Fly it like you stole it – free speed on the NAT

Mark Zee
8 May, 2019

This is a new one, and it's a good one for pilots! Being introduced slowly is a new flexibility – flying without a fixed Mach speed. In simple terms, you get to decide how fast you fly.

Like all new things on the NAT, we have an acronym. This one is **OWAFS**. *Operations Without an Assigned Fixed Speed*. But you'll also see it as referred to as "Variable Mach", and "Resume Normal Speed".

When does this start?

It already has! It's starting out as a trial (everything on the NAT starts out as a trial), and some members are already reporting getting "RESUME NORMAL SPEED" messages from Shanwick. The official start date is April 8, 2019. Three OACC's are doing this – Shanwick, Santa Maria, and New York Oceanic (not WATRS).

For no good reason, here's a picture of the Shanwick Oceanic control room in 1989. Much has changed since!

How does it work?

You'll get a normal oceanic clearance, with a fixed Mach Number, like you always did. Somewhere after the Oceanic Entry Point, if you are selected for the trial, you'll get a CPDLC message saying **RESUME NORMAL SPEED**. You should reply with **WILCO**. What that means is: **Fly ECON, or a Cost Index with Variable Mach**.

So, once I get that, no restrictions on speed?

Correct! But, ATC will expect you to fly ECON/Cost Index, and normally, that should be pretty close to your cleared Mach (within 0.01 up or down). If you're doing something different, tell them. If the resulting speed differs from your Oceanic Clearance Mach by **0.02**, or more, you must tell ATC.

Rules for Shanwick (Don't ask for it)

• Flight must be data link connected to EGGX
• Flight must be eastbound and operating solely in Shanwick Oceanic airspace and exiting into UK/Ireland/Continental European airspace
• Flight cannot exit into Santa Maria
• RESUME NORMAL SPEED will be offered on a "manual" tactical basis
• **Do not request** RESUME NORMAL SPEED

Rules for New York and Santa Maria (You can ask)

• Flight must be data link connected to LPPO or KZWY
• Flights must be wholly within Santa Maria and New York East Oceanic airspace and not enter Gander or Shanwick airspace
• Flights can enter New York East Oceanic airspace or Santa Maria airspace from Gander airspace or Shanwick airspace and receive RESUME NORMAL SPEED uplink message
• New York West (WATRS airspace) is excluded
• RESUME NORMAL SPEED **can be requested** if not offered

Background and History

(Thanks, Jeff Miller @IATA, for this and the condensed info above!)

Both Airbus and Boeing advocate cost index (ECON) as the most efficient way to fly. Operators use cost index (ECON) globally, except for the North Atlantic (NAT) where flights are assigned a fixed Mach by ATC and flight crews are required to fly the assigned Mach. Depending on the distance from the departure airport to the oceanic entry, most operators flight plan the aircraft with cost index to the oceanic entry point and again after oceanic exit. Flight crews use the desired fixed Mach number from the computer flight plan that is generated by the cost index, as the requested Mach number for the crossing. It is possible the flight crew may request a Mach greater than or less than the flight plan Mach to improve scheduled arrival time. IATA led the ICAO NAT, Operations Without an Assigned Fixed Speed (OWAFS) project team to enable the use of a variable Mach in the NAT. The North Atlantic Systems Planning Group (NAT SPG) is expected to fully endorse OWAFS late June 2019 for an official implementation in late 2019 for all NAT OCAs. Full automation for all Air Navigation Service Providers (ANSPs) is expected by Q1 2020.

So I can use this for turbulence speed changes?

Yep, but remember, if you're slowing down or speeding up significantly (0.02 or more), tell ATC your new speed.

Anything else?

That’s it for now. Remember, it’s a trial – later in the year full implementation is expected. Don’t ask for it if you aren’t offered, unless you’re in New York or Santa Maria airspace. Tell ATC if you’re changing by 0.02 or more from the Oceanic Clearance.

And most importantly, keep us posted on your experiences with this!