COMMUNICATION AND NAVIGATION SERVICES

A list of the applicable rules can be consulted in section GEN 1.6. In the sections below, a descriptive summary is offered to help airspace users, although if there is any discrepancy, the Rule will prevail over the content of the AIP. The content of this AIP section does not fulfil the quality requirements.

1. RESPONSIBLE SERVICE

The responsible authority for communications in Spain is Enaire.

> Postal Address:
> ENAIRE
>   c/ Campezo, 1. Edificio 2.
>   Kudos Innovation Campus Las Mercedes
>   28022 Madrid (SPAIN)
>   TEL: +34-902 404 704
>   AFTN: LEANYANX
>   Web: www.enaire.es

1.1 PUBLIC ENTITY PROVIDER OF SERVICES

Aeronautical communications are provided by Enaire through the División de Comunicaciones.

> DIVISIÓN DE COMUNICACIONES
>   c/ Campezo, 1. Edificio 7.
>   Kudos Innovation Campus Las Mercedes
>   28022 Madrid (SPAIN)
>   TEL: +34-606 619 085
>   AFTN: LEANZXIC
>   E-mail: direcciones_ssr@enaire.es
>   Web: www.enaire.es

1.2 OTHER AIR NAVIGATION SERVICE PROVIDERS

SERVICIOS AERONÁUTICOS CONTROL Y NAVEGACIÓN, S.L. (SAERCO)

> Postal address:
> SAERCO
>   C/ Burgohondo, 4
>   28023 Madrid (SPAIN)
>   TEL: +34-914 293 879
>   FAX: +34-914 202 486

SAERCO is the provider of the CNS Service, with regard to the aeronautical communications component, at Ciudad Real

and Córdoba airports.

SKYWAY AIR NAVIGATION SERVICES

Postal address:

SKYWAY Air Navigation Services
  C/ Albasanz, 14
  Edificio Verona
  28037 Madrid (SPAIN)
  TEL: +34-915 862 356
  FAX: +34-915 862 372

SKYWAY is the provider of the CNS Service, with regard to the aeronautical communications component, at Andorra-La Seu d'Urgell, Castellón and Lleida/Alguaire airports.

1.3 APPLICABLE ICAO DOCUMENTS

	Annex 10	Aeronautical Telecommunications.
	Doc 7030	Regional Supplementary Procedures.
	Doc 7454	Air Navigation Plan. AFI Region.
	Doc 7754	Air Navigation Plan. EUR Region.
	Doc 7910	Location indicators.
	Doc 8400	Abbreviations and Codes.
	Doc 8585	Designators of Aircraft Operating Agencies, Aeronautical Authorities and Services.

There are no differences from ICAO.

2. AREA OF RESPONSIBILITY

Communication services are supplied in FIR/UIR MADRID, BARCELONA and CANARIAS.

Agreements for such services on a contractual basis should be made with the Director de Navegación Aérea of Enaire.

The Subdirección General de Control del Transporte Aéreo de la Dirección General de Aviación Civil is responsible for the application of the regulations related to design, type and installation of the radio stations in the aircraft.

The Directores Regionales de Navegación Aérea of Enaire (Centro-Norte, Este, Balear, Sur and Canarias regions) are responsible for the communication services in the sectors into which each region is in turn divided.

Any question, complaint or suggestion related to any service should be addressed to the Director Regional or to the Director de Navegación Aérea.

3. TYPES OF SERVICE

3.1 RADIO NAVIGATION SERVICES

The following types of radio aids to navigation are available:

- Precision approach radar (PAR).
- LF/MF non-directional beacon (NDB).
- VHF direction-finding station (VDF).

- Instrument landing system **(ILS)**.

- VHF omnidirectional radio range **(VOR)**.

- Distance measuring equipment **(DME)**.

- UHF tactical air navigation aid **(TACAN)**.

- Ground-based augmentation system **(GBAS)**.

The frequencies, identification and hours of service are shown in AD 2 and ENR 4.

The frequencies mentioned alongside the PAR installations in AD 2 are the ones that can be used during the PAR operating hours; these frequencies do not have permanent watch. Aircraft needing to use the PAR will receive ATC instructions about the channel to be used.

3.2 MOBILE SERVICE

The aeronautical stations maintain a continuous watch on the allocated frequencies during the published hours of service, unless otherwise notified. Aircraft must communicate with the radio stations on the ground which exercise control in the area or sector in which they are flying. Aircraft must maintain continuous watch on the appropriate frequency of the control station and shall not abandon watch, except in the event of emergency, without informing the control radio station.

The languages normally used in the air/ground communications for all the control centres and TWR/APP services of the international aerodromes are Spanish and English.

3.3 FIXED SERVICE

Messages to be transmitted by the Aeronautical Fixed Service are accepted only if they satisfy the ICAO requirements of Annex 10, Volume II.

The languages normally used in the communications are Spanish and English.

General messages from aircraft operators are only accepted for transmission to countries which have agreed to accept class "B" traffic.

3.4 BROADCASTING SERVICE

The following meteorological broadcasts are available for aircraft use in flight:

- **VOLMET** Meteorological Broadcasting.

- **ATIS** Area Terminal Information Service.

Language used: **English.**

More information can be found in the section GEN 3.5.

3.5 DATA LINK SERVICES (DLS)

Access to Data Link Services is subject to the requirements established in section GEN 1.5.

3.5.1 ATN B1 DLS

ATN B1 (hereinafter referred as ATN) data link services provision is based on the requirements of the COMMISION REGULATION (EC) No 29/2009 and comprises the following CPDLC services:

- DLIC (Data Link Initiation Capability)

- ACL (ATC Clearances and instructions)

- ACM (ATC Communications Management)

- AMC (ATC Microphone check)

ATN data link services are available in UIR MADRID (MADRID ACC and SEVILLA ACC) and in UIR BARCELONA (BARCELONA ACC) from FL285. Additionally, and according to coverage and/or availability of VDL2 stations, the following services will be

available below that flight level:

- DLIC: In FIR/UIR MADRID and BARCELONA.

- ACL: In the volumes of airspace of FIR/UIR MADRID and BARCELONA where en-route radar services are provided (MADRID ACC, BARCELONA ACC and SEVILLA ACC), and in TMA BARCELONA, PALMA and SEVILLA (Barcelona APP, Palma APP and Sevilla APP).

- ACM and AMC: In the volumes of airspace of FIR/UIR MADRID and BARCELONA where en-route radar services are provided (MADRID ACC, BARCELONA ACC and SEVILLA ACC), and in TMA BARCELONA, PALMA and SEVILLA (Barcelona APP, Palma APP and Sevilla APP).

ATN data link services are available in UIR CANARIAS, in the area defined by the lateral limits of TMA CANARIAS to the north of 26N parallel and to the east of 19W meridian (see figure) from FL285, and in FIR/UIR CANARIAS, within the same lateral limits, below that flight level, according to coverage and/or availability of VDL2 stations.

DLS ATN services will be subject to the established LOG-ON procedures (see ENR 1.3).

ATN CPDLC application is available for CPDLC ATN VDL Mode 2 equipped aircraft and is not available for aircraft with just FANS1/A equipment.

ATN CPDLC provision area
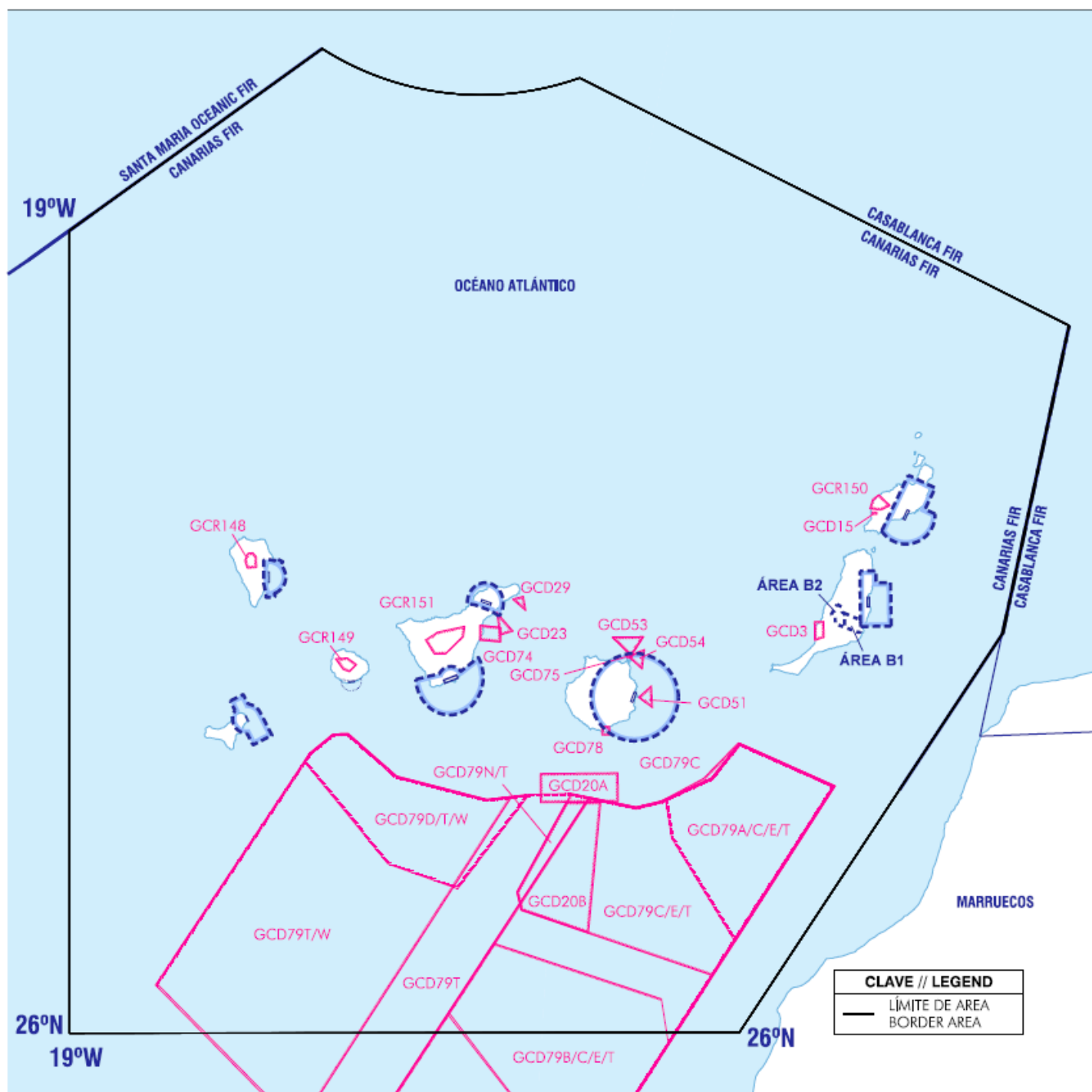
3.5.2 FANS DLS

FANS data link services comprise ADS-C and CPDLC applications, available in the area of Oceanic ATS service provision of FIR/UIR CANARIAS, subject to the established LOG-ON procedures (see ENR 1.3).

3.5.2.1 ADS-C Application

ADS-C application in CANARIAS ACC includes ADS-C tracking, lateral and vertical conformance monitoring, onboard route conformance monitoring, navigation performance monitoring and automatic ADS contract management.

At initial FANS log-on, a 15 minutes reporting period contract will be automatically created, which will be kept active until modified or cancelled. In case of ADS-C emergency the reporting period will change automatically to 64 seconds and will recover previous reporting period as soon as emergency ends.

ADS contracts will be cancelled by the ATM system:

a.)

    automatically, a time after exiting FIR/UIR CANARIAS or after landing, or

b.)

    manually by the controller.

3.5.2.2 CPDLC FANS Application

FANS CPDLC application is based on the standards of ICAO "Global Operational Data Link Document (GOLD)".

FANS DLS services will be subject to the established LOG-ON procedures (see ENR 1.3).

4. REQUIREMENTS AND CONDITIONS

NIL

5. MISCELLANEOUS

NIL