

♪ "My way...part eleven" ♪

Your first communication

You are sitting there at the gate at ENGM, your plane is loaded with fuel, cargo and passengers. You have sent your flightplan to ATC and you've gone thru the checklist again, but ... I see a little trembling of your hand as it nears the transmit-button. In a short while your world has changed forever - believe me for the better. Ok, you are not anonymous any more - other people in the flightsim community can see you now and judge your performance. But you are not alone anymore. You can ask for help, instructions and advice - and it will be given to you!

Only thing I would ask of you, is to have a sound judgement of your own abilities - when new to this, tell the ATC you are a newbie, tell him if you dont have charts. It makes it a lot easier for all of us, if we realise our soft spots. Nothing frustrates an ATC more than giving a clearance, gets it confirmed from the pilot - and then sees him wander off in an other direct than called for. And don't do your first online flight at an evening, when we have a fly-in from all over the world. At this time ATC have more than their hands full - we are not pros either and can loose track of things, when things get complicated. At such times ATC finds it difficult to give extensive help to a newbie. A better thing for you to do, is to sit and listening to the radiotraffic and get a feel for it.

But of cause - this doesn't apply to you - you've done your homework, got the charts, flown the plane so often, so that you know it like the back of your hand. So you are READY!....except what DO you say after pressing that button first time?

Well, actually you start by saying....nothing! You listen to the frequency! This may be a two-way radio you've got, but you can't speak and listen at the same time. So you wait for a break in the traffic. As clearances and instructions must be read back, you do not transmit until the read back of the former message has been completed.

Keep the message short and be prepared to write down messages passed on to you - I can't remember a long taxi clearance without writing down at least some of the instruction.

And when you speak - speak a little slower than normal, but at normal volume - this is not a contest on who can say the most in the shortest time.

At www.hilmerby.com you can find examples on real radiocommunications.

Getting your clearance

Before contacting ATC you will normally listen to the ATIS (Automatic Traffic Information Service) to get the latest weather, runway in use etc. These messages have a letter assigned to them, so when contacting ATC, you tell them, you have information "Lima" or whatever letter the actual ATIS message have. In VATSIM you do not always have access to ATIS's, but using ServInfo might give you an ATIS published by the controller. But do not expect one, if you are getting your clearance from Center, as Center usually covers several airports, so he can't make an ATIS for all of them.

In the rest of this paper, I assume all positions are manned (not normally so in real life). Some messages are slightly altered to adhere to VATSIM and not reallife procedures. You are blue and ATC is red.

Dial in CLR-DEL frequency at ENGM 121.600MHz:

“Clearance, Eurostar-156 Airbus 321 at gate 41 with information “Lima” request IFR clearance to Stockholm/Arlanda”

Here you tell Clr your callsign, type of aircraft, position, ATIS, type of flight and where to go - all in a very short and condensed sentence. And the response will come shortly:

“Eurostar-156, Clearance, cleared to Stockholm/Arlanda as filed via a SUTOK1A departure, runway 01R in use. QNH 1011, squawk 6021.”

The “cleared as filed” is shorter than reading all your route (even though it is not very long in our example). You get your SUTOK1A - but which altitude are you cleared for? It says so in the SID, so no need for ATC to tell you that, is there? Otherwise straight forward.

Now you must read back your clearance:

“Eurostar-156 is cleared to Stockholm/Arlanda as filed via a SUTOK1A departure, runway 01R in use. QNH 1011, squawk 6021.”

“156 - readback correct, contact ground on 121.925”

So you got your clearance - you set your altimeter, set your transponder (still in standby) and program your FMC, if you got one and you dial GND, so you can listen to the instructions given to other aircrafts - this gives you an idea of what to expect!

When ready to proceed you call GND:

“Gardamoen Ground, Eurostar-156 (at gate 41) request push and start”

“Eurostar-156, Ground, cleared push and start, call for taxi”

“Clr push and start, will call for taxi, 156”

Normally when contacting an ATC for the first time you always tell your position, but on ground it is most important to tell GND, as GND will be giving you taxi instructions.

You can now push back from the gate and start your engines.

“Ground, Eurostar-156 ready to taxi”

“Eurostar-156 taxi to holding position runway 01R via Lima One, Foxtrot, Golf, November, Alfa Two”

“Taxi to holding position runway 01R via Lima One, Foxtrot, Golf, November, Alfa Two, Eurostar-156”

A long taxi instruction like this one is easier to remember, if you've expected it. So doing your homework IS important- look at the chart and the taxi instruction shouldn't come as a surprise to you.

Taxi at a moderate speed and keep an eye out for other traffic - some might even pop up right

in front of you, when new pilots are logging in. And at all time keep a good distance to aircrafts ahead of you. Still with Squawkbox2.3 the refresh time is somewhat low, that is why you might see orther traffic jumping back and forth. Hopefully this will improve with Squawbox3. One other thing also messes things up - we use different scenery! Some use default FS2000, default FS2002, default FS2004, freeware addons, payware addons. And the positions are not always the same. So let's be careful out there!

During taxi you set up for departure (done that in the other parts of this series). At some point during your taxi, GND calls you:

“Eurostar-156, contact Tower, 118.3”

“Tower on 118.3, 156 - have a nice day”

“Gardamoen Tower, Eurostar-156 approaching holding position 01R”

“Eurostar-156, Tower, number two for Takeoff”

“156”

In front of you you have a Scandinavian Md-90 bound for Bodø, so don't get to close to him, smells fishy, I guess. They got plenty of dried cod up there. Anyway - under no circumstances do you cross the stopline into runway 01R, before your cleared to do so!

“Eurostar-156, after departing MD ninety, lineup and hold 01R”

“Lineup and hold 01R, 156”

You are now free to enter the runway, but NOT to depart!!! And be sure to have more that a peak towards the approach end of the runway. Would be nasty if some joker showed up for landing now!

The MD-90 is now taking to the air, so soon it's your turn.

“Eurostar-156, winds 040 at 8, cleared for takeoff 01R”

“Cleared for takeoff, Eurostar-156”

From the time you were cleared to enter the runway, you OWN it - take your time to get your final preparations done. You have briefed the takeoff procedure with your (inner) second pilot, you have read carefully the SID description -nothing comes as a surprise to you now - or does there? You are sure of, what to do, when a major malfunction happens right before/after V_1 ? What do you do if a windshear happens during takeoff? A lot of things may happen, so don't rush thru the before-takeoff checklist. Take it easy - be sure to takeoff without pack (or with them if you planned so) etc. etc. Remember, when airborne you can't (just like in real life) pause your aircraft, while you look things up in the manual! Tower is clearing more aircrafts behind you for T/O, just as you took off behind the SAS MD-90. Where is he now, by the way? To bad if you bumped into him by accident - remember always to keep a good lookout for other traffic - you are NOT alone anymore!!!

Once airborne Tower contacts you again:

“Eurostar-156, contact Departure on 127.6 - have a nice flight”

“Departure 127.6 - see you”

“Gardamoen Departure, Eurostar-156 is with you at 2000 feet climbing to 7000 feet”

“Eurostar-156, radarcontact, climb to FlightLevel 120.”

“Climbing to FlightLevel 120, Eurostar-156.”

Remember that transition altitude is 7000', so on passing 7000' you set your altimeter to 1013.2 hPa (or 29.92" Hg). When flying OFFLINE I don't always reset the altimeter to standard before 18000', as flight simulator only accepts TA = 18000' (the TA in the US). If you reset it at the correct altitude, you may get funny instructions to climb or descend to the altitude you already are at. But ONLINE it is very important to adhere to real (virtual) world procedures and do what ATC expects you to do.

The TMA at ENGM goes from GND - FL190, but apparently the MD-90 blocks the climb upwards for the moment. So you dial in 12000 on the autopilot and let it do its work.

In all this hectic phase of the flight do not forget to fly the plane and to follow the SID. I usually hand-fly the plane up to clean configuration (wheel and flaps up) and with Auto Throttle engaged all the way. Don't regard use of autopilot as “cheating”! It is there for a purpose - use it - real world pilots do it - so should you!

You are now well established on the SUTOK1A sid - the SAS MD-90 has turned north towards Bodø, so DEP contacts you again:

“Eurostar-156, climb and maintain FlightLevel190”

“FlightLevel 190, Eurostar-156”

Departure cannot clear you higher than his area of responsibility, so as you gets nearer to FL190, he comes on again:

“Eurostar-156, contact Oslo Control on 125.05 - good day”

“Oslo Control on 125.05 - thanks for ATC, see you”

“Oslo Control, Eurostar-156 is with you flightlevel 175 for flightlevel 190”

“Eurostar-156, radarcontact, climb to flightlevel 270”

“Flightlevel 270, Eurostar-156”

So you are now cleared to your cruiselevel, the most busy part of the flight until now is over, now you just let the autopilot work - and have an ear out for call for you.

Shortly after contact with Oslo Center you will be handed over to Stockholm Center. Sutok, which is your SIDs termination point, is also the border point between Oslo FIR and Stockholm FIR. (Actually in real life all of Swenden is now in Sweden FIR, but VATSIM still uses three different FIRs in Sweden: Stockholm, Malmo and Sundsvall. This makes sense as in real life there is more than one controller to take care of Swedish airspace - they do this with different frequencies, but same callsign, whereas VATSIM uses different frequencies AND different callsign - due to limitations in the system).

“Eurostar-156, contact Stockholm Control on 118.4”

“Stockholm on 118.4, Eurostar-156”

“Stockholm Control, Eurostar-156 is with you at SUTOK, FlightLevel 240 for FlightLevel 270, inbound Stockholm/Arlanda on Papa 607”

“Eurostar-156, Stockholm Control, radarcontact, continue inbound ELTOK Flightlevel 270, expect ELTOK3Mike arrival, runway 01Right”

“Continue ELTOK, flightlevel 270, Eurostar-156”

One question keeps popping up: “What is needed to say during the different fases of the flight?” I’ve allready asked this question at the begining of this paper, but instead of answering I told you to shutup and listen :-). Now you have “listened” to my communication with ATC so far, now it’s time to analyse it a bit.

When starting a com, you call the station you want by name [Stockholm Control](#), tell who you are [Eurostar-156](#), where you are [at SUTOK ..on Papa 607](#), which altitude [FlightLevel 240](#) and intentions [for FlightLevel 270, inbound Stockholm/Arlanda](#).

He will come back to you with a clearence [continue inbound ELTOK Flightlevel 270](#). All clearances **MUST** be read back to him [Continue ELTOK, flightlevel 270, Eurostar-156](#), the same applies to altimeter settings - the QNH, transponder setting - the squawkcode and frequency changes. If there is a problem, ask him to repeat the transmission (eventually on text - our advantage over real life), but you do NOT ignore the Air Traffic Controller.

There should be no need to mention it here, but it actually happens - what fun is there if you don’t communicate online? If everything fails, then squawk 7600 - the code for radiofailure. Then the controller can see, that you’ve done all you could, and he’ll try to help you out by clearing the way for you for other traffic. This, however, should only be used in an emergency - never for fun. Worst case - there will be issued a complaint over you and you might be prohibited access to the network.

You should also allways consider your “clearence limit” as mentioned in part 4. If you fail to establish contact with Olso Control and/or Stockholm Control, how far can you legally fly on the clearence you got from DEL? The answer is SUTOK. So if at SUTOK and no contact can be made with Stockholm Control, you must enter a hold at SUTOK. Oslo Control will try to help you out, if the problem persists. But you may have to return to ENGM.

If Stockholm Control isn’t online, when Oslo Control will issue a clearence like this:

“Eurostar-156, you are leaving my airspace. No further ATC is available at this time. Continue as flied, monitor unicom on 122.8 - frequency change approved”

But you have been cleared to ELTOK - no need to read back the info on star/runway as this was NOT a clearance, but merely a service to you in your preparation regarding the next part of your flight.

You are now approaching your top of descend point (TOD). Maybe Control are contacting you now, otherwise you will contact him:

“Stockholm, Eurostar-156 request lower”

“Eurostar-156, descend to flightlevel 110”

“Descending to flightlevel 110, Eurostar-156”

When should you be at FL110? Well, he didn't tell you so you use your usual descend rate (approx. 2200'/min). He'll come back to you, if he wants something else.

BTW - I know the ELTOK3M star says FL130 by ELTOK (or lower). Regardless of what, if able to comply with ATCs instructions, you do it. However, if a thunderstorm show up - tell ATC you want a deviation round it - never underestimate the forces of nature!

“Eurostar-156, cleared ELTOK3Mike, contact Arlanda Approach on 118.5”

“Cleared ELTOK3Mike, Approach on 118.5”

You can now continue to BALVI following ELTOK3M.

“Arlanda Approach, Eurostar-156 is with you Flightlevel 150 for flightlevel 110, inbound ELTOK3Mike”

“Eurostar-156, Descend to Flightlevel 70 by BALVI, expect vectors ILS runway 01Right”

“Balvi at Flightlevel 70, 156”

You are now cleared down to FL70, but still only to BALVI. Hopefully we shalln't enter the hold there, but keep the charts at hand.

“Eurostar-156, after BALVI turn right hdg 175, descend to altitude 4000 feet on QNH 1018, report reaching”

“After BALVI hdg 175, 4000 feet on 1018, report reaching, Eurostar-156”

A little shorthand now - things are increasing in tempo - speaking of which, you do remember the speedrestrictions below FL100 (and above 160kts until the outer marker), don't you?

Somehow the ATC forgot to give you the Transitionlevel, but as you are cleared below (How do you know you are?), you dial in 1018 on your altimeter. You are now busy looking out for other traffic, preparing the cockpit for the approach and lots of other nessesary stuff, so how do you know you are at BALVI? On page AD-2-ESSA-4-5 at the bottom it says BALVI = ARL R-296 DME 11.3, so keep an eye on the dme (just like you did when flying offline, remember?). But now you must also remember to contact approach when reaching 4000'. Anyways - when reaching BALVI you push the hdg hold button and the plane turns gently to

the right towards hdg 175. It won't be long before we reach 4000', so let's ease the throttle a little and reduce speed to 220 kt, before turning into the approach.

“Approach, Eurostar-156 level at 4000 feet”

“156”

The “156” means Approachs has acknowledged your transmission.

“Eurostar-156, turn left hdg 100, descend to altitude 2500 feet”

“Left to 100, descending 2500, Eurostar-156”

You are now well into the approach and can reduce speed a little more as not to overshoot the ILS.

“Eurostar-156, turn left hdg 040, cleared ILS runway 01Right, report established”

“Left to 040, cleared ILS 01Right, will report established, Eurostar-156”

“Approach, Eurostar-156, established on the ILS 01Right”

“Eurostar-156, contact Tower 118.3”

“Tower on 118.3, 156”

Is it ok to land now? NO, you are cleared on the ILS, but if you reach the MAPt (missed approach point), you have to execute a missed approach. Where is the MAPt? It is at your decision height (DH) - you, flying an A321, are a CAT C aircraft and have been cleared for a “normal” ILS approach (CAT I), have a decision height of 313' (215' above the ground). This is close to the Middle Marker, which in the older days, where the decision point.

“Tower, Eurostar-156, established ILS 01Right inbound for landing”

“Eurostar-156, continue approach, number 2”

“Continueing, 156”

Looks like someone is in front of me, hopefully he clears the runway before I reach the MAPt.

“Eurostar-156, winds 350 at 12, cleared to land 01Right”

“Cleared to land 01Right, 156”

Now you can land, remember to disconnect the autopilot at DH at latest and handfly the rest. Only CAT III landings may be made down to the ground on autopilot. But there is no CAT III available at ESSA, only CAT I and CAT II (for some approaches, not all).

“Tower, Eurostar-156 has vacated the active”

“Eurostar-156, contact ground on 121.925”

“Ground on 121.925, 156”

“Ground, Eurostar-156, vacated 01R via WhiskyEcho, request taxi to gate”

“Eurostar-156, taxi to gate 52 via Whisky, Uniform, Yankee, ZuluEch, report at gate”

“Gate 52 via Whisky, Uniform, Yankee, ZuluEch, reporting at gate, 156”

Same safety procedures apply here as in ENGM - keep a good distance to other planes and taxi with moderate speed.

Finally you reach your gate ready to close down.

“Ground, Eurostar-156 at gate 52, request shut down”

“156, flightplan is closed 26 on the hour, have a nice day”

“See ya, Eurostar-156”

That’s it! You’ve done your first online flight - and you were lucky - you got ATC all the way! :-)

This also (almost) concludes my series on, how I (try to) do things and give myself a challenge with Microsofts Flightsimulator. You probably have some of the same points, I have and probably some others as well. I can’t underline enough, that having FUN, is the MOST important thing with all this. So do it your way - and maybe you’ve got some good tips for us to learn. Being part of the Virtual Skyes is a great way to get new friends from all around the world. And I for one, would like to thank all of you, members of Eurostar Aviation, for giving me so much pleasure in the Sky.

But I almost forgot - I promised to clarify Transition Altitude and TransitionLevel in part 3 - so I’d better go back to my study and catch up with the theory.

Until next time

yours

Torben Andersen
ESA-156
SCA-area manager

PS: All errors are mine - please correct them wherever you find them. And trust me - there are more than one to be found.