



INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
NINETEENTH MEETING (APIRG/19)
(Dakar, Senegal, 28 to 31 October 2013)

Agenda Item 3: Performance Framework for Regional air Navigation Planning and Implementation

GLOBAL OPERATIONAL DATA LINK DOCUMENT (GOLD)

(Presented by South Africa)

SUMMARY
This Information Paper provides information on the Global Operational Data Link Document (GOLD) and invites the APIRG ATM/AIM/SAR/SG/13 Meeting to plan for its use and continue to participate in the development and coordination of any future amendments to the GOLD.
REFERENCE(S): ICAO Document 9694: Manual of Air Traffic Services Data Link Applications
Related ICAO Strategic Objective(s): A, B AND E

1. Introduction

In June and September 2008, respectively, the North Atlantic Systems Planning Group (NAT SPG/44) and Asia-Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/19) endorsed a work program for an ad hoc working group to develop a global operational data link document (GOLD).

The purpose of the GOLD is to facilitate global harmonization of existing data link operations and resolve regional and/or State differences impacting seamless operations. It includes required communication performance (RCP) and surveillance specifications, based on RTCA DO-306/EUROCAE ED-122¹, and guidelines on post-implementation monitoring and corrective action to address issues with satellite data communication services that were discussed during the special NAT SPG meeting in November 2007.

The GOLD is intended primarily for those who are involved in planning and implementation of data link services, and day-to-day operations, and will be key to harmonizing oceanic and continental (domestic) data link operations worldwide.

¹ Approval Document: RTCA DO-306/EUROCAE ED-122

The GOLD will effectively replace the Guidance Material for ATS Data Link Services in North Atlantic Airspace (NAT Data Link GM) and the Future Air Navigation System (FANS)-1/A Operations Manual (FOM) for the Asia-Pacific, South American and African-Indian Ocean Regions. The GOLD also includes provisions for the aeronautical telecommunication network (ATN) implementation in the European Region.

In September 2009, the Asia Pacific Air Navigation Planning and Implementation Group (APANPIRG)/20 concluded that, upon release of the Global Operational Data Link Document (GOLD) by the Ad-Hoc GOLD Working Group in 2010, the FANS-1/A Operations Manual (FOM) be withdrawn and replaced by the GOLD as Asia/Pacific regional guidance material.

The GOLD Ad Hoc Working Group issued the GOLD, Edition 1.0, on 14 June 2010.

2. Discussion

The GOLD development has been well represented and supported by:

- a) ICAO Headquarters and Regional Offices: Montreal, Bangkok, Paris, and Lima;
- b) Air traffic service providers (ATSPs) in the North Atlantic (NAT), South Atlantic (SAT), African-Indian Ocean (AFI), Asia-Pacific (APAC), South American (SAM) and European (EUR) Regions;
- c) Ground system developers and manufacturers;
- d) International organizations, such as the International Federation of Airline Pilot's Associations (IFALPA), International Air Transport Association (IATA), and International Business Aviation Council (IBAC);
- e) Aircraft operators, airframe manufacturers, and avionics suppliers;
- f) Communication service providers (CSPs) and satellite companies; and
- g) Other interested parties.
- h) During SAT FIT5/7-it was concluded that:
 - i. SAT/FIT² members support the introduction of GOLD;
 - ii. Planning and Implementation Regional Groups (PIRGs) approve the GOLD.

3. Changes to the document

- a) In view of the above, the meeting noted that the GOLD can be seen as the update of the FOM, taking into account the evolution of ATM requirements. Yet, there is a need to assess and identify the operational or technical impact of transitioning from the FOM to the GOLD on data link operations in the South Atlantic sub-region and AFI region.
- b) This document is maintained as a regional document in coordination with all ICAO planning and implementation regional groups (PIRGs) providing data link services within their region. Each participating PIRG establishes a mechanism for submitting and administering change proposals.

² The SAT FANS 1/A Interoperability Team.

- c) Change proposals (CPs) can be submitted by any stakeholder participating in data link operations to the Ad Hoc Working Group (johnnys@atns.co.za). The Ad Hoc Working Group should submit a Change Proposal to their ICAO regional office. The ICAO regional office will coordinate the change proposal within its own region, other regions, and ICAO HQ, to determine the acceptability of the change proposal. Once the ICAO regional office has completed coordination and the participating PIRGs accept the change proposal, the change is concluded by each of the PIRGs.
- d) Change proposals (CPs) will be submitted to an ICAO regional office. The ICAO regional office will coordinate with other participating regions. Participating Regions will need to accept the change proposal before the GOLD can be amended by any region.

The latest GOLD information is maintained and available for download on the following public web sites:

FAA:

http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/enroute/oceanic/data_link/; and

Airways New Zealand: <http://www.ispacg-cra.com>.

4. GOLD contents

Table 2-1 provides an overview of the contents of the GOLD and indicates intended uses.

Table 2-1. GOLD contents

Material Type	Reference	Description	Intended uses, remarks
Introductory material	Foreword	Purpose, scope, etc.	For all users of the document. Descriptive.
	Chapter 1	Definitions	For all users of the document. Descriptive.
	Chapter 2	Overview of data link operations	For ATSPs and operators to develop training material for personnel, as appropriate, on the fundamentals of data link operations. Descriptive.
Guidelines	Chapter 3	Administrative provisions related to data link operations	For ATSPs and airspace planners to plan for and implement data link services, including ATC automation, and inter-facility agreements. For ATSPs and operators to negotiate contractual arrangements with CSPs. For operators to plan for and use the data link system.
	Chapter 4	Controller and radio operator procedures	For ATSPs and CSPs to develop procedures and training material for controllers and other personnel at ATSU's and radio facilities.
	Chapter 5	Flight crew procedures	For operators to develop procedures and training material for the flight crew and dispatchers.
	Chapter 6	Advanced data link operations	For ATSPs and operators to develop procedures and training material for personnel, as appropriate, related to advanced data link operations, such as dynamic airborne reroute procedures (DARP) and tailored arrival (TA).
	Chapter 7	State aircraft data link operations	For ATSPs and State (military) operators to develop procedures and training material for personnel, as appropriate, related to conducting military operations, such as military assumes responsibility for the separation of aircraft (MARSAs) and air-to-air refueling (AAR).
Appendices (Supporting and Additional Guidelines)	Appendix A	CPDLC message elements and standardized free text messages	For all users. Based on Doc 4444, and includes FANS 1/A and ATN B1 messages.
	Appendix B	RCP specifications	For technical operations specialists, applies to CPDLC, particularly in reduced separation environments.

Material Type	Reference	Description	Intended uses, remarks
	Appendix C	Surveillance performance specifications	For technical operations specialists, applies to ADS-C and FMC WPR, particularly in reduced separation environments.
	Appendix D	Post-implementation monitoring and corrective action	For post-implementation monitoring of the performance of the data link system, analysis, investigations, and corrective action at the the State/ATSP, regional, and global levels.
	Appendix E	Regional/State-specific information	Includes differences in data link operations at the State/ATSP and regional levels.
	Appendix F	Operator/aircraft specific information	Includes differences in aircraft data link system capability and performance.

5. Action

The APIRG is invited to:

- a. Note the information in this paper;
- b. To continue planning and implementation using the GOLD; and
- c. Participate in the development and coordination of any future amendments to the GOLD by forwarding change proposals (CPs) to the Ad Hoc Working Group (johnnys@atns.co.za).

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