



# IFR INITIAL CLEARANCE

## 1. Introduction

This article is applicable only for IFR pilots on a controlled airfield and for air traffic controllers handling IFR departures from a controlled airfield.

The first task for a pilot is to fly safely and before flying he needs charts and get his flight prepared.

The first task for an air/ground traffic controller is to have all IFR charts when controlling and read them all in order to catch all local restrictions and recommendations.

## 2. Initial IFR clearance and flight plan approval

### 2.1. Generalities

Every flight that is intended to be operated under Instrument Flight Rules has to receive an initial IFR clearance.

When receiving your initial clearance, your flight plan is approved and you can perform your flight.

The IFR clearance shall contain the following items:

- Aircraft identification
- Clearance limit normally destination aerodrome
- Designator of the assigned Standard Instrument Departure or omnidirectional departure clearance (if applicable)
- Runway in use for departure
- Cleared level
- allocated squawk/transponder code (SQ)
- Any other necessary instructions or information not included in the SID description, e.g. the change of frequency at a particular point, a non-standard departure, the expected startup time...

### 2.2. Type of departure and selection

As a pilot or a controller, you may select a departure.

There are several choices for departure:

- standard departure
- omnidirectional departure
- non-standard departure

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## 2.2.1. Standard departure definition

Standard instrument departure (SID) is a designated instrument flight rule (IFR) departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en-route phase of a flight commences.

This SID route is published on charts using graphical and/or text description.

The SID terminates at the first fix/facility/waypoint of the en-route phase following the departure procedure. For standard instrument departures (SIDs), all tracks, points, fixes and altitudes/heights (including turning altitudes/heights) required in the procedure are published.

In a SID, you do not need to give the initial flight level cleared and the runway in use if the SID description includes it with no doubts.

### Example full clearance:

Scandinavian 845, start-up approved to Stockholm-Arlanda, ROC1H departure, runway 14, initial climb 4000 feet, squawk 3456

### Example clearance with only SID (SID description will provide runway and initial altitude/level):

Air France 4422, cleared to London-Gatwick via ANG1N, squawk 5352

## 2.2.2. Omnidirectional departure definition

Omnidirectional departures normally allow departures in any direction where you will fly to a fix when for instance passing a defined altitude.

Departure is selected using the omnidirectional method, where no track guidance will be provided or no suitable navigation aid is available.

As omnidirectional is not necessary published, the controller must give the departure runway and the initial level/altitude cleared.

Since the point of lift-off will vary, the departure procedure assumes that a turn at 120 m (394 feet) above the elevation of the aerodrome is not initiated sooner than 600 m from the beginning of the runway.

Restrictions can be expressed as sectors to be avoided or sectors having minimum gradients and/or minimum altitudes.

### Example:

Scandinavian 845, startup approved to Stockholm-Arlanda, omnidirectional departure direct SALVI, runway 14, initial climb 5000 feet, squawk 6521

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### 2.2.3. Non-standard departure definition

There are other possibilities to depart from the airport. Those Non Standard Departures are less frequent ways to get to the first fix. Non-standard departures are mainly used for separation reasons but also to save time, for noise abatement, no ability to fly a SID, etc...

In a non-standard departure we can find :

- Vecteded departure: Vecteded departure is a departure where a full description of the trajectory is given by the active controller.
- Visual departure: Visual departure is a departure where pilots navigate to the initial fix through own navigation and by the use of visual terrain monitoring. The pilot shall perform this departure under VMC conditions.

Non-standard departures have to be coordinated with the departure controller (who has to define and approve the procedure) prior to the pilot receiving the clearance.

Example of a vectored departure:

Scandinavian 509, startup approved to Stockholm Arlanda, after departure maintain runway track, climb altitude 4000 feet, when passing 3000ft turn left direct Nicky VOR, thereafter flight planned route, squawk 3737.

### 2.2.4. Departure selection

When flying IFR, as a pilot, you must select the best SID in function of the restriction given on published documentation.

The SID shall be mainly selected in function of:

- Route to destination
- Departure restriction
- Aircraft performance and equipment.

It is mandatory for an IFR pilot and a controller to have the departure charts in order to correctly select the right SID and respect the restrictions.

Examples of bad selection of a departure:

- Select a departure which aircraft's category is non-adequate.
- Select a RNAV departure with a non-RNAV aircraft (equipment)
- Select a daytime departure during aeronautic night
- Select a departure in opposite direction or different direction as there is a more adequate departure
- Select a departure not linked to the route when a departure linked to that route exists

Usually, the first point of the pilot route is the last point of the SID.

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If there is no SID published on the airport, or no adequate SID available:

- The pilot can choose an appropriate FIX or navigation aid for an omnidirectional departure
- The controller can choose an omnidirectional or a non-standard departure to the first point route

### 2.3. Advices for the pilot

Fill in your flight plan correctly before contacting any controller for an initial clearance.

Study all charts in order to read all available departure procedures and constraints (SID, MSA, landmarks, geographical items...). With this study, search for an adequate departure for your flight.

Your first en-route point shall be the final point of the selected departure route (or included in it).

If there is no SID available, you can select a FIX or a navigation aid for an omnidirectional or a non-standard departure. Be aware of your area constraints and select your first point well:

Example:

- Try to avoid restricted areas and fly nearby prohibited areas
- Try to avoid mountainous areas and areas with high landmarks
- Try to avoid arrival point if many incoming traffic is expected

If the SID given by the controller is not adequate due a regulation or technical reason (bad aircraft category, equipment required not present...), you must tell the controller that you cannot perform the SID and give the reason. The controller must issue another clearance.

If a departure clearance given by the controller is not wanted by you, but you can perform it, **you can only try to negotiate with the controller in order to get a new clearance**. But, the controller has other constraints and **he is not obliged to change that clearance**.

### 2.4. Advices for the controller

Study all charts in order to read all available departure procedures and constraints (SID, MSA, landmarks, geographical items...).

Before issuing a clearance for an IFR flight, the controller should check the first waypoint of the filed route in order to select the most adequate departure for this aircraft.

In case of issues, ATC may inform the pilot about the issues with his flight plan.

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### Example:

- First point of the pilot flight plan is selected out of any available SID and it is in accordance with one published SID
- First point of the pilot is an arrival point and not a departure point ( confusion between arrival and departure)
- First point of the pilot is part of outdated departure (pilot has outdated charts)
- No point at all or point does not exist (bad flight plan, typing error...)

If there is no suitable published departure according to the aircraft flight plan, as a controller, you may select an omnidirectional departure or a non-standard departure.

An omnidirectional departure and non-standard departure shall be first given and approved by the approach or the area control controller if no approach controller is present.

It is the responsibility of an approach controller to decide:

- To impose a SID to the aircraft when no SID is selected
- With no suitable SID, to select the omnidirectional departure or vectored departure
- To give the parameters for vectored approach delivery or ground controller

As a controller, you can impose a certain departure to a pilot. The pilot only has the negotiation rights to obtain something different. When possible try to negotiate with the pilot if he wants to.

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