Faxi TMA (BIKF & BIRK APP)

Local operating procedures for Keflavik & Reykjavik Approach in the Faxi TMA.

- General
- Keflavik APP
- Reykjavik APP

General

The following page lists information and procedures applicable to the entire Faxi TMA, i.e., both Keflavik & Reykjavik Approach.

List of ATS Positions

Coordination Name	VATSIM Logon	Radio Callsign	Frequency
Keflavik Approach (KFA)	BIKF_APP	“Keflavik Approach”	119.300
Reykjavik Approach (RKA)	BIRK_APP	“Reykjavik Approach”	119.000
Keflavik Final (KFF)	BIKF_F_APP	“Keflavik Approach”	119.150

Division of Responsibilities

The KF sector is controlled by Keflavik Approach, and the RK sector is controlled by Reykjavik Approach. If Reykjavik Approach is not online, Keflavik Approach bandboxes to cover Reykjavik Approach as well.

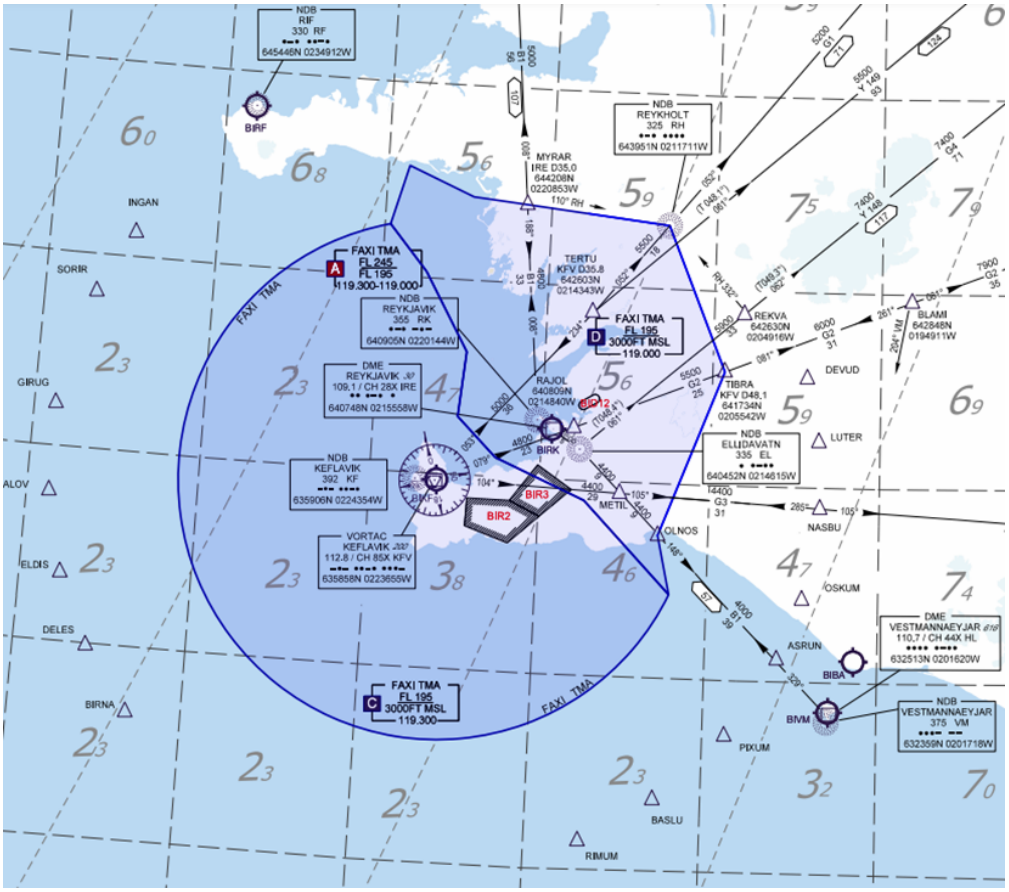
When both Keflavik & Reykjavik Approach are online, they operate as detailed in the "Dual Approach Operations" section below.

“Approach” or "APP" in this chapter, unless otherwise specified, refers to Keflavik Approach online by itself, bandboxing both sectors of the TMA and controlling arrivals and departures into both BIKF & BIRK.

Login Priority

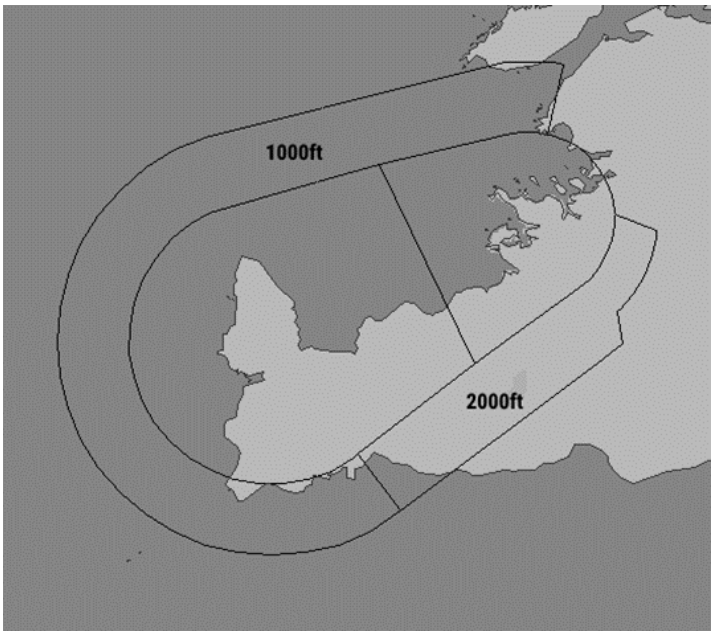
Keflavik APP may be opened at any time. Reykjavik APP may only be opened if Keflavik APP is already online. Keflavik Final may only be opened with the approval of Keflavik APP.

Overview of the Faxi TMA



The Faxi TMA (3000ft/1000ft AGL— FL245) is located above Keflavik (BIKF) and Reykjavik (BIRK) airports. It is divided into two sectors – the Keflavik (KF) sector above BIKF, and the Reykjavik (RK) sector above BIRK.

Collars



The Faxi TMA also has "collars" (formerly known as "buffer zones") surrounding the BIKF & BIRK CTRs. Within these collars, the TMA is extended downwards to 1000ft or 2000ft MSL (depending on the section of the collar; see above.)

Airspace Classification

The Faxi TMA consists of Class A, Class C, and Class D airspace.

- The entire TMA is Class A above FL195.
- Below FL195:
  - The KF sector is Class C.
  - The RK sector is Class D.

The surrounding airspace is either Class A for the Oceanic Area directly above the TMA (FL245+), Class E for the Domestic Area surrounding the TMA (3000ft – FL245), or Class G for the airspace below 3000ft.

Minimum Horizontal Separation

The minimum horizontal separation in the Faxi TMA is **3 NM** within 30 NM of KFV. This is a non-standard reduction of separation. Over 30 NM from KFV, the standard horizontal separation minima of 5 NM applies.

Minimum Vectoring Altitudes

Minimum radar vectoring altitude areas have been established in the Faxi TMA. These are indicated by the golden lines & text on the image above. Levels are indicated as

hundreds (e.g., 41 = 4100ft).

Approach may not issue vectors or directs to aircraft which will cause them to violate the MVA areas.

Procedures

60 NM Release for Arrivals

Reykjavik transfers arrivals to Keflavik/Reykjavik APP when they are 60 NM from KFV VOR. Such arrivals are fully released.

Departures are transferred to Reykjavik Control at the TMA boundary (note: not at the 60 NM ring.)

Dual Approach Operations

When both Keflavik and Reykjavik APP are online at the same time, then they will each control their own respective sector of the TMA (KF sector for Keflavik APP, and RK sector for Reykjavik APP.)

This effectively means that BIKF arrivals from the East (via NASBU, ASRUN, etc.) will generally speak to *Reykjavik* APP first. Similarly, BIRK arrivals from the West (via INGAN, GIRUG, etc.) will generally speak to *Keflavik* APP first.

If Reykjavik APP has any BIKF-bound arrivals in their airspace, they shall transfer them to Keflavik APP **no less than 10 NM from the IAF, or 20 NM from the aerodrome (whichever is greater.)** This is to allow Keflavik APP sufficient time to issue the approach clearance. **The same applies in reverse for any BIRK-bound arrivals in Keflavik APP's airspace.**

- Such arrivals are released for descent and turn, unless otherwise coordinated.

Keflavik APP

Keflavik Approach (BIKF_APP) provides approach control service to all aircraft within the Keflavik (KF) sector of the Faxi TMA, and area control service to aircraft transiting the KF sector of the TMA. Keflavik APP also bandboxes the RK sector of the TMA when Reykjavik APP is offline.

Arrivals

INITIAL FIX	RUNWAY			
	01	10	19	28
DEVUD	4N	4M	2K	1H
NASBU	4N	2M	3K	1H
ASRUN	3N	2M	2K	1H
BASLU	3N	3M	2K	2H
BIRNA	2N	3M	3K	2H
ELDIS	3N	3M	3K	3H
GIRUG	3N	3M	2K	2H
INGAN	5N	3M	2K	2H

Reykjavik Control clears aircraft for the STAR & descends them to FL100. If Reykjavik Control is offline, then APP may contact aircraft early (3-5 mins before they reach the first waypoint of the STAR) to issue STAR clearance and descent.

The standard approach for all runways is the **ILS Z** approach. BIKF's STARs are designed such that the last waypoint of the STAR is also one of the IAF of the ILS Z approach for that runway.

APP shall descend aircraft to cross the IAF at **3000ft if RWY 10/19** is in use, or **3500ft if RWY 01/28** is in use.

> Traffic permitting, it is common practice for APP to cancel the STAR and clear aircraft directly to the IAF.

To ensure that no aircraft violates the minimum horizontal separation of 3 NM in the TMA, APP shall establish aircraft onto the ILS with no less than **5 NM** separation. During single runway operations, APP should aim for **7 NM** between arrivals, to ensure sufficient gaps for departures.

The ILS Z approaches have a published minimum speed of 160kts until 4 NM from the airport. APP may issue a higher/lower speed requirement, or cancel this speed restriction, as necessary for separation and sequencing.

Arrivals on the ILS Z or RNP approaches may be transferred to TWR as soon as they have passed the IAF. For any other approach, APP should wait until the aircraft is established on final approach track/course.

Missed Approach

TWR shall instruct aircraft to follow the standard missed approach, which is generally runway track to 3000ft (except for RWY 10, where it is runway track to D5.0 IKF and then left turn heading 328 climbing to 3000ft.)

If an aircraft is unable to fly the standard missed, TWR will instruct them to climb straight ahead to 3000ft.

TWR shall coordinate all missed approaches with APP prior to transferring them to APP.

Non-Standard Approaches

If aircraft are unable to accept the ILS Z approach, then alternative approaches should be offered in order of precision.

RNP & LOC Z

The published RNP & LOC Z approaches largely mirror the ILS Z approaches, and share the same published minimum speed of 160kts until 4 NM from the airport.

Vectored ILS

Aircraft on a vectored ILS approach into BIKF should be established no closer than 10 NM out.

ILS Y / VOR

The ILS Y and VOR approaches at BIKF are non-RNAV ILS procedures. They are teardrop-shaped procedures commencing from KFV VOR. Aircraft requesting these approaches should be cleared direct to KFV as soon as practical. After KFV, aircraft should report beacon outbound, and then established on the ILS/final approach course (as appropriate.)

> Due to the added difficulty of sequencing aircraft on these procedures while the ILS Z/RNP approaches are also in use, it is preferred to vector aircraft onto the ILS instead of using these procedures.

Since the ILS Y and VOR approaches requires the aircraft to descend below 3000ft (into the BIKF CTR), APP should coordinate with Keflavik TWR to make them aware of any aircraft on such approaches.

NDB (RWY 10)

The NDB approach for RWY 10 is a racetrack procedure commencing from KF NDB. Aircraft may be cleared direct KF as soon as practical. The aircraft should be asked to report on final approach course, at which point it may be transferred to TWR.

Since the NDB approach requires the aircraft to descend below 3000ft (into the BIKF CTR), APP should coordinate with Keflavik TWR to make them aware of any aircraft on such approaches.

Departures

Upon identifying a departure, traffic permitting, APP may clear the aircraft direct to the last waypoint of the SID, even though the last waypoints of the SIDs are outside of the TMA.

- This does not require coordination with Reykjavik Control.
- If giving such a direct, APP should also reiterate the initial climb to FL290 (simply as “climb,” not “climb via SID,” since the SID is cancelled.)

E.g.,

> “ICE123, Keflavik Approach, identified, cleared direct OSKUM, climb FL290.

For OMNI departures, APP should clear the aircraft direct to the first waypoint of its flight plan, and issue further climb to FL290, as soon as practical.

LVP Operations

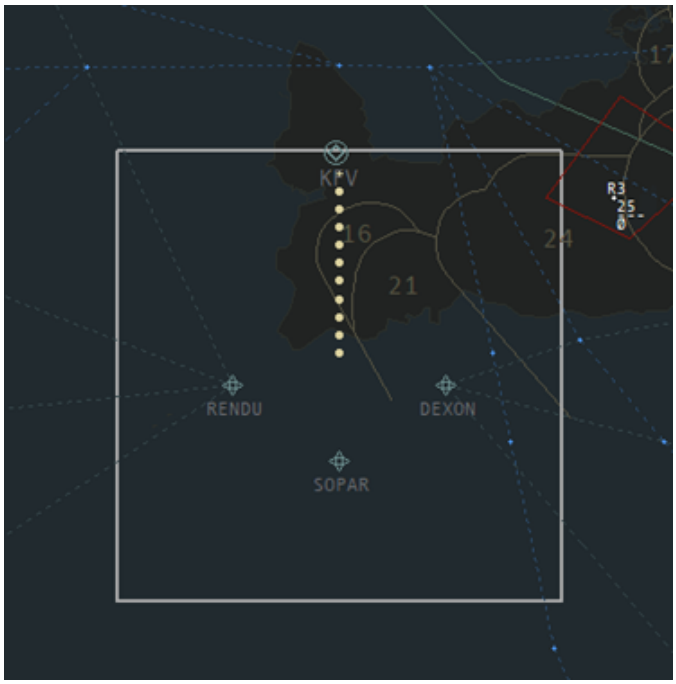
When BIKF is in LVP, Keflavik Approach and Keflavik Tower should coordinate to revise the runway configuration so that the arrival runway is either RWY 10 or 19, as those are the only two CAT II equipped runways at BIKF. Approach should ensure additional spacing (at least +2 NM on top of usual minima) between aircraft.

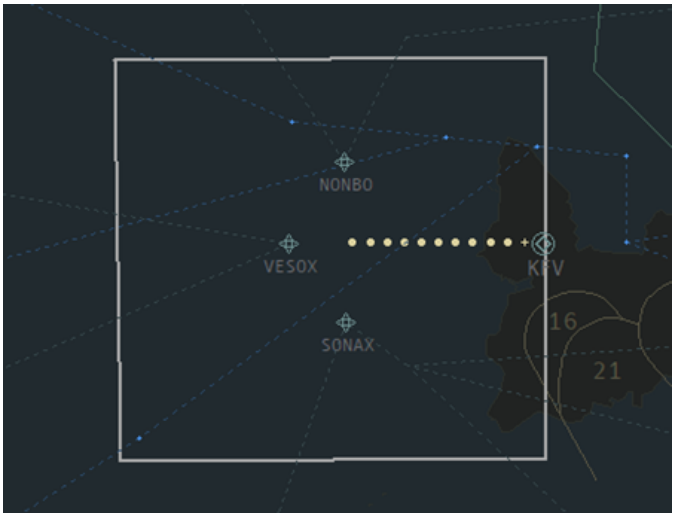
Final Approach Position (BIKF_F_APP)

The Final Approach position is intended to relieve the workload of the primary Approach position during high traffic. The coordination name of BIKF_F_APP is **Keflavik Final** (Keflavik FIN for short), and its radio callsign is **“Keflavik Approach.”**

FIN controls the airspace immediately surrounding the extended centreline of BIKF’s active arrival runway. FIN's airspace ranges from 3000 – 7000ft. For RWY 01, 10, and 19, FIN's airspace is a large box, roughly 40 NM on each side, around the extended centreline. See the images below for reference.

RWY 01	RWY 10





RWY 19	RWY 28

When both Keflavik APP and Keflavik FIN are online, their division of responsibility is as follows:

- APP shall establish the arrival sequence and descends aircraft to **7000ft.**

  - APP shall transfer arrivals to FIN at 7000ft when entering FIN's lateral boundaries.
  - APP should generally vector arrivals onto a downwind for the arrival runway, with at least **10 NM** in trail between each aircraft on downwind (or as otherwise agreed between APP & FIN.)
  - If holding is necessary, APP shall initiate and manage the holds.
- Final shall fine-tune the sequence and direct aircraft onto final approach (the ILS).

> Keflavik FIN does **not** control departures, or provide any top-down service for BIKF.

Reykjavik APP

Reykjavik Approach (BIRK_APP) provides approach control service for all aircraft in the Reykjavik (RK) sector of Faxi TMA.

If Reykjavik Approach is offline, **Keflavik Approach (BIKF_APP)** bandboxes the RK sectors and performs these responsibilities.

Arrivals

While there is no official preferred runway at BIRK, as RWY 01/19 is the longer of the two runways at BIRK, heavier aircraft (e.g., turboprops and airliners) should be offered that runway where possible.

Runway 19 STARs

Only RWY 19 at BIRK has published STARs.

INGAN	2N	**NASBU**	1V
MYRAR	1N	**TIBRA**	1N
REKNO	2N	**TERTU**	2N
VM ***Vestmannaeyjar***	1N		

Reykjavik Control (lowest South sector) clears arrivals onto the STAR and descends them to FL100. If Reykjavik Control is offline, then Approach may contact aircraft early (3-5mins before they reach the start of the STAR) issue this STAR clearance and descent.

Other Runways

As no other runways have STARs, APP may either clear aircraft direct to the IAF, or give radar vectors.

Instrument Approaches

BIRK has varying approach equipment for each runway. The standard approaches for each runway are as follows:

- Runway 01: RNP
- Runway 19: ILS Z
- Runway 13: LOC Z
- Runway 31: RNP A

> Technically, the RNP A is not runway specific. However, because it leads directly towards RWY 31 (and RWY 31 has no other published approaches), we treat it as the standard approach for RWY 31.

The various IAFs for the standard approaches at BIRK each have different altitudes at which pilots should cross them, due to terrain and built-up urban areas directly surrounding the airport (particularly to the East). The following table lists the current initial altitudes for each IAF at time of publication:

RWY 01 (RNP)	NEXEM	**4000’**	**RWY 13** (LOC Z, RNP)	NARMO	**2400’**
	BABTU	**3300’**		ELNIG	
	KERIR	**5100’**		TABIT	
RWY 19 (ILS Z, RNP)	MIKVU	**3600’**	**RWY 31** (RNP A)	FUZZO	**3500’**
	LUSUG	**5100’**		EGGUR	
	KUSUR	**5000’**		DIZMA	
	EXINU *INGAN 2N, RH 2N, & MYRAR 1N only*	**3600’** *MYRAR 1N: **3700’***			

> **NOTE!** These altitudes may change over time as procedures & airspace are updated. Always reference the Iceland AIP to determine the correct published altitude.

Missed Approach

TWR will instruct aircraft to follow the standard missed approach. The missed approaches for each runway are as follows:

- **RWY 01:** Climb runway track to RKT01 (7 miles out from BIRK), then turn left direct ALTUS, climbing to 3000ft.
- **RWY 13:** Climb runway track to 4 miles out from BIRK (D4.0 IRE or RKT01, depending on approach), then turn right direct INGOX climbing to 2400ft.
- **RWY 19:** Climb runway track to 800ft (for ILS/LOC APP) or 1000ft (for RNP), then turn right heading 322 climbing to 3600ft.
- **RWY 31:** Climb runway track to INGOX, then turn right direct ALTUS, climbing 3000ft.

If an aircraft is not able to fly the standard missed, TWR will initially instruct the aircraft to climb straight ahead to 5000ft. APP should consider issuing a vector to the west, to avoid violating the MVA areas east of BIRK.

TWR shall coordinate all missed approaches with APP prior to transferring them to APP.

Non-Standard Approaches

If aircraft are unable to accept the above standard approaches, then alternative approaches should be offered in order of precision.

RNP / LOC Z

Like at BIKF, the RNP & LOC Z approaches at BIRK share the same lateral routing and vertical profile to the ILS/LOC Z approaches. Handling them is thus similar to an ILS Z approach, simply substituting the appropriate phraseology (e.g., "RNP" instead of "ILS Z.")

Vectored ILS / LOC

Aircraft on a vectored ILS approach into BIRK should be established no closer than 7 NM from the airport, at no greater than 30° from runway heading.

ILS Y / LOC Y / NDB

The ILS/LOC Y and NDB procedures for RWY 19 at BIRK are teardrop procedures commencing from RK NDB. Aircraft on these approaches should be routed direct RK as soon as practical. Once commencing the procedure, they should be asked report beacon outbound, then report established on final approach course/the ILS/localizer (as appropriate.)

As these procedures will require the aircraft to descend into the CTR, Approach should coordinate with Reykjavik Tower to notify them of any aircraft on these approaches.

Clearance Below 2000ft (VFR / Visual App)

Twin- or multi-engine aircraft arriving BIRK which are VFR, or requesting a visual approach, **must be cleared below 2000ft by Reykjavik TWR.** APP shall coordinate all aircraft with TWR prior to transfer of control; if TWR grants the clearance below 2000ft, then APP may communicate that to the pilot.

Departures

Traffic permitting, it is common practice for Approach to issue a direct to the last waypoint of the SID immediately after radar identifying the aircraft, even if said waypoints lie outside the TMA. This does not require coordination with Reykjavik Control.