

# CLEARED DIRECT

*It's music to the IFR pilot's ears — you save time, gas and the workload of dealing with charts and staying pinned to the airways. But flying direct has its own challenges.*

by Harry Kraemer

Has this ever happened to you? You are flying along in IMC, 400-plus miles from your destination, following an airway that has you flipping between charts when center says, "November One Two Three Four, are you able direct to XYZ?"

This is great, you say as you dial in your destination identifier in the GPS, fold up the charts and thank the controller. "I didn't even ask for this! When I ask for direct, I don't get it. Why? How can I get direct when I want it?"

A direct clearance will reduce a considerable amount of time from a trip. Reducing the flight time will save fuel and expenses, reduce the pilot workload of following dogleg airways and eliminate a long laundry list of VOR frequencies to tune in and retire.

## In the Open Spaces

In the Midwest, armed with an IFR-approved GPS, flight planning direct is a no-brainer. Draw a line from Topeka to Minneapolis and file direct. Your departure clearance probably will amount to an altitude and a heading to a fix that will clear you of the terminal and then, handed off to center, you'll be Minneapolis-bound as the crow flies.

If you are filing TOP/MSP direct without an IFR-certified GPS or LORAN and all you've got is a handheld in your lap, file the airways, clear the terminal and tell center that you are able direct to MSP. Keep the VORs alive and tuned to useful fixes and,

most of the time, as long as you are in radar contact, you'll be cleared to fly direct.

## Radar Coverage is Key

The key is radar contact, and there isn't much of the country that doesn't have some radar coverage. If you are on a direct routing and about to transit an area that doesn't have radar coverage, center will advise prior to losing contact and give you a VOR fix to get you across no-man's land.

The Northeast corridor is one area where it is hard to get a direct clearance. The area from Washington, D.C., to Boston is crowded with arrival and departure routes. ATC will start to sequence your flight as much as 250 miles out from your destination.

In most of the Northeast, you will find that for any particular airport there is often one way in and one way out. If you request direct, your course may cross several arrival/departure routes, causing conflicts with departure traffic and the sequence of arrivals. The volume of traffic arriving and departing in the Northeast is so great that direct clearances are few and far between.

Often, the higher you file the better your chances of getting a direct clearance. This includes the upper teens on up through the flight levels. High flight puts you above the arrivals and departures.

In the Northeast, if you are just over-flying the area, you have a better chance of getting a direct clearance than if you are flying in the upper

teens through the flight levels.

Your aircraft climb rate also can determine whether or not you receive a direct clearance. An aircraft that can climb at 1,500 fpm up into the teens is more likely to get a direct clearance than a 500-fpm airplane that will be dragging aluminum across the arrival and departure routes for a longer period of time.

Sometimes you can get a direct clearance with a change in altitude. If you have asked for direct at 6,000 and ATC said that they are unable to approve it, ask if a different altitude would work better for direct.

And always, if you are below 18,000 feet MSL and in VFR conditions, you can cancel IFR and fly direct VFR. You can fly VFR and stay with approach for advisories and, if you need it, pick up an IFR again.

## Preferred Routes

The speediest way to get through the Northeast corridor is to use the preferred routes, which you'll find in the back of the Airport Facility Directory.

When using the preferred routes, clearance delivery usually will say, "Cleared as filed," rather than tell you to be ready to copy a full route clearance. It is a lot easier to write "CAF" than it is to copy a full route clearance delivered at the speed of an auctioneer's spiel.

## Choose an Altitude

When planning a flight using direct routing, it is up to the pilot to determine his or her own minimum en route altitude (MEA). Use an en route chart for this work.

Look at your direct routing on the chart and take note of the MEAs on the airways that are close to your direct route. You probably will be close to several airways. Pick the highest of the MEAs in the area and then peruse a VFR sectional or WAC chart for a look at the terrain. The MEA is just a minimum; you may file higher assuming that there is no maximum altitude

restriction along your planned route.

The MEA should be at least 1,000 feet above flatland terrain and obstructions. If your routing takes you through a mountainous area, your MEA should be at least 2,000 feet above the terrain and obstructions.

## Navigate Direct

Navigation needs to be considered when planning or filing direct. If you are using GPS or LORAN in a radar environment, all that is needed is to dial the identifier into the unit and follow the course.

Going direct without GPS or LORAN takes a little more planning, however. You can hop from VOR direct to VOR as long as you respect the service volume of the facility. When you are flying off airways, below 18,000 feet, you'll want to be sure that the VORs are no more than 80 miles apart.

The facilities with sufficient service volume for off-airway flight are depicted on en route low-altitude charts. If you fly above 18,000 feet — and below FL450 — you'll use the en route high-altitude charts and facilities not more than 260 nm apart. Use the H-class VORs to fly off airways between 14,500 feet and 17,900.

You can ask for, and sometimes ATC will initiate, a direct routing that exceeds the navaid service volume, but that only will happen when radar coverage is available.

## Atlanta to Boston

Take a look at an IFR flight from Atlanta, Georgia (ATL), to Boston, Massachusetts (BOS), (821 nm). We filed direct. Clearance delivery cleared us "as filed." We are at 9,000 feet (much higher than our own computed MEA) in our Piper Arrow, cruising along. BOS is dialed in the GPS and we are showing a groundspeed of 130

*The prepared pilot will have an en route chart at arm's length when a clearance amendment ends the direct routing.*

knots.

We are about 100 miles south of Washington, D.C., when ATC says, "November One Two Three Four, we have an amendment to your routing, advise when ready to copy." We say, "Stand by," while we look for a pen and paper (in a pinch a blank spot on the chart will do).

When we copy the new clearance, it is, "Present position direct MRB direct EMI direct LRP Victor 93 LHY Victor 106 BAF direct." This increases the trip to 868 nm and our workload as we search for the proper chart and dial in MRB.

After MRB is tuned in and we are heading direct (MRB), our next task is to look at the routing on the chart and estimate a new ETA and ETE. There is a chance that if you plan for a direct routing and are carrying enough fuel (plus reserves) for such routing, an amendment like this could cut into your reserves or even require a fuel stop. If using GPS, you may want to add the new routing into the flight plan.

Don't forget to check the MEAs. Your direct routing may have kept you

clear of any mountains, and the new routing may take you over some and the MEA may be higher. If the MEA is higher and ATC hasn't given you a higher altitude, question ATC about it. If for weather, aircraft performance or any other reason you cannot comply with the new routing, advise ATC immediately.

## Prepare for the Airways

GPS has become the primary navigation for most general aviation aircraft these days, and filing direct is the operational norm outside of congested airspace. Be ready, however, to fly the airways.

Take a little time to review the en route chart for your proposed flight and conjure a scenario where you have received an amended clearance to fly fix to fix. Familiarize yourself with the names of facilities that you would over-fly on a direct clearance and, at the very least, keep a current en route chart at arm's length.

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