



WORKING PAPER

**FIRST UNASSIGNED HIGH SEAS AIRSPACE SPECIAL
COORDINATION MEETING (SCM/1)**

Lima, Peru, 22 to 24 July 2019

- Agenda Item 3: Determination of services and facilities**
3a: Airspace users outline
3b: Potential solutions

CURRENT AND FORESEEN CNS/ATM CAPACITY OF DGAC - CHILE

(Presented by DGAC - Chile)

SUMMARY

This information paper presents the current and foreseen CNS/ATM capacity of the Directorate General of Civil Aviation of Chile (DGAC)

1. Background

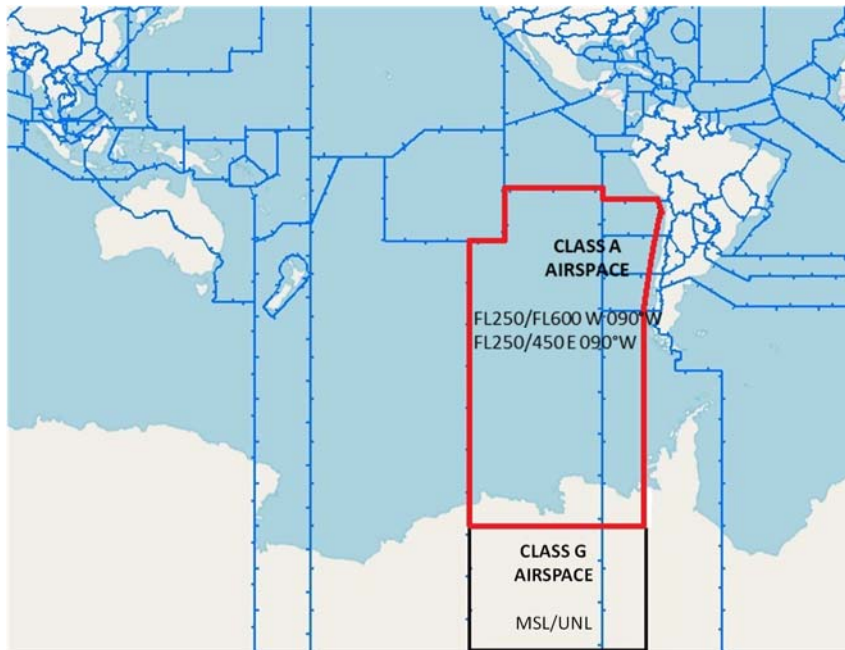
1.1 The DGAC is the aeronautical authority of Chile. Its mission is to regulate and supervise aeronautical activities carried out in the airspace controlled by Chile as well as those carried out abroad by domestic airlines, develop the aeronautical infrastructure within its area of competence, and provide services of excellence in the fields of air navigation, meteorology, airports, and safety, to ensure the safe and efficient operation of the aeronautical system.

1.2 The Oceanic Area Control Centre (ACCO) is the air traffic control unit of the DGAC, created as such in 2006, that provides area control service, flight information service, and alert service to all the traffic that operates in oceanic and remote airspace, namely the Easter Island FIR and the delegated airspaces of the Antofagasta, Santiago, Puerto Montt and Punta Arenas FIRs, jointly called Santiago oceanic control area (OCA).

1.3 The controlled airspace of the Santiago OCA is defined by the coordinates shown below (Figure 1-1). To the south, it provides flight information and alert services up to the South Pole.

15000S 120000W, 15000S 090000W, 182100S 090000W, 182100S 0734400W
250352S 0723006W, 283000S 0714600W, 283000S 0715500W, 284300S 0724900W
305113S 0715309W, 312024S 0724635W, 330912S 0730000W, 334030S 0730000W
334342S 0725953W, 382958S 0742900W, 383000S 0735600W, 401500S 0750000W
750000S 0750000W, 750000S 1310000W, 300000S 1310000W, 300000S 1200000W
150000S 1200000W.

FL245 / FL600 WEST of 090°W and FL245 / FL450 from 090W to the EAST



(Figure 1-1)

2. Discussion

CNS / ATM capacity

2.1 In the remote and oceanic airspace of the OCA, the ACCO uses the Thales TOPSKY and VITRO (*Visualización de Tránsito Océánico*) systems. The latter has appropriate software to support data link for FANS 1A (DATALINK) aircraft. Through it, ACCO has an automatic dependent surveillance contract (ADS-C), with a periodic 600-second contract and a waypoint change event contract, in accordance with national regulations and the Global Operational Data Link Document (GOLD) (ICAO Doc 10037).

2.2 As the main means of ground-air communication, ACCO uses controller-pilot data link communications (CPDLC). As alternate means of communication, ACCO uses HF frequencies through three remote devices distributed along the continental and insular territory. For urgent communications, in case of failure of primary and secondary communications, ACCO has satellite telephony communication equipment. For ground-ground communications, ACCO is equipped with AFTN / AMHS and direct lines programmed in its Frequentis voice communication system (VCS).

2.3 Use of satellite ADS-B is in the early stages of economic assessment, and the DGCA recognises that this technology is a feasible solution for certain areas of the oceanic and remote airspace.

2.4 The current display system is to be upgraded this year, including: incorporation of AIDC capacity as per standard ICD 3.0 ASIA / PAC and migration to the TOPSKY display system. The upgrade and the new equipment will be fully operational on the first half of 2020, and will permit ATS unit-to-unit communications with all the neighbouring control centres that have that capability available.

PBCS, separation standards and procedures

2.5 An interface is currently being developed to tabulate data link performance data. This will permit the implementation of PBCS (Doc 9869) during the first semester of 2020. National regulations that prescribe separations based on performance-based communications and surveillance (PBCS) are in place and are consistent with the provisions of the PANS-ATM, Doc 4444.

2.6 Oceanic airspace separations (OCA) correspond to those prescribed in national regulations, pursuant to those set forth in the PANS-ATM Doc 4444 for RNAV10 (RNP10). The RNP 4 specification is expected by the end of this year.

2.7 ACCO has been actively participating in the Informal South Pacific ATS Coordination Group (ISPACG) since 2002, adhering to the FANS Central Reporting Agency (CRA) for monitoring data link performance, and the Pacific Seamless Airspace Chart since 2013, implementing improvements such as: RNAV10 (RNP10) since 2014, user-preferred routes (UPR), contingency plans, volcanic ash coordination exercises and dynamic airborne reroute procedure (DARP). Letters of agreement are in place with Auckland Oceanic (Airways New Zealand) and the area control centre of Tahiti (air navigation services of the French Polynesia) for air traffic handoff coordination. The only purpose of the above is to promote safety for traffic operating in oceanic and remote airspace.

Global distress and safety system

2.8 In February 2019, the DGAC of Chile responded to ICAO's request and ACCO operationally adhered to the Global Aeronautical Distress and Safety System (GADSS) through the Normal Aircraft Tracking Implementation Initiative (NATII). In the Operational Control Directory, it described the surveillance areas for tracking aircraft using ADS-C.

3. Suggested Action

3.1 The Meeting is invited to take note of this information.