

= Troll Airfield =

Troll Airfield is an airstrip located 6 @. @ 8 kilometres (4 @. @ 2 mi) from the research station Troll in Princess Martha Coast in Queen Maud Land , Antarctica . Owned and operated by the Norwegian Polar Institute , it consists of a 3 @, @ 300 @-@ by @-@ 100 @-@ metre (10 @, @ 830 by 330 ft) runway on glacial blue ice on the Antarctic ice sheet . The airport is located at 1 @, @ 232 metres (4 @, @ 042 ft) above mean sea level and is 235 kilometres (146 mi) from the coast .

The airfield opened in 2005 and serves as the centre of the Dronning Maud Land Air Network (DROMLAN) , a multinational cooperation to use Troll as an all @-@ year hub to provide intercontinental traffic to Antarctica and onwards to the various research stations using aircraft suitable for inter @-@ Antarctic operations . Intercontinental flights normally operate from Cape Town International Airport using Ilyushin 76 , C @-@ 130 Hercules , P @-@ 3 Orion and similar , long @-@ range aircraft . Feeding services to other research station is normally done either with Basler BT @-@ 67 aircraft , De Havilland DHC @-@ 6 / 300 Twin Otter aircraft and Dornier Do @-@ 228 aircraft and helicopters .

= = Facilities = =

Troll Airfield is located 6 @. @ 8 kilometres (4 @. @ 2 mi) from Troll in Princess Martha Coast in Queen Maud Land , Antarctica . It is owned and operated by the Norwegian Polar Institute and consists of a 3 @, @ 300 @-@ by @-@ 100 @-@ metre (10 @, @ 830 by 330 ft) runway on glacial blue ice . This allows it to be used by any aircraft serving the Antarctic . There is no Instrument landing System - ILS , instead visual flight rules - VFR apply . There are no buildings or structures at the runway , although some services are provided from the research station . Ground handling , including supply of Jet A @-@ 1 fuel , is provided by the crew at Troll . The crew also supply services such as a fire and rescue service , communications and overnighing at Troll for personnel who would be stuck because of bad weather . The airfield must follow the Protocol on Environmental Protection to the Antarctic Treaty . This includes storing all fuel in barrels and large tanks placed on special mats which absorb liquids , to avoid spills . There is also equipment and plans to handle spills , should they occur . All waste is transported out of the Antarctic .

The airfield has a cold and dry climate , being located in a desert . The annual mean temperature is ? 25 ° C (? 13 ° F) , with the summer temperature able to reach about 0 ° C (32 ° F) and the lowest during the winter at ? 50 ° C (? 58 ° F) . Storms , which can occur throughout the year , can occasionally make outdoor activity impossible . Because it is located south of the Antarctic Circle , Troll has midnight sun in the summer and polar night during the winter .

= = Service = =

Dronning Maud Land Air Network Project (DROMLAN) is a coordinated project between eleven countries with bases in Queen Maud Land (Norwegian : Dronning Maud Land) to create a coordinated logistics service to reduce costs . The participating countries are Belgium , Finland , Germany , India , Japan , the Netherlands , Norway , Russia , South Africa , Sweden and United Kingdom . The services are operated using Russian Ilyushin 76 , Norwegian and Swedish C @-@ 130 Hercules and Norwegian P @-@ 3 Orion aircraft , also occasionally visited by other types of aircraft The flights operate from Cape Town International Airport , with a flight time of up to nine hours for a Hercules aircraft , and five and a half hours for an Il @-@ 76 .

Feeder services to other research stations are operated by two Basler BT @-@ 67 (type converted DC @-@ 3 / C @-@ 47) , operated by the South African company Antarctic Logistics Centre International or other operators . Services are operated to Aboa (Finnish) , Dome F (Japanese) , Halley (British) , Kohnen (German) , Maitri (Indian) , Neumayer (German) , Novolazarevskaya (Russian) , Princess Elisabeth (Belgian) , SANAE IV (South African) , Showa (Japanese) , Tor (Norwegian) and Wasa (Swedish) . In the 2007 ? 08 season , 720 people were transported to Antarctica via DROMLAN . The airport is not open for commercial or other private flights .

= = History = =

During the planning of Troll , which opened in 1990 , it was decided that the station was to be placed at such a location as to allow it to have an airstrip for year @-@ round operations . Jutulsessen was chosen as the location , in part because it provided a base nunatak for the research station and at the same time was close to blue ice for the runway . At the time , all cargo and passengers to Troll had to either be transported by ship , or flown in via the airport at the Russian base Novolazarevskaya or Henriksenskjera .

In the late 1990s , the Norwegian Polar Institute took an initiative to establish DROMLAN in cooperation with eleven other countries who operate research facilities in Queen Maud Land . On 5 January 2001 , a test flight with representatives from eight countries was made to Henriksenskjera . From there , a DHC @-@ 6 / 300 Twin Otter , Basler BT @-@ 67 and a helicopter was used to distribute the crew and supplies to the various bases . In addition to evaluating the airfield at Novolazarevskaya , an evaluation was performed at Troll in January 2002 . The hub model was used during the summer of 2001 and 2002 , operated by the South African company Antarctic Logistics Centre International .

To build a permanent airfield at Troll , the Norwegian Polar Institute bought a snow groomer and a tracked vehicle with a snow blower , flatbed and ice cutter . The works was organized with a land @-@ based Global Positioning System laser system . In the course of the 2002 season , 2 @,@ 500 meters (8 @,@ 200 ft) of runway had been built . This included removing of surface rocks and filling any crevasses . The construction also included necessary ground facilities , such as a fire- and rescue service , communications , ground handling and overnight facilities at Troll for personnel who could be stranded because of bad weather . The construction involved the moving of 70 @,@ 000 cubic metres (2 @,@ 500 @,@ 000 cu ft) of ice and snow .

Troll Airfield was opened on 11 February 2005 by Queen Sonja of Norway and the new research station the following day . At first , Antonov An @-@ 2 , DHC @-@ 6 / 300 Twin Otters , Dorniers 228 and smaller aircraft were used for the services . Later , two Basler BT @-@ 67 , operated by Antarctic Logistics Centre International , were taken into use . The cooperation has resulted in the availability of larger aircraft more suited for research , through coordinated search and rescue operations between the participating countries . On 19 January 2008 , the airfield was visited by Norwegian Prime Minister Jens Stoltenberg .

= = = Airlines and destinations = = =