

# Pilot briefing ENDU - Bardufoss

**NOTE:** The content in this briefing will not be updated as frequently as AIP Norway.

Make sure you always check relevant information in the latest edition of AIP Norway.

## General

ENDU is classed by CAA Norway as a Cat B airport, thus making a pilot briefing mandatory for crews unfamiliar with the airport and crews who have not been to ENDU during the last six months. This briefing should also be studied by crews considering ENDU as an alternate airport.

ENDU is considered to be a challenging airport due to the high terrain surrounding the airport. This briefing will point out a few important factors to bear in mind and hopefully enhance the ever important situational awareness necessary for safe operations.

The airport lies in a valley bed surrounded by mountains raising to 5000 FT, mainly to the south and northeast. Polar night prevails four months with civil twilight no more than a few hours during the darkest days in December.

ENDU hosts both flight academies and helicopter squadrons. In addition, several foreign armed forces use ENDU as a base for winter training. It is also used as a base for military exercises. Hence, heavy traffic, especially VFR, can be encountered at times.

## Planning

A detailed study of the approach procedures and airport information is essential. Pay special attention to the surrounding mountainous terrain and high terrain on final RWY 10 / departure end RWY 28. Especially the latter might cause weight or payload penalties on departure, so keep aircraft performance and fuel planning in mind.

Approaches from the east to RWY 28 include very steep approach angles, up to 4.4°, make sure aircraft configuration and reference speeds are established early enough to achieve a stabilised approach. A detailed flight crew briefing before commencing descent and approach is recommended in order to address the various issues special to ENDU, with emphasis on descent rates and speed control.

Although ENDU provides a fairly long runway, keep in mind it might be contaminated. Also keep in mind the significantly shorter LDA on RWY 10 compared to RWY 28.

The braking action / friction values stated in SNOWTAM, ATIS and R/T communication are based on measured friction, weather conditions and the observer's experience. Friction measuring is not an exact science and precise figures are sometimes difficult to obtain. When the temperature is around 0°C the friction is particularly unreliable. Pilots must therefore use their own judgement when considering the figures. This is most important during heavy snow because friction values can vary considerably over a short period of time, especially between each time the runway is cleared and/or treated. Remember to check your limits regarding operations on contaminated runways.

As suitable alternate airports may be at some considerable distance, make sure to upload sufficient fuel. Keep in mind the alternates opening hours, taking into consideration time spent in holding and time for the diversion.

## Weather

Despite being quite close to the sea, the climate is more of a continental type than might be expected. The winters are cold and dry, summers relatively warm considering the latitude. Winters can be very cold, below -30°C is not uncommon.

**NOTE:** With low temperatures, it is of utmost importance to observe correct temperature corrections for minimum altitudes.

Prevailing upper wind is SW-W, but it is normally calm on the surface. During the winter, wind from W-NW (from the ocean) can lead to prolonged periods of heavy snow despite the TAF only indicating snow showers. Polar depressions can be intense, causing heavy snow showers and subsequently reduced visibility. Wind from E will normally bring stable weather conditions.

Between May and September the weather is generally fair. However, fog may form over the nearby rivers in late spring / early summer and in the autumn. This fog will sometimes cover the entire airport.

Turbulence is rare at low altitudes, but can be expected with wind more than 15 KTS from any direction. Wind shear and/or eddies can occur with wind more than 15 KTS from SE. Wind more than 40 KTS SW-NW at approach altitude can cause severe turbulence over the mountains south and southeast of Tiller NDB (TIL) about 12 NM east of the airport. In these conditions, it is recommended to stay high and execute maneuvering to the north of the centre line if practically possible. Ask ATC for advice or assistance. Beware possible tailwind component when turning onto final.

Turbulence forecast can be obtained via the website [ippc.no](http://ippc.no) – Briefings – Turbulence Maps.

## Approach and landing

Immediately to the west high ground rise 300 FT above the runway elevation within 1 NM. Some obstacles are as close as 65 FT below the approach path. This in turn cause displacement of THR RWY 10 well into the RWY, giving a shorter LDA. **Do not** increase your rate of descent in order to land early, a normal touchdown on RWY 10 will be around 1000 meters from the beginning of the runway surface.

Obstacles penetrate the visual segment surface, please refer to maps attached to the relevant procedures in AIP Norway.

Approach path and PAPI angle does not always coincide and procedures are offset from the runway centre line. In some procedures the rate of descent exceed ICAO recommendations. Make sure you familiarise yourself with the various procedures during your planning.

A precise touchdown is key to a successful landing. If the runway is contaminated and conditions marginal or uncertain, a firm touchdown and full braking/reverse is recommended.

## Taxiways

There are no centre line lights on the taxiways. At certain intersections this might be confusing in darkness as the “sea of blue” makes it difficult to identify the correct TWY. In particular, this is the case around the civil apron where TWY B and TWY K lead to the parking positions.

Marshalling and “Follow me”-service will be provided upon request.

**NOTE:** All taxiways on the south side of the RWY are for military traffic only or by prior permission.

## Take-off

Note that take-off does not commence from THR RWY 10. Normal take-off position RWY 10 is from the intersection with TWY A. Alternate take-off positions including backtrack to the end of the overruns for longer TORA is available by request and approval from ATC.

Some photos to illustrate the terrain surrounding the airport:



# CAUTION

High terrain 300 FT  
above AD elevation  
within 1 NM



END OF BRIEFING