

# SMERF FOUR DEPARTURE (RNAV)

SL-264 (FAA)

MINNEAPOLIS, MINNESOTA

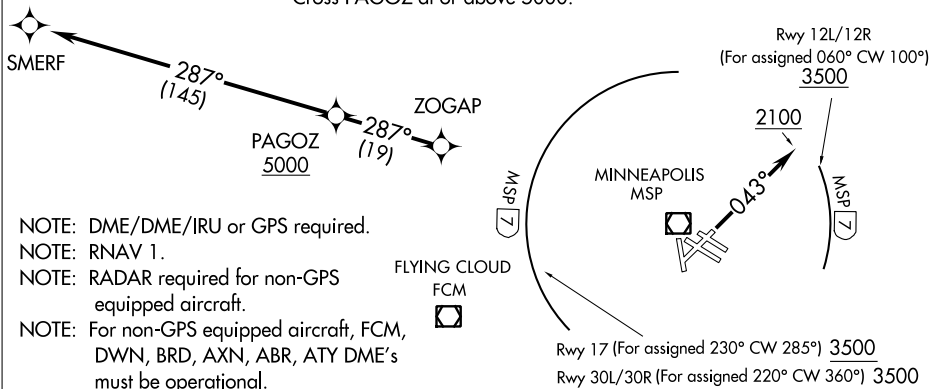
ATIS DEP 120.8  
 CLNC DEL  
 133.2  
 MINNEAPOLIS TOWER  
 123.95 273.55 (12L-30R)  
 126.7 273.55 (12R-30L, 4-22)  
 123.675 273.55 (17-35)  
 MINNEAPOLIS DEP CON  
 SOUTH or EAST 124.7 357.4  
 NORTH or WEST 125.75 357.4

### TAKE-OFF MINIMUMS:

Rwys 4, 22, 12L, 12R, 17: Standard.  
 Rwy 30L: Standard with minimum climb of 210' per NM to 2100.  
 Rwy 30R: Standard with minimum climb of 220' per NM to 2100.  
 Rwy 35: Standard with minimum climb of 219' per NM to 2100.

### DEPARTURE CROSSING RESTRICTIONS:

Rwy 12L/12R requires an ATC climb gradient of 546' per NM to 3500.  
 Rwy 17 requires an ATC climb gradient of 465' per NM to 3500.  
 Rwy 30L/R requires an ATC climb gradient of 380' per NM to 3500.  
 Cross PAGOZ at or above 5000.



NOTE: DME/DME/IRU or GPS required.  
 NOTE: RNAV 1.  
 NOTE: RADAR required for non-GPS equipped aircraft.  
 NOTE: For non-GPS equipped aircraft, FCM, DWN, BRD, AXN, ABR, ATY DME's must be operational.

NOTE: Chart not to scale.

(NOTES CONTINUED ON FOLLOWING PAGE)

## DEPARTURE ROUTE DESCRIPTION

- TAKE-OFF RUNWAY 4:** Climb heading 043° to 2100. Thence . . . .
- TAKE-OFF RUNWAYS 12L/12R:** For assigned headings from 060° clockwise to 100°, cross MSP VOR/DME 7 DME Arc at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence . . . .
- TAKE-OFF RUNWAY 17:** For assigned headings from 230° clockwise to 285°, cross MSP VOR/DME 7 DME Arc at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence . . . .
- TAKE-OFF RUNWAYS 22, 35:** Climb on assigned heading for radar vectors. Thence . . . .
- TAKE-OFF RUNWAYS 30L/R:** For assigned heading from 220° clockwise to 360°, cross MSP VOR/DME 7 DME Arc at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence . . . .

. . . . expect radar vectors to ZOGAP, then on track 287° to PAGOZ and on track 287° to SMERF. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude. Expect filed altitude/flight level 10 minutes after departure.