Standard Operating Procedures

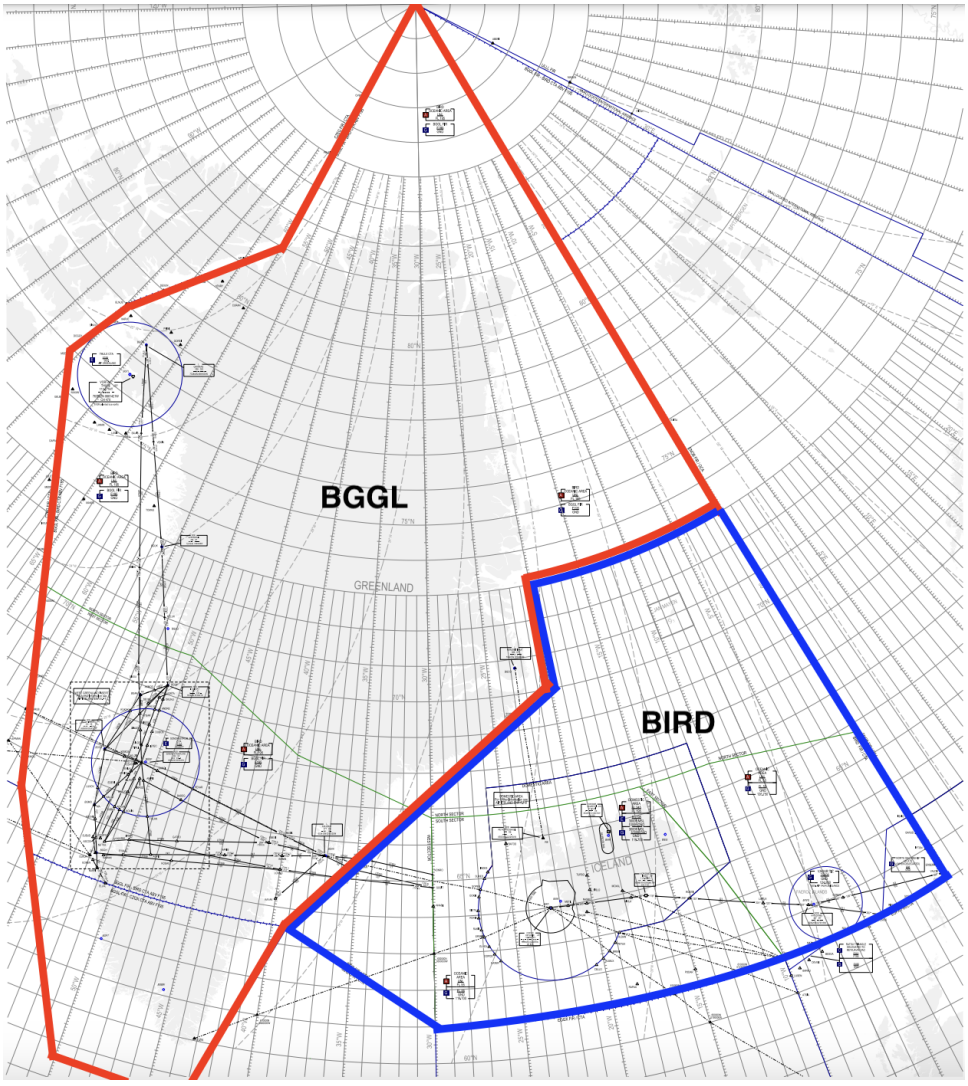
Procedures applicable to all positions, except where superseded by local operating procedures.

General

Introduction to the Reykjavik CTA

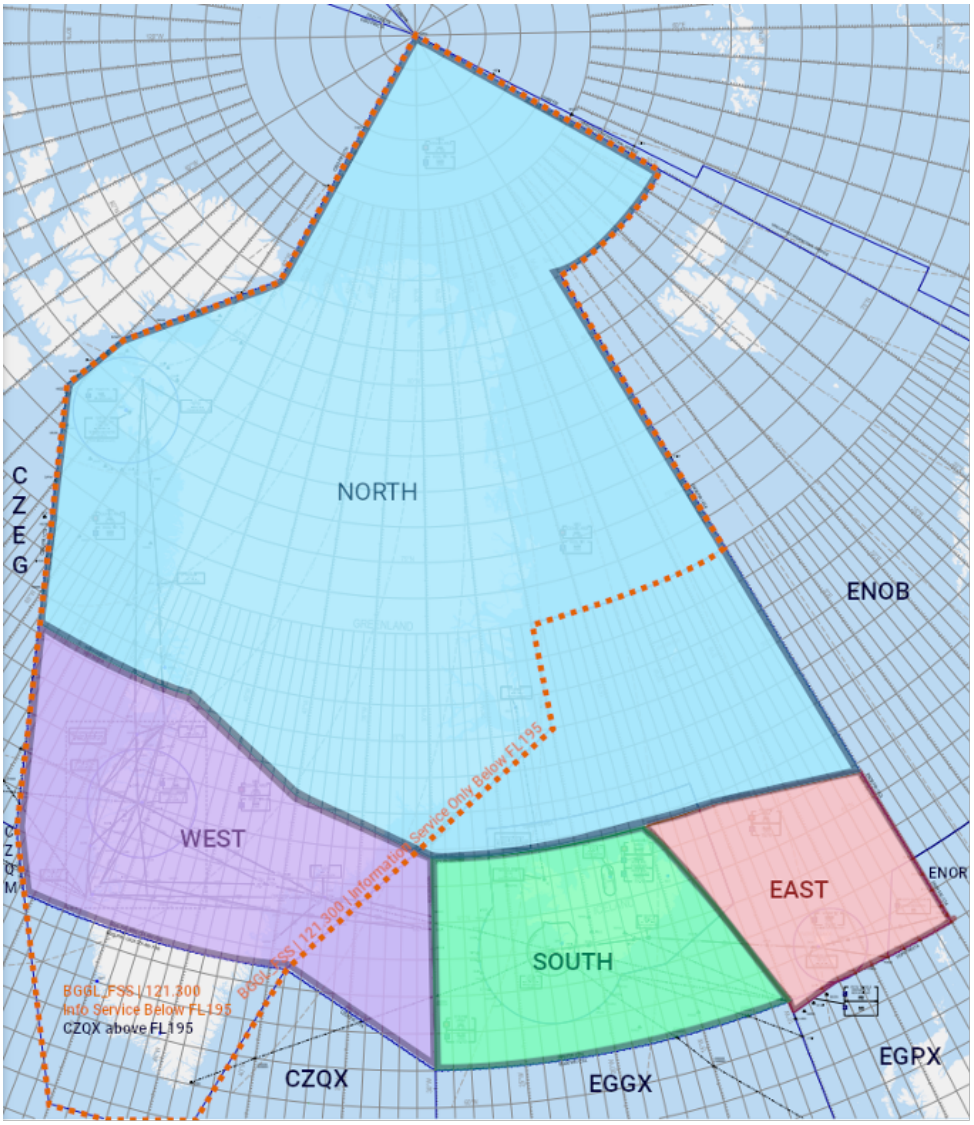
The **Reykjavik Control Area (CTA),** the controlled airspace that Iceland is responsible for, is unique in that it overlaps three territories (Iceland, Greenland, and the Faroe Islands) and two FIRs.

The following image depicts the two FIRs within the Reykjavik CTA – Reykjavik (BIRD) and Nuuk (BGGL).



At present, Greenland delegates its enroute air traffic services to Iceland (as well as Canada.) Hence, the Reykjavik CTA consists not just of BIRD FIR, but also of the central and northern parts of BGGL FIR above FL195.

The CTA is divided into four sectors – North, South, East, and West. These sectors *do not* follow the FIR boundaries of BIRD or BGGL FIR.



The South sector overlies Iceland. The North sector overlies northern Greenland. The East sector overlies the Faroe Islands, and the West sector overlies central Greenland.

> BGGL FIR is only delegated to the Reykjavik CTA **above FL195.** Below FL195, Nuuk Information provides flight information service in BGGL FIR.

Airspace Classification

Out of the seven airspace categories defined by ICAO, the Reykjavik CTA uses five: A, C, D, E, and G.

Class	Separation Provided	Service Provided	Speed Limit	Radio Communication Requirement	Subject to ATC Clearance
A	IFR from IFR	IFR: Air traffic control service – VFR: ***NOT PERMITTED***	N/A	Continuous two-way	Yes
C	IFR from IFR & VFR – VFR from IFR	IFR: Air traffic control service – VFR: Traffic information, and traffic avoidance advice upon request	250KT IAS below FL100	Continuous two-way	Yes
D	IFR from IFR – VFR: N/A	IFR: Air traffic control service including traffic information about VFR flights (and traffic avoidance advice on request) – VFR: IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250KT IAS below FL100	Continuous two-way	Yes
E	IFR from IFR – VFR: N/A	Air traffic control service and traffic information about VFR flights as far as practical – Traffic information as far as practical	250KT IAS below FL100	IFR: Continuous two-way – VFR: No	IFR: Yes – VFR: No
G	N/A	Uncontrolled; flight information service	250KT IAS below FL100	IFR: Continuous two-way – VFR: No	No

Classes B and F are not used in the Reykjavik CTA.

Most TMAs in the Reykjavik CTA are Class D (the Faxi TMA also has some Class A and C airspace.) All CTRs are Class D. FIZs and ATZs are Class G, but are also radio mandatory zones, meaning pilots must be in contact with the local AFIS unit.

Outside of TMAs, CTRs, and ATZ/FIZs, the Reykjavik CTA is:

- Class A above FL195.
- Class A above FL55 within the Reykjavik Oceanic Area (OCA).
- Class E within the lower portion of the Icelandic Domestic Area (3000ft – FL195.) (Note: the upper portion of the Domestic Area, from FL195-FL245, is Class A, as detailed above.)
- Class G below FL55 in the OCA, below 3000ft in the Icelandic Domestic Area, and below FL195 in Nuuk (BGGL) FIR.

Transponder Equipment

All IFR flights in the Reykjavik CTA must have a pressure-altitude reporting SSR (i.e., Mode A+C) transponder.

All aircraft within the Faxi TMA must have an SSR (i.e., Mode A) transponder.

Aircraft operating on transponder codes assigned by Reykjavik Control must keep those codes set throughout the Reykjavik OCA unless otherwise advised by ATC.

(Iceland Only) Abbreviating Local Registrations in R/T

When controlling Icelandic (BIxx) positions, in radio communications, controllers shall abbreviate *local* (Icelandic, with the TF- prefix) registrations as follows:

- On first contact, ATC shall **always omit the TF prefix.**
  - E.g., the registration TF-ICE should always be spoken as “India Charlie Echo.”
- For further communications, ATC may choose to further abbreviate the callsign to its last two letters only.

    - E.g., TF-ISN, normally spoken as “India Sierra November,” may be abbreviated further to “Sierra November."

> This is different from the standard ICAO convention for callsign abbreviation, which is detailed below.

For *foreign* (non-Icelandic) registrations, controllers shall use the standard ICAO convention for abbreviating registrations in radio communications. I.e.,

- On first contact, ATC must **always use the full registration.**
    - E.g., G-ABCD must be read out as “Golf Alpha Bravo Charlie Delta.”
- For further communications, ATC may abbreviate the callsign to its first letter + last two letters.
    - E.g., G-ABCD may be abbreviated to “Golf Charlie Delta.”

> **The above is not applicable to Greenlandic and Faroese positions.** When controlling such positions, controllers shall continue to use the standard ICAO convention for callsign abbreviation for all registrations, local and foreign.

Delivery

When performing clearance delivery, DEL must always check the following elements of an aircraft's flight plan:

- SID/departure instructions
- Flight plan route
- Initial climb (Cleared Flight Level / CFL)
- Cruising level (Requested Flight Level / RFL)
- Squawk code

> As of 20th March 2024, all departing aircraft shall receive a **standard IFR clearance**; no oceanic clearances are to be issued.

SID/Departure Instructions

The vast majority of aircraft will depart a controlled aerodrome on a SID (Standard Instrument Departure), a published procedure starting from the aerodrome (generally specific to a runway) leading to the first enroute waypoint of the aircraft.

DEL should verify that Euroscope has assigned the flight a valid SID — i.e., valid for the active departure runway, connects to the aircraft’s flight plan route, and is appropriate for the aircraft’s performance characteristics.

If Euroscope has assigned an invalid SID, then DEL should manually assign a valid SID on the Departure List.

Non-Standard Departures

Occasionally, an aircraft may be unable to accept an assigned SID. Reasons may include having an out-of-date AIRAC, lack of navigation equipment (e.g., non-RNAV), performance constraints (unable to meet minimum altitudes or climb gradients), etc.

In this case, DEL should coordinate with the overlying Approach (APP) unit. APP will issue non-standard departure instructions which DEL shall then relay to the aircraft,

such as:

- A **radar vectored** departure (fly heading XXX, or climb straight ahead to XXX ft.)
- **Direct** to the first flight plan waypoint.
- **Visual climb** (aircraft climb visually to their first flight plan waypoint; a left or a right turn may be specified on departure.)

Flight Planned Route

Iceland & the Faroe Islands

BIRD FIR is Free Route Airspace (FRA), meaning that aircraft departing Iceland (as well as the Faroe Islands, which underlies BIRD FIR) are generally free to determine their own routings.

However, aircraft may still be subject to certain rules and restrictions to their routing. For example, departures from BIKF and BIRK are not permitted to use the G3 airway, except if they have short-range navigational equipment only. These restrictions are described in LOPs where relevant, and may be found in the Iceland AIP, ENR 1.8.3.1.3.7.

Greenland

BGGL FIR is **not** Free Route Airspace.

A "domestic" airways system has been established in BGGL FIR from FL285 and below. Details on the airways may be found in the Greenland AIP, ENR 3 (ATS Routes.) Generally, flights below FL285 are expected to fly via these airways. For flights above FL285, the rules of BIRD FIR apply.

Initial Climb (CFL)

The standard initial climb from all Icelandic airports is **FL290,** or the aircraft's requested flight level (RFL) if lower.

Initial climb for departures from EKVG and Greenland (BG**) is at the discretion of Reykjavik Control. Traffic permitting, Reykjavik may clear the aircraft to climb directly to RFL.

DEL should verify that the initial climb is set correctly on Euroscope on the CFL (Cleared Flight Level) list item.

Cruising Flight Level (RFL)

DEL should verify that the aircraft's Requested Flight Level (RFL), i.e. its cruising level, is valid.

In the Reykjavik CTA, IFR cruising levels are allocated following these rules:

- **2000ft – FL410:** Levels are separated by 1000ft, and allocated following the East/West semi-circular rule.
  - I.e., flights with an Eastbound track (000-179°) fly at odd thousands of feet, and flights with a Westbound track (180-359°) fly at even thousands of feet.
  - *Technically, between FL290-FL410, this is subject to RVSM approval. However, on VATSIM, we assume that any aircraft requesting to fly in RVSM airspace is RVSM approved.*
- **Above FL410:** Levels are separated by 2000ft. E.g., FL410 Eastbound, FL430 Westbound, FL450 Eastbound, etc.

Squawk Code

After DEL has checked all of the above elements of the flight plan, DEL should assign the aircraft a discrete four-digit squawk code (aka SSR, or secondary surveillance radar, code) via TopSky.

Clearance Format/Phraseology

[CALLSIGN]**, cleared to **[DEST]** via **[SID]**, climb via SID **[CFL]**, **[SQUAWK].

E.g.,

> “ ICE123, cleared to London Heathrow, via the LUTER 2A departure, climb via SID FL290, squawk 4110.

Reroutes

It is generally assumed that unless stated otherwise, an aircraft is being cleared via its flight planned route. If there are any amendments to the routing, DEL shall state them after the SID. E.g.,

> “ FLI401, cleared to Vagar with a reroute, via the OSKUM 3A departure, after OSKUM direct MY, climb via SID FL290...

It is good practice to indicate that there will be a reroute using language such as "with a reroute" when issuing the clearance, to ensure the pilot is ready to copy.

For *partial* reroutings, DEL may use the phrase "flight planned route" to indicate where the original route would resume. E.g.,

> “ ICE123, cleared to London Heathrow with a reroute, via the OSKUM 3A departure, after OSKUM direct RATSU then flight planned route, climb via SID FL290...

If the rerouting is very long, DEL may provide the new routing via a separate transmission, before issuing the clearance itself, to reduce the length of each transmission. If the reroute was provided separately before the clearance, the clearance itself does not need to specify "with a reroute."

Non-Standard Departure Instructions

For aircraft which are not following a SID, then their departure instructions (as coordinated with APP) should be given following the phrase “after departure runway XX...” E.g.,

> “ ICE236, cleared to Akureyri, after departure runway 01 fly heading 040, initial climb 5000ft, squawk 1217.

Since the aircraft is not following a SID, the initial climb may be issued simply as “initial climb" (or simply "climb" if the aircraft will climb all the way to cruise.)

Whenever an aircraft is maintaining the runway heading/track after departure, the instruction "climb straight ahead to [LEVEL]" may be used to serve as both the departure instruction & the initial climb.

After Issuing Clearance

Upon the pilot's correct readback, they should be instructed to report ready for push & start on the **delivery frequency.** Only when the aircraft is ready should they be transferred to GND. This is to ensure they are on frequency, should DEL have to re-clear them.

If a VFR departure calls DEL, DEL shall instruct them to contact GND. DEL does **not** issue VFR clearances.

Ground

Pushback & Startup

In the Reykjavik CTA, all aircraft require clearance for startup, except for single-engine fixed-wing aircraft, and aircraft at uncontrolled aprons (as described in LOPs, e.g., Fluggardar at BIRK.) Single-engine fixed-wing aircraft may start up without ATC approval.

- Startup clearance may generally be issued upon request, except (for IFR departures) if flow control measures are in force. See the Flow Control page for more information.

If an aircraft requires pushback as well from its stand, GND may issue the pushback & startup clearance together (i.e., “push and start clearance.”).

Aircraft must have their squawk code set and their transponder on **before** they may be cleared for pushback.

First Contact with VFR

Upon first contact with VFR aircraft, GND should assign them a discrete (i.e., unique) squawk code, provide them with the local QNH, and ask for their intentions.

> Some registrations and callsigns have allocated squawk codes in Iceland (i.e., those registrations/callsigns will *always* use that squawk code.) These are published in an AIC in the Iceland AIP, currently **AIC A 09/2023** (published Aug 2023.)
>
> The BIRD sector file is configured to assign these codes automatically, so ATC does not generally need to handle these aircraft differently than others.

GND should coordinate with TWR to inform them of the aircraft’s intentions. This must be done before the aircraft reaches the runway holding point, so that TWR may advise

if the pilot’s intentions cannot be accommodated due to airspace congestion in the CTR.

Taxi

Before taxiing, aircraft must be squawking their assigned code & their transponder must be on.

Taxi instructions should include the aircraft's taxi route and destination, as well as any necessary information or instructions to avoid obstacles or conflicting traffic (e.g., hold short, conditional instructions, etc.)

> “ICE123, taxi via N and E to holding point runway 01, cross runway 28, give way to the British Airways A320 on N.

If an aircraft will taxi through an apron as a part of its taxi, one may choose to include the apron in the taxi clearance, along with the cardinal direction that the pilot will be following. E.g., taxi southbound on the East Apron." This is not strictly necessary, but can improve the clarity of the taxi instructions.

Runway Crossing & Backtracking

TWR must approve all runway crossings, and GND communicates the crossing clearances to aircraft. I.e., aircraft remain on GND’s frequency during the crossing, even though the approval to cross comes from the TWR controller.

For **inactive** runways, TWR may issue a “blanket clearance” to GND to allow runway crossings on that runway without coordinating each individual aircraft with TWR. Any blanket clearance becomes automatically invalid if the runway in question becomes active, even if only for a one-off departure or arrival.

For **active** runways, GND shall always coordinate an individual clearance for each aircraft that must cross that runway. No blanket clearances may be granted.

If any aircraft must taxi on a runway for any reason, GND shall coordinate with TWR first, then transfer the aircraft to TWR when holding short of the runway.

Reaching the Holding Point

Once a departing aircraft is approaching the runway holding point for departure (or for taxiing/backtracking on a runway), GND should transfer the aircraft to TWR.

Tower

Determining the Active Runway

Controllers should determine the active runway based on the following factors:

1. **Winds** – Choosing the runway with the largest headwind component.
2. **Runway length/characteristics** – If the headwind component between two runways is similar, choosing the one which is longer, or which has an ILS, etc.
3. **Local procedures** (e.g., preferred runway for noise abatement, if one exists.)

Flexibility should also be granted where possible. Traffic permitting, one should make all reasonable efforts to accommodate any requests from pilots to use non-active runways.

Control Zone (CTR)

In addition to the runways, TWR is also responsible for the Control Zone (CTR), the airspace immediately surrounding their airport. This includes controlling VFR arrivals, departures, and aircraft in the circuit. See the VFR Guide for more information.

Takeoff Clearances

Takeoff clearances must not be issued unless all departing traffic ahead has crossed the end of the runway or begun a turn, and any arriving traffic ahead is clear of the runway. The only exception is if reduced runway separation minima (RRSM) is being applied; see below.

The takeoff clearance should include:

- Winds
- Departure runway

- *(Intersection departures only)* The runway intersection
- *(IFR departures only)* The next ATS unit which the aircraft will be contacting.
  - This may be omitted if one is covering TWR top-down.

For example:

> “FNA102, when airborne contact Keflavik Approach on 119.300, winds 170 degrees 12 knots, runway 19 from S, cleared for takeoff.

For VFR departures, the takeoff clearance should include the flight’s VFR clearance to join the circuit, VFR route, or leave the control zone. See the VFR Guide for examples.

Taxiing on the Runway

Any taxiing or backtracking on the runway shall be conducted on the TWR frequency. TWR shall transfer the aircraft back to GND once it is clear of the runway.

Departure Separation

Fixed-wing aircraft departing on the same route must have at least **5 NM** constant or increasing separation in trail. TWR and APP shall be jointly responsible for ensuring this.

Wake turbulence separation must be applied between departures when the second (trailing) aircraft is a lighter WTC than the first (preceding) aircraft, and they are using:

- The same runway
- Parallel runways separated by less than 760m (2500ft)
- Intersecting runways, if the projected flight path of the second aircraft will cross the projected flight path of the first aircraft at the same altitude or less than 300m (1000ft) below
- Parallel runways separated by 760m (2500ft) or more, if the projected flight path of the second aircraft will cross the projected flight path of the first aircraft at the same altitude or less than 300m (1000ft) below.

> At the time of writing, no airport under the Reykjavik CTA currently has parallel runways.

A minimum time separation shall be applied as follows:

MINIMUM TIME-BASED SEPARATION FOR DEPARTURES					
		First (Preceding) Aircraft			
		Light (L)	**Medium (M)**	**Heavy (H)**	**Super (J)**
Second (Trailing) Aircraft	**Light (L)**	—	2 min	2 min	3 min
	Medium (M)	—	—	2 min	3 min
	Heavy (H)	—	—	—	2 min
	Super (J)	—	—	—	—

One should further add **1 minute** to the wake turbulence separation time after any departures from an intermediate point. Touch-and-goes are considered to be departures from an intermediate point. E.g.,

- A Light departure behind a Heavy departure from an intersection requires 3 mins of separation.
- A Medium aircraft behind a Super aircraft doing a touch-and-go requires 4 mins of separation.

> To maximize efficient use of the runway, if two departures require either wake turbulence or route separation, TWR should utilize the delay time between the two aircraft to allow other aircraft not requiring separation to depart.

Landing Clearances

Landing clearances must not be issued unless all departing traffic ahead has crossed the end of the runway or begun a turn, and any arriving traffic ahead is clear of the runway. The only exception is if reduced runway separation minima (RRSM) is being applied; see below.

A landing clearance shall contain the current winds, the arrival runway, and the phrase “cleared to land.” For example:

> “ICE403, winds 190 degrees 6 knots, runway 19, cleared to land.

If one previously gave an aircraft the winds & landing runway in a “continue approach” instruction, and neither have changed since then, one does not need to say them again in the landing clearance.

If TWR anticipates that the aircraft will be cleared to land less than 4 NM from the airport, TWR should tell the aircraft to “expect late landing clearance.”

Reduced Runway Separation Minima

Some aerodromes in Iceland allow the use of **reduced runway separation minima (RRSM)** in some limited circumstances.

> As of the time of writing, these procedures apply only to the following aerodromes: **BIKF, BIRK, BIAR.**

Aircraft Categories

For purposes of applying RRSM, aircraft are divided into three categories:

- **Category 1:** Single-engine propeller aircraft with a maximum certificated take-off mass of 2000kg or less.
  - *E.g., Cessna 172 (C172), Diamond DA-40 (DA40), etc.*
- **Category 2:** Single-engine propeller aircraft with a maximum certificated take-off mass of more than 2000kg but less than 7000kg; and twin-engine propeller aircraft with a maximum certificated take-off mass of less than 7000kg
  - *E.g., Cessna Caravan (C208), Diamond DA-42 (DA42), etc.*
- **Category 3:** All other aircraft.

> To find an aircraft's maximum certificated takeoff weight, as well as other useful performance characteristics, one may visit the **Eurocontrol Aircraft**

> **Performance Database** at contentzone.eurocontrol.int/aircraftperformance/default.aspx.

Conditions for RRSM

Reduced runway separation minima is subject to the following conditions:

- Must be within the hours of **daylight** (30 mins after local sunrise to 30 mins before local sunset.)
- Shall **not** apply between a departing aircraft and a preceding landing aircraft.
- **Wake turbulence separation** minima shall be applied.
- Visibility shall be at least **5km** and ceiling shall not be lower than **300m (1000ft.)**
- Tailwind component shall not exceed **5 KTS.**
- There shall be available means to assist the controller in assessing the distances between aircraft.
  - *For VATSIM purposes, it is acceptable to use the Euroscope-provided ground radar for this purpose.*
- **Minimum separation continues to exist** between two departing aircraft immediately after take-off of the second aircraft.
- **Traffic information** shall be provided to the flight crew of the succeeding aircraft concerned.
- The **Runway Condition Code** shall not be lower than **5** on any part of the runway.

Separation to Be Applied

> For VATSIM purposes, controllers may use the Euroscope "click and drag" vector tool to measure out the distances required below.
>
> As the Euroscope vector tool shows distances in nautical miles (NM), below are some helpful rough conversions of the distances listed below into NM:
>
> • 600m ≈ **0.5 NM**
> • 1500m ≈ **1 NM**
> • 2400m ≈ **1.5 NM**
>
> *(The above conversions have been rounded up to the nearest .5, for safety and ease of memorization.)*

Landing Aircraft

A succeeding landing Category **1** aircraft may cross the runway threshold when the preceding aircraft is a Category **1 or 2** aircraft which either:

- Has landed and has passed a point at least **600m** from the threshold of the runway, is in motion and will vacate the runway without backtracking; or
- Is airborne and has passed a point at least **600m** from the threshold of the runway.

A succeeding landing Category **2** aircraft may cross the runway threshold when the preceding aircraft is a Category **1 or 2** aircraft which either:

- Has landed and has passed a point at least **1500m** from the threshold of the runway, is in motion and will vacate the runway without backtracking; or
- Is airborne and has passed a point at least **1500m** from the threshold of the runway.

A succeeding landing aircraft may cross the runway threshold when a preceding Category **3** aircraft:

- Has landed and has passed a point at least **2400m** from the threshold of the runway, is in motion and will vacate the runway without backtracking; or
- Is airborne and has passed a point at least **2400m** from the threshold of the runway.

Departing Aircraft

- A Category **1** aircraft may be cleared for take-off when the preceding departing aircraft is a Category **1 or 2** aircraft which is airborne and has passed a point at least **600m** from the position of the succeeding aircraft
- A Category **2** aircraft may be cleared for take-off when the preceding departing aircraft is a Category **1 or 2** aircraft which is airborne and has passed a point at least **1500m** from the position of the succeeding aircraft; and
- An aircraft may be cleared for take-off when a preceding departing Category 3 aircraft is airborne and has passed a point at least **2400m** from the position of the succeeding aircraft.

> Consideration should be given to increased separation between highperformance single-engine aircraft and preceding Category 1 or 2 aircraft.

Go-Arounds & Missed Approaches

Go-arounds may be initiated by the pilot or ATC, if either one feels that the approach cannot be safely continued. TWR must instruct aircraft to go around if they will cross the runway threshold before the aircraft ahead is airborne or clear of the runway (the only exception is if RRSM is being applied, in which case see above.)

IFR go-arounds should generally be instructed to follow the standard missed approach. If an aircraft is flying a visual approach, or is unable to follow the standard missed approach, then they should be given instructions such as a heading or visual climb, as defined by LOPs.

VFR go-arounds may simply be instructed to (re)join the circuit. This may include making an early turn onto downwind, if necessary to avoid conflicts.

> **TWR must coordinate all IFR go-arounds with Approach (APP) before transferring the aircraft back to APP!** APP may tell TWR to relay de-conflicting instructions to the go-around aircraft, such as a heading or climb/stop climb, in order to avoid conflicts with airborne aircraft.

Maintaining the ATIS

At aerodromes with an ATIS, it is TWR’s responsibility to maintain the ATIS. If TWR is offline, then APP or area control units who are covering TWR top-down shall maintain the ATIS. Only if there are no overlying APP/area control units online should GND or DEL maintain the ATIS.

Aerodrome Flight Information Service (AFIS)

Introduction to AFIS

Aerodrome Flight Information Service (AFIS) is the provision of flight information service to aircraft in the vicinity of an aerodrome. This includes traffic information, weather information, aerodrome conditions, hazards & obstructions, and any other information which may be relevant to the safe navigation of a flight.

Generally, an AFIS unit will have either the callsign "Information" (in Iceland) or "AFIS" (in Greenland and EKVG.)

> There are two major regulatory environments in which AFIS is provided beneath the Reykjavik CTA: **Iceland**, and **Greenland & EKVG.** (Aviation in both Greenland and the Faroe Islands is managed by Denmark's ANSP, Naviair, so they share similar regulations and procedures.)
>
> These two regulatory environments have different regulations and procedures in some areas. Where relevant, the procedures below will distinguish between Icelandic and Greenlandic/Faroese operating procedures.

Area of Responsibility

Most AFIS aerodromes have an associated **FIZ** (Flight Information Zone – the term used in Greenland/EKVG) or **ATZ** (Aerodrome Traffic Zone – the term used in Iceland.) Aircraft must be in two-way radio communication with the AFIS unit within the FIZ or

ATZ.

Some Icelandic AFIS aerodromes do not have an ATZ. In such cases, aircraft must be in two-way radio communication with the AFIS unit when in the “vicinity of the aerodrome.” This is defined as being within, entering, or leaving the traffic circuit.

Differences from Controlled Aerodromes (Summary)

AFIS officers are not controllers. In general, AFIS units may **not** issue any clearance or instructions on their own. They may only provide information to pilots, and relay clearances from overlying ATC.

The table below briefly summarizes the key differences between controlled aerodromes and AFIS. For those unfamiliar with AFIS, keep reading — these differences will be discussed in more detail.

Controlled Aerodromes	AFIS
“Cleared to…”	“Reykjavik Control clears you to…” *(Clearance not issued by AFIS but by overlying ACC)*"
"Information [letter] is current/correct..."	*AFIS fields do not generally have an ATIS. Pilots should be offered the latest weather upon readback of their clearance, or first contact for VFR departures.*
“Runway in use…	**ICELAND:** The same; AFIS sets active runways. **GREENLAND & EKVG:** “Preferred runway is…”
“Startup approved” / “Push and start approved”	**ICELAND:** The same; AFIS gives pushback and startup clearances. **GREENLAND & EKVG:** “Startup (or push and start) at your discretion, traffic is…” (or “no traffic on the ground”)

“Taxi to… via…”	“Taxiway [X] is available” OR “Taxiway [X] is occupied, traffic is…” **ICELAND**: AFIS may issue taxi instructions within aprons. AFIS may also refuse aircraft permission to enter runways (e.g., “remain clear of runway XX.”)
“Cleared for takeoff”	“No reported traffic runway [XX]”
“Cleared to land”	
“Line up and wait”	“Runway [XX] is occupied, traffic is…”
“Hold short runway [XX]” / “Hold position”	
“After departure leave the control zone…” *(VFR departure instructions)*	*No equivalent; AFIS does not issue VFR clearances.*

IFR Clearances

IFR aircraft request clearance via the local AFIS unit, following the steps below.

1. **The IFR aircraft requests clearance to the local AFIS unit, who shall then relay the clearance request to Reykjavik ACC.**
   - This can be done via any means of verbal coordination (e.g., Discord VC, VATSIM PMs, etc.)
   - The lowest sector of Reykjavik Control overlying the aerodrome shall issue the clearance, except for Greenland where Iceland Radio (if online) shall issue the clearance.
2. **Reykjavik ACC shall issue the clearance to the AFIS unit.**
   1. Clearances may be issued via a **SID** if available, in which case the aircraft must enter controlled airspace following the SID.
   2. Alternatively, the clearance may issued without departure instructions, in which case the aircraft may manuever at its discretion on departure, and may simply enter controlled airspace tracking towards the first waypoint

of its flight plan.
    - If no departure instructions are specified, the clearance shall be issued as "*cleared to [DEST] via flight planned route...*" (any reroutes may be specified before the phrase "flight planned route")
3. **The AFIS unit relays the clearance to the pilot, and verifies the pilot's readback.**
    - When relaying the clearance, AFIS units shall relay the clearance exactly as provided by Reykjavik ACC, except that they should use the phrase "Reykjavik Control clears you to..." instead of "Cleared to..."
        - This indicates that the clearance was issued under the authority of Reykjavik ACC, not the AFIS unit.
        - This applies even if Iceland Radio issued the clearance, because Iceland Radio is part of Reykjavik ACC.

If there is no overlying ATC, or if the aircraft will not enter controlled airspace during its flight, then the aircraft should be told to depart at its discretion.

> There is no AFIS equivalent to VFR departure, arrival, or circuit clearances. VFR aircraft simply depart and arrive at their discretion.

Weather Information

AFIS aerodromes do not typically have an ATIS broadcast. Therefore, AFIS should offer all **departures upon correct readback** of their clearance, and **arrivals on first contact,** the **latest weather information.** This at least should contain the winds and QNH, as well as any other relevant meteorological information (SIGMET, turbulence, etc.) The full met report should also be provided upon request.

*(Note: Pilots may have also have obtained the METAR from their own sources. If a pilot does not require the weather, the AFIS unit does not need to provide the full met report, but **shall still provide the latest QNH.)***

> **At EKVG:** AFIS uses a **Turbulence Weather Indicator (TWI)** to predict expected turbulence on departure/arrival based on local winds. For VATSIM purposes, the TWI has been simulated as a webpage using data pulled from the

> Faroese AIP, here: https://vats.im/twi
>
> Suggested phraseology is "*[Light/moderate/severe] turbulence indicated for [departure/arrival] runway [XX].*"
>
> Thanks to controller Ollie Killean for creating the simulated TWI webpage!

Runway in Use

Iceland

Icelandic AFIS units determine an active runway the same way as TWR controllers. All aircraft are obligated to use this runway.

AFIS units shall notify the overlying Reykjavik ACC controller of the active runway at their airport, to ensure departures and arrivals are cleared to enter/leave controlled airspace via the correct SIDs/STARs for that runway.

Greenland & EKVG

Greenlandic & EKVG AFIS shall **not** determine an active runway, but may determine a **preferred** runway using the same criteria as an active runway. The preferred runway is considered advisory information only – aircraft are not required to use this runway.

However, Reykjavik ACC may sometimes clear an aircraft to fly a published instrument procedure (SID, STAR, approach, etc.) for a specific runway. In such cases, aircraft shall use the runway associated with that procedure. If the aircraft wants to use a different runway, the AFIS unit must coordinate an amended clearance for that aircraft with Reykjavik ACC.

> **At EKVG:** If turbulence is indicated as **severe** for any runway by the TWI, then EKVG AFIS shall **close that runway** for departures and/or arrivals (whichever has severe turbulence indicated.) EKVG AFIS shall also notify the overlying Reykjavik ACC controller accordingly.
>
> Suggested phraseology is: "*Runway [XX] closed for [departure/arrival], severe turbulence indicated.*"

Ground Movements

All movements on taxiways and runways must be performed at the pilot's discretion. The AFIS unit should provide traffic information to all aircraft moving on the ground regarding which taxiways are available or occupied, and any relevant traffic on the ground.

Iceland

Icelandic AFIS units control all traffic on the movement area **outside** of runways and taxiways, and have the authority to refuse the entry of aircraft onto runways.

This effectively means that Icelandic AFIS units are apron controllers at their aerodrome. Aircraft shall call the AFIS unit for startup clearance, as well as for any pushback or taxiing required on the apron.

Greenland & EKVG

All movements on *any* part of the movement area, **including aprons,** shall be performed at the pilot's discretion. Aircraft shall report starting up, as well as any ground movements (e.g. taxi.)

Takeoff & Landing

AFIS units shall **not** issue takeoff or landing clearances. If the runway is clear of traffic, then the AFIS unit should inform departing or arriving aircraft that there is **"no reported traffic runway XX."** Aircraft, when told this, may line up, depart, or land on the runway at their own discretion. For example:

> "FLI402, winds 130 degrees 4 knots, no reported traffic runway 12.

If there **is** traffic blocking the runway in any way, then the AFIS unit should inform departing aircraft **"runway XX occupied,"** provide traffic information, and if necessary, ask for the aircraft's intentions. For example:

> FLI402, runway 12 occupied, traffic is a company A320 backtracking to vacate the runway, report intentions.

NOTE: Even if the runway is occupied, aircraft may still use that runway at their discretion. They are only obligated by the rules of the air not to hinder other traffic.

E.g., if one aircraft is vacating at one end of the runway, another aircraft may reasonably choose to line up on the *opposite* end of the runway, if doing so would not obstruct the path of the vacating aircraft.

Airborne Traffic

As much as possible, AFIS units should proactively offer traffic, weather, and aerodrome information to aircraft in their area of responsibility, in order to facilitate their safe navigation.

Traffic information should generally be provided using procedural methods, since AFIS units do not have radar in Iceland, Greenland, or EKVG. To provide such information, AFIS units may ask aircraft to provide position reports, such as:

- Waypoints/fixes on their route, or on published SIDs, STARs, and approach procedures which the aircraft intends to fly
- Positions relative to the airport, or waypoints/fixes (e.g., abeam the airport, 5 NM from XX NDB, passing waypoint ABCDE, etc.)
- Phases of approach (e.g., final, established on the ILS, etc.)
- Legs of the traffic circuit (e.g., downwind, final, etc.)

Aircraft do not require the AFIS unit's permission to leave the frequency once they are outside of the ATZ/FIZ/vicinity of the aerodrome. However, if the aircraft will be entering controlled airspace, AFIS should instruct them to contact the relevant ATC unit.

- E.g., at EKVG, aircraft should be instructed to contact Reykjavik Control approaching 7500ft.

Aircraft arriving an aerodrome (entering the ATZ/FIZ or traffic circuit) should be provided with the active/preferred runway, as well as any relevant traffic information.

ATS Surveillance (APP & Area Control)

This page details procedures for providing air traffic control service using ATS surveillance (secondary radar, MLAT, or ADS-B.) This includes Approach (APP) and Area Control positions.

Transition Altitude & Level

The Transition Altitudes in the Reykjavik CTA are:

- **Iceland:** 7000ft
- **Faroe Islands (EKVG):** 7500ft
- **Greenland:** Varies by aerodrome, see table below for reference.

Airport	TA
Ilulissat (BGJN)	6000ft
Kulusuk (BGKK)	7000ft
Maniitsoq (BGMQ)	9000ft
Narsarsuaq (BGBW)	9000ft
Constable Pynt (BGCO)	6000ft
Nuuk (BGGH)	7000ft
Paamiut (BGPT)	6000ft
Qaanaaq (BGQQ)	6500ft
Sisimiut (BGSS)	8000ft

Upernavik (BGUK)	6000ft
Uummannaq Qaarsut (BGUQ)	10,000ft
Aasiaat (BGAA)	6000ft

> **NOTE:** The TAs listed above may become out of date over time. Please always refer to the AIP for the correct TA of a given airport or region.

The Transition Level is determined by adding a certain number of feet to the Transition Altitude, depending on the current local QNH. The following table is used:

QNH	<929	930-946	947-963	964-979	980-996	997-1012	>1013
TL	*+3000ft* *from TA*	*+2500ft*	*+2000ft*	*+1500ft*	*+1000ft*	*+500ft*	*+0ft*

Horizontal Separation Under ATS Surveillance

In practice, the minimum horizontal separation under ATS surveillance in the Reykjavik CTA/OCA is:

- **3 NM** within 30 NM radius of KFV VOR (to be used only by Keflavik & Reykjavik Approach)
- **5 NM** east of 30W*
- **10 NM** west of 30W*

> *Strictly speaking, per Icelandic regulations, this is subject to the use of ADS-B surveillance and the altitude/level of the aircraft. Because enroute ADS-B surveillance is now available throughout the entire Reykjavik CTA/OCA, in practice the distinction between 5 & 10 NM separation is the 30W meridian (the boundary between the West & South sector) with level not being a factor.

Vertical Separation

The minimum vertical separation in the Reykjavik CTA is as follows:

- **Below FL290:** 1000ft for all aircraft
- **FL290-FL410:** 1000ft* or 2000ft between a formation flight and any other aircraft
- **Above FL410:** 2000ft for all aircraft
- **At or above FL450:** 4000ft between supersonic aircraft, and between supersonic aircraft and any other aircraft

**Technically, this is subject to aircraft being RVSM-equipped. However, on VATSIM, we assume that any aircraft that has filed an RFL above FL290 is RVSM-equipped.*

Wake Turbulence Separation

Following ICAO standards, the following minimum distances must be applied whenever:

- An aircraft directly follows another at the same altitude or less than 1,000 ft below it
- If both aircraft are using the same runway or parallel runways separated by less than 760m
- An aircraft is crossing behind another aircraft, at the same altitude or less than 300m (1000 ft) below

MINIMUM WAKE TURBULENCE SEPARATION (Nautical Miles)					
		First (Preceding) Aircraft			
		Light (L)	**Medium (M)**	**Heavy (H)**	**Super (J)**
Second (Trailing) Aircraft	**Light (L)**	—	5 NM	6 NM	8 NM
	Medium (M)	—	—	5 NM	7 NM
	Heavy (H)	—	—	4 NM	6 NM

Super (J)	—	—	—	—

A VFR trailing an IFR aircraft, as well as IFR aircraft on a visual approach, may reduce to separation below these minima. However, ATC must inform the pilot “caution wake turbulence” before the separation drops below these minima. Moreover, ATC may **not** instruct an aircraft to reduce below these minima – the pilot must do so on their own initiative.

Allocation of Cruising Levels

In BIRD CTA, cruising levels are allocated following these general rules:

IFR:

- *Below FL410:* Levels are separated by 1000ft, and allocated following the East/West semi-circular rule (i.e., Eastbound flights fly at odd thousands of feet, and Westbound flights fly at even thousands of feet)
- *Above FL410:* Levels are separated by 2000ft (thus, all valid levels are odd).

VFR:

- *3000ft – FL195:* Levels are separated by 1000ft, and allocated following the East/West semi-circular rule + 500ft (i.e., Eastbound flights fly at odd thousands of ft + 500ft, and Westbound flights fly at even thousands of ft + 500ft).

> No VFR levels are allocated above FL195, as all airspace in BIRD CTA above FL195 is Class A, and thus VFR is not permitted.

The following table of valid levels, based on Icelandic AIP ENR 1.7.5, may be used as reference:

WESTBOUND ← Track 180-359° ←		**EASTBOUND** → Track 000-179° →	
IFR	*VFR*	*IFR*	*VFR*
2000ft	2500ft	3000ft	3500ft
4000ft	4500ft	5000ft	5500ft
6000ft	6500ft	7000ft	7500ft (FL75)

8,000ft (FL80)	8500ft (FL85)	9000ft (FL90)	9500ft (FL95)
10,000ft (FL100)	10,500ft (FL105)	11,000ft (FL110)	11,500ft (FL115)
12,000ft (FL120)	12,500ft (FL125)	13,000ft (FL130)	13,500ft (FL135)
14,000ft (FL140)	14,500ft (FL145)	15,000ft (FL150)	15,500ft (FL155)
16,000ft (FL160)	16,500ft (FL165)	17,000ft (FL170)	17,500ft (FL175)
18,000ft (FL180)	18,500ft (FL185)	19,000ft (FL190)	19,500ft (FL195)
20,000ft (FL200)		21,000ft (FL210)	
22,000ft (FL220)		23,000ft (FL230)	
24,000ft (FL240)		25,000ft (FL250)	
28,000ft (FL280)		27,000ft (FL270)	
30,000 ft (FL300)		29,000ft (FL290)	
32,000ft (FL320)		31,000ft (FL310)	
34,000ft (FL340)		33,000ft (FL330)	
36,000ft (FL360)		35,000ft (FL350)	
38,000ft (FL380)		37,000ft (FL370)	
40,000ft (FL400)		39,000ft (FL390)	
43,000ft (FL430)		41,000ft (FL410)	
47,000ft (FL470)		45,000ft (FL450)	
51,000ft (FL510)		49,000ft (FL490)	
etc.		etc.	

Minimum Vectoring Altitude

The Minimum Vectoring Altitude (MVA) is the minimum altitude at which ATC may clear aircraft to during vectoring/direct routing, except if otherwise authorized for radar approaches, departures, and missed approaches.

MVA areas may be specifically defined/established in certain airspaces (e.g., the Faxi TMA.) If there is no minimum vectoring altitude explicitly established for a given area, then the MVA is either the area minimum altitude (AMA) or minimum sector altitude (MSA).

Iceland's AMAs may be found in Iceland AIP, ENR 6.1-3. In Greenland or the Faroe Islands, all AMAs and MSAs are below controlled airspace, so they are irrelevant for MVA purposes.

Descent Below Controlled Airspace

Over Iceland

IFR aircraft may be cleared to descend below controlled airspace if a descent procedure (a STAR or instrument approach procedure) has been published for their arrival aerodrome. At such aerodromes, two options are possible:

- Aircraft may be cleared for a specific descent procedure first, then cleared to descend below controlled airspace.
- Aircraft may also be simply cleared to descend below controlled airspace, without specifying a procedure. However:
  - Their cleared routing must include a waypoint/beacon where at least one of the published descent procedures at that aerodrome would originate from.
  - They must report to ATC the procedure they intend to follow.

If an IFR aircraft wishes to descend below controlled airspace at an airport with **no** published descent procedures, then they may be descended no lower than the area minimum altitude (see Iceland AIP, ENR 6.1-3), and must **cancel IFR** for further descent.

If an aircraft wishes to fly a different procedure than previously cleared, the pilot must contact the ACC unit or local AFIS unit and request a reroute to the beacon/waypoint where their requested procedure begins from. Alternatively, the pilot may cancel IFR and continue VFR.

Over Greenland, the Faroe Islands, or the Atlantic Ocean

Where the minimum altitude of a region is below the Reykjavik CTA, such as over Greenland, the Faroe Islands, or the Atlantic Ocean, aircraft may receive clearance to descend below controlled airspace without canceling IFR, even if there is no published descent procedure.

Transfer of Control & Communications

The transfer of control between ATS units takes place at the airspace boundary, or at the transfer of control point if otherwise designated. The transferring unit should transfer communications with the aircraft to the receiving unit no less than **2 minutes** or **30 NM** (whichever is greater) before the transfer of control point.

For arriving traffic, communications should be transferred to Tower as early as practicable once the aircraft is established on final approach, and at no later than **6 NM final.**

Silent Transfer of Control

Traffic on the same track, or crossing tracks, may be transferred silently (i.e., without prior verbal coordination) between two units if the longitudinal separation between them is at least:

- **10 NM** constant or increasing when the receiving sector uses 5 NM or less separation minima (i.e., east of 30W)
- **15 NM** constant or increasing when the receiving sector uses 10 NM separation minima (i.e., west of 30W)

> LOAs with neighboring sectors may specify different requirements for transferring control to that sector.

If the separation between two aircraft does not meet the above requirements, they must be verbally coordinated with the next unit before transferring control. If speed control is being used to accomplish the required separation, aircraft should be instructed to report their speed to the next controller.

Releases

A release is an approval given for a receiving unit to climb, descend, and/or turn aircraft before the transfer of control point. Standard releases may be detailed in LOPs or LOAs with neighbouring sectors. They may also be coordinated verbally, or granted via the TopSky Release function.

Note:

- Releases for turns do not exceed 45° unless explicitly coordinated.
- The transferring unit remains responsible for separation within their own AoR, unless otherwise coordinated.

Hold Management

As of writing, the Reykjavik CTA currently has no published enroute holds. Published holds on STARs which are within a TMA shall be managed by the APP unit responsible for said TMA. E.g., the published holds on BIKF's STARs, within the Faxi TMA, are managed by Keflavik Approach.

If the published holds in the TMA are full, then APP should coordinate with the overlying ACC unit to hold aircraft outside of the TMA. Such holds should be managed by the ACC unit.

Two aircraft in the same holding stack must be separated vertically by 1000ft, or greater if required by the minimum vertical separation rules. Controllers must not clear an aircraft to hold at a level lower than the Minimum Holding Altitude (MHA) for any published hold.

Published holds may be issued using the abbreviated phraseology: *"Hold at **[FIX]** as published, **[LEVEL].**"* For example:

> "ICE123, hold at MEBUN as published, FL160.

When issuing a non-published hold, or if a pilot requests the full details of the hold, the following information should be given at minimum:

- Holding fix
- Level
- Inbound track/course

The following may also be specified:

- Turn direction (left or right turns. If not specified, it is assumed that the holding shall use right turns.)
- Time/length of leg (in minutes or NM. If not specified, it is assumed that the holding shall use 1-minute legs.)

The following phraseology may be used: ***[CALLSIGN]**, hold at **[FIX], [LEVEL], [INBOUND COURSE], [LEFT/RIGHT]** turns, **[LEG TIME/LENGTH].*** For example:

> "ICE789, hold at MALAB, FL120, inbound course 097, left turns, 1 minute legs.

Change of Flight Rules

While the majority of flights are conducted under one set of flight rules (either IFR or VFR), aircraft may occasionally wish to change from one set of flight rules to another.

> **Note:** If the change of flight rules would be unsafe for any reason (e.g., aircraft requests to switch to VFR but is not in VMC), or would increase the controller's workload beyond manageable levels, the controller always has the authority to deny any request to change flight rules.

Flight Planning

If an aircraft plans in advance to switch flight rules at a specific point in its flight plan, it may do so by adding "VFR" or "IFR" to its flight plan routing at that point. E.g., if the flight plan routing states:

`...KFV/N180A050 IFR DCT RK...`

...that indicates the aircraft will request to change to IFR at KFV (at which point they will be at speed 180kts and 5000ft.)

> In real life, a flight plan with a combination of IFR or VFR should be filed with the flight rule code "Y" (for IFR first then VFR) or "Z" (for VFR first then IFR.) VATSIM's flight plan form does not currently support these codes, so pilots will generally file their flight plans with the flight rules they intend to start the flight with.

Note that aircraft **do not have to pre-plan** a change of flight rules. Sometimes, requests to change flight rules are spontaneous, being driven by the constantly-evolving flight and weather situation (e.g., VFR flight finds itself in IMC and so requests IFR.)

VFR to IFR

For an aircraft to transition from VFR to IFR, the following conditions shall be fulfilled:

- The aircraft must be identified on ATS surveillance (if available), and the Mode C altitude return verified

- The aircraft should meet the IFR separation minima from other IFR aircraft (if not, ATC shall issue instructions to ensure this separation at the point that the IFR clearance becomes effective)

An IFR clearance may then be issued. As with IFR clearances issued on the ground, these clearances generally contain the following elements:

- **Clearance limit**
  - Generally the destination airport, or more rarely, a specific waypoint/beacon/fix if the pilot only wishes to continue IFR to that point
- **Routing**
  - Either "flight planned route," if the aircraft is following a previously flight planned IFR routing. ATC may also provide a routing or instructions, e.g., a radar vector
- **Level**
  - If the aircraft will climb/descend to an altitude & they were not previously given the local QNH, they should be given the QNH as well
- **Squawk** (if not previously assigned)

E.g.,

> "□□N804AB, cancel VFR, cleared to Isafjordur via direct KFV then flight planned route, climb FL100, squawk 4122.

The following is an example of a clearance issued to a limit that is *not* an airport (e.g., the pilot has requested only to be cleared to a specific published hold so they can descend IFR through clouds while holding, then cancel IFR once in VMC):

> "□□(TF-)ISN, cancel VFR, cleared IFR direct to MALAB, hold at MALAB as published, descend 3000ft, report VMC.

If ATC is unable to ensure the required separation from other IFR traffic, or does not have the capacity to handle aditional IFR in their airspace, ATC shall **deny** the aircraft's request for an IFR clearance, and may in turn deny the aircraft permission/clearance to enter a given airspace). ATC should then ask for the aircraft's intentions.

IFR to VFR

For an aircraft to transition from VFR to IFR, the pilot shall report their intention to cancel IFR to ATC. If ATC is able to accept this, ATC shall respond by acknowledging the cancellation of IFR, noting the time of cancellation, and providing any further instructions for the aircraft's continued VFR flight. E.g.,

> “□□(TF-)ABC, IFR cancellation received at 1345z, maintain VFR, join the right hand circuit for runway 13...

If ATC is aware of IMC weather conditions in the aircraft's vicinity, or if ATC does not have the capacity to handle additional VFR in their airspace, ATC shall **deny** the aircraft's request to cancel IFR and ask for their intentions.

Oceanic Area Control

The Reykjavik CTA is unique in that much of it is also designated as oceanic airspace. This page outlines the specific rules and procedures relevant to oceanic airspace.

> As of 20th March 2024, aircraft **no longer** require oceanic clearance to enter the Reykjavik OCA. Updated procedures for oceanic entry are forthcoming.

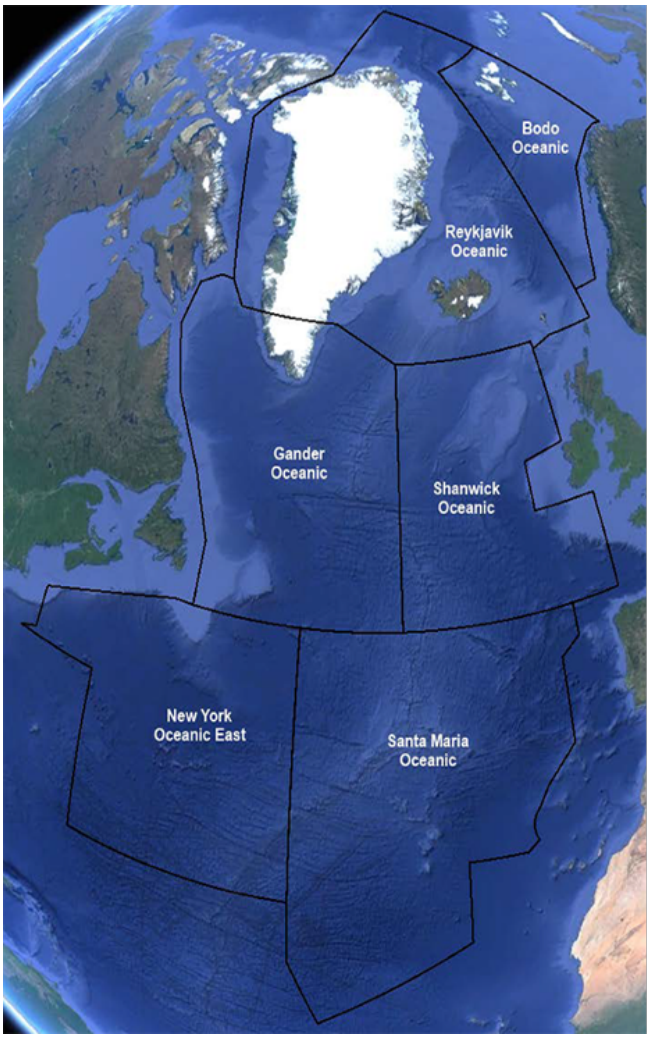
> The Nattrak website has **not yet been updated for OCL removal.** Therefore, controllers **must not use Nattrak** until officially notified that it has been updated.
>
> Due to software limitations, it is not possible to use the Hoppies CPDLC platform to process RCL messages.

Oceanic Airspace

Within the Reykjavik CTA, all controlled airspace outside of the Icelandic Domestic Area is considered oceanic airspace. This airspace is designated the **Reykjavik Oceanic Area (OCA).**

> Because the Reykjavik ACC (Area Control Centre) is responsible for the Reykjavik OCA, it is also referred to as the **Reykjavik OAC** *(Reykjavik Oceanic Area Control Centre.)* "Reykjavik ACC" and "Reykjavik OAC" are generally interchangeable terms, at least for VATSIM purposes.

The Reykjavik OCA is one of six oceanic areas that make up the North Atlantic (NAT) oceanic airspace. The other five are Gander, Shanwick, New York, Santa Maria, and Bodo OFIR (Oceanic FIR).



NAT Tracks

The North Atlantic oceanic airspace uses a system of tracks called the **North Atlantic Organized Track System (NAT OTS,)** to regulate traffic crossing the ocean. While usually remaining in Shanwick & Gander OCAs, the tracks do occasionally enter the Reykjavik OCA.

For a detailed introduction to the NAT OTS, read this guide published by the Gander OCA on VATSIM. (Ignore the sections on the Tango routes & Concorde tracks, as they are not relevant to the BIRD OCA.) A summary of some key points for controllers to note:

- The NAT tracks change twice daily, with **Westbound** tracks being valid from **1130-1900z,** and **Eastbound** tracks being valid from **0100-0800z.**
  - ***Note:*** For VATSIM purposes, as the real-life prevailing flow of traffic is not generally followed by virtual pilots, it is considered acceptable for an

aircraft to fly on the most recently expired tracks, as long as the next set of tracks is not yet active.

- Traffic on each track must follow the published **routing** of the track, within the valid **levels** of that track.
  - The East/West semi-circular rule does not apply on the NAT tracks. Both odd and even flight levels may be valid for both East & Westbound tracks.
- The tracks are published in the NAT track message, which is numbered with a **TMI (Track Message Indicator)** — i.e., the Julian calendar date. Amendments are marked by a letter after the Julian date.
  - It is critical to verify pilots have the latest track message by checking they have the correct TMI.

Entering Oceanic Airspace

Aircraft entering the Reykjavik OCA must have an **IFR clearance.** VFR aircraft are **not** permitted in oceanic airspace (which is Class A); they must either fly below controlled airspace (generally, FL55 over the ocean, or FL195 over Greenland), or obtain IFR clearance.

Aircraft entering the Reykjavik OCA from **domestic** airspace, or from **oceanic airspace where ATC is offline**, shall report all the information below to Reykjavik OAC prior to oceanic entry:

- Oceanic Entry Point (OEP) – i.e., first waypoint in oceanic airspace
- ETA for the OEP
- Mach Number
- Requested Flight Level – i.e., intended flight level at oceanic entry
- The maximum Flight Level which can be attained at the OEP

> Even though there are no more "oceanic clearances," the above procedure is still called a **"request for clearance" (RCL)** message (yes, it is confusing...)

Aircraft must transmit the RCL message **no earlier than 25 mins before** oceanic entry (but still prior to oceanic entry itself.) This may be done via **voice** (or in the near future, via the Nattrak website, once it has been updated.)

Reykjavik OAC shall acknowledge that they have received the aircraft's RCL message. If necessary, they may **amend** the aircraft's flight plan (i.e., instructing the aircraft to fly a different routing, flight level, Mach speed, etc.) as necessary to ensure traffic separation (or to fix any issues in the original flight plan.)

For aircraft entering the Reykjavik OCA from **oceanic airspace where ATC is online**, the aircraft does **not** need to provide a new RCL message. Reykjavik OAC shall obtain the necessary information from the transferring oceanic ATC unit – generally, via the tag transfer (or by verbal coordination, if the info in the tag is insufficient.)

Voice Phraseology

Example 1: Fly current flight plan *(no changes to flight plan required)*

> “✈ Reykjavik Control, ICE123.
>
> ICE123, go ahead.
>
> ✈ ICE123, oceanic entry point is VALDI, estimating VALDI at 1234z, Mach .79, FL340, maximum flight level 360.
>
> ICE123, roger.

Example 2: Amended clearance

If the aircraft's flight plan must be amended, instead of "fly current flight plan," Reykjavik OAC shall use the phrase **"amended [speed/route/level] clearance,"** followed by the details of the amended clearance. E.g.,

> “✈ Reykjavik Control, ICE456.
>
> ICE456, go ahead.
>
> ✈ ICE456, oceanic entry point is IPTON, estimating IPTON at 1235z, Mach .79, FL340, maximum flight level 360.
>
> ICE456, amended route and speed clearance, after IPTON cleared direct ING, then direct NASBU, maintain Mach .76.
>
> ✈ After IPTON cleared direct ING then direct NASBU, maintain Mach .76, ICE456.
>
> ICE456, readback correct.

Controllers may also issue a conditional instruction (e.g., cross a waypoint, climb/descend to a level, etc.) **"at," "at or before,"** or **"at or after"** a certain time, to ensure traffic separation. E.g.,

> “ ICE456, cross IPTON at or after 1236z.

> If an aircraft is flying via a NAT track, Reykjavik OAC must also verify the current **TMI number** with the aircraft prior to oceanic entry.

Nattrak

– TO BE CONFIRMED | DO NOT USE NATTRAK UNTIL UPDATED –

Within Oceanic Airspace

Cost Index (ECON) Operations

In oceanic airspace, aircraft may fly in Cost Index (ECON) mode for optimal fuel efficiency – i.e., they may deviate by up to **±0.02 Mach** from the Mach number originally reported to ATC without prior permission. If they deviate by >0.02 Mach from the originally reported Mach number, they must notify ATC.

Controllers may still instruct aircraft to fly a fixed Mach number if required for separation.

> A similar procedure was previously known as "Operation Without Assigned Fixed Speed" (OWAFS.) The difference is that now (as of 20th March 2024), pilots are expected to fly ECON mode *by default,* not just when ATC instructs "resume normal speed."

Strategic Lateral Offset Procedures (SLOP)

Traffic in BIRD OCA **above FL285** may cause SLOP (Strategic Lateral Offset Procedures). This is a random offset right of the aircraft's track, intended to "artificially" induce a navigation error that reduces the likelihood two aircraft will

occupy the same airspace at once.

At pilot's discretion, aircraft with the capability to offset (using their FMS) may offset **right** of track **(left offsets are prohibited)** up to a maximum of 2 NM (the exact offset the pilot chooses should be random.) **ATC does not need to approve SLOP, or be informed when SLOP is in use.**

Aircraft shall not apply SLOP below FL285 in the Reykjavik OCA, and shall end the use of SLOP before leaving oceanic/entering domestic airspace.

Login Procedures

Empty Position

Whenever logging onto a position that **no one else is covering** (directly or top-down), always inform adjacent and overlying controllers via the ATC chat (and also following up via private message if appropriate.)

Handing Over/Relieving a Position

Whenever logging onto a position that is being **covered by someone else** (directly or top-down), controllers should first:

- **Ideally log on as an observer (OBS)** for 5-10 minutes before connecting, to observe the traffic situation.
- **Check with the other controller,** to make sure they are okay with being relieved, and to agree on the time for the position handover.
  - The controller taking over the position is the *relieving controller* and the controller who is handing over the position is the *relieved controller.*

Then, during the position handover:

1. **The relieving controller logs onto VATSIM on Euroscope and AFV using an appropriate relief callsign.** Generally, one should add an extra underscore before the facility suffix (after the FIR and sector identifier) — for example, `BIKF_TWR` may be relieved by `BIKF__TWR`, and `BIRD_S1_CTR` may be relieved by `BIRD_S1__CTR`.
   - Sometimes, AFV may not properly detect relief callsigns, especially for `_CTR` positions. In this case, one should manually add the original callsign/frequency of the position and XC on the original callsign, to allow access to the correct transceivers for the position.
   - If the other controller is already using a relief callsign, then one may log on with the original position callsign.

2. **The relieved controller shall brief the relieving controller on the current situation regarding the position.** This shall include, at minimum:
   - **Traffic** information for all aircraft under the position's area of responsibility, particularly those which are unusual or coordinated differently than usual.
     - For normal aircraft without any special notes, the relieved controller may simply transfer tags individually to the relieving controller.
   - **Aerodrome** information for all airports under the position's area of responsibility — active/preferred runways, latest ATIS letter if applicable, whether the airport is in IMC/VMC, etc.
   - **Airspace** information about any relevant active airspace area (danger, warning, etc.)
   - **Coordination** agreed with neighboring sectors.
   - Any other relevant information necessary to control the position.
3. **Once the briefing is complete, the relieving controller shall verify that:**
   - They have all tags assumed & all aircraft on frequency.
   - They have connected all ATISes.
   - They have all the information required to control their position.

Once all the above is complete, the relieved controller may disconnect, and the handover is complete.

Mentoring

Whenever a mentor and a student are logging on, the guidelines in the VATSCA Student & Mentor SOP shall be followed. The following should be noted in particular:

- **The student shall log on before the mentor.** This reduces the likelihood that Euroscope will get "confused" and mistake the mentor connection as the primary controller.
- **The mentor shall log on with the midfix `_M_` in their callsign** (e.g., `BIKF_TWR`'s mentor should have the mentor callsign `BIKF_M_TWR`.) The student may log on with the usual callsign of the position.
- **The mentor should verify that the student has the correct Euroscope sector ID in their controller list.** E.g., BIKF_TWR should have sector ID "KFT."
- If the sector ID is displaying as simply numbers (10, 11, etc.), then the mentor may try the following steps:

- Log off & on again
- Use the midfix `_Z_` instead of `_M_`
- Deselect the primary frequency of the position in Euroscope (and accept that Euroscope will not highlight the correct area of responsibility)