

Cortland County – Chase Field, N03, to V423 Outbound from Ithaca VOR

N03 to V423

This flight originates at Cortland County – Chase Field, New York. The flight plan requires intercepting the V423 airway outbound from the Ithaca VOR and then continue en route to Syracuse.

If you are unfamiliar with the location of any U.S. airports or nav aids, go to www.airnav.com for their coordinates. When at that website select either the "Airports" button or the "Nav aids" button at the top of the page and then enter the requested information.

For example, Cortland County – Chase Field's coordinates are 42° 36"N and 76° 13"W (rounded). Once you have located the airport, you know that the Nav aid will be nearby. But, if you can't find that, either, go again to www.airnav.com for its coordinates.

V423 is an FAA-designated airway. The "V" preceding the airway number signifies that it is a VOR airway connecting two or more Omni stations. Examine the chart and note that V423 is 026° outbound from the Ithaca VOR. If you had the actual N.Y. Sectional chart you would note that this segment of V423 runs 41 nm from the Ithaca VOR Northeast to the Syracuse VOR.

Might as well finish up the real flight planning of this route segment. Let's check the Ithaca VOR for any limitations. Again, go to www.airnav.com, select the "Nav aids" button at the top, and enter ITH into the blank box. Scroll down the next page until the Remarks section appears:

Woah! Here we go again. Another VOR with terrain problems. The remarks state:

VOR portion unusable 360-059 BYD 10 nm BLO 3800'; 060-080 BYD 28 nm BLO 2500'; 081-150 BYD 10 nm BLO 3800'.

That shorthand is pretty easy, but here it is in plain English:

VOR is unusable from 360°–059° beyond 10 nm below 3800 ft.; from 060°–080° beyond 28 nm below 2500 ft.; and from 081°–150° beyond 10 nm below 3800 ft..

You will also note that limitations exist on the DME (Distance Measuring Equipment) performance.

The significant piece of information for us in the remarks section of the Ithaca VOR is that the VOR is unusable from 360°–059° beyond 10 nm below 3800 ft. That segment exactly overlays our intended flight path to intercept V423. Not a problem as long as we are aware of it.

The procedure to intercept an *outbound* radial is:

1. Before takeoff, set the Nav receiver to the appropriate VOR frequency.
2. Similarly while still on the ground, set the OBS to the radial intended to intercept.
3. On takeoff, turn to the heading set into the VOR. Since we are intercepting an outbound radial, the heading and the OBS setting should match.
4. The TO-FROM indicator should settle on FROM. If it doesn't then continue on the OBS heading until the FROM flag appears. Be aware that the TO-FROM flags won't appear until reaching the minimum reception altitude.
5. Where are you in relation to the desired intercept radial? The CDI, left-right needle, will tell you. If the needle is centered, with a FROM flag, you are already dead-center on course. Rather unlikely, though.
6. If the needle is to the left, turn left to intercept the radial. The amount of turn depends on how much needle deflection is showing. A large needle deflection warrants a large intercept angle, perhaps 30°. A small needle deflection requires a more modest interception angle.
7. A needle deflection to the right requires right turns to intercept.
8. Once intercepting the radial, return to the OBS heading and check for any wind correction needed to properly track the radial outbound.

This flight departs from Cortland County Chase Field, Runway 24. Set the Nav receiver to the Ithaca VOR, 111.80 MHz., and the OBS to 026°.

Cortland County uses a left traffic pattern. Intercept V423 outbound—the 026° radial—from the Ithaca VOR. Remember that although you receive apparently normal VOR signals and the FROM flag appears normal, the readings cannot be judged reliable until at an altitude of 3800 ft. or above.

After intercepting V423 continue en route for at least ten minutes confident that you are properly maintaining track. With the northeasterly heading, the flight altitude should be 5500 ft.

If desired, fly to and land at the Syracuse Hancock Int'l airport. As you near the Syracuse VOR, change the Nav receiver frequency to 117.0 MHz. and track inbound, remaining on V423. Hancock's Rwy 14 is 5.2 nm from the SYR VOR on the 136° outbound radial. Field elevation is 421 ft. Syracuse is a controlled field and you will be cleared for a straight-in approach to Rwy 14.

Repeat this outbound intercept flight two more times.

Then fly the route another two times after setting in an 18 kt. wind from 090°.