



ICAO

International Civil Aviation Organization

**Sixteenth Meeting of the FANS Interoperability Team – Asia
(FIT-Asia/16)**

Bangkok, Thailand, 9 – 11 June 2026

Agenda Item 5: Data Link Developments and Guidance Material

Update on the GOLD Manual Second Edition and Key Changes from the First Edition

(Presented by Japan and Singapore)

SUMMARY

This paper presents a comparison between the GOLD Manual First Edition (Doc 10037, 2017) and the ongoing Second Edition (draft). It also reflects recent ICAO developments, including OPDLWG and ANC activities. The paper highlights major changes in scope, structure and operational capability, including the introduction of Baseline 2 (B2), as well as the background and expected publication timeline.

1. INTRODUCTION

1.1 The Global Operational Data Link (GOLD) Manual (Doc 10037) provides globally harmonized guidance for ATS data link services, including DLIC, ADS-C and CPDLC, supporting consistent implementation of ICAO SARPs and PANS provisions.

1.2 The First Edition, published in 2017, was primarily based on FANS 1/A and ATN B1 operations, reflecting the operational baseline at that time.

1.3 Since its publication, data link operations have continued to evolve significantly, driven by operational experience, performance-based frameworks, and the introduction of advanced ATM concepts such as trajectory-based operations (TBO).

1.4 The Operational Data Link Working Group (OPDLWG), under the Communications Panel, has been continuously developing amendments to SARPs and guidance material, including the GOLD Manual, to address these developments and maintain global harmonization.

2. DISCUSSION

Status of ICAO Work and Publication Plan

2.1 Recent ICAO activities show that the evolution of the GOLD Manual is closely linked to amendments to Annexes and PANS. The Air Navigation Commission reviewed these amendments in November 2025 based on OPDLWG proposals, and the ICAO Council subsequently adopted amendments to Annex 2, Annex 10 Volume II, Annex 11 and PANS-ATM. In parallel, the GOLD Manual Second Edition is being refined with a final technical review by the Secretariat and OPDLWG, and its publication is targeted for the fourth quarter of 2026, demonstrating that the revision is part of a coordinated ICAO work programme.

Evolution of Scope and Operational Capability

2.2 The First Edition focused on the harmonized implementation of CPDLC and ADS-C using FANS 1/A and ATN B1 technologies, reflecting the operational environment at that time. The Second Edition expands this scope by incorporating Baseline 2 (B2) capabilities and addressing more advanced operational concepts, including trajectory-based operations, enhanced clearance delivery and improved air-ground data integration. As a result, the manual evolves from supporting existing data link operations to enabling future ATM environments where data link plays a central operational role.

Background and Rationale for the Revision

2.3 The revision of the GOLD Manual has been driven by the need to align guidance material with newly adopted ICAO provisions, together with accumulated operational experience from FANS 1/A and ATN B1 deployments. In addition, ICAO activities have emphasized performance-based frameworks, global harmonization, and improved coordination across domains, including aeronautical information management and system-wide information exchange. The Second Edition therefore reflects not only technical enhancements but also a shift toward integrated, performance-driven, and future-oriented data link operations in line with broader ATM evolution.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
- a) note the information contained in this paper; and
 - b) discuss any relevant matters as appropriate.

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