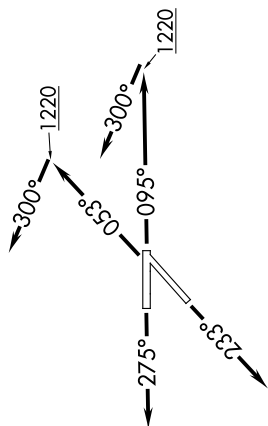


<b>TOP ALTITUDE: ASSIGNED BY ATC</b>	RNAV 1 - DME/DME/IRU or GPS.
	RADAR required.
	RADAR required for non-GPS equipped aircraft.



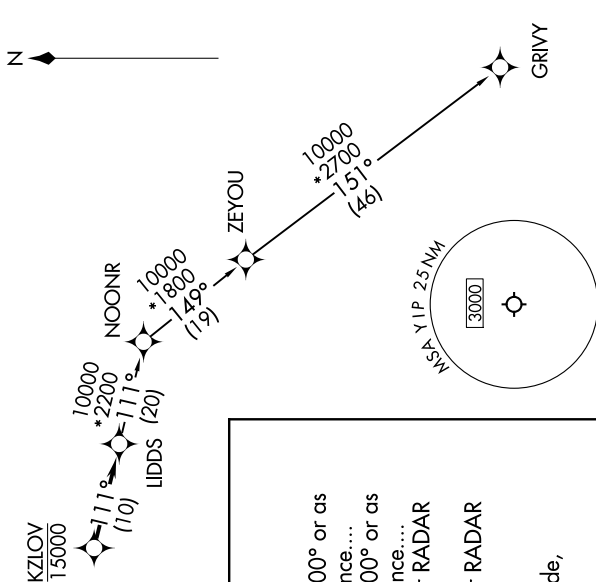
NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

### TAKEOFF MINIMUMS:

Rwy 23: Standard.

Rwys 5, 9: Standard with minimum climb of 500' per NM to 1220.

Rwy 27: Standard with minimum climb of 209' per NM to 1000.



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross KZLOV at or below 15000, thence....

TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross KZLOV at or above 15000, thence....

**TAKEOFF RUNWAY 23:** Climb on heading 233° or as assigned by ATC, for RADAR vectors to cross KZIOV at or above 15000, thence....

**TAKEOFF RUNWAY 27:** Climb on heading 275° or as assigned by ATC, for RADAR vectors to cross KZLOV at or above 15000, thence.....

.....on track 111° to UDDS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GRIVY TRANSITION (LIDDS4.GRIVY):

DETROIT DEP CON  
118.95 284.0  
ATIS  
127.425  
GND CON  
119.975  
WILLOW RUN TOWER  
125.275 256.9

KZLOV  
15000


The figure shows two XRD patterns stacked vertically. The top pattern is labeled "PAA-coated Fe<sub>3</sub>O<sub>4</sub>" and the bottom pattern is labeled "Fe<sub>3</sub>O<sub>4</sub>". Both patterns show characteristic peaks for magnetite (Fe<sub>3</sub>O<sub>4</sub>) at 2θ values of approximately 18.9°, 30.1°, 35.4°, 38.6°, 44.7°, 56.6°, and 62.8°. The intensity scale ranges from 0 to 10000.

LIDS (20)

1800  
-149°  
(19)

ZEYOU

10000  
\*2700  
—151°—  
(46)



GRIVY

NOTE: Chart not to scale.