

AFIS PROCEDURES – POLARIS FIR

AERODROME FLIGHT INFORMATION SERVICE

Version 1.0

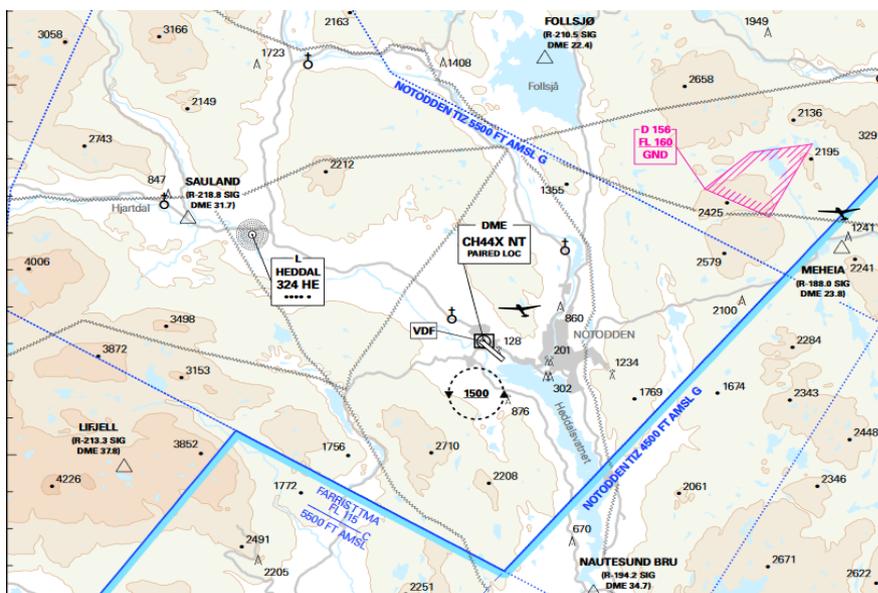
Last updated 03.03.2021

1. Introduction

More than half of Norwegian airports with an Air Traffic Service (ATS) are AFIS aerodromes. Most of these have daily scheduled commercial flights in addition to general aviation, search and rescue, and other movements, and can easily become quite busy. The towers at these airports are manned by AFIS officers, providing information to all flights about weather and other traffic, nominating a runway in use, and relaying IFR clearances from the overlying ATC unit.

All Norwegian AFIS aerodromes have a Traffic Information Zone (TIZ) established around them. A TIZ is a block of class G airspace stretching from the ground to an upper level between 2500 and 5500 feet AMSL, which is also designated as a Radio Mandatory Zone (RMZ) which means two-way radio contact with the AFIS unit is mandatory.

In practice, this means that inside the TIZ the rules of the air apply as to whom should give way to whom, the AFIS officer cannot give instructions or suggestions to regulate the flow of traffic. No clearance is required to operate IFR or VFR inside, however two-way communication must be established with the AFIS unit before entering the TIZ.

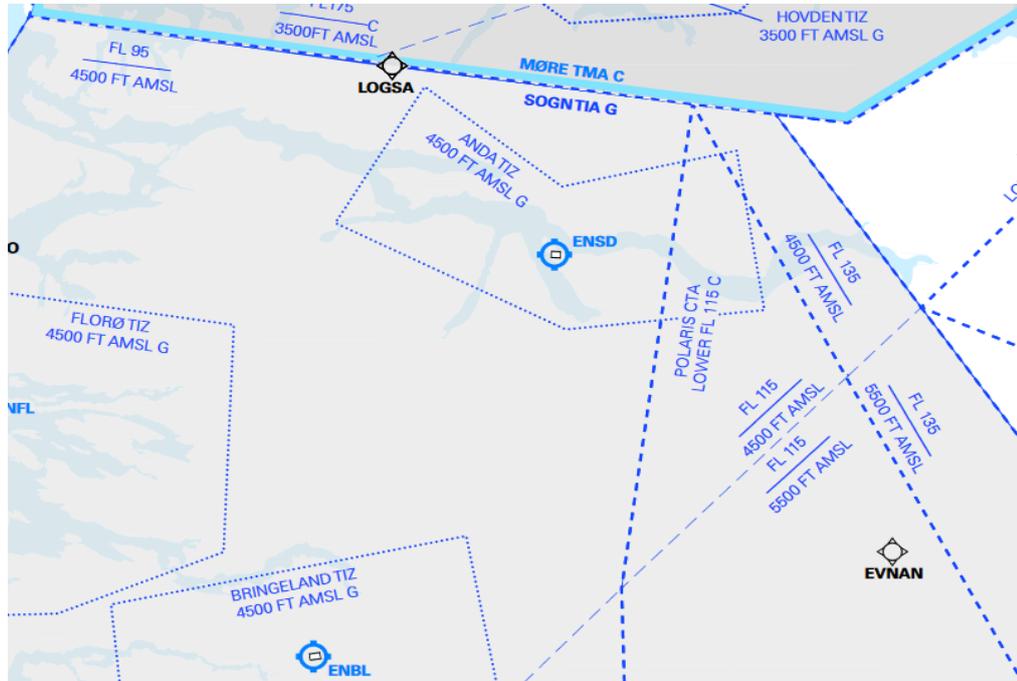


Notodden TIZ (Class G) and overlying Farris TMA (class C).

Notice the two different top altitudes of the TIZ and that only parts of it directly borders controlled airspace

Above a TIZ there is typically either controlled airspace in the form of a TMA or Polaris CTA, or a Traffic Information Area (TIA). A TIA has the same function and requirements of a TIZ. It is class G, therefore pilots are responsible for traffic avoidance and navigation, but two-way radio contact must be established and maintained with the ATC or ATS unit covering the TIA before entering. The overlying Polaris Control sector will provide the service in the TIA.

IFR flights operating in class G only (including TIZ/TIA) do not need a clearance.



A part of Sogn TIA, showing a complex mix of TIZ, TIA, TMA, and CTA. The TIA stretches between 4500ft/5500ft and FL95/FL 115/FL 135.

2. AFIS Specific phraseology

- **Runway in use [number]** - The runway most suitable for take-offs and landings as determined by the AFIS officer.
- **Runway Free** - The runway is available and suitable for take-off or landing.
- **Runway Occupied [reason]** - The runway is not available, typically because it is being used by another aircraft.
- **[Reason for runway not being free] Runway available for line-up/taxi** - The runway is available for the mentioned ground movement, but not for take-off.
- **Runway available for lineup, stand by for release** - Overlying ATC unit has not yet cleared you into controlled airspace.
- **Report position/level** - Report your current position or level.
- **Report passing [level]** - Report when passing the assigned altitude or FL.
- **Report [location] / Report abeam [location] / Report [distance+direction from location]:** Report when at the described position or reporting point.

3. General Operating Procedures

In addition to establishing two-way communications before entering a TIZ/TIA, pilots are to comply with requests to report positions and levels as specified by the AFIS officer. In addition, pilots should always report their intentions as early as practical to aid the AFIS officer in providing relevant and correct traffic information to other aircraft. Any intent to use a runway other than the runway in use must be reported or relayed to the AFIS unit as soon as possible.

Pilots on ground are to report starting their engines, and starting taxi. Airborne pilots are to report when entering or about to enter the TIZ, leaving the TIZ, joining downwind, joining final, established on an instrument approach, initiating a go around, and otherwise as requested by the AFIS officer.

While the AFIS officer cannot issue instructions or give recommendations to aircraft, the phrase “runway occupied” requires pilots on ground to remain clear of the runway at all times until informed that it has become available or free.

When an airborne pilot is informed that the runway is occupied, they must ensure they do not hinder the aircraft currently in receipt of “runway free” in any way. It is up to the pilot to determine how to achieve this, remaining clear of any relevant portion of the departure climb-out path, approach path, and/or missed approach path.

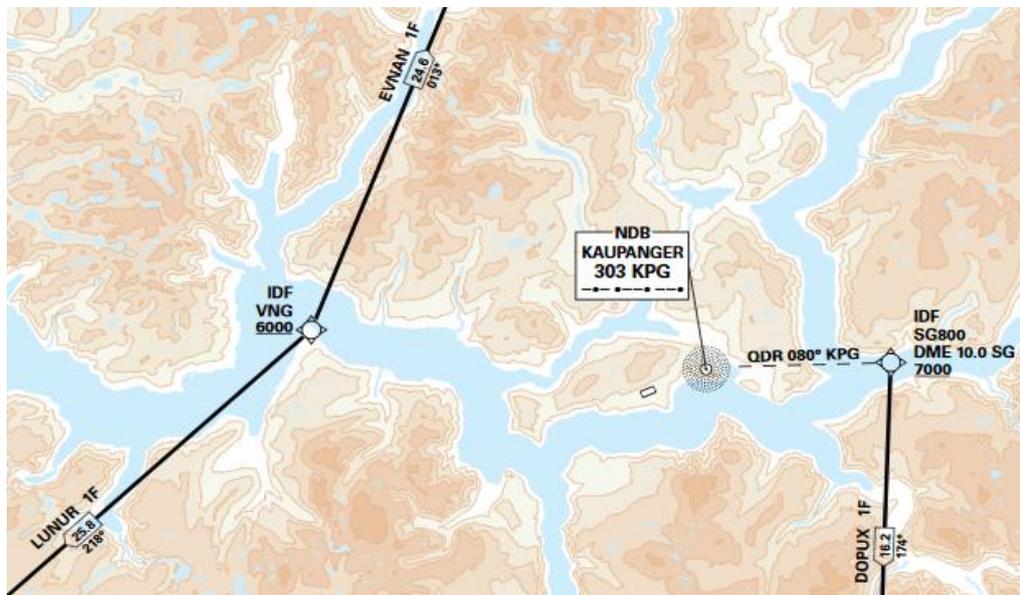
3.1. IFR Clearance

Departing IFR from an AFIS airport will in almost all cases require an IFR clearance from the overlying ATC unit. The AFIS officer coordinates with the overlying ATC and relays the clearance verbally to the pilot, starting the clearance with the name of the ATC unit who provided the clearance, for example “*By Polaris, cleared...*”. The clearance can be coordinated before or after the pilot requests their clearance, the AFIS may have to re-coordinate to facilitate any unanticipated requests if the clearance is obtained beforehand.

An IFR departure clearance will normally involve either an SID, a “**direct [fix]**”, or a visual climb to a fix. If a SID is assigned, the pilot will be required to use the

corresponding runway for departure, a change of runway must involve a request to the AFIS unit for re-coordination of the clearance. In all cases, unless the SID specifies a terrain safe climb-out, the pilot must by their own means ensure terrain clearance on departure.

Not all AFIS airports have SIDs, and not all SIDs from AFIS airports connect to the runway. Quite a few airports require the pilot to navigate on their own to the first point on the SID. This typically means by visually avoiding terrain and cloud until established on the safe SID levels. With this in mind, unless the pilot has some other means of ensuring terrain clearance, like a CAA approved company procedure (not publicly available), these airports will require fairly good weather conditions for safe operation.



The three Sogndal RWY24 SIDs do not start at the runway, the pilot is responsible for staying clear of terrain by their own means until crossing the Initial Departure Fix (IDF) at or above the published level.

In order to facilitate safe departure separation, IFR departures may require a release from ATC. This is done to ensure IFR aircraft never enter controlled airspace with less than the prescribed minimum separation. Overflights, inbound traffic, and outbound traffic from the same or close by airports may require the use of releases. A pilot will often already have their IFR clearance, and an IFR release is independent from this clearance.

Any pilot who has received their IFR clearance and is subsequently informed “*runway free*” without any caveats can depart knowing they will have standard separation when entering controlled airspace on their cleared path. If a release is required, ATC will coordinate with the AFIS officer which in turn will **withhold** “*runway free*” and provide an explanation to the pilot. If traffic permits, the AFIS officer may choose to use the phrase “*Runway available for line-up, stand by for release*”.

If an IFR flight is planned to remain outside controlled airspace, clearance is not provided. Only an information service is available.

3.2. Coordination

Coordination is key for a smooth flow of traffic in and out of AFIS airports, particularly concerning IFR. **The standard procedure is to verbally coordinate every flight (.chat or Discord).** However, AFIS and ATC are free to agree on a specific “standing coordination”, i.e. an agreement on how to handle all “standard” flights for the entire session. Anything not covered by the standing coordination requires individual coordination.

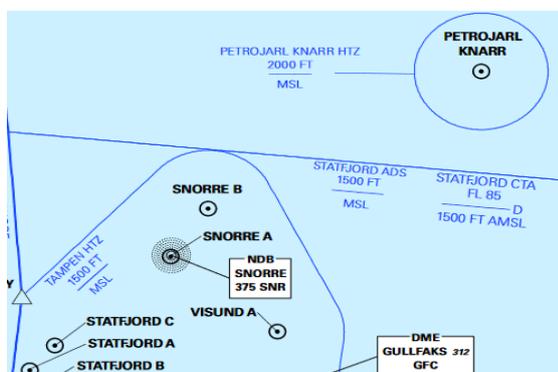
If two or more departures are on ground with IFR clearances, AFIS should keep ATC informed of who is number one. This can obviously change unexpectedly, as the AFIS officer cannot instruct, or sequence the aircraft. Any change in departure order should be relayed to ATC.

4. Helicopter Flight Information Services (HFIS)

HFIS is provided at all permanent offshore installations, the service is similar to AFIS with a few differences. The Helicopter Traffic Zones (HTZ) extends to 5NM from any installation up to 1500ft AMSL. **The HFIS officer does not declare the helidecks as free or occupied, the helicopters simply report final, on deck, ready for lift, and airborne, the HFIS officer will reply with wind, relevant traffic, and “report on deck” or “report airborne”.** On VATSIM, the HFIS service is provided by the overlying Polaris Control sector.

Pilots must establish two-way radio communication before entering (the pilot will typically already be speaking to the covering Polaris sector) and should provide in-flight reports in the same manner as aircraft operating in TIZs around land based airports. Weather and traffic information is provided, and ATC clearances is relayed on request. Most HTZs are topped by a class D CTA where full ATC service is provided and entry requires clearance. An additional airspace type designated “ADS” allows ATC to provide ADS surveillance based traffic information to participating aircraft outside the HTZs and CTAs. ADS is not RMZ.

Helicopters to/from the mainland will typically operate IFR, and both VFR and IFR between platforms depending on distance and weather. Flights to/from the mainland will normally cruise at 2000ft going offshore and 3000ft when heading back to the mainland. Flights can either get their IFR clearance relayed to them on the helideck, or they can depart and level off at 1000ft remaining clear of controlled airspace until IFR clearance into controlled airspace is obtained.



Petrojarl Knarr HTZ and a portion of Tamper HTZ. Tamper is surrounded by Statfjord ADS horizontally (non-RMZ class G), while Statfjord CTA (Class D) starts directly above it. Petrojarl Knarr HTZ is only surrounded by undesigned class G airspace.