

AERONAUTICAL TELECOMMUNICATIONS NETWORK PANEL

Working Group 3 (Applications and Upper Layers)

Bordeaux (France), 29th September – 2nd October 1998

**SME 2 (Air-Ground ATN Applications)
Status Report**

Presented by: F. Picard (Sub-Volume 2 SME)

SUMMARY

This paper provides a summary status of PDRs raised against the Sub-Volume 2 (Air-Ground Applications) ATN SARPs after the CCB-7 meeting hosted in Bordeaux.

1. Overview

6 Proposed Defect Reports related to the SARPs Sub-Volume II were reviewed by CCB members at CCB-7 (28th September 1998, Bordeaux – France).

NB PDR			
SARPs	Version	CCB Status	Somme
ADS	IV1.1	RESOLVED	11
		WITHDRAWN	2
	IV2.1	RESOLVED	1
	IV2.2	RESOLVED	9
		REJECTED	2
IV2.3	RESOLVED	2	
Somme ADS			27
CM	IV1.1	RESOLVED	2
		WITHDRAWN	1
	IV2.2	RESOLVED	1
		REJECTED	1
IV2.3	WITHDRAWN	1	
	RESOLVED	2	
Somme CM			8
CPDLC	IV1.1	RESOLVED	25
		WITHDRAWN	1
	IV2.2	RESOLVED	1
REJECTED		2	
Somme CPDLC			29
FIS	IV1.1	RESOLVED	9
		WITHDRAWN	2
	IV2.2	RESOLVED	7
		REJECTED	3
	IV2.3	FORWARDED	1
Somme FIS			23
SV2	IV1.1	RESOLVED	2
	IV2.2	RESOLVED	1
	IV2.3	RESOLVED	1
Somme SV2			4
Total			91

2. Sub-Volume 2 PDRs

SV2	PDR title	CCB status
98070003	Engineering Version Discrepancies and Editorial Errors	RESOLVED

PDR 98070003 identifies the modifications agreed by the CCB in previous RESOLVED PDRs which have been incorrectly implemented in Doc. 9705 Edition 1 and some new editorial errors.

3. CM SARPs PDRs

CM	PDR title	CCB status
98070001	Timer Activation	RESOLVED
98090005	Facility Designation User Requirements Correction	RESOLVED

PDR 98070001 forces the CM protocol to check the reception of a Logon Response message with a timer even when the Logon Request message was sent using the D-DATA service.

The major open issue for CM is the mode "CM Server" which does not work correctly with the current specifications. The solution in PDR 98050020 proposed by WG3/SG2 was to add a new field in the CM Logon Response message identifying unambiguously the ground facility to which the uplink addressing information is related to. CCB requested in Utrecht SG2 to reconsider the problem and to fix it through changes in chapter 7 only (user requirements), in order to keep unchanged the ASN.1 and guarantee the compatibility between versions. **PDR 98090005** following this recommendation proposes changes in chapter 7.

4. ADS SARPs PDRs

The new PDRs for ADS sent during the reporting period are listed in the table below.

ADS	PDR title	CCB status
98070002	Error in ARF protocol	RESOLVED
98090001	ASN.1 syntax error	RESOLVED

PDR 98070002 identifies protocol errors in the Exception Handling section of the ADS Ground Forwarding ASE. CCB-7 asked the SME Team to review the proposed note in item 6.

PDR 98090001 identifies a syntax error in the ASN.1 when specifying a default value for a constructed ASN.1 type.

5. CPDLC SARPs PDRs

No new PDRs have been issued during the reporting period against CPDLC applications.

6. FIS SARPs PDRs

The new PDRs for ADS sent during the reporting period are listed in the table below.

ADS	PDR title	CCB status
98090008	ASN.1 syntax error	RESOLVED

PDR 9809asn1 identifies a syntax error in the ASN.1 when specifying a size constraint for a named BIT STRING.

ANNEXE A

SV2 Related PDRs

CCB-7 output status

Title: ICAO 9705 - Engineering Version Discrepancies and Editorial Errors

PDR Reference: 98070003
Originator Reference: 9705 Errata
SARPs Document Reference: All SARPs sub-volumes, see text
Status: RESOLVED
PDR Revision Date: 28/09/98 (PROPOSED -> RESOLVED)
22/09/98 (ACCEPTED -> PROPOSED)
08/09/98 (CPDLC item 9 added)
07/09/98 (AIDC part modified)
07/09/98 (CPDLC part modified)
25/08/98 (SUBMITTED -> ACCEPTED)
17/08/98 (CM, ADS and CPDLC parts revisited)
28/07/98
PDR Submission Date: 28/07/98
Submitting State/Organization: OACI, Secretariat via CCB Chair (Rio)
and all SARPs editors
Submitting Author Name: CCB Chair
Submitting Author E-mail Address: atnp_ccb_chair@cenatls.cena.dgac.fr
Submitting Author Supplemental
Contact Information:
SARPs Date: ICAO 9705, 06/11/98
SARPs Language: English
Summary of Defect: ICAO 9705 Editorials

Sub-Volume I

(no change)

Sub-Volume II

== Part 1 (CM)

=====
(no change)

== Part 2 (ADS)

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1/ [CCB - 98040005 5/] Section 2.2.1.7.1.5.5 a) 2): change "size." to "value, and".

== Part 3 (CPDLC)

=====
1/ II-261 on UMs 3-5 (ROGER, AFFIRM, NEGATIVE) the 'Resp(N)' should simply delete the blank space after 'N', not replicate the deletion mark.
2/ II-277 REQUEST CLEARANCE [routeClearance]. Add 'CLEARANCE' per Doc 4444 [CCB - PDR documentation]
3/ II-281 dm89 DEVIATING UP TO. Replace 'Urg(N)/Alr(M)/Resp(Y)' by 'Urg(U)/Alr(H)/Resp(Y)'.
4/ II-410 dm89 DEVIATING UP TO. Replace 'DEVIATING' by 'DEVIATING UP TO' and 'OFF' by 'OF' per Doc 4444 [CCB - PDR documentation]
5/ II-407 The full stop should not be on a separate line.
6/ II-281 dm82, dm84 and dm86 replace 'CANNNOT' by 'CANNOT'.
7/ [CCB - 97100026 /7 and /8]
add in 2.3.5.4.6.1 the following item b):
b) Create an AircraftPDUs APDU with a CPDLCProviderAbortReason [invalid-QOS-parameter] APDU message element,
add in 2.3.5.6.6.1 the following item b):
b) Create a GroundPDUs APDU with a CPDLCProviderAbortReason [invalid-QOS-parameter] APDU message element,
8/ in 2.3.5.4.7.1 b), replace "on AircraftPDUs APDU" by "an AircraftPDUs APDU".
9/ (typo), in section 2.3.4.2.1, in ASN.1 type 'LongitudeType' replace in the first element 'LontitudeDegrees' by 'LongitudeDegrees'.

== Part 4 (FIS)

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1 / [CCB - 98040005 6/] In Table 2.4.5-1, in cell (FIS-update-contract, t-UC-1,Timer value) replace "9 min" by "6 min"

2/ [CCB - 98040005 7/] In Table 2.4.5-1, in cell (FIS-update-contract, t-UC-2,Timer value) replace "6 min" by "9 min" [CCB -- Wasn't this our raison d'etre?]

3/ II-451 There should be a blank space after TimeSeconds.

Sub-Volume III

== Part 1 (AMHS)

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(no change)

== Part 2 (AIDC)

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1) [CCB - 98040005 4)] Section 3.2.4.1.1.1: Italicise "n)" and "v)" 2) [CCB - 98040005 8)] Section 3.2.5.3.3.2.2.1 a) 1) ii): Correct the word "prameter" to read "parameter"

3) [CCB - 98040005 13)] Section 3.2.6.1.31.2.1 b): Correct the expression "AIDC-info-tfr-apdu" to read "AIDC-inf-tfr-apdu"

4) [CCB - 98040005 15)] Section 3.2.6.4.3: After Note 3, insert before the table the following title: "Table 3.2.6-2: State Table"

5) [CCB - 98040005 36)] Section 3.2.6.1.28.2.1 item f), in "trns-start" use normal text (not subscript) for characters "rns" 6) On page III-219 and the following several odd pages, the header numbering reads 'II-219' and respectively.

Sub-Volume IV

(no change)

Sub-Volume V

1. [CCB - 98040005 3.]. The caption for Table 5.7-6 has been concatenated with the preceding running text.

2. [CCB - 98040005 4.]Para 5.7.6.3.5.1

Delete page break after para 5.7.6.3.5.1 [CCB - chacun a son gout?]

Assigned SME:

All SMEs

Proposed SARPs amendment: See "Summary of Defect".

SME Recommendation to CCB:

-

CCB Decision:

atnp_ccb_chair: SUBMITTED (28/07/98)
Atnp_ccb_chair: ACCEPTED (25/08/98)
CCB-7 (Bordeaux): RESOLVED (28/09/98)

Title: CM - Timer Activation

PDR Reference: 98070001
Originator Reference: timer.txt
SARPs Document Reference: CM SARPs, sections 2.1.5.3.3.4.1,
2.1.5.3.3.8.2, figure 2.1.5-6,
tables 2.1.5-1 and 2.1.5-2.
Status: RESOLVED
28/09/98 (PROPOSED -> RESOLVED)
07/09/98 (ACCEPTED -> PROPOSED)
PDR Revision Date: 17/08/98 (SUBMITTED -> ACCEPTED)
PDR Submission Date: 08/07/98
Submitting State/Organisation: CENA/CHARME
Submitting Author Name: Jean, M.
Submitting Author E-mail Address: jean@cenatls.cena.dgac.fr
Submitting Author Supplemental
Contact Information: Tel: +33 5 62 25 95 89
Fax: +33 5 62 25 95 99
SARPs Date: ICAO Edition 2.2 (Rio)
SARPs Language: English

Summary of Defect:

When the CM-ground-user invokes the CM-contact request primitive with no dialogue in place, the CM-ground-ASE invokes the D-START request primitive and the timer t-contact is activated.

Likewise, when the user invokes a CM-contact request primitive with a dialogue in place, the timer t-contact has to be activated.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ In figures 2.1.5-6, 2.1.5-8 and 2.1.5-10: add an arrow between D-DATA req and D-DATA ind to represent the timer t-contact in the figure.

2/ In section 2.1.5.3.3.4.1, replace:
a) invoke CM-contact service confirmation...
b) enter the DIALOGUE state.
by :
a) stop timer t-contact,
b) invoke CM-contact service confirmation...
c) enter the DIALOGUE state.

3/ In section 2.1.5.3.3.8.2, replace:
b) ... parameter value, and
c) enter the CONTACT DIALOGUE state.
by :
b) ... parameter value,
c) start timer t-contact and
d) enter the CONTACT DIALOGUE state.

4/ In Table 2.1.5.-1, replace cell (CM-contact, Timer Strat Event) from
D-START request
to:
D-START request
D-DATA request

and cell (CM-contact, Timer Stop Event) from
D-START confirmation
to:
D-START confirmation
D-DATA indication

5/ In table 2.1.5-2, add in cell (event=CM-Contact request/state=DIALOGUE):
start timer t-contact

and in cell (event=D-DATA Indication/state=CONTACT DIALOGUE):
stop timer t-contact

SME Recommendation to CCB: -

CCB Decision: atnp_ccb_chair: SUBMITTED (06/07/98)
 atnp_ccb_chair: ACCEPTED (17/08/98)
 CCB-7 (Bordeaux): RESOLVED (28/09/98)

Title: CM - Facility Designation User Requirements Correction

PDR Reference: 98090005
Originator Reference:
SARPs Document Reference: CM SARPs, Sections 2.1.7.1.1.1 -
2.1.7.1.1.7, 2.1.7.1.2, 2.1.7.1.3.4,
2.1.7.2.2.6 - 2.1.7.2.2.7, 2.1.7.2.3.1,
2.1.7.2.6.5
Status: RESOLVED
PDR Revision Date: 28/09/98 (PROPOSED -> RESOLVED)
22/09/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
18/09/98 (PDR renumbered from 98090003 to
98090005, note 2 added in item 4)
PDR Submission Date: 17/09/98
Submitting State/Organization: ATNP WG3/SG2
Submitting Author Name: Saccone, G
Submitting Author E-mail Address: gsaccone@west.raytheon.com
Submitting Author Supplemental
Contact Information:
ph 1 604 821-5182, fx 1 604 279-5795
SARPs Date: IV2.3 (Doc 9705)
SARPs Language: English

Summary of Defect:

This PDR supersedes PDR 98050020.

This PDR addresses operational concerns over the use of the optional facility designation field of the CMLogonRequest (cf. the detailed description of the problem in PDR 98050020). In order to ensure that the facility designation field is used and interpreted in a consistent manner, changes to the user requirements of CM must be made.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendments:

1/ In 2.1.7.1.1.1, change (deleted text) {new text}:
2) for applications that can be ground initiated: application name, version number, and address for all versions that can be supported,(and)

d) {the facility designation of the facility with which the CM-air-user wishes to exchange application information (if required), and
e)} flight information data as required by the ground system.

2/ Add note to 2.1.7.1.1.1 <text in italics>:
<Note.- The> facility designation <is only used if the CM-air-user wants to explicitly identify a facility other than the one contained in the> Facility Designation <parameter of the CM-logon service for which it requires application information.>

Renumber 2.1.7.1.1.2 through 2.1.7.1.1.6 to 2.1.7.1.1.3 through 2.1.7.1.1.7.

3/ Add 2.1.7.1.1.2 <text in italics>, [text bold]:
2.1.7.1.1.2 [Recommendation.] - <The CM-air-user should only use the> facilityDesignation <field of the> CMLogonRequest <if requesting information for a facility other than the one specified in the> Facility Designation <parameter of the CM-logon service.>

4/ Add notes to 2.1.7.1.1.7 <text in italics>:
<Note 1.- If the> facilityDesignation <field of the> CMLogonRequest <was provided, then the information contained in the> Logon Response <parameter corresponds to that facility designation. If the> facilityDesignation

<field of the> CMLogonRequest <was not provided, then the information contained in the> Logon Response <parameter corresponds to the> Facility Designation <parameter of the CM-logon service.>

<Note 2.- If the> facilityDesignation <field of the> LogonRequest <was provided and no application information is returned in the> Logon Response <parameter, this means that the CM-ground-user does not have access to the information for the requested facility or that the requested facility does not support any of the proposed applications.

5/ Add note to 2.1.7.1.2 <text in italics>:

<Note.- If a CM-update service indication is received, then the information contained in the> Update Information <parameter corresponds to the facility designation contained in the> Facility Designation <parameter, or, if a dialogue exists, the facility with which the dialogue is in place.>

6/ Add the following to the note of 2.1.7.1.3.4 <text in italics>:

< However, the facility designation will not be provided as part of the> CMLogonRequest <in this case.>

Renumber 2.1.7.2.2.6 and 2.1.7.2.2.7 to 2.1.7.2.2.8 and 2.1.7.2.2.9

7/ Add 2.1.7.2.2.6 <text in italics>:

2.1.7.2.2.6 If the facility designation is present in the> Logon Request <parameter, then the application information contained in the> CMLogonResponse <shall correspond to that facility designation.>

8/ Add note to 2.1.7.2.2.6 <text in italics>:

<Note.- If a CM-ground-user does not have access to the information for the requested facility, no application information is returned.>

9/ Add 2.1.7.2.2.7 <text in italics>:

2.1.7.2.2.7 If the facility designation is not present in the <Logon Request> parameter, then the application information contained in the <CMLogonResponse> shall correspond to the responding CM-ground-user's facility designation.

10/ Add note to 2.1.7.2.3.1 <text in italics>:

<Note.- The CM-update service only corresponds to a ground facility's local applications.>

11/ Change 2.1.7.2.6.5 <text in italics> [text bold] (deleted text) {new text}:

2.1.7.2.6.5 **{[Recommendation.] -}** <Upon the receipt of a> Forward Request <from a CM-forward service indication, the receiving CM-ground-user (shall){should} invoke a CM-update service request with the indicated aircraft{ if the update service is supported}.>

SME Recommendation to CCB:

-

CCB Decision:

atnp_ccb_chair: ACCEPTED (22/09/98)
CCB-7 (Bordeaux): RESOLVED (28/09/98)

Title: ARF - Errors in the ARF protocol

PDR Reference: 98070002
Originator Reference:
SARPs Document Reference: ARF SARPs, sections 2.2.2.5.3.4.10.1,
2.2.2.5.3.4.11.1, 2.2.2.5.3.5.3.1
Tables 2.2.2.5-2 and 2.2.2.5-19
Status: RESOLVED
28/09/98 (PROPOSED -> RESOLVED)
04/09/98 (ACCEPTED -> PROPOSED)
PDR Revision Date: 17/08/98 (SUBMITTED -> ACCEPTED)
PDR Submission Date: 08/07/98
Submitting State/Organisation: CENA/CHARME
Submitting Author Name: Jean, M.
Submitting Author E-mail Address: jean@cenatls.cena.dgac.fr
Submitting Author Supplemental
Contact Information: Tel: +33 5 62 25 95 89
Fax: +33 5 62 25 95 99
SARPs Date: ICAO Edition 2.3
(Doc 9705 - 1st edition - 1998)
SARPs Language: English

Summary of Defect:

1/ The reception of a D-ABORT indication (originator=user/provider) should be allowed when the PM is in the state RF-I-END.

2/ The actions on receipt of a D-ABORT ind primitive and D-P-ABORT ind primitive are not described in state table 2.2.2.5-19.

3/ The table listing the parameters used in the D-START request should indicate that the DS-user version number is used. It should also refer to the ADS-start-forward primitive and not to the ADS-forward-contract primitive.

4/ In sections 2.2.2.5.3.5.3.1 and 2.2.2.5.3.5.3.2, the test condition on the version number upon receipt of a D-START indication ("if the version number parameter is not compatible with the version number of the ASE") is not detailed enough.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ Change section 2.2.2.5.3.4.10.1 from:
If in the RF-I-START state or the RF-I-ACTIVE state, the initiating ADS-RF-ASE shall :

- a) stop any timers,
- b) invoke ADS-user-abort indication, and
- c) enter the RF-I-IDLE state.

to

If in the RF-I-START state, the RF-I-ACTIVE state or the RF-I-END state, the initiating ADS-RF-ASE shall :

- a) stop any timers,
- b) if not in the RF-I-END state, invoke ADS-user-abort indication, and
- c) enter the RF-I-IDLE state.

2/ Change section 2.2.2.5.3.4.11.1 from:

If in the RF-I-START state or the RF-I-ACTIVE state, the initiating ADS-RF-ASE shall :

- a) stop any timers,
- b) invoke ADS-provider-abort indication... 2.2.2.5-9, and
- c) enter the RF-I-IDLE state.

to

If in the RF-I-START state, the RF-I-ACTIVE state or the RF-I-END state, the initiating ADS-RF-ASE shall :

- a) stop any timers,
- b) if not in the RF-I-END state, invoke ADS-provider-abort indication... 2.2.2.5-9, and
- c) enter the RF-I-IDLE state.

3/ append the following two lines to Table 2.2.2.5-19 (<text in italics>):

	RF-I-IDLE	RF-I-START	RF-I-ACTIVE	RF-I-END
D-ABORT ind timer with originator= DLE> " user "	Cannot occur	stop any timer	ADS-user-abort ind	stop any <RF-I- <RF-I-IDLE>
D-ABORT ind timer with originator DLE> " provider " or D-P-ABORT ind	Cannot occur	stop any timer	ADS-provider-abort ind	stop any <RF-I- <RF-I-IDLE>

4/ Change cell (DS-user version number, Derivation of Parameter Value) in table 2.2.2.5-2 from:
Not used

to:

ADS-RF-ASE version number

5/ In table 2.2.2.5-2, in cells (Called peer id) and (Quality of Service) change from:

ADS-forward-contract request

To

ADS-start-forward request

6/ Add the following note to section 2.2.2.5.3.5.3.1

Note.- By "compatible" is meant that the receiving ASE and user is able to react to the received protocol in the correct way. If the version numbers are equal, they will always be compatible. If the receiving ASE and user has a version number greater than the initiating version number, then they will be compatible only if the receiving system is able to downgrade itself to the lower version number.

SME Recommendation to CCB:

PROPOSED

CCB Decision:

atnp_ccb_chair: SUBMITTED (06/07/98)

Atnp_ccb_chair: ACCEPTED (17/08/98)

CCB-7 (Bordeaux): RESOLVED (28/09/98) with

note in item 6/ above reviewed to take into account the case where the receiving ASE and user has a version number lesser than the initiating version number.

Title: ADS - ASN.1 syntax error

PDR Reference: 98090001
Originator Reference:
SARPs Document Reference: ADS SARPs, Section 2.2.1.4.2.1
Status: RESOLVED
PDR Revision Date: 28/09/98 (PROPOSED -> RESOLVED)
22/09/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date: 14/09/98
Submitting State/Organization:
Submitting Author Name: Moncreaff, G.
Riopel, M.
Submitting Author E-mail Address: moncreg@res.raytheon.com,
riopelm@res.raytheon.com
Submitting Author Supplemental
Contact Information: +1.508.490.2048 (Moncreaff),
+1.508.490.2595 (Riopel)
SARPs Date: ICAO ATNP Version 2.3 - Doc 9705
SARPs Language: English

Summary of Defect:

1/ According to ISO/IEC 8824-1 : 1995(E): [see section 26.7]
the default for reporting-interval should have the format
identifier : Value

2/ According to ISO/IEC 8824-1 : 1995(E):
[see section 22, sequence->componentlist->namedtype, section 14.5]

ComponentType ::= NamedType DEFAULT Value
NamedType ::= identifier Type

the nested sequence items in AirSpeed should have the format
identifier Type

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ In 2.2.1.4.2.1, change from:
PeriodicContract ::= SEQUENCE
{
reporting-interval [0] ReportingInterval DEFAULT {minutes-scale 5},

to:

PeriodicContract ::= SEQUENCE
{
reporting-interval [0] ReportingInterval DEFAULT minutes-scale : 5,

2/ In 2.2.1.4.2.1, change from:

AirSpeed ::= CHOICE
{
mach [0] Mach,
ias [1] Ias,
mach-and-ias [2] SEQUENCE
{
Mach,
Ias
}
}

to:

```
AirSpeed ::= CHOICE
{
  mach          [0] Mach,
  ias           [1] Ias,
  mach-and-ias [2] SEQUENCE
  {
    mach Mach,
    ias  Ias
  }
}
```

SME recommendation to CCB: -

CCB Decision: atnp_ccb_chair: 22/09/98 (ACCEPTED)
CCB-7 (Bordeaux): RESOLVED (28/09/98)