Learning Goals
Basic information for the Delivery controller

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Delivery (DEL)

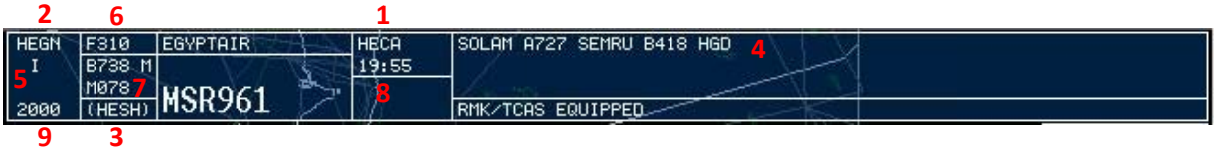
Responsibility

- Approval of the Flight plan
- Providing clearance
- Labelling

Approval of the Flight plan

In busy times at the airport it is not easy to check the complete flight plan of each and every departing aircraft. The following items however can be quickly scanned and should be taken into consideration for a good clearance. It will eventually avoid frustration with other ATC's when an aircraft is handed over with a correct flight plan and proper clearance

The first glance will be at the Flight strip in IVAC.



1. **Check the Departure airport.**
2. **Check the Destination airport**
3. **Check the Alternate airport**
4. **Check the Flight plan route**. Is this a correct flight route?
   The Flight strip tells you that the pilots first waypoint will be SOLAM. Do not accept a pilots flight plan when he just filled in DCT (direct).
5. **Check flight rules**. Is the pilot flying IFR? (I) VFR? (V) Does it correspond with his aircraft type and his route?
   From the Flight strip can be seen that the MSR961 is flying from Cairo (HECA) to Hurghada (HEGN) under IFR (I) flight rules with a Boeing 737-800 (B738)
6. **Check his Flight level**. Is it Odd..or Even? does it correspond with the route he is flying?
   The Flight strip tells you that the pilot is requesting cruising level FL 310. He is Flying to the South and Egypt is using the North-South configuration so an odd flight level in this case is correct.
   Make sure you are familiar with the semi-circular rules. (see training doc : Levels_Altitude_Height)
7. **Check his TAS** (True airspeed)
   Aircrafts flying above FL240 will normally fill in their cruising speed as MACH..but a speed in Nm is also allowed. At these altitudes a TAS of MAch 0.7 to 0.85 is normal.
   *If a pilot filed N0440 (meaning 440 knots true airspeed), How do you know if that is reasonable? use this simple rule of thumb: A Boeing 737 will probably fly at a cruising speed of approx. 280 KIAS (indicated airspeed). The TAS will be roughly estimated by : KIAS + 2%*KIAS * (altitude/1000) so in this case:*
   *280 + 0,02*280*31 = 453 The pilot filed 440. But since this is a very rough estimate and does not take pressure and temperature correction into consideration there is no reason to be alarmed. You should however be alarmed when the pilot files something like 300. Then he really is way off and you are allowed to confront him with this. There are explanations and conversions available on the IVAO academy on how to convert TAS to MACH and vice versa.*

8. **Check his departure time.**
   In real life departing aircrafts work according to SLOT times. A departure time of +/- 10 minutes is acceptable. Otherwise...let him change his departure time.
   In case of an emergency and all traffic is grounded there is no need to have the pilots correct their departure time again! The initial departure time was approved by you but because of the emergency there is just a DELAY
9. **Provide SQUAWK code.**
   According to the type of flight, IFR, VFR, Military, National or International the delivery controller provides the correct squawk code. A list of SSR codes for Egypt can be found on the website.
   Once you have given the clearance to the pilot...check if he has correctly changed his squawk code. If not?...remind him again.

   When you have more time...just press F4 in IVAC and check his complete flight plan.

Preparation

Make sure you are informed well about:

- Airport procedures IFR / VFR
- Squawk codes
- Initial climb
  Initial climb is normally determined by Approach but commonly fixed as 1000ft below the transition Altitude. As an example....the TA at Cairo is 4500ft...the Initial climb will be in this case...3500ft
- Runway in use
  Depending on the headwind direction and forecast and must be the same as TWR (tower) since TWR is responsible for departing an arriving runways.
- ATIS setup

Labelling in IVAC

Why labelling?

It is good practise to label the clearance in the flight plan. It will avoid confusion during busy times on the airport and other controllers can see how the departing traffic was cleared. So……once you provided the clearance to a pilot...label it!

Note that you have a maximum of 6 positions for the labelling

Labelling the waypoints (F5)

(1) SOLAM....if this is the first waypoint on the pilot's flight plan and he is allowed to fly direct
(2) HDG020...meaning the pilot will turn to heading 020 after take-off during the initial climb
(3) RWYHDG...pilot shall maintain runway heading and will be vectored to his first waypoint

The decision of the departure procedures lies with Approach/Departure!
Normally in Cairo we give a clearance for runway heading but Approach may decide to deviate from this.

Note: In Egypt SID's (standard instrument departure) and STAR's (standard arrival procedures) are NOT used.

Labelling initial climb (F8)

At airports where there is no fixed initial climb, DELIVERY shall label the initial climb as well.
Major international airports like Cairo have fixed initial climbs to 3500ft. Delivery labels the waypoint only and leaves the initial climb to the responsibility of the tower if there is a deviation on the standard procedure!

The Clearance

1. use STANDARD phraseology *1)
2. Keep it short
3. Don't tell stories
4. Use correct phraseology *2)

*1) *ICAO Correct phraseology is defined in Annex 10 Aeronautical Telecommunications Vol.x !!*

*2) *Not everything you hear on the radio or LIVEATC is correct. Besides...radio is NOT an official document.*

A correct clearance contains:

1. Call sign
2. Destination
3. SID / Direct first waypoint / heading after takeoff.
4. Runway in use for departure
5. Initial climb
6. Squawk code

Let's go over some examples:

IFR Clearance (I)

WRONG: "MSR961" you are cleared to uuuh ...let me see....Hurghada today from runway 05L anduuuh ...you may put squawk 4401 in your box, initial climb Flight 3500ft

Why is this wrong???

- do not hesitate during clearance. no duuuuuh.....uuuuhhh...let me see...wait a moment...standby....
- and you may??? There is no option for a pilot to choose from. You are controlling so you GIVE the instructions.
- what kind of departure?? is it a standard departure ..non standard? runway heading ? direct? the pilot doesn't know now.
- leave out all extra words like : today...from....you may.....in your box.....(where else do you think he will put it)
- Remember the clearance order...The SQWK as last.

(1) CORRECT: "MSR961", Cleared to Hurghada, runway 05C ,direct SOLAM, initial climb 3500ft, squawk 4401.

(2) CORRECT:"MSR961", Cleared to Hurghada, runway 05C, initial climb 3500ft on heading 030, squawk 4401.

(3) CORRECT: "MSR961", Cleared to Hurghada, rwy 05C, initial climb 3500ft on runway heading, squawk 4401.

Notice that the order of giving the clearance changes slightly when heading or runway heading is given.

Don't forget when clearance is given you label the waypoint by pressing F5.
Note: Labelling can only be done when you own the aircraft with the ASSUME command

WRONG: "MSR961", Cleared to Hurghada, rwy23L,...mm..sorry sir that is my mistake....,it is runway 05C, Initial climb 3500ft, runway heading, squawk 4401.

CORRECT:"MSR961", Cleared to Hurghada, rwy23L,...CORRECTION....runway 05C, Initial climb 3500ft, runway heading, squawk 4401.

So….as a controller....sure you might make a mistake....but do not start apologizing with long stories ....simply use the word: **CORRECTION**

What if you need more time for the Clearance?

Inform the pilot that the clearance will be available shortly and mention the time so he knows how long he has to wait...or in case of an emergency in progress, clearance might take longer. The airport must be clear and focussed on the emergency handling first.

CORRECT: "MSR961", Clearance in 15 minutes due to emergency situation.

CORRECT: "MSR961", Clearance in 15 minutes, emergency in progress.

CORRECT: "MSR961", Clearance in 2 minutes

2 minutes later.....

WRONG: "MSR961", Clearance available, are you ready to copy sir?
WRONG: "MSR961", Clearance available.

CORRECT: "MSR961", Clearance!

Startup - Enroute Clearance

There is also another way to postpone the clearance which is called the split clearance consisting of two phases.

- Start-up clearance
- Enroute clearance.

This type of clearance is normally given to VFR traffic but also used at smaller airports for VFR and IFR traffic. Also here..check the local procedures of the aerodrome where you want to start controlling.

The start-up clearance:

- Call sign
- runway in use
- local QNH
- start-up approved

CORRECT: "MSR961", runway 05C in use, QNH 1017, start-up approved.

The Enroute clearance:

1. Callsign
2. Destination
3. SID / direct first waypoint / heading after takeoff.
4. Initial climb
5. squawk code

ATC: "MSR961", clearance
Pilot: ready to copy, MSR961
ATC: "MSR961", Cleared to Hurghada, initial climb 3500ft, runway heading, squawk4401.
Pilot: Cleared to Hurghada, initial climb 3500ft, runway heading, squawk4401.
"MSR961".

As you can see from this example there is no need to give the departing runway again in the en-route clearance because it was already given in the start-up clearance.

VFR clearance (V)

ATC: "MSR961", clearance
Pilot: ready to copy, MSR961
ATC: "MSR961", cleared local pattern, left-hand circuits, 1000 feet, squawk7001
Pilot: Cleared local pattern, left-hand circuits, 1000 feet, squawk 7001

How to label this VFR traffic?

The waypoint can be labelled as:
"RHAND" for a right hand circuit and "LHAND" for a left hand circuit.
The level will be labelled as:
010

Note: VFR traffic flying below TA (transition Altitude) is always cleared AGL (above ground level). In our example …. 1000ft means…1000ft AGL…
The airport elevation at Cairo is 380ft so the pilot will eventually fly his circuit at an altitude of around 1400ft based on the local QNH

Yankee flightplan clearance (Y)

A pilot requesting clearance for a Yankee flight (Y) will start his flight with IFR and at later stage switch to VFR

As an example his Y-flight plan may look like this:

SOLAM A727 SEMRU B418 SOKAT VFR DCT

- The IFR part is marked red
- The VFR part is marked green
- SOKAT is the point where the switch from IFR to VFR will take place

For you as delivery, treat the pilot as IFR traffic and clear him as such.
in practise:

1. provide the pilot YANKEE clearance
2. Provide a IFR squawk code

example:
ATC: "MSR961", Cleared to Hurghada as filed via YANKEE flight plan route , initial climb 3500ft, runway heading, squawk 4405

The rest of this Yankee flight will be handled by Approach and Tower upon arrival at Hurghada.

Zulu flightplan clearance (Z)

A pilot requesting clearance for a Zulu flight (Z) will start his flight with VFR and at later stage switch to IFR.

As an example his Z-flight plan may look like this:

DCT CWA DCT OCT DCT SOLAM/N0180F150 IFR A727 SEMRU B418 HGD

- The VFR part is marked green
- The IFR part is marked red
- SOLAM is the point where the switch from VFR to IFR will take place
- at SOLAM his speed will be 180 knots at Flight level 150
- A727 will be the first airway which will be followed after SOLAM

For you as delivery, treat the pilot as VFR traffic and clear him as such.
in practise:

3. provide the pilot Zulu clearance
4. Provide a VFR squawk code

example:
ATC: "MSR961", Cleared to Hurghada as filed via ZULU flight plan route , initial climb 3500ft, runway heading, squawk 7011

The rest of this Zulu flight will be handled by Approach.
During the VFR part approach will clear the traffic to stay below the TMA or assign a flight level between the normal IFR flight levels such as: FI065, FI075, FI085 etc....

Final note:
A Yankee flight or Zulu flight can only be performed under VMC !

The Readback

1. Make sure that the pilot reads back the clearance correctly and fully understood the instruction. It is your responsibility to correct him if he didn't.

2. Use the words **BREAK BREAK** if another pilot starts talking in the middle of a clearance read back and let him continue or read back again.

   "THE ONLY VALID CLEARANCE IS A CORRECT READ BACK!"

3. Check the flight strip to see if he did fill in the squawk you have given him.

4. Your job is done when the pilot has read back the clearance correctly and now it is time to send him to Ground for the start-up and pushback (if pushback is needed)

Readability scale

In aviation it's important that communication is crisp and clear. Before starting a flight a radio check can be requested. The Readability scale us used to identify the communication quality.

Scale	**readability**
1	Unreadable
2	Readable now and then
3	Readable but with difficulty
4	Readable
5	Perfectly readable

The radiocheck request

- Station identification
- Aircraft identification
- The words "**Radio Check**"
- Active frequency

Pilot: Cairo Delivery, MSR961, radio check, 120.10
ATC: MSR961, reading you 5

Handover the traffic

WRONG: "MSR961", read back was correct sir now you may contact the ground on 121.70 for the push and start. goodbye sir and have a nice flight.
CORRECT: "MSR961", **read back correct**, for the push and start, contact ground on 121.70
CORRECT: "MSR961", **read back correct**, contact ground on 121.70
CORRECT: "MSR961", **read back correct**, ground,121.70

When all tasks are completed TRANSFER the pilot to GND.
In case GND is not online transfer to the next higher controller.
In case no further controllers are online…RELEASE the pilot to UNICOM 122.80