(Not so) New on the NAT

OPSGROUP Team
19 October, 2021

The helpful NAT OPS elves have put out some new NAT OPS info, so here is a summary on it.

The Sample Oceanic Checklist

First up, the Sample Oceanic Checklist which was effective from October 5. Here it is if you want to read it yourself.

Page 2 of this is actually really handy if you are not super familiar with oceanic ops because it lists everything you need to think about and do for each stage of the flight. The main change here is a clarification of SLOP (and micro slop) which is up to **2nm to the right, never go left, and in increments of 0.1nm.**

FLIGHT PLANNING

- Communication/Navigation/Surveillance (CNS) Flight Plan Codes and planning documents
  - Plotting/Orientation Chart – plot route coast out to coast in
- Equal Time Points (ETP) - plot
- EDTO (/ETOPS) – Complete analysis
- Track message (current copy available for all crossings)
  - Note nearest tracks on plotting chart
- Weather Analysis – Note enroute temperature and turbulence forecasts as well as divert airport weather
- Review possible navigation aids for accuracy check prior to coast out
  - Review contingency procedures and plans

PREFLIGHT

- Master Clock for all ETAs/ATAs
- Maintenance Log – check for any navigation/ communication/surveillance or RVSM issues
- RVSM Altimeter checks (tolerance)
- Operational Flight Plan (OFP) vs ATS Flight Plan (check routing, fuel load, times, groundspeeds)
- Dual Long Range NAV System (LRNS) for remote oceanic operations
- LRCS (HF, SATCOM) check (including SELCAL
- Confirm Present Position coordinates (best source)
- Master Document (symbols②, ✓, \, X)
- LRNS programming
  - Check currency and software version
  - Independently verify waypoint entries
  - Check expanded coordinates of all oceanic waypoints
  - Check course and distance (± 2˚ and ±2 NM)
  - Upload winds, if applicable
- Groundspeed check

TAXI AND PRIOR TO TAKE-OFF

- Groundspeed check
- Present Position check

CLIMB OUT

- Verify ETAs above FL180

PRIOR TO OCEANIC ENTRY

- If required, obtain oceanic clearance from appropriate agency. Verify and crosscheck independently. Confirm the ATC route clearance is properly programmed into LRNS
- Check expanded coordinates of all oceanic waypoints
- Confirm flight level, Mach and route for crossing
- If applicable, **request and receive clearance**, to comply with oceanic clearance (e.g., **higher FL**) **from domestic ATC**

  Note: Altitudes in oceanic clearances are **not** "when ready climb" instructions: coordinate with domestic ATC
- Ensure aircraft performance capabilities for maintaining assigned altitude/assigned Mach
- If clearance is not what was filed – update LRNS, OFP and plotting/ orientation chart, check course and distance for new route. Independently crosscheck and confirm new route
- Navigation Accuracy Check – record as applicable
- Confirm HF check, if not done during pre-flight
- Confirm SATCOM/SATVOICE is operational, as applicable
- Log on to CPDLC and ADS-C 10 to 25 minutes prior, if equipped
- Verify RNP value
- Altimeter checks – record readings
- Compass heading check – record

AFTER OCEANIC ENTRY

- Squawk 2000 – normally 30 minutes after entry, if applicable
- Maintain assigned Mach, if applicable
- VHF radios - set to air-to-air (123.45 MHz) and guard frequency (121.5 MHz)
- Strategic Lateral Offset Procedures (SLOP) – SOP
  fly centerline or up to 2NM to the **right** of ATC cleared track (in 0.1NM increments); left offsets are **not** approved
- Altimeter checks - hourly
- Routine monitoring – assign tasks

APPROACHING WAYPOINTS

- Confirm latitude/longitude of next and subsequent points – expanded coordinates, using scratch pad of FMS if applicable

OVERHEAD WAYPOINTS

- Confirm aircraft transitions to next waypoint
  - Check track and distance against Master Document
- Confirm time to next waypoint

  Note: 3-minutes or more change requires ATC notification (NAT Region & voice reporting only)
- Position report – fuel

10-MINUTES AFTER WAYPOINT PASSAGE

- Record time and latitude/longitude on plotting/orientation chart – non steering LRNS

  - or -
- Use "nav display method" (FMS aircraft only, smallest scale)

MID POINT

- Midway between waypoints compare winds from OFP, LRNS and upper millibar wind charts
- Confirm ETA

COAST IN

- Compare ground based NAVAID to LRNS
- Remove SLOP offset prior to oceanic exit point
- Confirm routing beyond oceanic airspace

DESTINATION/BLOCK IN

- Navigation Accuracy Check
- RVSM write-ups

Fresh out the bulletin

Page 5 has updated the info on **Long Range Nav Systems (LRNS)** saying ya need two of 'em, a single FMS doesn't count even if it is receiving from two separate nav sensors, and as far as your **LRCS (long range comm systems) go you need an HF** as one of them.

'Prior to Oceanic Entry'

A reminder here that both pilots must obtain the clearance. *This does not mean both have to do it separately.* It means both have to be there, check it, confirm it. They actually say that **dual checking of the oceanic clearance must be SOP**. So no toilet breaks in the middle of it.

Generally if you are going to get your **clearance by voice then give it 40 minutes**, if you're using

Datalink (which you most likely will be now with all the mandates in place) then **25-90 minutes before entry will work.** The time varies from entry region to entry region so you'll need to confirm the exact timing. Reykjavik for example actually says 15-45 minutes.

Oceanic Errors

The second update, also effective October 5, is all about Oceanic Errors, and it starts out with a **'Safety Snapshot'.** We've posted on the safety reports each year and you can read last year's here.

This bulletin looks at the main issues that have been cropping up in the NAT – namely gross navigation errors, separation problems, weather deviations, and issues with CPDLC – and it provides some top tips on how not to mess up.

Here's our version of the *Top Tips.*

CPDLC

It seems some folk have been getting confused with **conditional clearances.** A conditional clearance means it isn't as simple as a "climb now" – it will have some sort of delay in it, like a climb after 20W, or a "to reach it by…", or even a "maintain FLXX, at 14:03 descend and maintain FLXX"

There is a lot of explanation on what these mean, what is expected and how to think about it. Really, it goes back to that infamous saying we all had drilled into us through school – **read the (insert swearword) question.** Or in this case, clearance. RTC.

Gross Navigation Errors

These seem to be happening because clearances are differing from flight plans and folk aren't checking and are missing the amendments. **You have to fly the clearance.** Which means you need to make sure your box (FMC, navigation thingamajig) has the new route programmed in.

Erosion of Longitudinal Separation

People aren't flying the speed they've been been told and are getting too close up the… of another aircraft. Or another aircraft is getting too close to them.

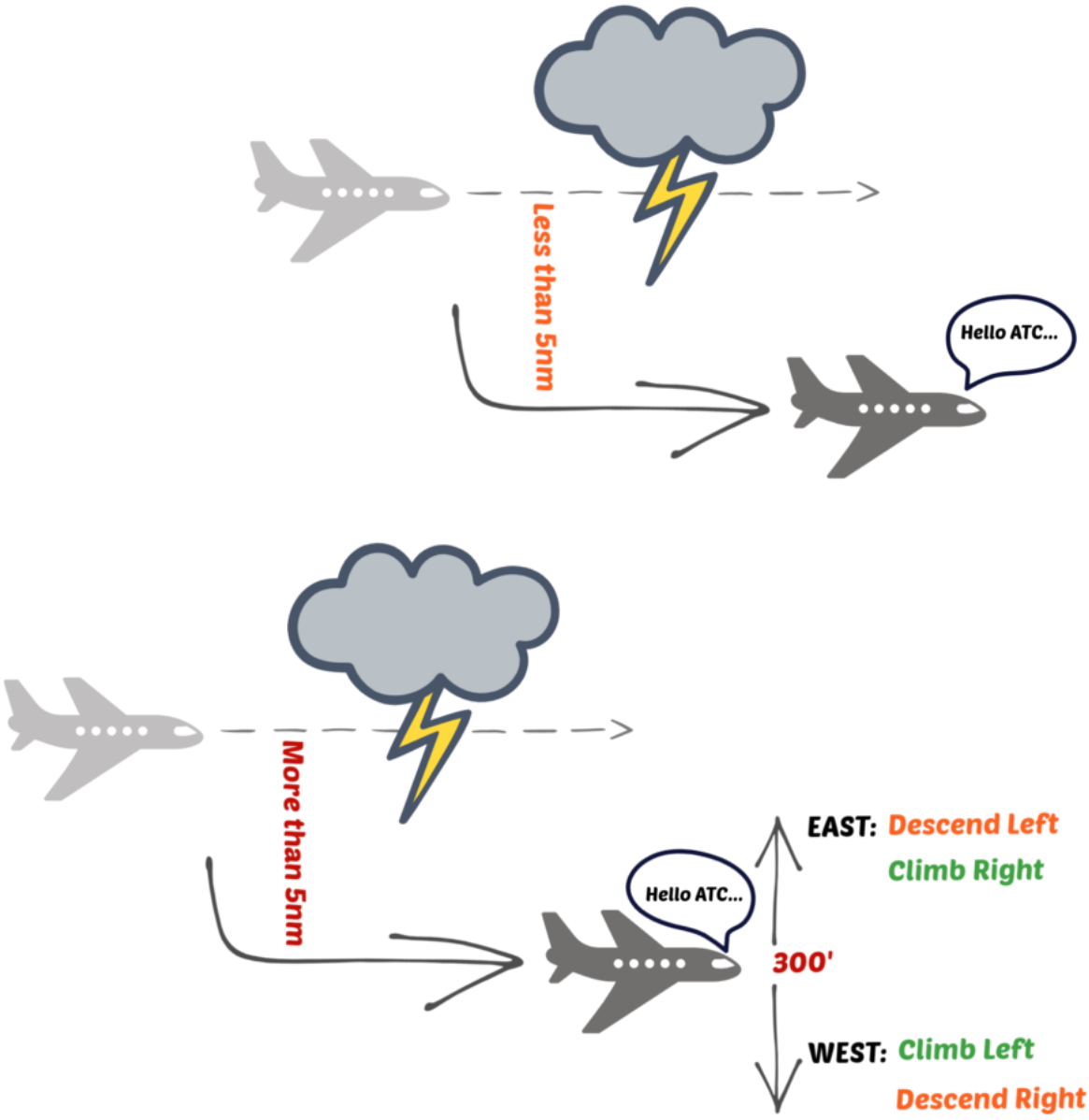
Stick to your assigned Mach. If you have to change it because of turbulence, or you messed up and can't actually fly that fast/slow by more than .01 of a mach, then tell ATC. ATC will tell you when you don't need to stick to it anymore by saying something like "Resume normal speed".

Contingencies

These came in back in March 2019. Check for convective activity early on, that way you have time to pull out the handy picture below and work out what you are going to do.

Also remember: **if you have to deviate *at all*, then you need to tell ATC.** Even if that deviation means a tiny little dog-leg around a storm that will move you off your track less than 5nm, you still need to tell them. They will see if you don't and they will get angry. If you can't get hold of them then that is when you will want to apply the weather contingency procedure.

Here is a picture to help.



SAND means South (of track) ascend, North descend