



RADIO TELEPHONY ON VATSIM

EXPLAINING THE BASICS

FLYING OCEANIC

This tutorial has been created for free by

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It is to be used for simulation purposes only and is linked to the VATSIM Tutorial Series on the channel to compliment the information demonstrated there

Introduction

VATSIM is a free network which allows you to log in as a Pilot or Controller, and communicate with one another as if in real life.

It's a global network and hosts regular busy events worldwide but it does require some preparation before jumping in for the first time!

If you want to check out my VATSIM Basics Tutorials then click the link below to work through the mini series to help you get started:

[British Avgeek's VATSIM Mini-Series Tutorials](#)

This document relates to Radio Telephony – that is – what you will need to say on the radio when using the VATSIM Network. Dependant on country, it will differ slightly but this pdf will use UK RT as a base for you.

As a reminder – this is only to cover the basics. You can read the CAP 413 Document written by the Civil Aviation Authority in the UK. That covers everything you need in great detail. I hope you find it useful

[CAA Publication CAP 413](#)

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Always remember – don't interrupt in the middle of messages between controllers and other aircraft. Wait for a natural gap to transmit.

Keywords

Word	Meaning
NAT	North Atlantic Tracks
TMI	Track Message Identifier
Mach	Speed relative to Speed of Sound
ACARS	Aircraft Communications, Addressing and Reporting System
CPDLC	Controller – Pilot Data Link Communications
HF / VHF	High Frequency Very High Frequency
ETA	Estimated Time of Arrival
UNICOM	On VATSIM – freq. 122.800 General Freq. for all traffic not under any control
LATITUDE	North/South Distance from the Equator in degrees

Oceanic Procedure

Shanwick and Gander Control have no surveillance radar capability – just think of the sheer size of the area they cover being a body of water. It means they cannot use Radar to help control aircraft in what is usually very busy airspace.

Instead, they use a data link – ACARS and CPDLC to communicate directly between controllers and pilots, with HF remaining the primary voice comms method.

VATSIM however makes use of VHF and CPDLC.

You'll likely be flying along a NAT Track – assigned dependant on your route and direction over the Atlantic.

You can find them here

<https://ganderoceanic.com/pilots/tracks>

The same website also offers Clearance Generators and Position Reporting Generators too to help us!

NAT Tracks will be Eastbound or Westbound – and are separated for obvious reasons.

You'll also need to know how to use Mach Numbers too as you'll be cleared with a Mach Number.

Oceanic Clearance

You'll need three key elements:

1. The Route (a route or a NAT across the Atlantic)
2. Your Cruise Speed **in mach**
3. Your Cruise Altitude as a Flight Level

You'll also need to get clearance **before** entering the NAT Track and be at the assigned cruise altitude before you enter too.

You could also use handy tools like those found on the link on the previous page that helps you build exactly what you want to say to the controller!

The radio procedures do vary a little compared to what we're used to operating around Europe or transcontinental in the US.

On the next page, we go through the RT workflow to show you an example of what to say and do!

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Don't let all this put you off though – after a few goes you'll get the hang of it and you'll be confident in flying Oceanic too!

CREDIT GOES TO GANDEROCEANIC FOR LOTS OF GREAT INFORMATION ON THEIR WEBSITE, INCLUDING THE HANDY PILOT TOOLS!



Gander Radio, Gander Radio, Speedbird 458

Speedbird 458, Gander Radio, Pass your Message



now you can pass your clearance request message



Speedbird 458, requesting clearance via Track A (for NAT Track A) Estimating ELSIR at 1302. Request Flight Level 3 7 0 – able FL390. Mach decimal 84

This means we are asking for clearance to fly on the NAT Track A ('alpha' in phonetics!) and that we estimate we will reach the Entry Waypoint of ELSIR at a specific time of 1302 Zulu. We then ask for our cruise altitude, and the highest cruise we can fly AND then the speed we want to fly the NAT Track at.

They will read it back to you, and we respond with "Shanwick/Gander Radio, Speedbird 458 Readback Correct". They might tell us to Standby.

Speedbird 458 is cleared to London Heathrow via ELSIR, track Alpha. From ELSIR, maintain Flight Level 370
Mach decimal 80



Speedbird 458 is cleared to London Heathrow via NAT Track Alpha, TMI 123. From ELSIR maintain FL370, Mach decimal 80 (Mach .80)

A FULL readback of the Clearance is always required

Track Message Identifier

A TMI or Track Message Identifier is within the NAT Track Information and it is simply the Julian Calendar day (so only goes up to 365 unless it's a leap year). If the TMI is amended, it'll be followed by a letter too.

When we read back our Clearance, we need to add the TMI in as we did on the previous page in our RT Example as the message can change day to day – the TMI shows we have the up to date information.

What if our Entry ETA changes?

If the entry time to the track changes by more than **3 minutes** then we have to pass the new estimate to ATC so they can recalculate our position relative to everyone else around us.

What if we can't get clearance in time?

Remain on the local domestic ATC and ask for vectors to remain clear of Oceanic Airspace until we have our clearance. We can ask the Oceanic Controller after a while, when it is likely for us to expect our clearance.

What if we get a different Flight Level?

Speedbird 458, Oceanic Clearance with a level change.
Speedbird 458 is cleared to London Heathrow via ELSIR,
track Alpha, from ELSIR, maintain Flight Level 350,
Mach .80. Unable Requested Level.



Speedbird 458 is cleared to London Heathrow via NAT
Track Alpha, TMI 123. From ELSIR maintain FL350, Mach
.80

Speedbird 458, Readback Correct



If they change our speed, or entry point, or re-route us. The process is
the same as above but they'd add "Unable Requested Speed" and so on
instead/aswell

IF WE GET CO-ORDINATES, READ THEM BACK NUMBER BY NUMBER
i.e. 54N020W is "5 4 North 0 2 0 West"

If they want us to enter the track at or after a specific time, the message
will be:

Speedbird 458 is cleared to London Heathrow via
ELSIR, track Alpha. From ELSIR,
maintain Flight Level 370. Mach decimal 80.
Cross ELSIR **at or after time 1135**



REMEMBER - TIMES ARE ALWAYS ZULU

Position Reports

Throughout the flight we will need to make position reports to the controllers, and advise them of revised estimates should the ETA change by more than 3 minutes.

Use this tool to help

<https://ganderoceanic.com/pilots/position-report>

Most routes will have pre-defined reporting points where we need to report our position. If not, we report at every significant point or every 10 degrees of latitude – whichever is sooner



Shanwick Radio, Shanwick Radio, Speedbird 458 with Position Report

Speedbird 458, Shanwick Radio, pass your message



Shanwick Radio, Speedbird 458 reports passing RESNO at time 1635, Flight Level 370, estimating 56 North 020 West at 1310, 56 North 030 West next

Shanwick Radio will read it back to you – if it's correct say:



Shanwick Radio, Speedbird 458, correct

Position Reports

Revised Estimates

If you're going to be MORE than 3 minutes delay to the next waypoint you need to revise your estimated time in a quick message.



Shanwick Radio, Shanwick Radio, Speedbird 458 with Revised Estimate

Speedbird 458, Shanwick Radio, pass your message



Shanwick Radio, Speedbird 458 estimated 57 North 040 West at 1640



Shanwick Radio will read it back to you – if it's correct say:



Shanwick Radio, Speedbird 458.

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That's it!
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Use the Position Reporting Tool to help you generate exactly what you are going to say!

If the controller reads it back INCORRECTLY then correct them

As always, be sure you know how to operate the aircraft

Route Offsets

Avoiding Collisions

It might be necessary to prevent collisions on the same routes to spread aircraft onto Route Offsets.

Basically you fly the same route, but it is offset to the RIGHT up to a maximum of 2 nautical miles

In the sim however, this isn't currently a possibility so we have to say we are unable.

If however we opt or are able to fly a route offset, we do not need to tell ATC. We can use our discretion, with TCAS, radio and everything else to help us decide whether to fly the offset route or not.

In this instance, position reports will remain the same as if we are still flying the original track line.

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SELCAL CODES

Flying Oceanic, Pilots regularly turn the radios down to avoid all of the static on the frequencies. SEL-CAL is an aircraft's 4 letter unique identifier that, when pinged by ATC, triggers an audible chime/light in the flight deck so pilots can turn their radios back up.

It stands for "Selective Calling"

When Connecting to VATSIM, assign yourself a SELCAL Code!

I hope you find both the video tutorials and the accompanying documents useful and informative.

Be sure to subscribe to my YouTube channel for all of the latest tutorials and as always, if there is anything you wish to see covered just let me know!



If you found this guide helpful and wish to donate, you can do so here:

<https://paypal.me/britishavgeek>