

**AERONAUTICAL TELECOMMUNICATION NETWORK PANEL  
WORKING GROUP 2  
(ATN INTERNET)**

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**Subsetting of ATN Airborne Router Functionality**

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Summary
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Further detailed work on subsetting of ATN airborne functionality is proposed.
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1. Introduction

SARPs 5.3.5.2.12.3 specifies the provisions for the Airborne Router in a configuration implementing the procedures for the optional non-use of IDRP over an air/ground data link.

It is proposed that such a provision satisfies the action for subsetting of ATN airborne router functionality. However, guidance material is required (as 5.10.4bis after Air-Ground Route Initiation without IDRP) to clarify the actual routing done under optional non-use of IDRP.

2. Conditions for optional non-use of IDRP as specified in guidance material

The condition exploited in the guidance material is such that the aircraft supports a single subnetwork, a single end system, and has access to a ground transit routing domain with full connectivity. Thus, the subnetwork dependent convergence facility (SND CF) presented is the same, while the configuration behind the SND CF is radically simplified.

3. Proposed guidance material

The guidance material would note that SARPs 5.3.5.2.12.3 requires only a one-entry routing information base (RIB) and forwarding information base (FIB). Thus, the RIB contains a single Loc-RIB with a single Security RIB\_Att, which contains the Air/Ground Subnetwork Type and one ATSC Class security tag. The FIB is then constructed as a single-entry table.

The routing decision is then straightforward. There is a binary decision as to air/ground subnetwork availability, and then a default route-qualification decision on the application of the single security tag to the single route.

It might also be indicated in the guidance material that no other locally known information need apply.

4. Conclusion

Proposed guidance material on airborne router subsetting has been proposed. WG2 is invited to consider the material for inclusion in its Guidance Material v2.1.