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AERONAUTICAL TELECOMMUNICATION NETWORK PANEL

WORKING GROUP 3 (APPLICATIONS AND UPPER LAYERS)

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Proposed PDR Classification Scheme

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SUMMARY

This paper proposes a classification scheme for PDRs raised against ICAO Doc 9705 Ed 1, in order to assist implementation projects rapidly to assess the severity and consequences of each PDR.

The Working Group is invited to approve this proposal.

1. INTRODUCTION

The goal of this paper is to provide a classification scheme to be applied to all PDRs raised against ICAO Doc 9705 Ed 1, in order to assist implementation projects rapidly to assess the severity and consequences of each PDR. The scheme would be applied and administered by the ATNP CCB.

2. PROBLEM STATEMENT

A number of independent ATN implementation projects are currently in progress. Most have baselined their specifications on the requirements of ICAO Doc 9705 Edition 1. However, it has proved necessary for such projects to monitor the defect resolutions approved by the ATNP CCB in order to identify any necessary changes to their baselines in advance of ICAO publication. This is not a trivial task, being faced with a range of PDRs from simple editorial clarifications to corrections which are vital to incorporate if implementations are to work at all. There is currently no easy way for implementors to evaluate the severity of a PDR resolution without a detailed analysis by experts in the domain of the PDR.

A related problem is that States and Organisations are presented with a seemingly large number of proposed amendments to Doc 9705, and may conclude that the document is not sufficiently stable to adopt. If most of the amendments can be shown to be minor clarifications, then confidence in the ATN provisions may be enhanced.

3. PROPOSAL

It is proposed that every Resolved PDR be assigned a severity category by the ATNP CCB.

In practice, this would involve the SME groups agreeing on the severity of the PDR as it reaches the ACCEPTED status. A new field on the PDR proforma would be required in order to record the severity.

The severity would then be advertised by the CCB chairman in the periodic CCB status reports.

A proposal for a suitable classification scheme is given in Table 1.

Table 1. Proposed PDR Categories

PDR Category	Severity	Description
A	Critical	The PDR identifies a flaw which if implemented could jeopardise safety in the air, or would result in non-interoperability between implementations.
B	Bug	The PDR resolution fixes a definite bug in Doc 9705, which would cause problems for implementations, or make implementation impossible.
C	Clarification	The PDR resolution clarifies a significant ambiguity or omission in Doc 9705, and as such would be useful but not essential for implementors.
D	Minor	The PDR resolution clarifies or improves the internal consistency of Doc 9705, but should not have any effect on implementations.
E	Editorial	The PDR corrects one or more editorial or typographical errors in Doc 9705, or adds detail which has no effect on implementations.
R	Registration	The PDR registers identifiers or values which may be used by applications other than those specified in Doc 9705 Edition 1.

An initial proposed assignment of PDRs to categories is given in the attached document. This is of course subject to review by the respective SME groups. However, the provisional results of applying the categories to existing PDRs (of status RESOLVED, PROPOSED and ACCEPTED) are summarised in Table 2.

Table 2. Current PDRs by Category

	A	B	C	D	E	R
Common		1				
Core		1		1		
SV1					1	
ICS	2	5	8	2	1	
ULCS			1	2		2
CM			1	2		
CPDLC		1	1			
ADS		2	5	6		
FIS		1	7	2		
AIDC		1	2	1	1	
AMHS			2			
TOTAL	2	12	27	16	3	2

Based on this analysis, implementation projects would be advised to base their specifications on ICAO Doc 9705 Ed 1, modified by 14 PDRs (cat A and B). They would also be recommended to look at a further 27 PDRs for clarifications which might prove useful guidance (cat C).

4. RECOMMENDATIONS

It is recommended that every Resolved PDR be assigned a severity category by the ATNP CCB.

The CCB is invited to review the proposed classification scheme, and initial assignment of PDRs to categories, and to adopt these henceforth if considered suitable.