

## PF TOPC Workflow

(One person's way of doing it)

This looks like a lot of stuff to do at TOPC but when you regularly use this suggested method it takes very little time. It is even easier on Regional flights as the RAWS step usually has been completed fully at the pre flight stage.

I wait until I call the "ALT CRZ" FMA mode change. This signifies TOPC and I then launch into my TOPC Workflow.

I check to ensure that Managed Speed is displayed correctly on my PFD (on the A340-300 it sometimes remains stuck in the **Climb** Managed Speed and does not sequence into the **Cruise** Managed Speed) and check the thrust on the E/WD is in a sensible position (FCTM 5.20.1).

Establish a Radar Protection Zone as per the Weather Radar Manual.

Ensure that you let the PM know that you will be "Heads Down" while you complete the following.

### LBFM

These LBFM actions complete all the NPs required on reaching the cruising altitude.

- Lights** OFF, TCAS to a sensible setting (usually BELOW, but may be ABOVE if at a low cruise level and traffic is mainly above).
- Bugs** Set on standby IAS or ISIS. If the guy in the LHS doesn't do it, ask him to set them.
- Fuel** Gross error check.  $FOB + Fuel\ Used \approx Start\ Fuel$  (as stated in the Before Start Checks). This is probably your first chance to pick up a fuel leak or other abnormality.
- Memo/Monitor** Check that Memo items displayed on E/WD are what you want. Monitor ECAM SD pages by scanning through them (ensure you LOOK at them and don't just quickly scan them).

### Modified Fish Hook

Complete a modified "Fish Hook" of the MCDU. This tidies up the FM/MCDU. Start at the bottom LH corner and work your way anti-clockwise around the MCDU page keys.

- FPLN** Has the route been checked from the present position to at least about 1 hour in front of the aircraft? This item will be further refined later, so this is just a quick check to ensure the short term information in the FPLN is correct.
- RAD/NAV** Ensure either the Nav Aids are Auto-tuning or Manually select a suitable en-route Nav Aid (this may be a Nav Aid at the nearest suitable airfield).
- FUEL PRED** A quick preview of EFOB at DEST and ALTN, and EXTRA fuel available. This is very likely to be extremely inaccurate on an ULR flight as the FPLN may not have been fully completed at this early stage or the Winds/Temps or Step Alts may not have been included.
- SEC FPLN** Either copy the Active or put something sensible in it (e.g. a diversion or escape route or the Nearest Suitable Airfield).
- DATA** CLOSEST AIRPORTS – Review where the Closest Airport that you intend to divert to is, if a serious malfunction occurs.  
EQUI-TIME POINT – Review or update the two Airports you intend to use for your Equi-time Point.
- PERF** Review the CI and STEP ALTS included in the FPLN. Don't change anything just yet, this is just to check what is actually in there. These will be further refined later.
- PROG** Review CRZ, OPT and REC MAX as displayed. The OPT altitude may change later if you have not uplinked or inserted the Winds/Temps into the FPLN.  
Consider inserting the Ident for the Closest Airport that you intend to divert to if a serious malfunction occurs. As PF I have this page displayed most of the time (PM usually has FPLN page displayed).

### RAWS

RAWS inserts the most accurate information into the FM/MCDU.

On an ULR flight the entire FPLN Route or Waypoints, and on any flight, the Arrival, Winds/Temps or Step Alts may not have been included at the preflight preparation stage due to time constraints.

This part of the workflow can be completed at any convenient time after TOPC. It may be more efficient to let the PM complete his TOPC Workflow before starting the RAWs Workflow as it can sometimes take a fair bit of time on an ULR flight. Come back and complete it later when the PM has completed his duties.

By putting the most accurate information into the FPLN, you can obtain the most accurate predictions from the MCDU.

Garbage In, Garbage Out. Or what we want – Accurate In, Accurate Out.

**Route** Ensure that the entire route has been checked against the CFP. Insert any required Waypoints (some may have to be manually defined e.g. Lat/Long and inserted into the FPLN).

Do a gross error check when the route has been completely inserted (compare DTG on the FPLN page with the DTG on the CFP Fuel Log page).

**Arrival** Insert your best guess for the Arrival given the forecast weather for your Destination. Include any STAR or Approach Via and any applicable Altitude/Speed constraints.

**Winds/Temp** Either uplink Winds/Temp (if not already done) or manually insert them into the FPLN Wind page from the CFP.

You may have to re-uplink Winds if the entire route was not included at the pre flight stage and you uplinked Winds then.

I recommend putting all levels into the FPLN, not just the ones that you intend to use. This covers the altitude band from FL 250 to FL 410 which will be good enough for Step Below altitudes or to cater for a drift down after an engine failure.

While NPs have this as a PM duty, sometimes it is easier if the PF completes this (FCOM 3.03.15, P1).

**Step Alts** Insert Step Alts using the CFP Steps Alts. If after completing the Geographic Steps an Optimum Step exists, insert it. Use the UPDATE function to recalculate the Optimum Step if required.

Make sure that the Winds/Temp are inserted before the Step Alts as this will affect the Step Alt predictions.

You now have the most accurate information available to you input into the FM/MCDU. It should now therefore give you the most accurate EFOB and ETA at Destination. You can now make some informed decisions regarding the long term implications of your flight.

Some considerations that you may apply are;

- If you anticipate you will arrive at your destination early, consider reducing the CI to save fuel as per the Fuel Policy (Vol 2 Pt 2, 1-2-11).
- Do I need updated weather forecasts for either Destination, Alternate or En-route Airfields?
- Define and insert Critical Points or ETOPS Entry/Exit points from the CFP and compare the FM EFOB with the CFP Fuel Required.
- Is the destination for my ETA affected by a Curfew? This may also dictate a change in CI.
- Are AFTL a problem? This may also dictate a change in CI.

## **Other Stuff**

At this stage the vast majority of the PF's TOPC Workflow has been completed.

At some stage complete a scan of the panels to ensure switches/pbs are in the correct position (FCTM 5.20.1).

Let the PM know that you are now "Heads Up" so that he can go "Heads Down" to complete his TOPC Workflow (if this has not already been done).

Be aware of the Closest Airport if a malfunction occurs and review the highest MRA you will descend to if a depressurisation occurs.

When everybody has completed all their tasks, you can now put away/set up charts, order drinks/food and settle into the cruise routine.

Ensure that the Cabin Crew have been notified that the cruise level has been reached and that they can now enter the Cockpit.