



Agenda Item 2: Optimization of SAM airspace

APPROACH TO RWY20 CHACALLUTA AIRPORT IN THE CITY OF ARICA, CHILE

(Presented by IATA)

SUMMARY

In the SAM region there are several border airports that have achieved different types of agreements to allow the safe operation of aircraft despite not having sufficient or adequate air space to develop independent instrumental procedures of the neighboring country's airport, however, despite of the attempts made by the operators to have an instrumental procedure to the Rwy20 at the Arica airport, this has not yet been possible for various reasons. This note aims to raise this problem to sensitize the States involved on the issue and try to find a path that allows operations safely in the airports involved.

1. Introduction

The airports of Arica and Tacna are close to the border between Chile and Peru at 18 Nm distance, Arica is located only 1.5 Nm from the border, due to this the Rwy20 of this airport has never had direct approach procedures and It mostly uses the Rwy02 to land, however the change in weather conditions and the use of larger aircraft have made the use of this runway more and more complex without having a published instrumental procedure (graphic attached with location of the runways and the border, No. 1)

2. Discussion

2.1 According to ICAO resolution A37-11 for 2016, all runways should have some PBN approach procedure with or without vertical guidance depending on their condition, at the Arica International Airport in the absence of this type of procedure, visual approach and / or circling through the east of the airport is used as the only maneuver to the Rwy20.

2.2 The east sector of the airport presents hills of elevations of up to 1500FT over the aerodrome, reason why the mentioned maneuver in addition to being very restricted to be able to maintain the aircraft near the border, usually presents ground proximity alarms that cannot be avoided unless is executed a downwind leg very close to the runway or maintaining altitudes that force to extend that segment (attached graphic with real tracks to Rwy20 of SCAR, No. 2)

2.3 The western sector of the airport does not contain major obstacles due to the presence of the Pacific Ocean, but because of the way in which the International Political Limit is extended there is less Chilean air space available to maneuver, so it is forbidden to circulate or perform visual approaches through that area.

2.4 Since the process of tracking the flight parameters began more effectively it has been found that the situation described has brought unstabilized approaches and deep landings not only in the Rwy20, but also in the Rwy02, since many crews prefer to approach with tailwind at the maximum allowed instead of circulating or making a visual apch to the Rwy20.

2.5 Tacna Airport, on the other hand, has the same runway orientation as Arica and uses Rwy02 as preferential since the terrain at the north of the airport restricts the operation to Rwy20. The ILS apch to Rwy02 is done by navigating D11 of TCA VOR at 3000FT to ANSEK to continue the descent (graphic with real tracks of the ILS apch to SPTN and visual apch to Arica is attached, N°2)

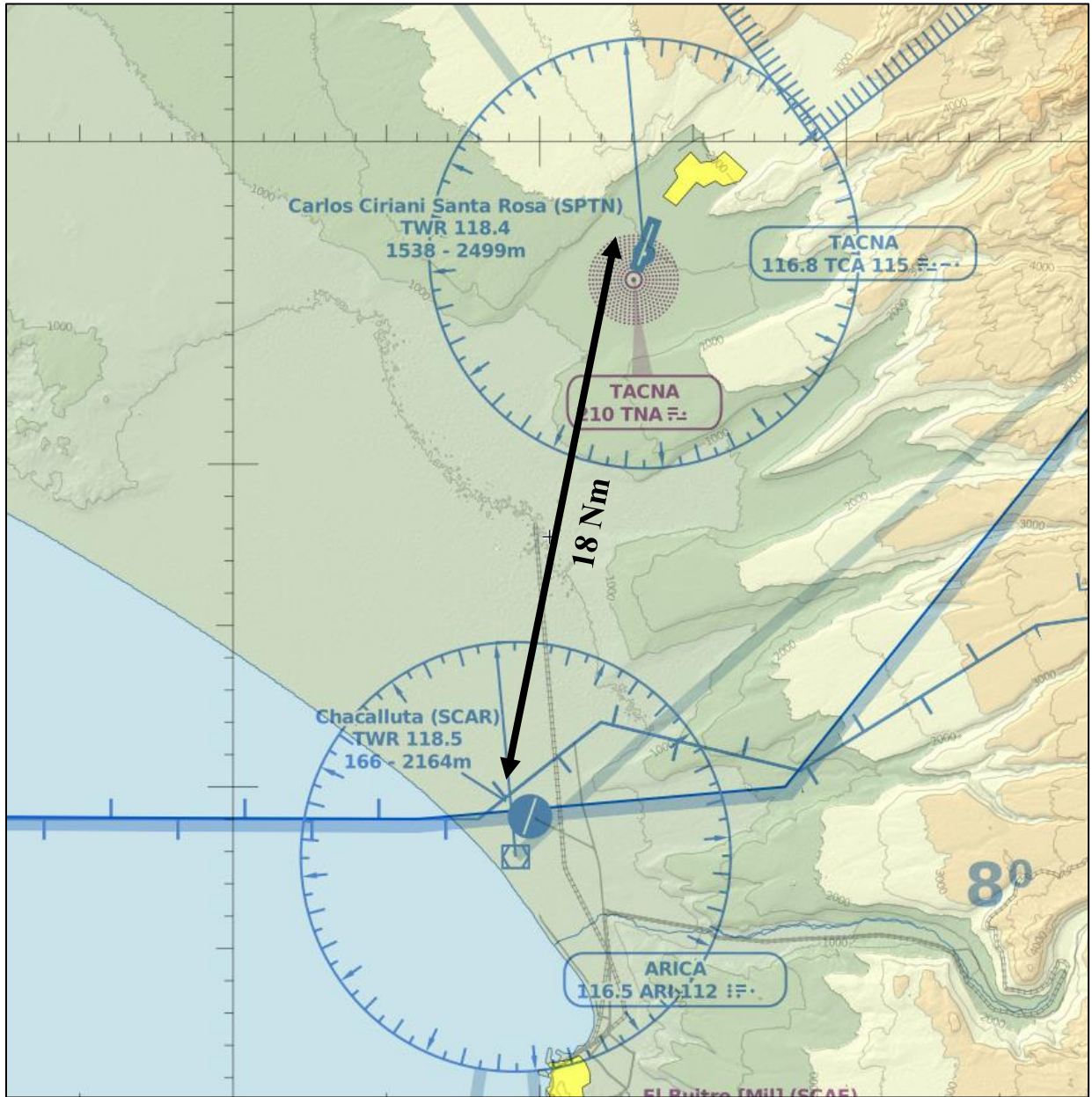
2.6 LATAM has carried out tests with an RNP AR track by the east of the Arica airport to the Rwy20 that does not conflict with the ILS apch to Rwy02 of Tacna, however if the States could reach an agreement it would be viable to execute a similar track by the west of the airport maintaining no more than 2000FT since the border is crossed (graphic is attached with the RNP AR and ILS to Tacna tracks and the proposal RNP AR by the west, N°3)

3. **Suggested action**

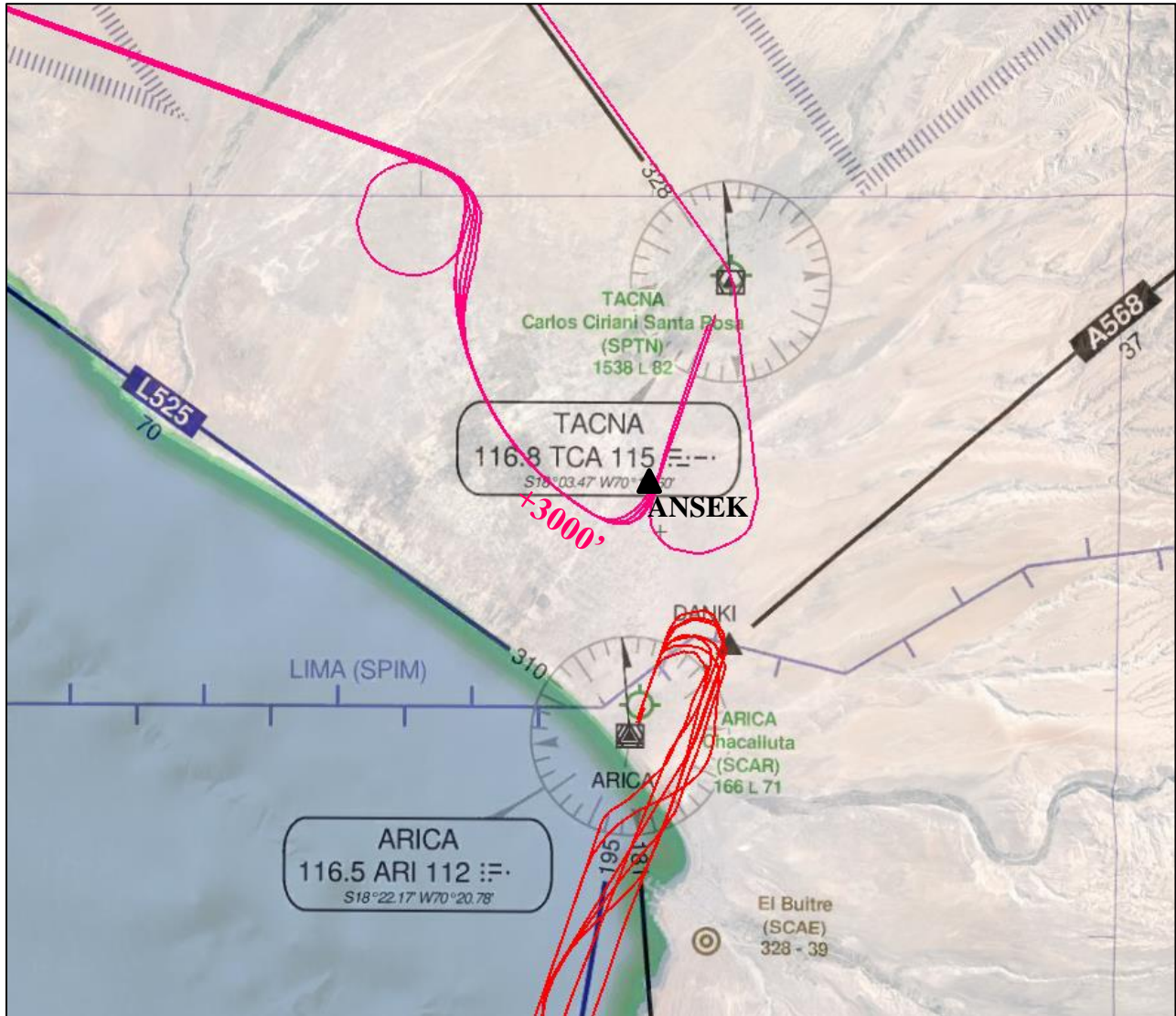
3.1 The Meeting is invited to:

- a) To take note of the information provided in this working paper to share the solutions found by the various States that have similar situations (real examples of South America are attached, No. 4)
- b) To the States of Chile and Peru to open to discuss the issue and promote a solution according to the capabilities and limitations of public transport passenger aircraft, which allows the operations in Arica and Tacna to continue in the safest and most efficient way possible without expect a major incident to occur at some point.

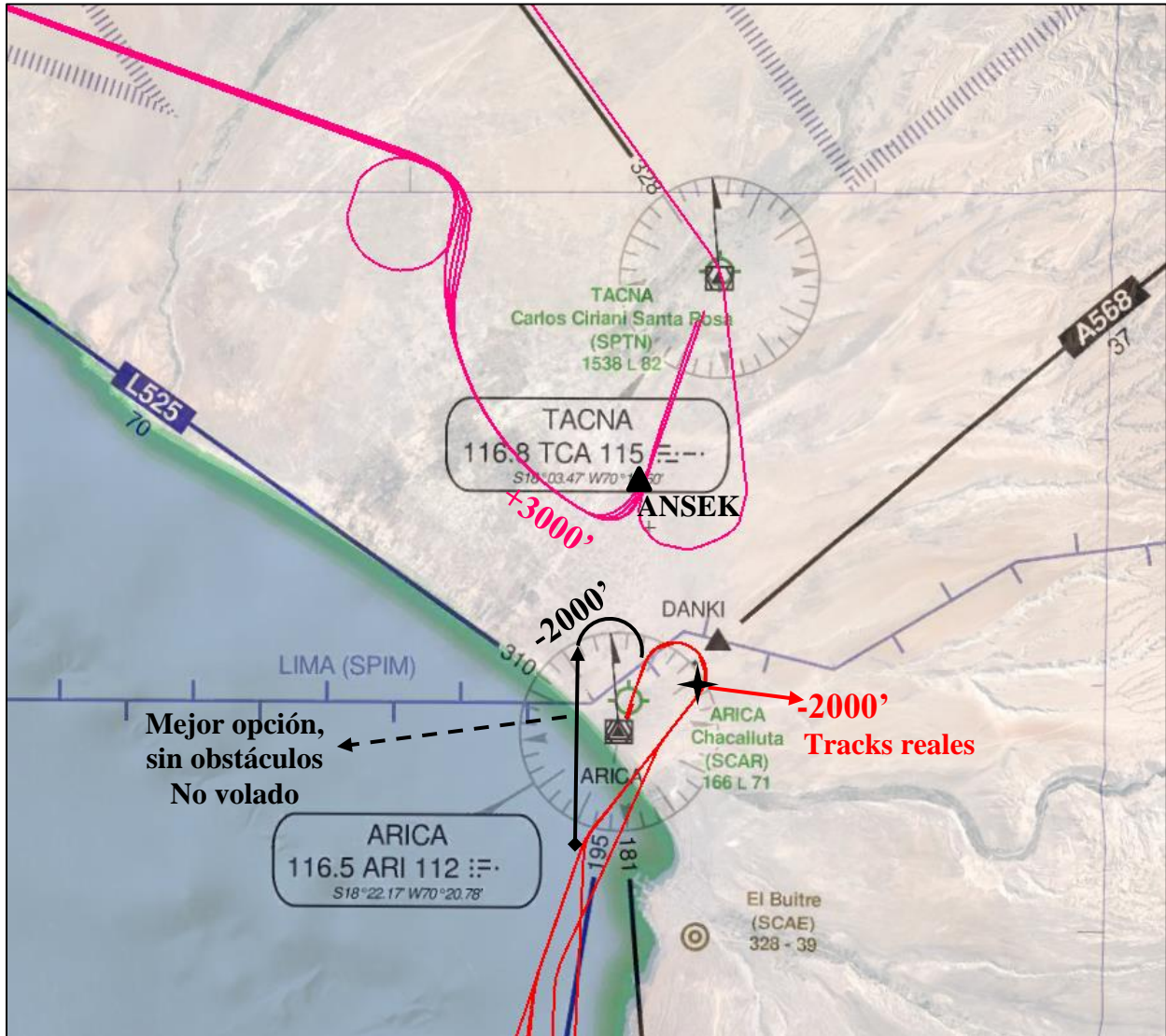
GRAPHIC N ° 1: Arica and Tacna location



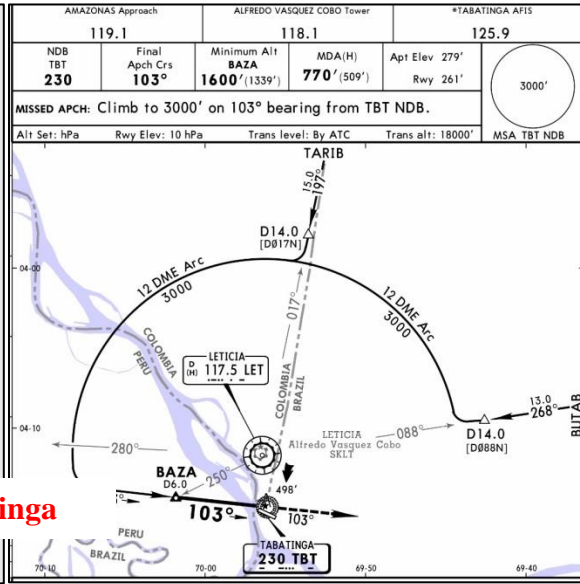
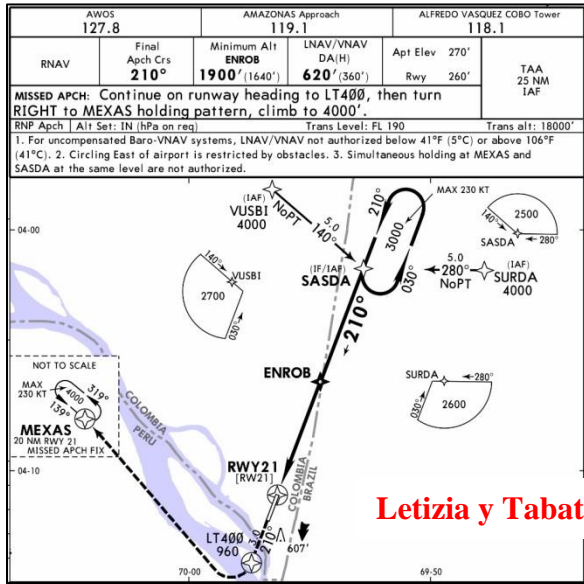
GRAPHIC N°2: Real tracks Rwy20 Arica (visual apch) and ILS Rwy02 Tacna



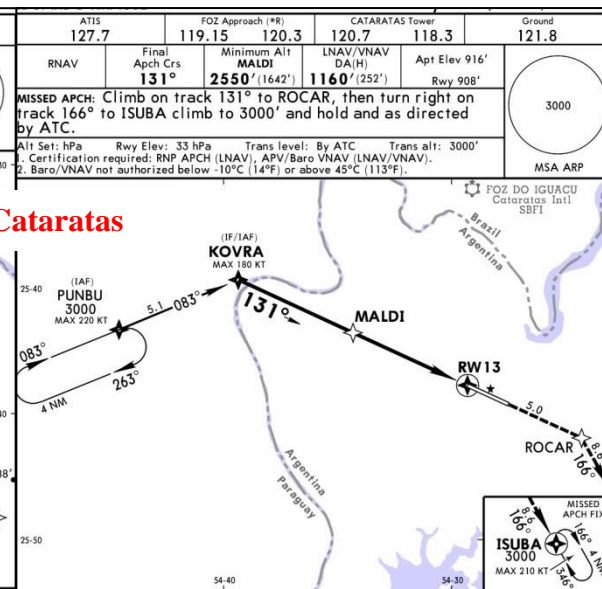
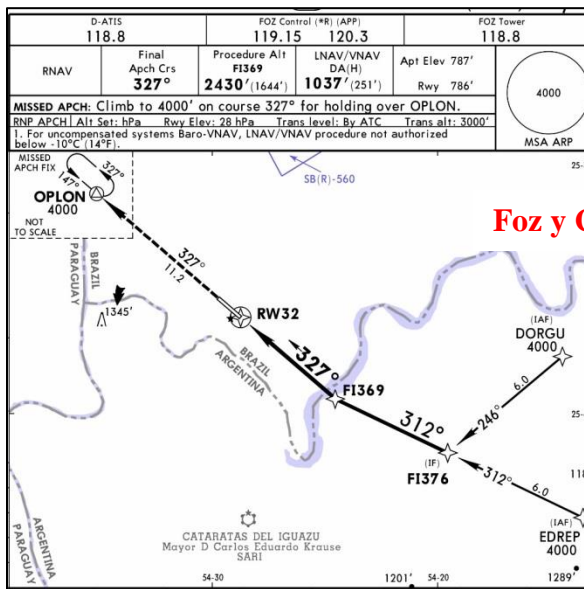
GRAPHIC N°3: Real tracks Rwy20 Arica (RNP AR test) and ILS Rwy02 Tacna



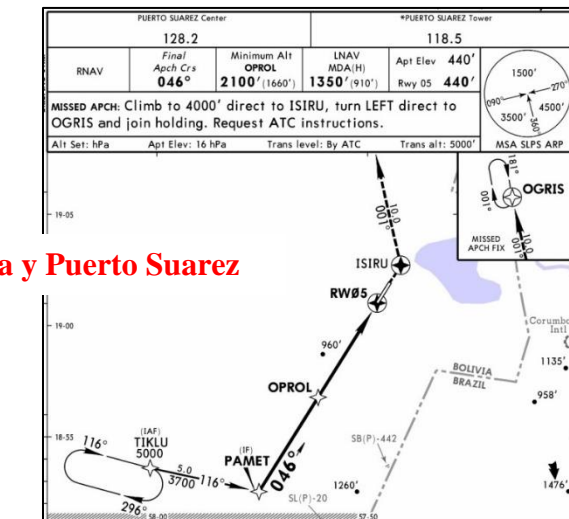
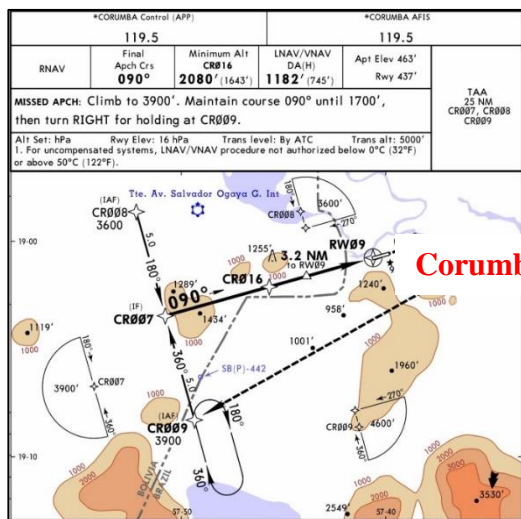
GRAPHIC N°4: Examples in the SAM region



Letizia y Tabatinga



Foz y Cataratas



Corumba y Puerto Suarez