

Pilot – ATC RT Phraseology

An Introduction to ATC – Pilot Communications

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Pakistan vACC



Introduction:

This document will give you a brief introduction to the calls/conversation taking place on the VATSIM network between you as a pilot and the Air traffic controller or ATC (if online)



1. Sequence of ATC controllers on VATSIM:

Before we look at the sequence of ATC let us understand a little more about the jurisdiction of different ATC positions/controllers at VATSIM network.

Clearance Delivery (e.g. OMDB DEL):

In real life, the person at this position (in coordination with Center controller) is responsible for clearing the aircraft's departure out of an airport to a certain point (which is the sector exit point of that airspace) . But on VATSIM the clearance delivery will clear you to the destination airport. Clearance delivery will also give you the SID you have to fly in addition with the squawk code and initial climb level if any.

Ground Controller (e.g. OPRN GND):

The controller on this position is responsible for the movements of aircrafts on the ground. He/she will clear you for the pushback from the gate and startup, give you your taxi instructions to the holding point of active runway. For the arriving aircrafts the process is vice-versa.

Tower Controller (e.g. OPRN TWR):

From the holding point of active runway to the take off; and for arrivals when the aircraft is on finals till it vacates runway, it will be controlled by the tower controller.

Approach/Departure Controller (e.g. OPLA APP / OMDB DEP):

From a few hundred feet above ground level to FL150 (15000 feet) vertically and a 50nm radius around the Airport horizontally, is the area under control of the approach /departure controller.

Center Controller (e.g. OPLR CTR):

Above FL150 (15000) is all under the control of the center controller.

A question might arise in your mind that “what does a pilot have to do with ATC sequence? “

Well the answer is, it is very important for you as a pilot to remember the ATC sequence so that you can know whom to contact for clearance & for taxi etc.

Fully staffed airport

A fully staffed airport means that all the ATC positions are staffed. In this case

Whilst Departing An airport

When you are departing a fully staffed airport, the sequence of ATC controllers is as follows:

Clearance Delivery (if applicable) -> Ground Controller -> Tower Controller -> Approach / Departure Controller -> Centre Controller

Whilst Enroute

Once you are with the center you will be handed off from one center to the other or while descending to the approach controller

Whilst Arriving at An Airport

When arriving at an airport, the sequence of ATC is as follows:

Centre -> Approach Controller -> Tower Controller -> Ground Controller

Partially staffed airport:

On VATSIM it is very common for you to find an airport which is partially staffed. Some times only approach control is online while at other times center is the only controller online etc. VATSIM operates using a top-down service, meaning a Controller online has to manage all positions underneath him, if no other ATC is available.

In this case you will look at sequence mentioned above and contact according to it e.g.

- If only Ground is online then you will ask for the route clearance and the taxi from the Ground controller
- If only Tower is online then the Tower controller is to be contacted for the clearance taxi and take off
- Similarly if only Approach is online, he/she will give you you clearance taxi take off and climb
- If only Center is online then he/she is to be contacted for your clearance, taxi, take-off, and he will control you till end of his airspace.

Level of Seniority in VATSIM Airspace:

1. Center controller has the highest rank on VATSIM. and he is the most senior controller
2. Approach/Departure controller
3. Tower controller
4. Ground controller
5. Clearance delivery

Centre alone can do the tasks of the controllers beneath him, but Tower cannot perform the duties of the Approach and Centre controller, etc.

Phraseology

Let us do an example flight from Allama Iqbal intl. Lahore (OPLA) to Dubai intl. Airport UAE (OMDB) flight number PIA203 (Pakistan 203) and cruising altitude is 38000 feet

Route: **LEMO3A LEMOM J166 NIKET G201 MOLTA G214 JI EGTAL B505 NADSO MENSA BUBIN BUBI9C**

First of all, we will tune in the frequency of the airport's ATIS (automatic terminal information service) and listen to most updated weather & the active runway. Every ATIS report has a code or information number. Let's say in our case the information of ATIS was Delta

Now if clearance delivery is online we will call the clearance delivery if not then as mentioned in the previous lesson we will look for the successive controller of sequence and call him. Let's say Ground was online at the time of flight. The call will be as follows

Pilot: Lahore Ground, Good evening and Assalam o Alaikum, Pakistan 203 with you at gate 4 with information Delta (D) , aircraft type A320, 125 souls on board, requesting IFR clearance to Dubai Insha' Allah as filed.

GND: PAKISTAN 203, Lahore Ground, Wa Alaikum Assalam, standby.

Note: You don't reply to a Standby call; the controller will call you back himself / herself when he/she is free.

GND: PAKISTAN 203, confirm ready to copy ATC Clearance?

Pilot: Affirm, Pakistan 203.

GND: PAKISTAN 203, you are cleared to destination Dubai via LEMOM3A (SID) departure, initially climb and maintain Flight Level 140, squawk 2344

Pilot: Roger Pakistan 203 is cleared to Dubai as filed via LEMOM3A departure, initial climb and maintain FL140, squawk 2344, PAKISTAN 203

GND: Readback correct, report when ready for push and start.

Pilot: Wilco, PAKISTAN 203.

Now we will setup our FMC make sure and double check that we have entered the correct Squawk and the initial climb level, complete our preflight preps and when ready for pushback and startup we will call him again:

Pilot: Lahore GND,PAKISTAN 203, stand 4, request pushback and startup.

GND : PAKISTAN 203 pushback, pull forward facing south, startup approved, report ready for taxi.

Pilot : Push back and start up approved facing south, will report when ready for taxi
PAKISTAN 203

After the pushback is complete, we'll call him again

Pilot: Lahore GND Pakistan 203 is ready for taxi

GND: PAKISTAN 203, Taxi to holding point runway 36R via taxiway P, Q, QNH 1001.

Pilot: Taxi to holding point runway 36R via P and Q, QNH copied PAKISTAN 203

After this we initiate our taxi to the holding point of runway 36R. Once approaching the holding point of the Runway, we'll let the controller know:

Pilot : PAKISTAN 203 Approaching Holding Point RWY 36R, ready for departure

GND: PAKISTAN 203 contact tower on 118.100

Pilot: Tower on 118.100 PAKISTAN 203, Allah Hafiz

We will dial the new frequency in the radios of our aircraft and call tower

Pilot: Lahore tower Assalam o Alaikum, PAKISTAN 203 with you, holding short of runway 36R

TWR: PAKISTAN 203, Wa Alaikum Assalam, line up Runway 36R and wait

Pilot: line up RWY 36R and wait, PAKISTAN 203

We now will line up on the runway and wait for the controller's takeoff clearance:

TWR: PAKISTAN 203, surface winds 354 at 08 knot,RWY 36R, cleared for takeoff

Pilot: Winds copied, RWY 36R, cleared for take off PAKISTAN 203

We will take off and soon after the take off we call him again

Pilot : Lahore tower PAKISTAN 203 is airborne passing 400 feet (**CURRENT ALTITUDE**) for Flight Level 140 (**CLEARED ALTITUDE**)

TWR: PAKISTAN 203, Airborne 49, contact Approach on 121.300, Allah Hafiz

Pilot : Approach on 121.3, Allah Hafiz

We have been handed off to Approach/departure controller

Pilot: Lahore approach, Assalam o Alaikum, Pakistan 203 with you passing One Thousand 800 feet (1800ft) (**CURRENT ALTITUDE**) climbing FL140 (**CLEARED ALTITUDE**)

Assume he is dealing with heavy traffic and replies as follows

APP: Pakistan 203, Wa Alaikum Assalam, Identified on departure, turn left heading 240, stop climb FL 50 (5000 ft)

Pilot: Roger turning left heading 240 degrees and levelling off / stopping climb FL50 Pakistan 203

Follow ATC Instructions (left heading 240 and maintain 5000 ft) until further advised

APP : PAKISTAN 203 continue climb to FL140

Pilot : Roger continue climb FL140, PAKISTAN 203.

APP: PAKISTAN 203 contact Lahore Center on 127.500

Pilot : Centre on 127.500 PAKISTAN 203, Allah Hafiz

APP: Allah Hafiz

We've now been handed off to Lahore Enroute Control, who is responsible for all enroute traffic

Pilot:Lahore center, Assalam o Alaikum,PAKISTAN 203, you at FL140 inbound NIKET (**Current Waypoint You Are Enroute To, Can be found on your ND**)

CTR: PAKISTAN 203, Wa Alikum Assalam, Radar contact, climb and maintain FL380

Pilot : Climb and maintain FL380, PAKISTAN 203

CTR: PAKISTAN 203, approaching position MOLTA, Lahore Radar Services terminated, contact Karachi CTR on 123.150

Pilot : Karachi center on 123.150, Allah Hafiz, PAKISTAN 203.

We've left Lahore Airspace, and now have been handed off to Karachi Control, for further ATC services

Pilot: Karachi Control, Assalam o Alaikum, this is PAKISTAN 203 with you at FL380 inbound MURLI (**Inbound Waypoint**)

CTR: PAKISTAN 203, Wa Alaikum Assalam, identified, maintain FL380, proceed direct to Sukkur (SK)

Pilot : Maintaining FL380, Direct to sukkur (SK), appreciated, PAKISTAN 203.

Enter in DCT SK in your FMC and follow ATC instructions through the airspace as the controller instructs

CTR: PAKISTAN 203 Approaching position JI, Karachi radar services terminated, contact Tehran 132.500, Allah Hafiz

Pilot: Tehran 132.500, Allah Hafiz PAKISTAN 203

In the same manner Karachi CTR will hand us off to Tehran FIR and Tehran FIR to Emirates center. Hand off calls are all same, you just need to readback the next FIR name and frequency, as above.

Pilot: Emirates center, Good evening, Pakistan 203 with you at FL380

OMAE_CTR: Pakistan 203, Good Evening, Emirates Radar, identified, proceed as filed

Pilot: Continue as filed PAKISTAN 203

OMAE_CTR : PAKISTAN 203, cleared to Dubai, BUBIN9C arrival, for ILS RWY 30L, when ready descend to FL240 report leaving

Pilot: BUBIN9C arrival for ILS 30L, when ready descend and maintain FL240 report leaving, PAKISTAN 203.

*Enter in BUBIN9C arrival for ILS 30L into your FMC, and get your other calculations done before your top of descent. "When ready" means you don't have to start descent immediately but when you reach your top of descent point you can descend and maintain FL240 until he clears you further. When we are at our top of descent and we have initiated our descent we will call him again as **he asked us to report when leaving FL380***

Pilot: Emirates center PAKISTAN 203 leaving FL380 for FL240

CTR: PAKISTAN 203 Roger

CTR: PAKISTAN 203 Descend and maintain FL160 contact Approach on 124.90

Pilot: Descend and maintain FL140, Approach 124.900, good day PAKISTAN 203

Pilot: Dubai approach good evening PAKISTAN 203 passing FL190 descending FL160, BUBIN8C arrival

APP: PAKISTAN 203 Descend and maintain 5000ft on QNH1013 continue on BUBI9C

Pilot: Descend and maintain 3000 on QNH1013 continue on BUBI9C, PAKISTAN 203

APP: PAKISTAN 203 Cleared for ILS30L report established.

Pilot: Cleared for ILS30L report established PAKISTAN 203

After we are fully established on the ILS of runway 30L we will call him again as he asked us to let him know when established

Pilot: Dubai Approach PAKISTAN 203 is established on ILS30L

APP: PAKISTAN 203 contact Dubai tower on 118.75

Pilot: Tower on 118.750, PAKISTAN 203

Pilot : Dubai Tower good evening PAKISTAN 203 with you on ILS30L

TWR: PAKISTAN 203 Continue approach RWY 30L, expect landing clearance on short-finals

This means we will continue our approach but we are not cleared to land yet may be due to some traffic on the runway.

TWR: PAKISTAN 203 winds 280 at 05 knots, RWY30L, cleared to land

Pilot : Cleared to Land RWY30L PAKISTAN 203

(Note: Suppose during the approach, we reach our minimum descent altitude and the controller hasn't yet cleared us to land, we will initiate a Go-around.)

When we have vacated the runway we will wait for tower to call or let him know that we have vacated the active runway. He will then hand us off to the ground controller.

TWR: PAKISTAN 203, vacate left, contact Ground 118.35, good day

Pilot: Vacate to the left, and over to Ground 118.35 good day PAKISTAN 203

Contacting Dubai Ground:

Pilot: Dubai Ground good evening PAKISTAN 203 with you, we have vacated runway 30L via K9 requesting taxi to gate.

GND: PAKISTAN 203, good evening, Dubai Ground, Taxi to stand F11 via K

Pilot : Taxi Stand F11 via K PAKISTAN 203

When parked at gate we will call the GND controller again and let him know that we are parked, ask for engine shutdown approval and closure of our flight plan

Pilot: Dubai GND PAKISTAN 203 is at the gate shutting down, flight plan may be closed, thanks for the wonderful services!

GND: PAKISTAN 203 engine shutdown approved flightplan closed, thanks for flying, good day!

I personally prefer and recommend to all of you that at every hand-off frequency just add a small line to the call "Thank you for the wonderful ATC services". It is not mandatory but it leaves a good impression on the Air traffic controller. An example as follows:

App: PAKISTAN 203 contact tower on 118.500

Pilot: Tower on 118.500 Thank you for wonderful ATC services

Unstaffed airport

Now let us discuss a little about the unstaffed airports. On VATSIM it is not rare to see an airport without any ATC online. In this case the pilot shall tune in 122.800 on his radio. This frequency is known as UNICOM. If the airport is unstaffed then you have to write about your intentions i.e. what you are about to do on UNICOM so that the pilots flying in vicinity know about you.

While pushing back you will write:

"OPLA traffic PAKISTAN 203 pushing back from stand 4"

Or suppose while taxiing

"OPLA traffic PAKISTAN 203 taxiing to runway 36R via P and Q"

You have to write the name of airport when on ground or approaching ground (suppose while descending) because the message on UNICOM is transmitted to all the pilots in a few hundred nautical mile radius so to avoid confusing other pilots its essential to write the ICAO of airport you are on.