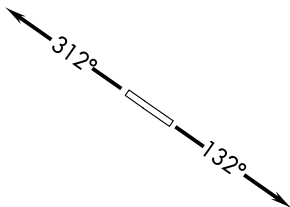


AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0

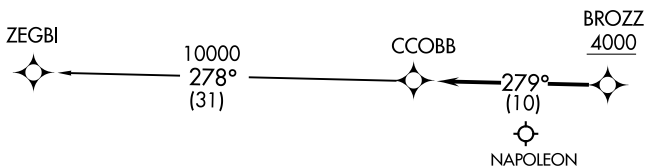


N

TAKEOFF MINIMUMS:  
Standard.

**TOP ALTITUDE:  
ASSIGNED BY ATC**

- NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.  
NOTE: For use by aircraft filed at or below FL220, or as assigned by ATC.  
NOTE: CAUTION: Parachute jumping 6 NM SW of BROZZ, 3 NM radius of Napoleon Airport (3NP) at or below 17999 (SR-SS).



NOTE: Chart not to scale.

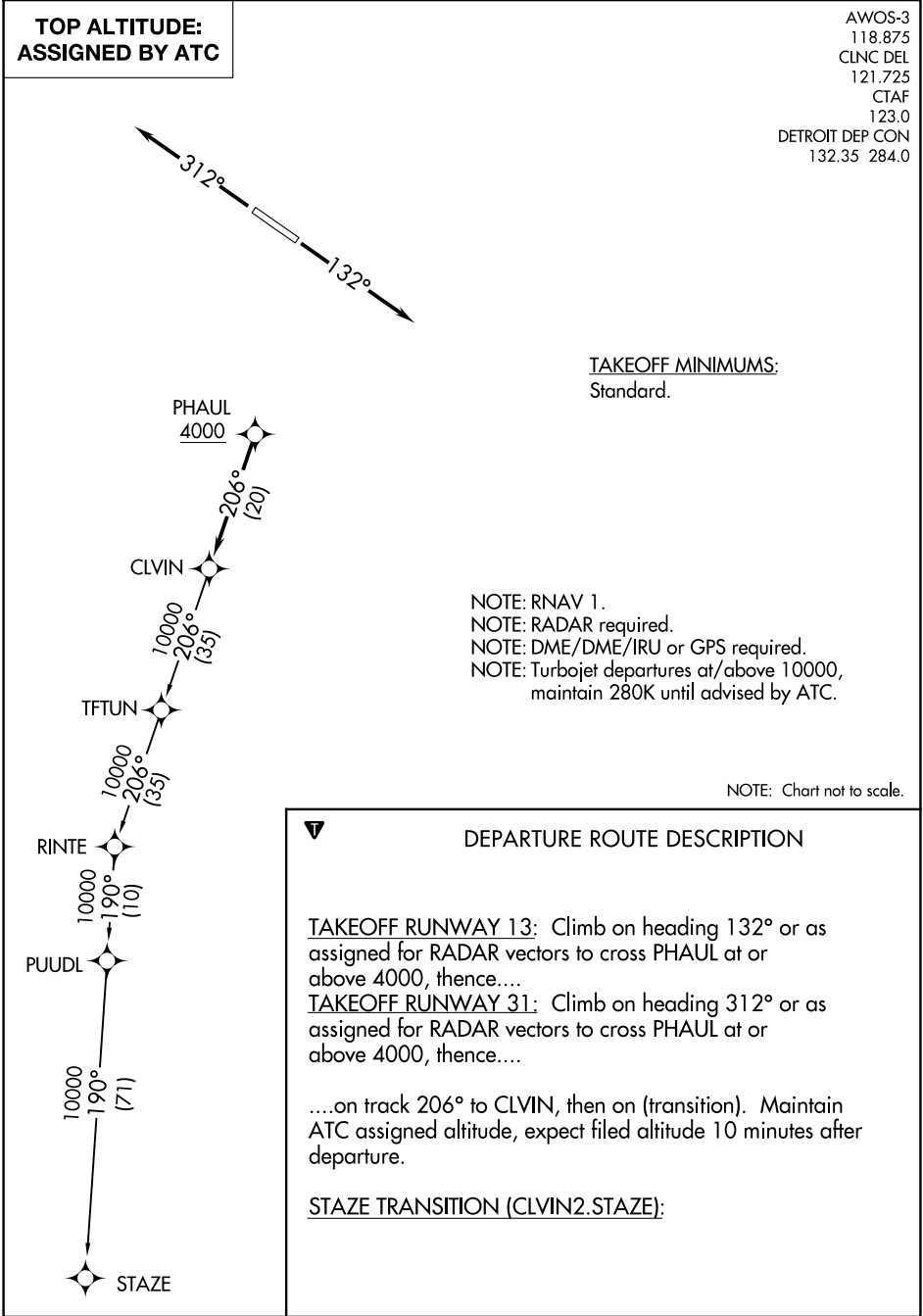
**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross BROZZ at or above 4000, thence....

....on track 279° to CCOBB, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB2.ZEGBI):

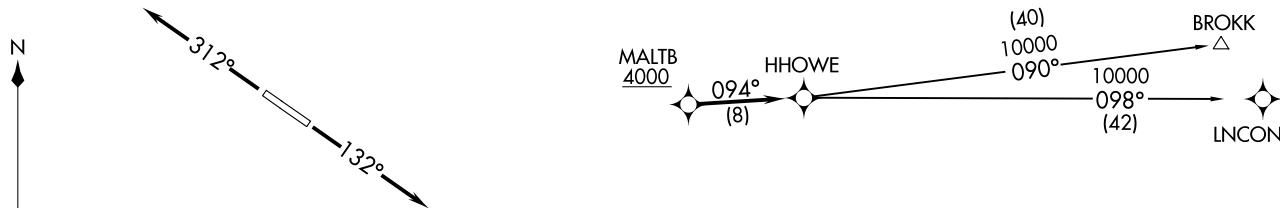


HHOWE THREE DEPARTURE (RNAV)  
(HHOWE3.HHOWE) 05DEC19LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
HOWELL, MICHIGAN

AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0

NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojet departures at/above 10000,  
maintain 280K until advised by ATC.  
NOTE: BROKK TRANSITION: For use by flights filed at or below  
FL270, or as assigned by ATC.

**TOP ALTITUDE:  
ASSIGNED BY ATC**



TAKEOFF MINIMUMS:  
Standard.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross MALTB at or above 4000, thence....  
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross MALTB at or above 4000, thence....

....on track 094° to HHOWE, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE3.BROKK)  
LNCON TRANSITION (HHOWE3.LNCON)

HHOWE3.HHOWE) 19339  
HHOWE THREE DEPARTURE (RNAV)LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
HOWELL, MICHIGAN

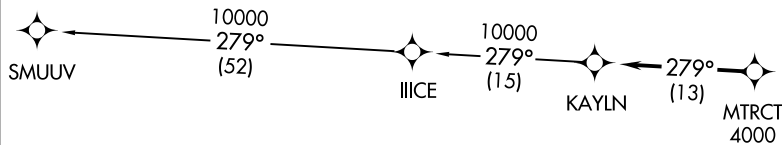
AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0



NOTE: Chart not to scale.

TAKEOFF MINIMUMS:  
Standard.

NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojet departures at/above 10000,  
maintain 280K until advised by ATC.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross MTRCT at or above 4000, thence....  
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross MTRCT at or above 4000, thence....

....on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

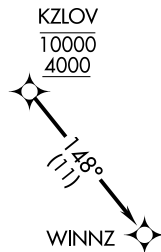
SMUUV TRANSITION (KAYLN2.SMUUV):

TOP ALTITUDE:  
ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.

RADAR required.

NOTE: Turbojet departures at/above 10000,  
maintain 280K until advised by ATC.  
NOTE: For use by Cleveland terminal arrivals only.



TAKEOFF MINIMUMS:  
Rwy 13, 31: Standard with minimum climb  
of 500' per NM to 1462.

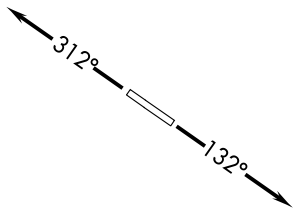
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross KZLOV at or above 4000  
and at or below 10000, thence....  
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross KZLOV at or above 4000  
and at or below 10000, thence....

....on track 148° to WINNZ. Maintain assigned altitude, expect filed altitude ten minutes after departure.

AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0



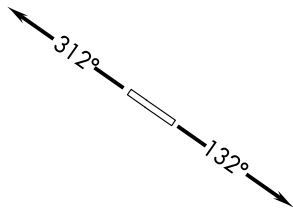
LIDDS TWO DEPARTURE (RNAV)  
(LIDDS2.LIDDS) 15AUG19

LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
HOWELL MICHIGAN

**TOP ALTITUDE:  
ASSIGNED BY ATC**

TAKEOFF MINIMUMS:  
Standard.

AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0



NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojet departures at/above 10000,  
maintain 280K until advised by ATC.

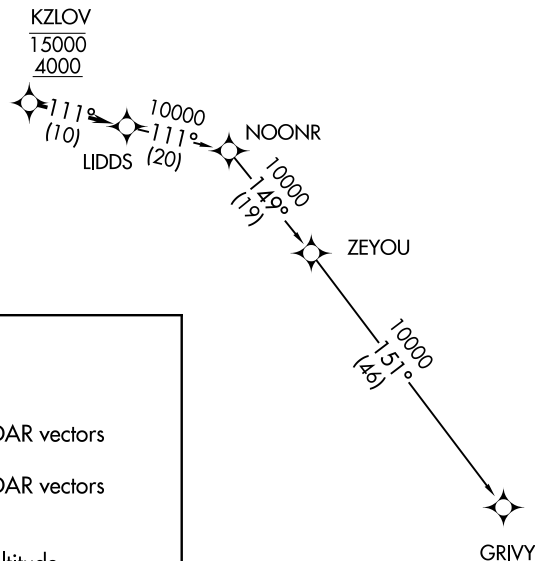
#### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross KZLOV between 4000 and 15000, thence....

TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross KZLOV between 4000 and 15000, thence....

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

GRIVY TRANSITION (LIDDS2.GRIVY):



NOTE: Chart not to scale.

(LIDDS2.LIDDS) 19227  
LIDDS TWO DEPARTURE (RNAV)

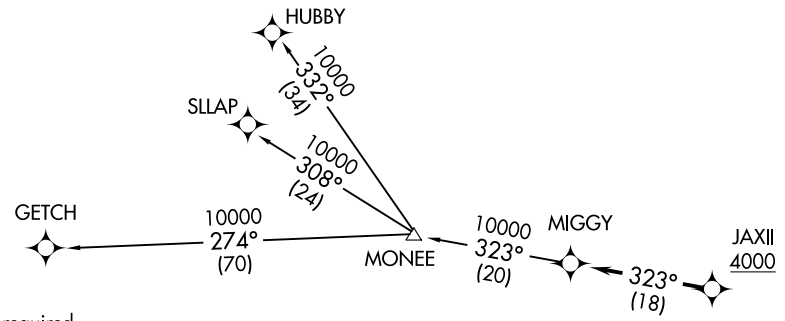
LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
AL-5485 (FAA)  
HOWELL MICHIGAN

MIGGY TWO DEPARTURE (RNAV)  
(MIGGY2.MIGGY) 15AUG19  
HOWELL MICHIGAN  
LIVINGSTON COUNTY SPENCER J HARDY (OZW)

TOP ALTITUDE:  
ASSIGNED BY ATC

AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0

(MIGGY2.MIGGY) 19227  
MIGGY TWO DEPARTURE (RNAV)  
AL-5485 (FAA)  
LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
HOWELL MICHIGAN



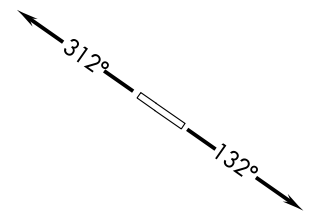
- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
- NOTE: GETCH TRANSITION: For use by KMKE area arrivals only, or as assigned by ATC.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross JAXII at or above 4000, thence....  
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross JAXII at or above 4000, thence....

....on track 323° to MIGGY, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

- GETCH TRANSITION (MIGGY2.GETCH):
- HUBBY TRANSITION (MIGGY2.HUBBY):
- SLLAP TRANSITION (MIGGY2.SLLAP):



TAKEOFF MINIMUMS:  
Standard.



NOTE: Chart not to scale.



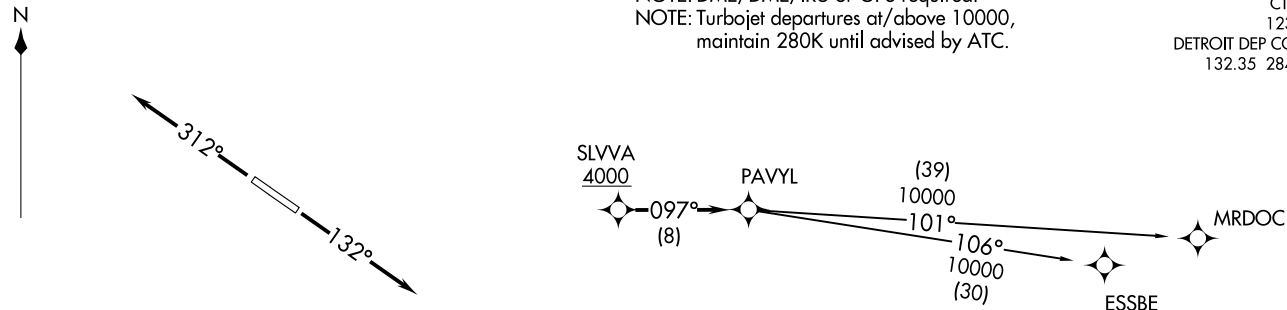
PAVYL TWO DEPARTURE (RNAV)  
(PAVYL2.PAVYL) 15AUG19

LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
HOWELL MICHIGAN

TOP ALTITUDE:  
ASSIGNED BY ATC

NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojet departures at/above 10000,  
maintain 280K until advised by ATC.

AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0



TAKEOFF MINIMUMS:  
Standard.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross SLVVA at or above 4000, thence....

....on track 097° to PAVYL, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ESSBE TRANSITION (PAVYL2.ESSBE):

MRDOC TRANSITION (PAVYL2.MRDOC):

(PAVYL2.PAVYL) 1922Z  
PAVYL TWO DEPARTURE (RNAV)

LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
AL-5485 (FAA)  
HOWELL MICHIGAN

SNDRS TWO DEPARTURE (RNAV)  
(SNDRS2.SNDRS) 15AUG19

LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
HOWELL MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned for RADAR vectors to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned for RADAR vectors to cross JWELS at or above 4000, thence....

....on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS2.BGHRT):

TORRR TRANSITION (SNDRS2.TORRR):

TOP ALTITUDE:  
ASSIGNED BY ATC

AWOS-3  
118.875  
CLNC DEL  
121.725  
CTAF  
123.0  
DETROIT DEP CON  
132.35 284.0

312°

132°

N

NOTE: RNAV 1.

NOTE: RADAR required.

NOTE: DME/DME/IRU or GPS required.

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

NOTE: TORRR TRANSITION: For use by KIND and KCVG area arrivals only and flights filed at or below FL220, or as assigned by ATC.

TAKEOFF MINIMUMS:  
Standard.

BGHRT

10000  
269°  
(94)

KNRKO

10000  
264°  
(28)

SEABS

10000  
265°  
(30)

REEDA

10000  
255°  
(24)

SNDRS

10000  
209°  
(33)

TORRR

JWELS  
4000

218°  
(31)

NOTE: Chart not to scale.

(SNDRS2.SNDRS) 1922Z  
SNDRS TWO DEPARTURE (RNAV)  
LIVINGSTON COUNTY SPENCER J HARDY (OZW)  
AL-5485 (FAA)  
HOWELL MICHIGAN

