1360' (518') - 1 1/2
D						165	1460' (618') - 2

BRIEFING STRIP™



TERPS		STRAIGHT-IN LANDING RWY30R	
		ILS	
		DA(H) 1270' (450')	
		FULL	ALS out
A	RVR 60 or 1 ¹ / ₈	1 ¹ / ₂	
B			
C			
D			

BRIEFING STRIP™



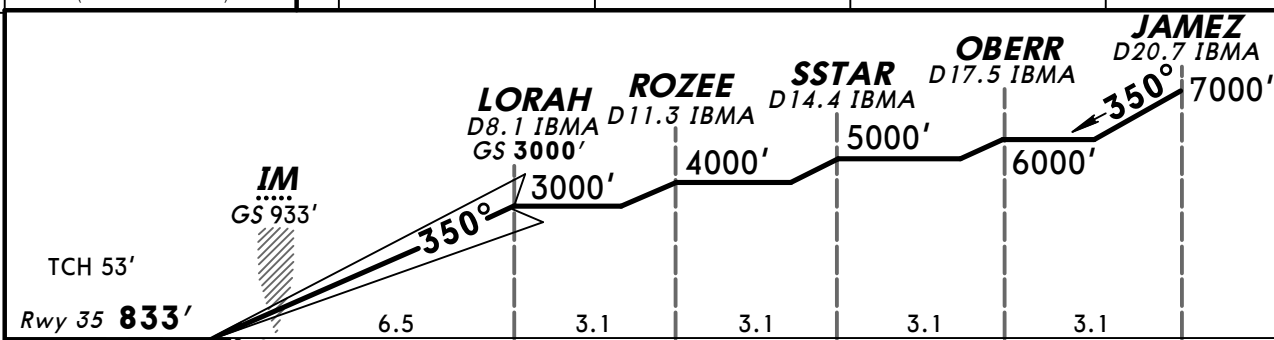
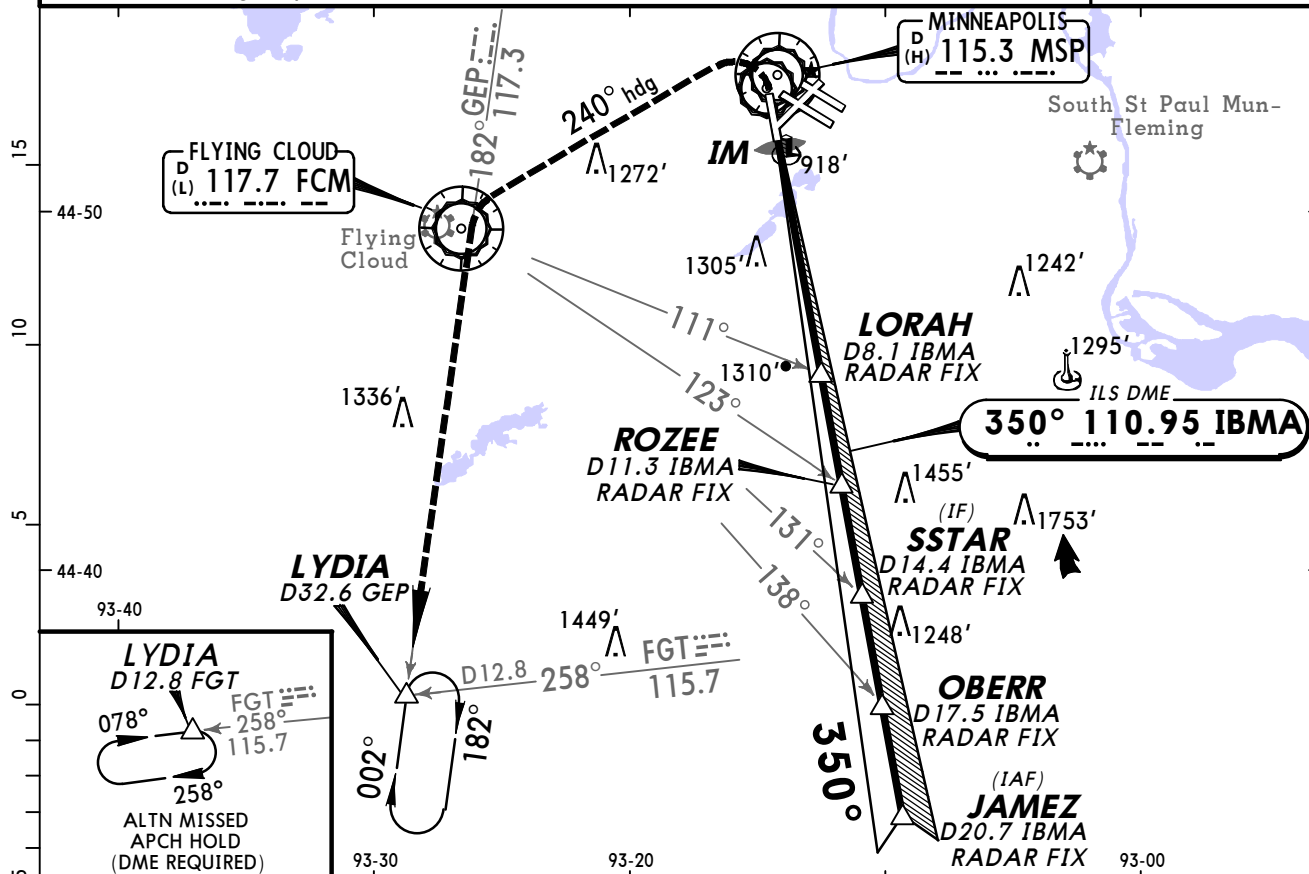
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KMSP/MSP **MINNEAPOLIS-ST PAUL INTL/** **WOLD-CHAMBERLAIN** **JEPPESEN** **26 APR 13** **Eff 2 May** **11-10A** **MINNEAPOLIS, MINN** **ILS Rwy 35 CAT II & III**

BRIEFING STRIP

TM

D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			Ground		
				Rwy 17/35	Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
135.35	118.72		123.67	126.7		123.95	121.8	121.9	127.92
LOC IBMA 110.95	Final Apch Crs 350°	GS LORAH 3000' (2167')	CAT IIIC NA	CAT IIIB	CAT IIIA Refer to Minimums	CAT II ILS RA 106' DA(H) 943'(110')	Apt Elev 842' Rwy 35 833'	3500' 090°→←270° 2800' MSA MSP VOR	
MISSED APCH: Climb to 1600' then climbing LEFT turn to 3000' on heading 240° and outbound on GEP VOR R-182 to LYDIA INT/D32.6 GEP and hold, or as directed by ATC.									
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'					
1. Special Aircrew & Acft Certification Required. 2. Radar required. 3. VGSI and ILS glidepath not coincident.									



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II	1600'	3000'	240°	GEP
GS	3.00°	372	478	531	637	743	PAPI	↑	LT	hdg	and 117.3
											R-182

TERPS				STRAIGHT-IN LANDING RWY 35			
CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS	RA 106'	DA(H)	943'	(110')
NA	RVR 6	RVR 7	RVR 12				

TERPS AMEND 3 2 MAY 2013

CHANGES: Procedure.

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BRIEFING STRIP™

D-ATIS

135.35

MINNEAPOLIS Approach (R)

118.72

Rwy 17/35

123.67

MINNEAPOLIS Tower

Rwys 4/22, 12R/30L

126.7

Rwy 12L/30R

123.95

North

121.8

Ground South

121.9

West

127.92

LOC

IBMA

110.95

Final

Apch Crs

350°

GS

LORAH

3000' (2167')

SA CAT I ILS

RA 152'

DA(H) 983' (150')

Apt Elev 842'

Rwy 35 833'

MISSED APCH: Climb to 1600' then climbing LEFT turn to 3000' on heading 240° and outbound on GEP VOR R-182 to LYDIA INT/D32.6 GEP and hold, or as directed by ATC.

Alt Set: INCHES

Trans level: FL 180

Trans alt: 18000'

1. Special Aircrew & Acft Certification Required.

2. Radar required.

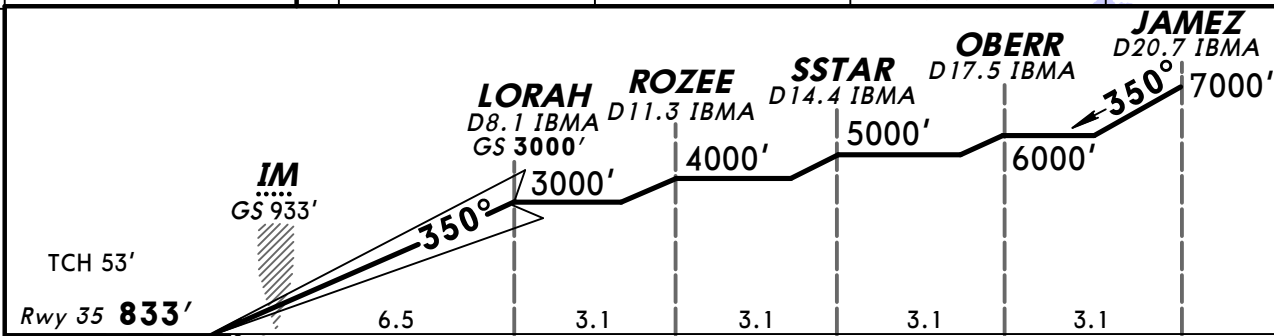
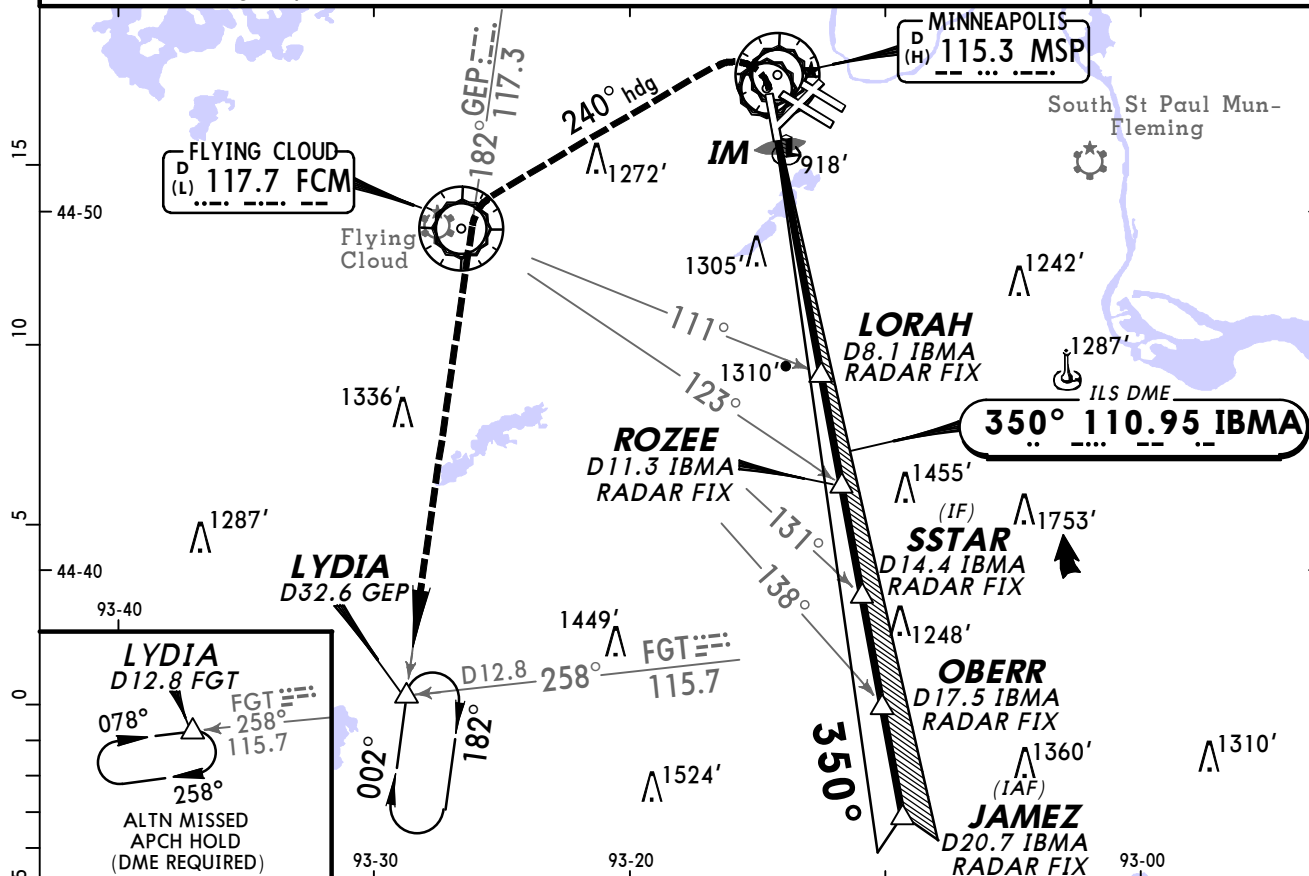
3. VGSI and ILS glidepath not coincident.

3500'

090°→←270°

2800'

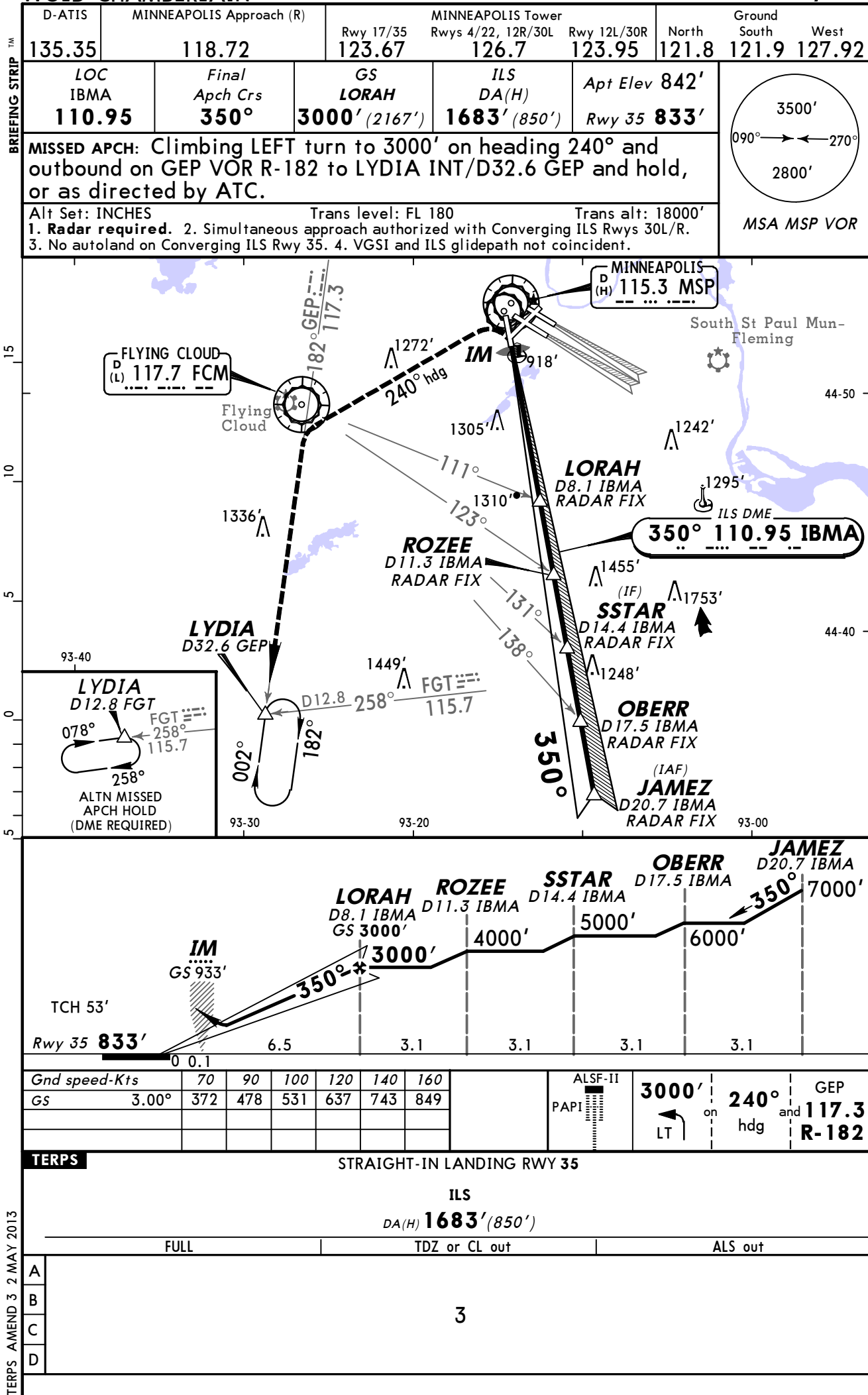
MSA MSP VOR



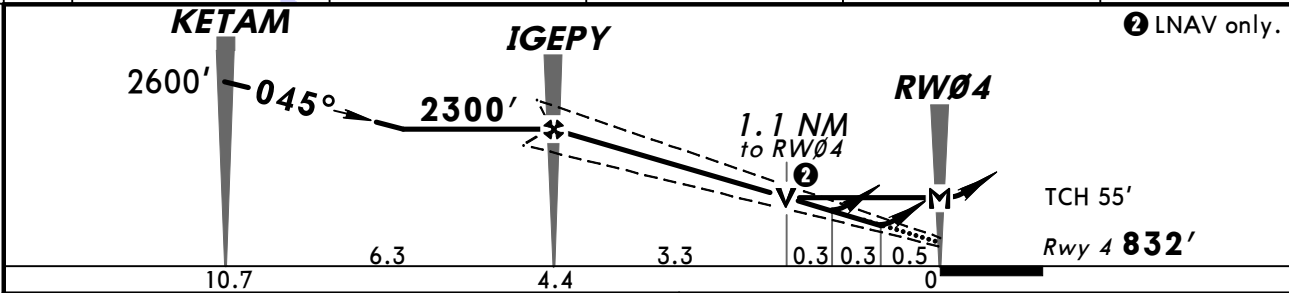
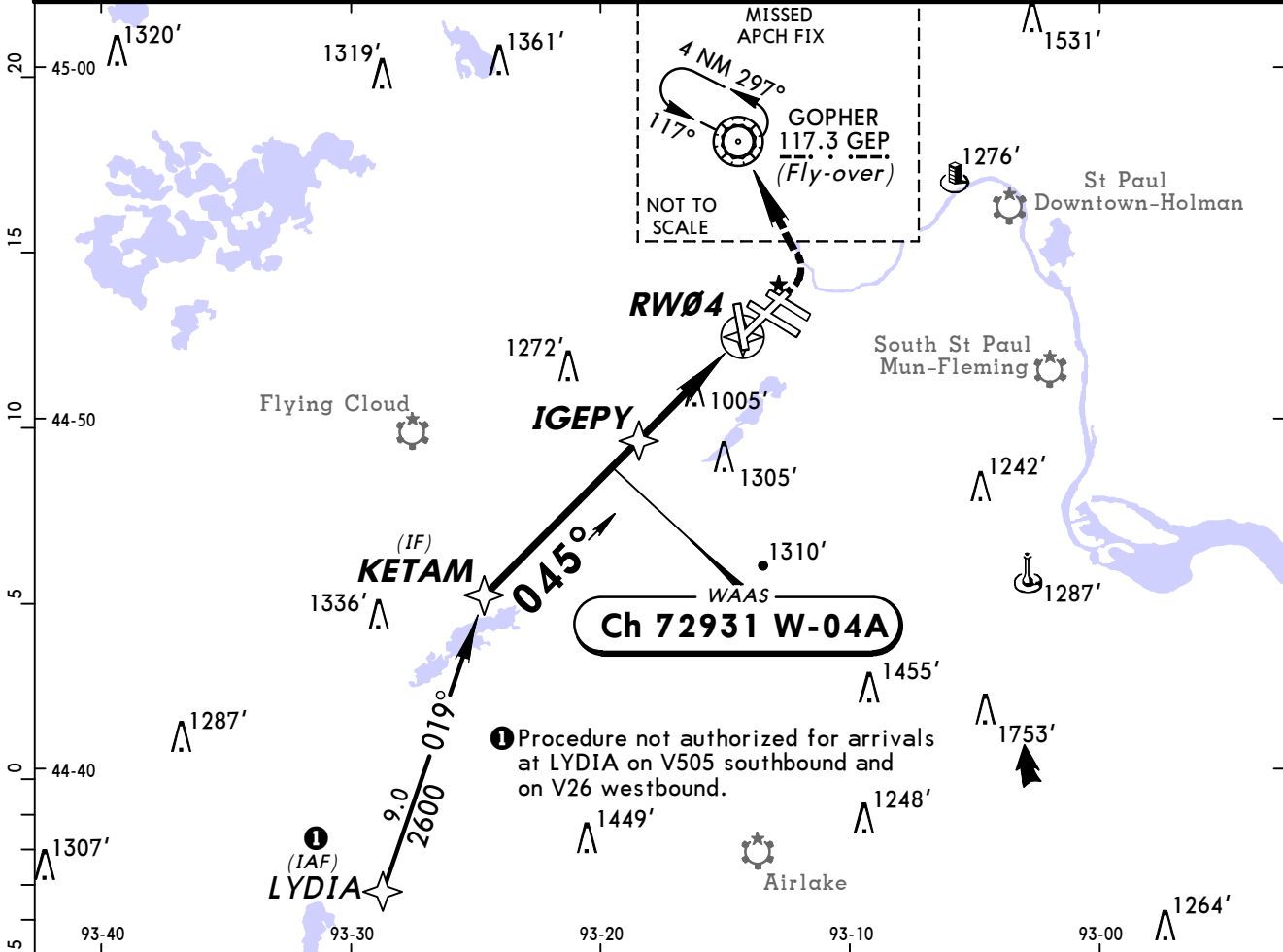
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	1600'	3000'	240°	GEP
GS	3.00°	372	478	531	637	743	PAPI	↑	LT	hdg	and 117.3
											R-182

TERPS	STRAIGHT-IN LANDING RWY 35
SA CAT I ILS RA 152' DA(H) 983' (150')	
RVR 14	
Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.	

KMSP/MSP MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN 26 APR 13 Eff 2 May 11-11 JEPPESEN MINNEAPOLIS, MINN CONVERGING ILS Rwy 35



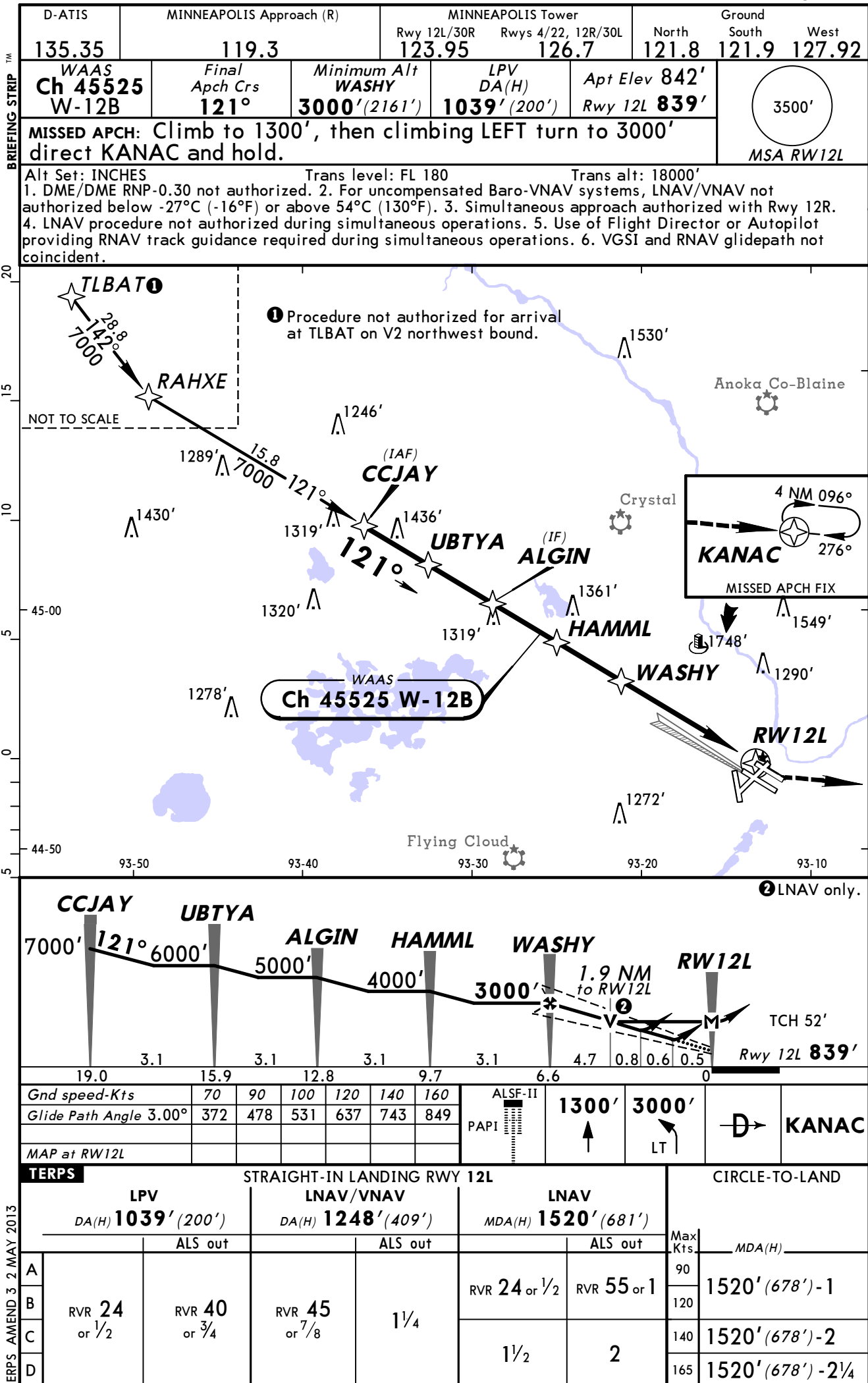
BRIEFING STRIP™	D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		Ground		
				Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
	135.35	119.3	126.95	126.7	123.95	121.8	121.9	127.92
	WAAS Ch 72931 W-04A	Final Apch Crs 045°	Minimum Alt IGEPY 2300' (1468')	LPV DA(H) 1032' (200')	Apt Elev 842' Rwy 4 832'	3500' MSA RW04		
	MISSED APCH: Climb to 1300' then climbing LEFT turn to 3000' direct GEP VOR and hold.							
	Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'							
1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 54°C (130°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident.								



Gnd speed-Kts	70	90	100	120	140	160	MALS	1300'	3000'	LT	GEP 117.3
Glide Path Angle	3.00°	372	478	531	637	743	PAPI				
MAP at RW04											

TERPS						STRAIGHT-IN LANDING RWY 4						CIRCLE-TO-LAND	
LPV		LNAV/VNAV				LNAV							
DA(H) 1032' (200')		DA(H) 1146' (314')				MDA(H) 1260' (428')							
RAIL or ALS out		RAIL out		ALS out		RAIL out		ALS out					
A						RVR 24	RVR 40	RVR 55		Max Kts			
B	RVR 24	RVR 40	RVR 24	RVR 40	RVR 45	or 1/2	or 3/4	or 1		90		1360' (518') - 1	
C	or 1/2	or 3/4	or 1/2	or 3/4	or 7/8	RVR 40	RVR 50	1 1/4		140		1360' (518') - 1 1/2	
D						or 3/4	or 1			165		1460' (618') - 2	

TERPS AMEND 2A 6 FEB 2014



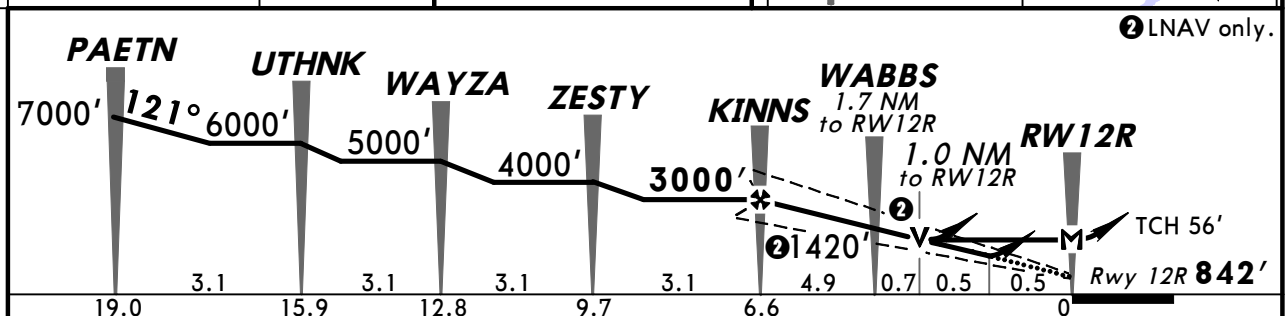
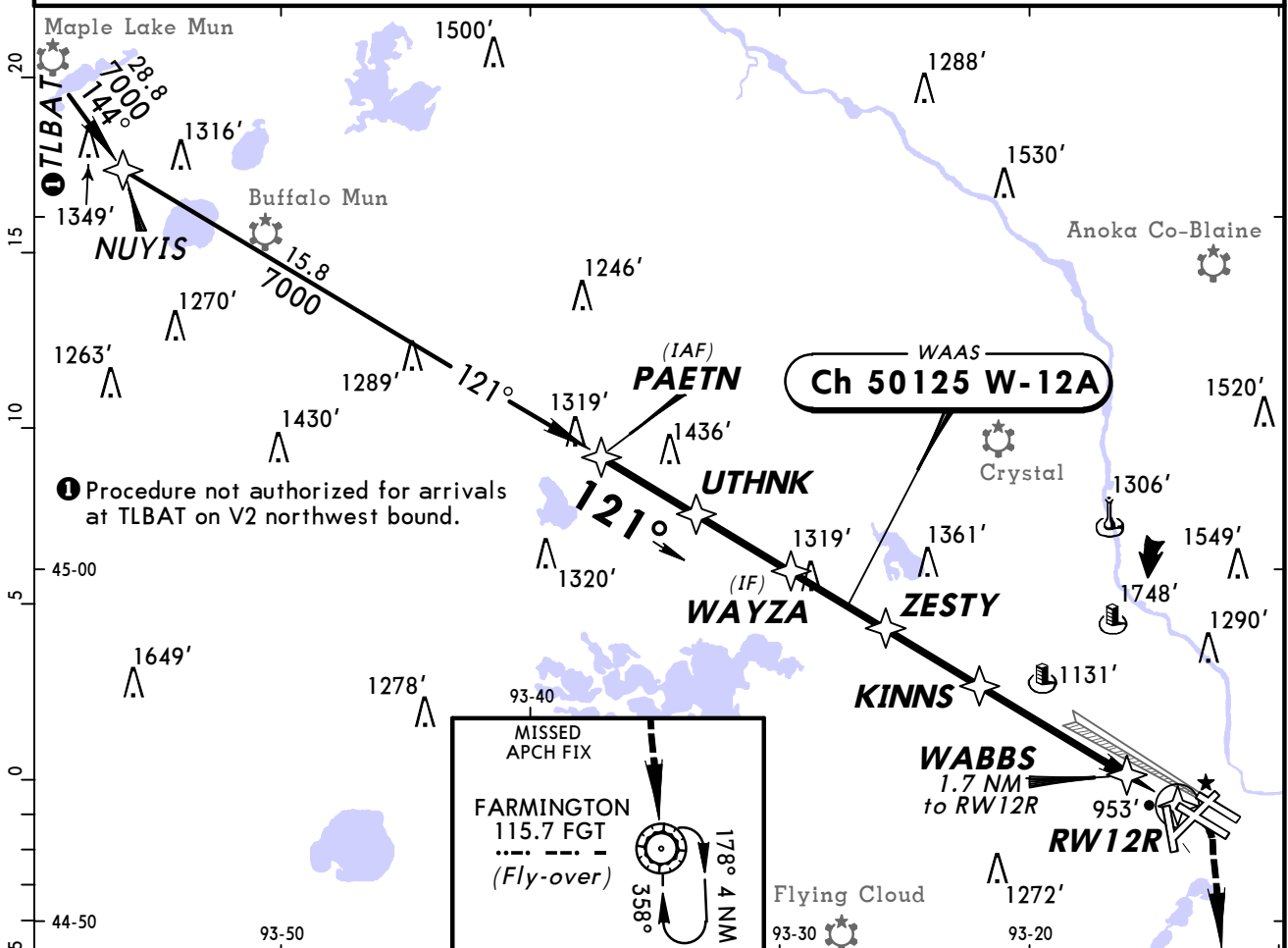
D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		Ground		
135.35	126.95		Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West
			126.7	123.95	121.8	121.9	127.92
WAAS Ch 50125 W-12A	Final Apch Crs 121°	Minimum Alt KINNS 3000' (2158')	LPV DA(H) 1042' (200')	Apt Elev 842' Rwy 12R 842'	3500' MSA RW12R		
MISSED APCH: Climb to 1300' then climbing RIGHT turn to 3000' direct FGT VOR and hold.							

Alt Set: INCHES

Trans level: FL 180

Trans alt: 18000'

1. DME/DME RNP-0.30 not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -27°C (-16°F) or above 54°C (130°F). 3. Simultaneous approach authorized with Rwy 12L. 4. LNAV procedure not authorized during simultaneous operations. 5. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 6. VGSI and RNAV glidepath not coincident.

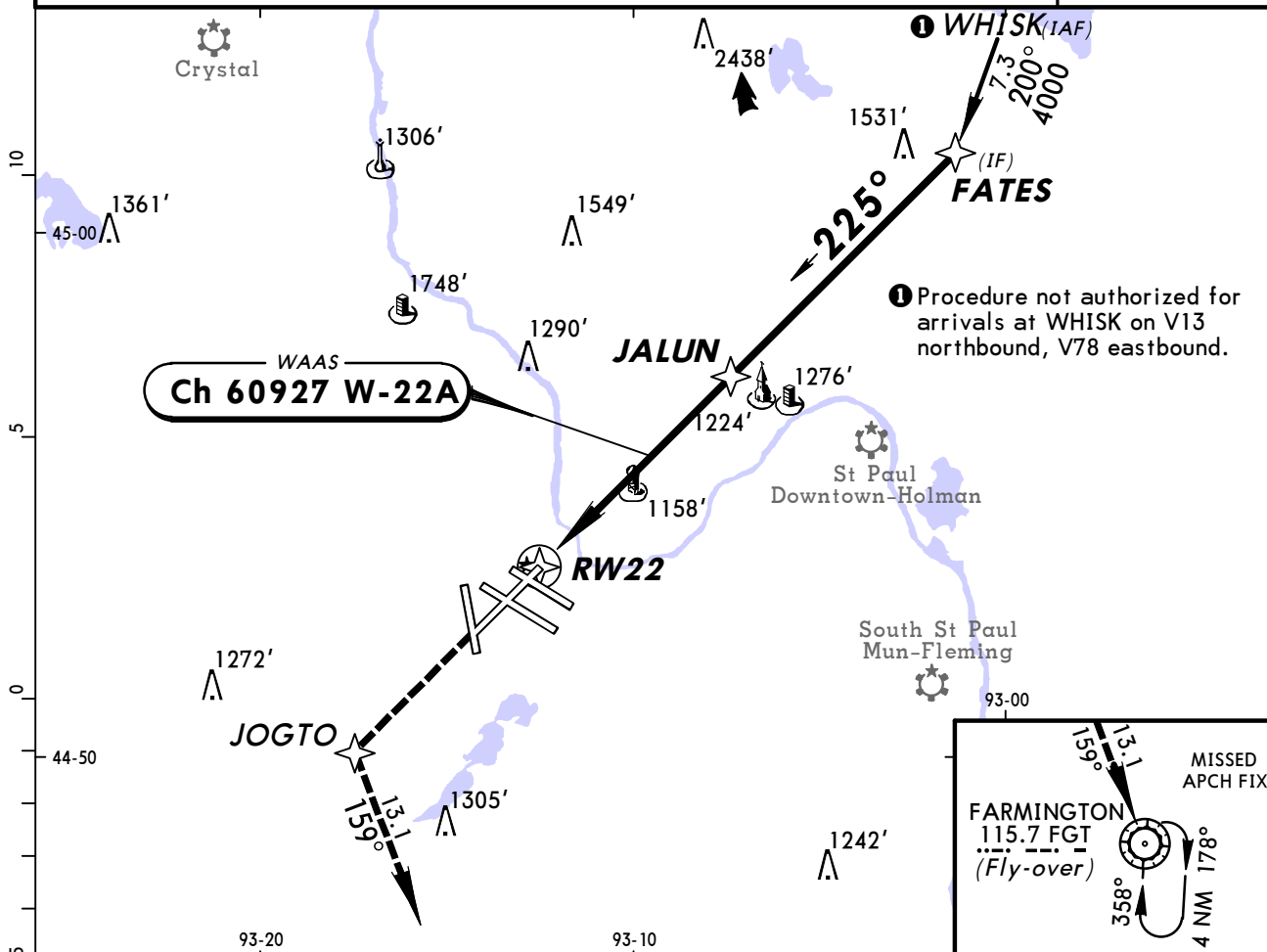


Gnd speed-Kts	70	90	100	120	140	160	ALSIF-1 PAPI 1300' 3000' FGT 115.7	1300' 3000' FGT 115.7	1300' 3000' FGT 115.7	1300' 3000' FGT 115.7
Glide Path Angle 3.00°	372	478	531	637	743	849				
MAP at RW12R										

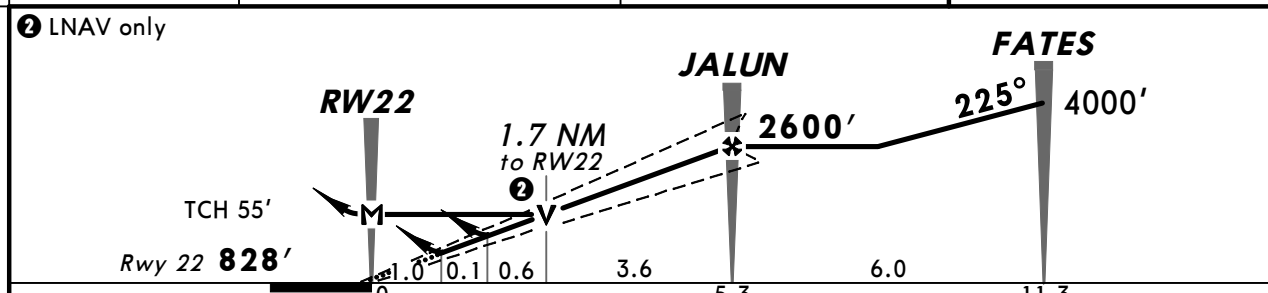
TERPS		STRAIGHT-IN LANDING RWY 12R				CIRCLE-TO-LAND	
		LPV	LNAV/VNAV		LNAV		
		DA(H) 1042' (200')	DA(H) 1211' (369')		MDA(H) 1220' (378')		
		ALS out	ALS out		ALS out		
A						Max Kts	MDA(H)
B	RVR 24	RVR 40	RVR 40	RVR 60	RVR 24 or 1/2	90	1360' (518') - 1
C	or 1/2	or 3/4	or 3/4	or 1 1/8	RVR 35	120	1360' (518') - 1 1/2
D					or 5/8	140	1460' (618') - 2

BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		Ground			
			Rwys 4/22, 12R/30L	Rwy 12L/30R	North	South	West	
135.35	119.3	126.95		126.7	123.95	121.8	121.9	127.92
WAAS Ch 60927 W-22A	Final Apch Crs 225°	Minimum Alt JALUN 2600' (1772')	LPV DA(H) 1190' (362')	Apt Elev 842' Rwy 22 828'		3500' MSA RW22		
MISSED APCH: Climb to 3000' direct JOGTO and on track 159° to FGT VOR and hold.								
Alt Set: INCHES			Trans level: FL 180					
1. DME/DME RNP-0.30 not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -27°C (-16°F) or above 54°C (130°F). 3. VGSI and RNAV glidepath not coincident.								



② LNAV only



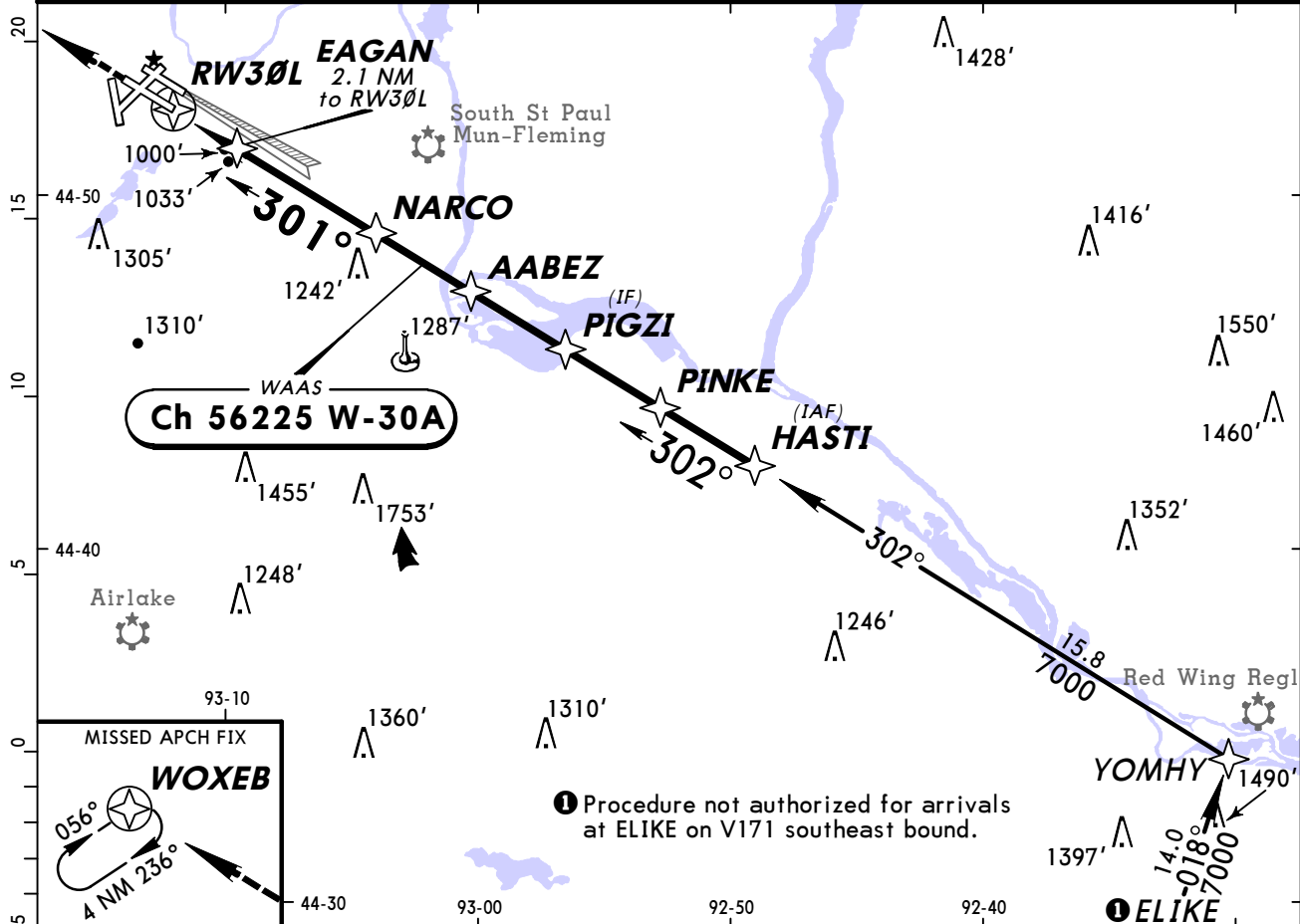
Gnd speed-Kts	70	90	100	120	140	160		MALSR	3000'		JOGTO
Glide Path Angle 3.00°	372	478	531	637	743	849		PAPI			
MAP at RW22											

TERPS						STRAIGHT-IN LANDING RWY 22				CIRCLE-TO-LAND	
LPV		LNAV/VNAV		LNAV		RAIL out		ALS out		MDA(H)	
DA(H) 1190' (362')		DA(H) 1227' (399')		MDA(H) 1420' (592')							
RAIL out		ALS out		RAIL out		ALS out		RAIL out		ALS out	
A											
B											
C											
D											

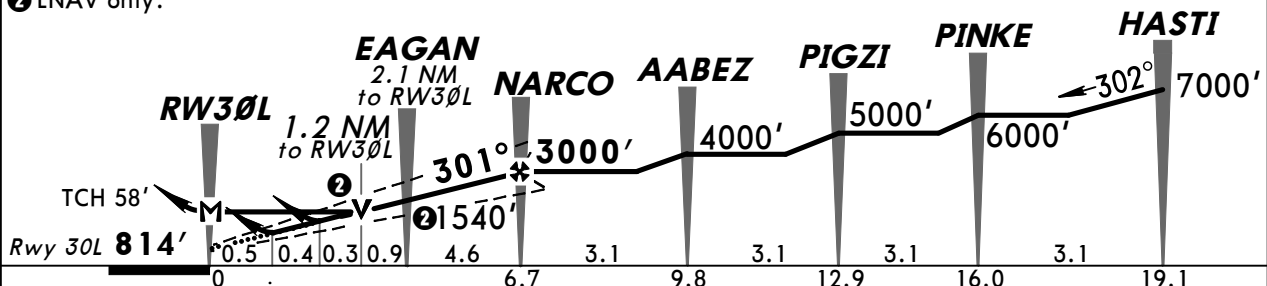
BRIEFING STRIP™

D-ATIS	MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower			North	Ground South	West
			Rwys 4/22, 12R/30L	Rwy 12L/30R	Rwy 17/35			
135.35	126.95		126.7	123.95	123.67	121.8	121.9	127.92
WAAS Ch 56225 W-30A	Final Apch Crs 301°	Minimum Alt NARCO 3000' (2186')	LPV DA(H) 1014' (200')	Apt Elev 842' Rwy 30L 814'	3500' MSA RW30L			
MISSED APCH: Climb to 3000' direct WOXEB and hold.								

Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'
 1. DME/DME RNP-0.30 not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -27°C (-16°F) or above 54°C (130°F). 3. Simultaneous approach authorized with Rwy 30R.
 4. LNAV procedure not authorized during simultaneous operations. 5. Use of Flight Director or Autopilot providing RNAV track guidance required during simultaneous operations. 6. VGSI and RNAV glidepath not coincident.



② LNAV only.

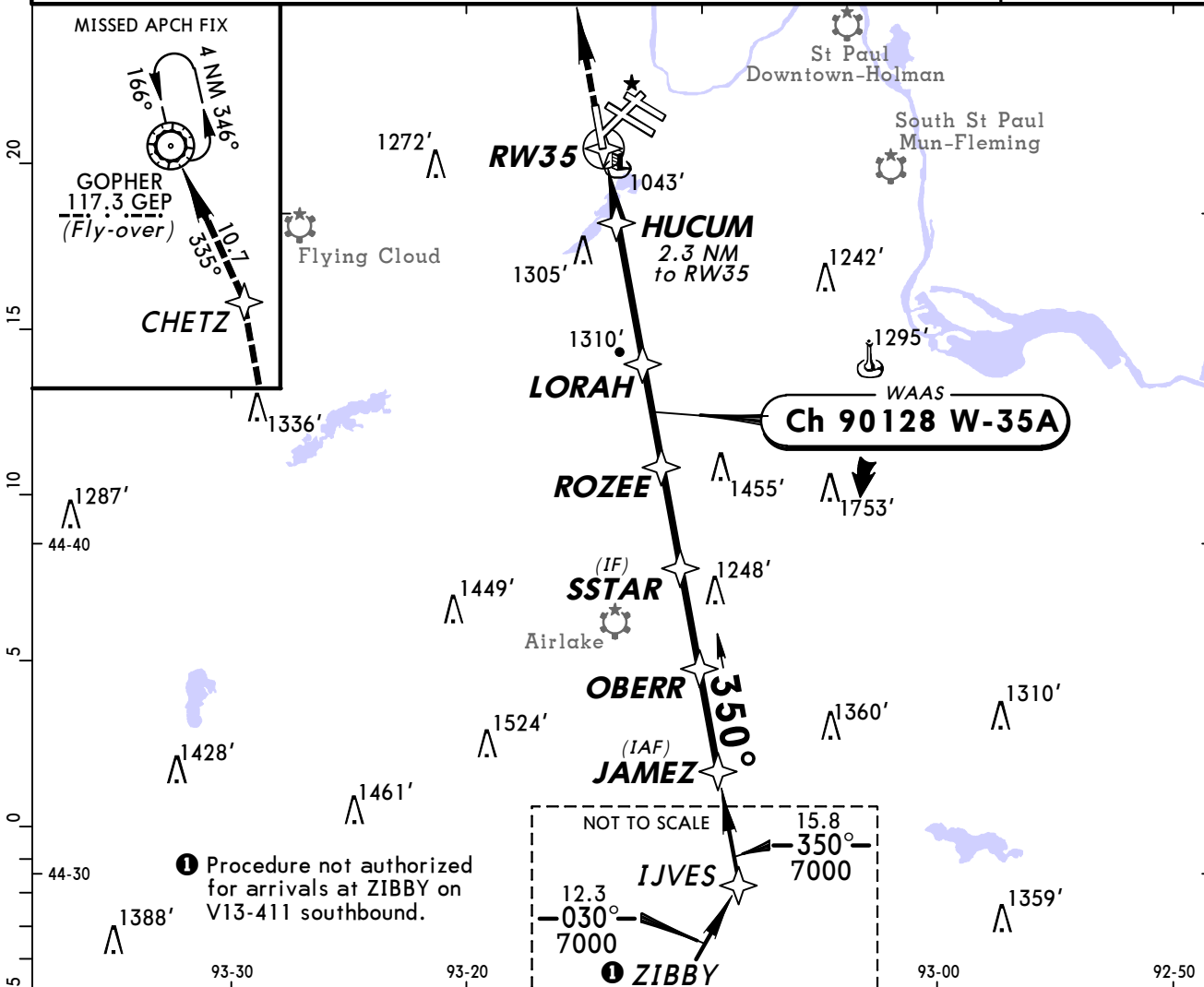


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	3000'	W	WOXEB
Glide Path Angle 3.00°	372	478	531	637	743	849	PAPI			
MAP at RW30L										

TERPS STRAIGHT-IN LANDING RWY 30L						CIRCLE-TO-LAND		
LPV DA(H) 1014' (200')			LNAV/VNAV DA(H) 1147' (333')			LNAV MDA(H) 1260' (446')		
TDZ or CL out	ALS out		ALS out			Max Kts	MDA(H)	
A						90	1360' (518')-1	
B	RVR 18	RVR 24	RVR 32	RVR 50		120	1360' (518')-1 1/2	
C	or 3/8	or 1/2	or 5/8	or 1		140	1360' (518')-1 1/2	
D						165	1460' (618')-2	

BRIEFING STRIP™

D-ATIS		MINNEAPOLIS Approach (R)		MINNEAPOLIS Tower		Ground South		West	
135.35		118.72		Rwy 17/35 123.67		Rwys 4/22, 12R/30L 126.7		Rwy 12L/30R 123.95	
North 121.8		121.9		127.92					
WAAS Ch 90128 W-35A		Final Apch Crs 350°		Minimum Alt LORAH 3000' (2167')		LPV DA(H) 1033' (200')		Apt Elev 842' Rwy 35 833'	
MISSED APCH: Climb to 3000' direct CHETZ and on track 335° to GEP VOR and hold.								3500' MSA RW35	
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'									
1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -27°C (-16°F) or above 54°C (130°F). 2. DME/DME RNP-0.30 not authorized. 3. VGSI and RNAV glidepath not coincident.									

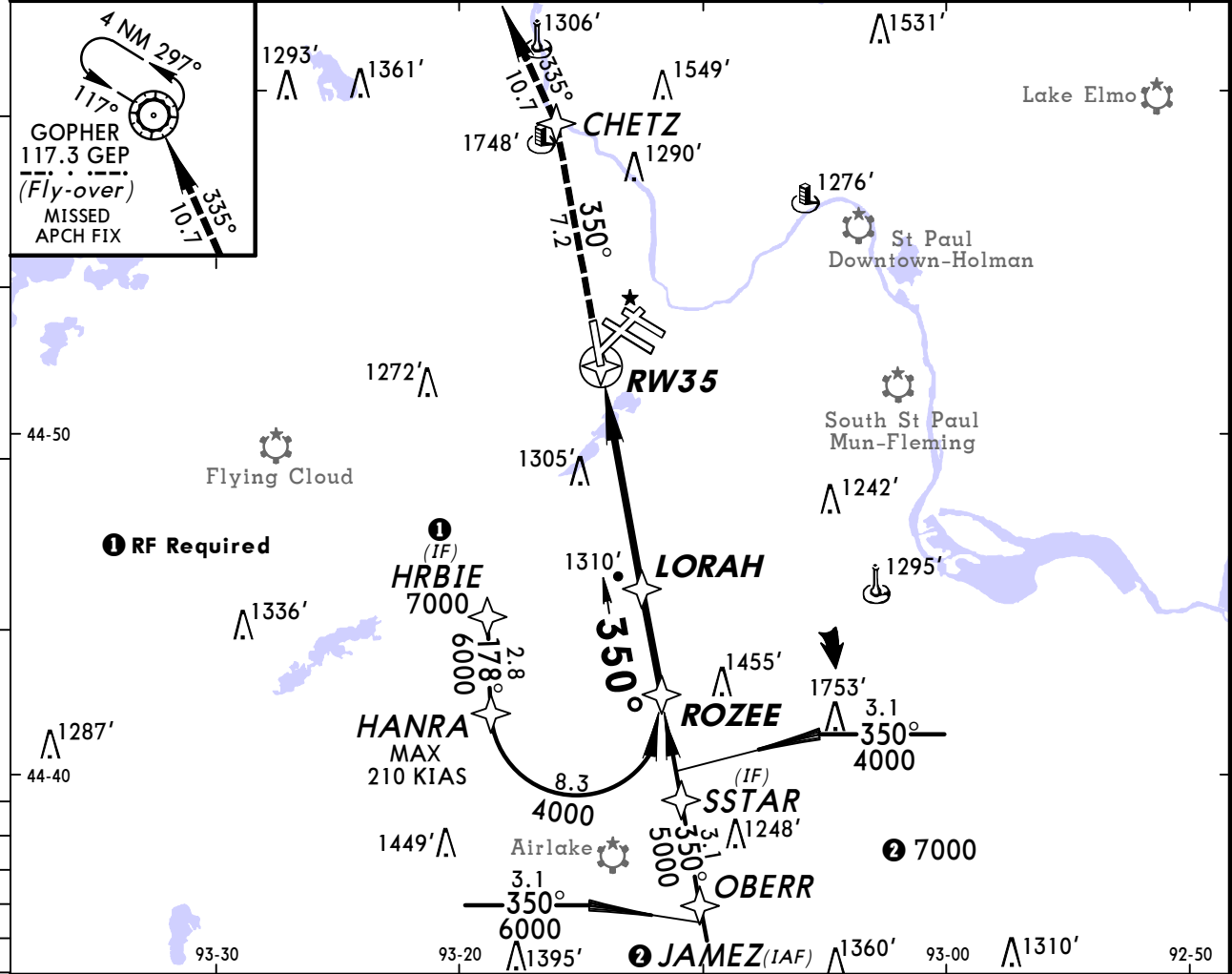


② LNAV only		HUCUM LORAH ROZEE SSTAR OBERR JAMEZ									
RW35 TCH 53' Rwy 35 833'		1.2 NM to RW35 2.3 NM to RW35 3000' 4000' 5000' 6000' 7000' 350°									
Gnd speed-Kts 70 90 100 120 140 160		ALS F-II PAPI 3000' CHETZ									
Glide Path Angle 3.00°											
MAP at RW35											

TERPS		STRAIGHT-IN LANDING RWY 35				CIRCLE-TO-LAND	
LPV		LNAV/VNAV		LNAV			
DA(H) 1033' (200')		DA(H) 1204' (371')		MDA(H) 1300' (467')			
ALS out		ALS out		ALS out		Max Kts	MDA(H)
A				RVR 24 or 1/2		90	1360' (518') - 1
B		RVR 40 or 3/4		RVR 55 or 1		120	
C		RVR 40 or 3/4		RVR 50 or 1		140	1360' (518') - 1 1/2
D		RVR 60 or 1 1/8		1 3/8		165	1460' (618') - 2

KMSP/MSP MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN 19 JUL 13 Eff 25 Jul 12-20 RNAV (RNP) Y Rwy 35

D-ATIS	MINNEAPOLIS Approach (R)	MINNEAPOLIS Tower			North	Ground South	West
135.35	118.72	Rwy 17/35 123.67	Rwys 4/22, 12R/30L 126.7	Rwy 12L/30R 123.95	121.8	121.9	127.92
RNAV	Final Apch Crs 350°	Minimum Alt LORAH 3000' (2167')	RNP 0.16 DA(H) 1292' (459')	Apt Elev 842' Rwy 35 833'	3500' MSA RW35		
MISSED APCH: Climb to 3000' on track 350° to CHETZ and on track 335° to GEP VOR and hold.							
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. AUTHORIZATION REQUIRED. 2. GPS required. 3. Radar required. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -20°C (-4°F) or above 54°C (130°F). 5. VGSI and RNAV glidepath not coincident.							



See planview for multiple Intermediate Fix (IF) locations.		LORAH (GP Intcpt)		ROZEE	
RW35		3000'		350° 4000'	
[TCH 53']		[3.00°]			
Rwy 35 833'		5.3		3.1	
		6.6		9.7	

Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 3000' on 350° CHETZ
Descent Angle [3.00°]	372	478	531	637	743	849	
MAP at DA							

TERPS		STRAIGHT-IN LANDING RWY 35		RNP 0.30	
		RNP 0.16		DA(H) 1358' (525')	
		DA(H) 1292' (459')			
		ALS out		ALS out	
A					
B					
C	RVR 45 or 7/8	1 1/2		RVR 55 or 1	
D				1 3/4	

Chart changes since cycle 26-2014

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

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
MINNEAPOLIS, MN (MINNEAPOLIS-ST PAUL INTL/WOLD- - KMSP)				
REV	AIRPORT, AIRPORT INFO	10-9	05 Dec 2014	
REV	AIRPORT INFO (CONTD), TAK...	10-9A	05 Dec 2014	
REV	PARKING GATES	10-9B	05 Dec 2014	
REV	PARKING GATE COORDS	10-9C	05 Dec 2014	
REV	OVERFLOW ACFT PARKING ARE...	10-9C1	05 Dec 2014	
REV	LOW VIS TAXI ROUTES	10-9D	05 Dec 2014	

TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport KMSP

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

(10-9) APT "All General Aviation aircraft with less than 20 passengers that need to clear U.S. Customs should contact Signature Flight Support at 128.95 mhz or (612) 726-5700 prior to arrival."