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***Summary***

The purpose of this document is to inform national and international Antarctic air operators, who regularly operate through the “Teniente Marsh” airfield of the “Presidente Frei” Antarctic Air Base on King George Island, that the execution of tasks on the runway called “Conservation design of the largest runway at “Teniente Marsh” Airport, which correspond to runway conservation works, is projected, so said work will restrict the availability of aircraft operations during two summer seasons and will last 120 days each, so it is necessary for air operators to schedule their flight activity well in advance.

***Situation***

1. The creation of the Antarctic Base “Presidente Eduardo Frei M.” in the year 1969 on King George Island and the dream of consolidating the landing of wheeled aircraft in the Antarctic Territory, allowed Chile in 1980 to have a runway at the current "Teniente Rodolfo Marsh" airifield, thus being able to connect the Antarctic Air Base “Presidente Frei” to the city of Punta Arenas with only two and a half hours of flight.
2. With both facilities, the Complex called Antarctic Base “Pdte. Frei”/“Tte. Marsh” Airfield and the facilities located there, are managed by the Air Force, as the State Antarctic Operator, which grants Chile the status of “Gateway” to the Antarctic Territory.
3. The Complex has allowed, over time, to support the scientific work and logistical support of the Bases of the rest of the National Operators, as well as those National Antarctic Programmes that require it, as well as those of the community of the States Parties to the Antarctic Treaty and countries located in the surrounding bases.
4. The airfield is operational during the twelve months of the year; therefore it maintains permanent air connectivity with the city of Punta Arenas.
5. The age of the runway and the climatic conditions present in the airfield have shown constant problems in the existing materiality, such as: deformation of the pavements, loss of material, accumulations of water and ice, contamination, among others. The foregoing leads to annual maintenance with heavy equipment, increasing operating costs, the possibility of an accident and the greater probability of contamination of the Antarctic territory.

***Runway features***

1. **Runway**: of permafrost measuring 1.292 x 39 metres, which provides the capacity to carry out air operations to and from the Continent, which is approximately only 1.238 km away from the city of Punta Arenas.
2. **Aircraft parking platform “Charlie”**: this is a surface of 135 x 116 metres of compacted gravel, which allows four C-130 “Hercules” type aircraft to park on its surface in the summer, thus allowing an increase in the frequency of air operations to and from the Airport. “Tte. Marsh”.
3. **Aeronautical Services**: Air Traffic Control Service, Control Tower, Meteorology and flight operations in the “Airfield Sector”.
4. **Aircraft fire extinguishing means**, with specialised equipment to fight fires on the ground or perform rescue from them, in addition, they constitute means of fire extinguishing for the facilities of the Antarctic Air Base Complex “Pdte. Frei M”/Airport “Tte. Marsh”.

***Works involved in the runway and need for flight coordination***

The objective of the project is to implement an engineering solution that is more resistant to the damage generated by weather conditions, which allows extending the optimal conditions of the runway and distancing maintenance work over time.

The runway, taxiway and platform are made up of a layer of granular material, which does not respond well to the humidity, making it necessary to carry out repair work every year when the thaw periods begin. In each season, work must be carried out to drain the water accumulated on the surface, remove and mix the superficial layer to place it again. Keeping the airfield in optimal conditions for its operation is of vital importance for the Chilean bases, especially since the flight time from Punta Arenas is 2 hours 45 minutes, in contrast to the 100 hours of sailing time that the trip takes by sea. For the same reason, the “Teniente Marsh” airfield is the main gateway to this area of Antarctica. The engineering criteria that were considered for the solution were to make the technical, logistical and environmental requirements compatible; secondly, to extend the time between each maintenance of the runway and, thirdly, to improve the conditions of the taxiway without adding more surface area to the airfield.

In the same way, said work is complying with the environmental certification procedures by the appropriate authority regarding the environmental impact assessment according to Annex I to the Environmental Protocol from the Antarctic Treaty.

The activity will be carried out in four seasons and the recovery works begin during the summer season from 20 January 2024 to 20 February 2025 for a period of 120 days of work, for which the Chilean aeronautical authority (General Directorate of Aeronautics of Chile), will have periods of runway closure that will last 20 days and 10 days of runway opening for the respective flights to be carried out, aspects that will be reported in the respective NOTAM of the “Teniente Marsh” Airfield.