ATNP/WG3/WP13-__

AERONAUTICAL TELECOMMUNICATIONS NETWORK PANEL

Working Group 3 (Applications and Upper Layers)

Utrecht (Netherlands), 29th June - 3rd July 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.

The Working Group 3 is invited to approve this report.

1. Introduction

The goal of this paper is to provide WG3 with the current status of the Proposed Defect Reports (PDRs) raised against Sub-Volume 2 (Air-Ground ATN Applications) of the ATN SARPs.

Two CCB meetings were held since last WG-3 meeting: CCB-5 in Rio (Brazil) – 13th March 1998 and CCB-6 in Utrecht (Netherlands) – 25th June.

The version of the SARPs presented in Rio (Edition 2.2) was amended based on three PDRs:

- PDR 98030006 - FIS ASN.1 resulted in the replacement of the ASN.1 chapter by a new ASN.1 description endorsed by WG3, ADSP and the ICAO Met Office,
- PDR 98040004 - CPDLC SARPs chapters 4 (ASN.1) and 7 (message intent tables) has been aligned with Doc. 4444,
- PDR 98040005 - Editorial errors and discrepancies identified between Edition 2.2 and the Engineering Version have been fixed.

The resulting version - distributed in Utrecht by the ATNP Secretary - is identified as ICAO Doc. 9705 Edition 1. The PDRs accepted by CCB-6 (status is RESOLVED) in Utrecht will incorporated in the next version (annual amendment process).

All PDRs identified in this report are attached in Annex A for information. An electronic version is available on the ATNP server in the directory CCB/sme2.

2. Sub-Volume 2 PDRs

All PDRs common to all air-ground applications SARPs are now RESOLVED.

3. CM SARPs PDRs

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

CM	PDR title	CCB status
98050002	Incomplete Requirement	FORWARDED
98050003	Erroneous Handling Of Unexpected QOS	REJECTED
98050020	CMLogonResponse Correction	ACCEPTED

The only 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 is 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 requests SG2 to reconsider the problem and fix it through changes in chapter 7 only.

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
98030001	Errors in tables 2.2.1.5-31 and 32	RESOLVED
98050004	Minor defects	FORWARDED
98050005	Useless parameters passed from PC to LI	FORWARDED
98050006	Erroneous parameter name	REJECTED
98050007	Erroneous exception handling D-START cnf	REJECTED
98050008	Erroneous exception handling D-DATA ind	RESOLVED
98050009	Erroneous exception handling D-ABORT ind	FORWARDED
98050010	Erroneous exception handling D-END cnf	FORWARDED
98050018	State Table / Protocol inconsistency	FORWARDED
98060001	EPP Issue	FORWARDED

Changes endorsed by the CCB in the current specifications are the following:

- an editorial error identified in PDR 98030001 which makes the SARPs impossible to implement,
- errors in the protocol description which will cause the generation of an abnormal abort situation which may disturb without any reason the controller (PDR 98050008).

6 PDRs identifying valid errors in the SARPs with no impact on the interoperability nor the safety or correcting editorial errors are FORWARDED.

PDR 98050006 already covered by a previous RESOLVED PDR is REJECTED.

PDR 98050007 resulting from the misunderstanding of the SARPs is also REJECTED. The question raised in this PDR will be addressed in the Guidance Material.

5. CPDLC SARPs PDRs

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

CPDLC	PDR title	CCB status
98050011	Incomplete Requirement	REJECTED
98050012	Erroneous handling of Unexpected QOS	REJECTED
98050019	Problems with IV2.2 CPDLC SARPs	RESOLVED

PDR 98050012 already covered by a previous RESOLVED PDR is REJECTED.

PDR 98050011 resulting from the misunderstanding of the SARPs is also REJECTED. The questions raised in this PDR will be addressed in the Guidance Material.

The PDR 98050019 identifying some discrepancies between Edition 2.2 CPDLC SARPs and the resolutions endorsed by the CCB has been passed to RESOLVED.

6. FIS SARPs PDRs

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

FIS	PDR title	CCB status
98040001	Simultaneous air and ground cancellation	RESOLVED
98040002	FIS-abort indication Reason parameter	RESOLVED
98040006	T-inactivity timer management	RESOLVED
98040007	Invalid list of allowed APDU in the D-START cnf	FORWARDED
98040008	Invalid state change	RESOLVED
98050013	Minor defects	FORWARDED
98050014	Unspecified initial state in transitions	RESOLVED
98050015	Error in Altimeter setting	REJECTED
98050016	Extraneous transitions in gnd and air LI modules	REJECTED
98050017	Addition APDU to expect in D-START cnf	REJECTED

Changes endorsed by the CCB are the following:

- errors in the protocol description which will cause the generation of an abnormal abort situation which may disturb without any reason the application-users (PDR 98040001, 98040008).
- an error identified in PDR 98040002 which makes the SARPs impossible to implement,
- the current management of the t-inactivity timer cause the dialogue to remain open for ever (PDR 98040006).

PDR 98040007 identifies an error in the protocol description but the situation where the error occurs is operationally not valid. Guidance will be provided for FIS version 1 and the problem will be fixed in version 2.

Several proposed changes are correcting editorial errors which will be fixed in the next version of the FIS protocol (PDR 98050013).

PDRs 98050015 and 98050017 identifying errors already covered by previous RESOLVED PDRs are REJECTED.

PDR 98050016 resulting from the misunderstanding of the SARPs are also REJECTED. The questions raised in these PDRs will be addressed in the Guidance Material.

7. Statistics

The following tables provide the statistics on all PDRs raised against Sub-Volume 2 since its approval at the Phuket ATNP WGW/1 meeting.

	ACCEPTED	REJECTED	WITHDRAWN	FORWARDED	RESOLVED	TOT
SV2					3	3
CM	1	1	1	1	2	6
ADS		2	2	7	14	25
CPDLC		2	1		26	29
FIS		3		2	17	22
TOTAL	1	8	4	10	62	**85**

8. Conclusion

The Working Group 3 is invited to approve this report.

ANNEXE A

SV2 related PDRs
issued in the reporting period May to June 98

CCB-6 output status

Title: CM - Incomplete requirement

PDR Reference:	98050002
Originator Reference:	ATNSI_CM01
SARPs Document Reference:	CM SARPs, Section 2.1.5.4.5.2
Status:	FORWARDED
PDR Revision Date:	25/06/98 (PROPOSED -> FORWARDED) 20/05/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	lkiewicz, M / Stokes, S.
Submitting Author E-mail Address:	michel.ilkiewicz@cdv.vly.sextant.thomson.fr Shawn.Stokes@ATNSI.COM
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

If the CM-ASE receives a D-START confirmation with the D-START Result parameter having the abstract value of "rejected (transient)" or if the D-START Reject Source parameter has the abstract value of "DS Provider" and if the CM-user is not an active user, the SARPs do not specify what to do. As a consequence, in such a situation, the exception handling procedure applies.

This is erroneous, because in such a situation the CM-ASE should simply do nothing.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The requirement should be changed to:

If the CM-ASE receives a D-START confirmation with the D-START Result parameter having the abstract value of "rejected (transient)" or if the D-START Reject Source parameter has the abstract value of "DS Provider", the CM-ASE shall:

a) if the CM-user is an active user, invoke CM-provider-abort service indication with the abstract value "communication-service-error" APDU as the CM-provider-abort Reason parameter value.

SME Recommendation to CCB:

The concept of an active user was introduced in order to clarify when responses should or should not be sent. By definition, an inactive user does not have the capability to perform functions. Therefore, it is assumed that if a user is not active, no actions will be taken; exception handling will not apply since it does not apply for inactive users. Since the protocol will still function properly and there are no interoperability issues, this issue is rejected.

Actually, the way the requirement is currently specified may be confusing. The proposed wording removes the ambiguity. For clarification in the next version of the SARPs, this PDR is FORWARDED as an editorial PDR.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: ACCEPTED (20/05/98)
CCB-6 (Utrecht) : FORWARDED

Title: CM - Erroneous handling of unexpected QOS

PDR Reference:	98050003
Originator Reference:	ATNSI_CM02
SARPs Document Reference:	CM SARPs, Sections 2.1.5.4.7.1
Status:	REJECTED
PDR Revision Date:	20/05/98 (REJECTED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	Ilkiewicz, M / Stokes, S.
Submitting Author E-mail Address:	michel.ilkiewicz@cdv.vly.sextant.thomson.fr Shawn.Stokes@ATNSI.COM
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

1/ It is not specified that a D-START indication with an unexpected QOS can only be received in the IDLE state by a CM-ASE.

2/ Since the CM-ASE cannot but be in the IDLE state, there is no timer to stop.

3/ Furthermore, the CM-ASE does not need to "enter" the IDLE state at the end of the exception handling procedure, but just needs to "remain" in the IDLE state.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The requirement in section 2.1.5.4.7.1 should be changed to:

If a D-START indication QOS Priority parameter does not have the abstract value of "high priority flight safety message" or if the QOS Residual Error Rate parameter does not have the abstract value of "low", if the CM-ASE is in the IDLE state, the CM-ASE shall:

a) if the CM-ASE is a CM-air-ASE, create an CMAircraftMessage APDU
with a CMAbortReason [invalid-QOS-parameter] APDU message element,

b) if the CM-ASE is a CM-ground-ASE, create an CMGroundMessage
APDU with a CMAbortReason [invalid-QOS-parameter] APDU message element,

c) invoke D-ABORT request with:

1) the abstract value "provider" as the D-ABORT Originator parameter value, and
2) the APDU as the D-ABORT User Data parameter value, and

d) remain in the IDLE state.

SME Recommendation to CCB:

1/ The requirements of the Exception Handling Section apply whatever the entering state is. This is why none of these requirements indicates the entering state.
2/ It is true that the D-START indication may only be received in the IDLE state. Therefore, the stop all timers is not necessary. However, the protocol will still work with this statement in.
3/ For the second comment on being able to "remain" in the IDLE state as opposed to "entering" the IDLE state, it should be kept in mind that an abort implies problems with the protocol, so entering the IDLE state is a sure way that upon handling an abort, the ASE is reset to a known state. Since both of these cases, if left as are currently, do not affect interoperability, this PDR is rejected.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: REJECTED (20/05/98)

Title: CM - CMLogonResponse Correction

PDR Reference:	95050020
Originator Reference:	
SARPs Document Reference:	CM SARPs, Sections 2.1.1, 2.1.3.3.7, 2.1.3.4.4, 2.1.4.2.1, 2.1.7.1.1.1, 2.1.7.1.1.4, 2.1.7.1.1.6, 2.1.7.1.2, 2.1.7.1.2.1, 2.1.7.2.2.5, 2.1.7.2.2.8, 2.1.7.2.3.1
Status:	ACCEPTED
PDR Revision Date:	25/06/98 (PROPOSED -> ACCEPTED) 29/05/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	29/05/98
Submitting State/Organization:	ATNP WG3/SG2
Submitting Author Name:	Saccone, G
Submitting Author E-mail Address:	gsaccone@mail.hac.com
Submitting Author Supplemental Contact Information:	ph 1 604 821-5182, fx 1 604 279-5980
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect::

There are serious operational issues with the intended use of the Facility Designation in the CM Logon sequence of messages (Logon Request/Logon Response).

There are a number of elements in the CMLogonRequest message that may optionally be used. This is intended to allow different implementations as much flexibility as possible. There are [at least] two types of problems that may arise from the use of optional data however:
- case #1: one region determines that optional data needs to be made mandatory for its particular region, while a neighboring region does not require the optional information.
- case #2: different regions may interpret the same data differently.
Both of these situations can lead to safety issues if not resolved.

These two situations do not have the same safety impact since the intent of the information is the same for the first case, but not the second.
- case #1: the logon could be rejected (e.g. no application information given or an abort issued by the ground system) because information a region requires is not present. The aircraft would then be told to provide the required data.
- case #2: if a pilot is intending that the facility designation in the logon is specifying an alternate aerodrome (for instance) while the ground is interpreting it to mean that the pilot is specifying a facility from where he wants data link services, then there is an operational issue.

This cannot be resolved in guidance, since there would be nothing binding implementations—different regions may still choose operationally incompatible implementations. This is clearly a case that must be resolved in SARPs.

There are two immediate solutions to this problem.
- Solution #1: mandate, via user requirement changes in Section 2.1.7, that the optional FacilityDesignation field of the CMLogonRequest, if used, will have a specific meaning.
- Solution #2: change the ASN.1 of the CMLogonResponse to completely clarify the intended purpose of the FacilityDesignation.

Both of these options are discussed, and the final choice recommended.
The first option of changing the user requirements has the advantage of not affecting the current technical interoperability of the SARPs. However, there are some critical safety issues.
For this solution, one must assume that if the optional FacilityDesignation field is used, then the aircraft performing the logon will use it as a means to request the data link information of a facility other than, or in addition to, the one being logged on to. This is logical and consistent with how a CM server might be implemented. Therefore the facility that receives the CMLogonRequest with the optional FacilityDesignation field used will do one of two things:

1) the receiving facility will either respond with its own information, and forward the CMLogonRequest to the facility indicated by the FacilityDesignation field (either by CMForward or other means). The ground system receiving the CMLogonRequest (i.e. the one that is specified in the FacilityDesignation) would then perform a CMUpdate with the aircraft, or
2) the receiving facility will respond with the data link information of the facility specified by the FacilityDesignation.

Both of these solutions make certain assumptions about the receiving CM ground system.

For 1), it is assumed that the CM ground system has a database of CM addresses and is able to correlate those addresses with the given facility designation. It also assumes that the CM ground system has the ability to forward this information in some way, which implies some level of ground-ground connectivity. Also, if a CM ground system is a CM server, then it would always return an empty field in the CMLogonResponse. However, there is no guarantee that the CMLogonRequest was forwarded to the appropriate facility, and also no way to indicate that to the aircraft via CM. This could lead to an unacceptable situation where the aircrew has assumed its data link information has been passed on to a facility with which it wishes to perform data link services with, when in reality that has not been successfully completed. Operational problems would arise, such as how long to wait for a "successful" logon or what retry methods would be applicable.

For 2), it is assumed that the receiving facility is a CM server, and has a database complete with current information for all data link applications at all facilities. This may not be the case, and the CM ground system without access to this information would return no application information in the CMLogonResponse. Also, there are certain applications that the intended ground system will need to be made aware of, such as ADS or ground-initiated CPDLC. The CM ground system receiving the CMLogonRequest will need to forward that information to the intended CM ground system somehow. If the CM ground system supports the contact and/or forward functions, it may be able to either direct the aircraft to contact the facility directly or forward the aircraft's information to that facility via ground-ground. However, as in the previous case, there is no guarantee that either of these services are available and no ability to indicate the success or availability of those services to the aircrew. This may also cause an operational problem, as an aircrew will assume that its ADS and CPDLC information has been forwarded to the proper ground facility when in fact it hasn't.

Another problem is that the Facility Designation parameter (i.e. Dialogue Service Called Peer ID parameter) of the CM-logon service will not match the information returned in the CMLogonResponse. This will add complexity to both the aircraft and ground systems, as both systems will now have to carefully track the creation of the actual TSAPs for each application (i.e., the use of the long TSAP).

A problem with these two solutions is that they both lead to ambiguities with the CM-update service. If the addressing data is forwarded to the facility as requested by the aircraft, the facility will send an update to the aircraft. However, there is no way to indicate which facility the data link information being returned is for. And since the other facility may be a CM server, there is the danger of the aircraft having incorrect application addresses. This represents a serious safety impact. The same situation is also possible with the response/confirmation portion of the CM-logon service.

A solution that would solve this problem would be to change the ASN.1 of the CMLogonResponse. The CMLogonResponse would be changed to include a FacilityDesignation field, that would indicate which facility the information being returned is for. This fix would support both the CM server and CM end system concepts of operation. In addition, there would be no ambiguity as to which facility's information is being provided; it is explicitly stated in the response. The problem of a CM ground system not being able to guarantee that the application information contained in a CMLogonRequest was successfully passed to the appropriate facility would still exist. However, this solution does solve the ambiguity of which facility's information is being returned upon successful forwarding of information. In addition, this solution supports a more efficient operational concept by allowing multiple updates over a single dialogue. This would allow a CM facility to give an aircraft many facilities' application information along with the information needed for the aircraft to properly correlate the information via the CM-update service (the CMUpdate is identical to the CMLogonResponse).

Therefore, in order to ensure that an aircraft can correlate application information returned in a CMLogonResponse or CMUpdate, the ASN.1 of those elements is proposed to be updated, as well as additional appropriate user requirements in 2.1.7.

Assigned SME: Sub-Volume 2 SME

Proposed SARPs amendment:

1/ In 2.1.1, Note 2, a) 1 add at the end after "…for each requested application that can be air initiated and that the ground can support." the following sentence:
The ground also provides the facility designation that corresponds to the application information provided.

2/ In 2.1.1, Note 2, a) 5 add et the end after "…For each desired air-initiated application the ground provides the application name, version number, and address." the following sentence:
The corresponding facility designation is also provided.

3/ In 2.1.1, Note 2, b) 2 add at the end after "…For each updated application the ground provides the application's name, version number and address. " the following sentence:
The corresponding facility designation is also provided.

4/ In the note of 2.1.3.3.7, add at the end after "... to provide data link service." the following service:
It also contains the facility designation that corresponds to the application information provided.

5/ In the note of 2.1.3.4.4, add at the end after "...on each updated data link application." the following service:
It also contains the facility designation that corresponds to the application information provided.

6/ In 2.1.4.2.1, change from:

```
CMLogonResponse ::= SEQUENCE
    {
    airInitiatedApplications          [0]   SEQUENCE SIZE (1..256) OF
                                            AEQualifierVersionAddress          OPTIONAL,
    groundOnlyInitiatedApplications   [1]   SEQUENCE SIZE (1..256) OF AEQualifierVersion
                                                                               OPTIONAL
    }
```

to:

```
CMLogonResponse ::= SEQUENCE
```

```
{
facilityDesignation              [0]   FacilityDesignation,
airInitiatedApplications         [1]   SEQUENCE SIZE (1..256) OF
                                       AEQualifierVersionAddress          OPTIONAL,
groundOnlyInitiatedApplications  [2]   SEQUENCE SIZE (1..256) OF AEQualifierVersion
                                                                          OPTIONAL,
…
}
```

7/ In 2.1.7.1.1.1, change from (<text> within brackets is in italics):

2) for applications that can be ground initiated: application name, version number, and address for all the versions that can be supported, and

d) flight information data as required by the ground system.

to:

2) for applications that can be ground initiated: application name, version number, and address for all the versions that can be supported, d) the facility designation of the ground system that corresponds to the application information in c) if necessary, ande) flight information data as required by the ground system.

<Note 1.- If the facility designation for which the aircraft requires data link service is the same as the facility being logged on to, then the facility designation is not required.>

<Note 2.- There is no guarantee that a ground system will have access to another facility's application information. This will have to be determined by bilateral agreements.>

8/ In 2.1.7.1.1.4, change (<text> within brackets is in italics) from:

<Note .- The actual TSAP = IDP + long TSAP. The IDP = AFI + IDI.>

to:

<Note 1.- The application information contained in the Logon Response corresponds to the facility designation contained in that same Logon Response. >

<Note 2.- The actual TSAP = IDP + long TSAP. The IDP = AFI + IDI.>

9/ In 2.1.7.1.1.6, change (<text> within brackets is in italics) from:

Upon the receipt of a <Logon Response> from a CM-logon service confirmation from an ICAO ground facility designation for which CM information has previously been received, the CM-air-user shall only replace the previous information for which new logon information has been received.

to:

Upon the receipt of a <Logon Response> from a CM-logon service confirmation from an ICAO ground facility designation for which CM information has previously been received, the CM-air-user shall only replace the previous information of the facility identified in the Logon Response for which new logon information has been received.

10/ In 2.1.7.1.2, add the following note (<text> within brackets is in italics):

<Note.- The application information contained in the Update Information corresponds to the facility designation contained in that same Update Information. >

11/ In 2.1.7.1.2.1, change (<text> within brackets is in italics) from:

Upon the receipt of <Update Information> from a CM-update service indication from a ground facility designation for which CM information has previously been received, the CM-air-user shall only replace the previous information for which updated information has been received.

Upon the receipt of <Update Information> from a CM-update service indication from a ground facility designation for which CM information has previously been received, the CM-air-user shall only replace the previous information of the facility identified in the Update Information for which updated information has been received.

12/ In 2.1.7.2.2.5, change from:

Upon receipt of a CM-logon service indication, the CM-ground-user shall invoke a CM-logon service response with a CMLogonResponse containing:

a) application names, addresses, and version numbers for the requested applications that can be air-initiated for all versions that the ground and aircraft systems can support, and b) application names and version numbers for the requested ground-only initiated applications that the

ground system can support.

to:

Upon receipt of a CM-logon service indication, the CM-ground-user shall invoke a CM-logon service response with a CMLogonResponse containing:

a) the facility designation relevant to the application information to be returned,

b) application names, addresses, and version numbers for the requested applications that can be air-initiated for all versions that the ground and aircraft systems can support, and c) application names and version numbers for the requested ground-only initiated applications that the ground system can support.

<Note.- If the CM-ground-user does not have access to the application information for the facility designation specified in the Logon Request parameter, the CMLogonResponse will contain only the specified facility designation, and no application information.>

13/ Add new section, 2.1.7.2.2.8 ([text] is bolded, <text> is italicised):

2.1.7.2.2.8 [Recommendation.] - <If the CM-ground-user does not have access to the application information for the facility designation specified in the Logon Request parameter, then the CM-ground-user should either direct the aircraft to contact that facility via the CM-contact service if supported, or relay the aircraft's application information to that facility via the CM-forward service, if supported.>

<Note.- If the CM-ground-user does not have access to the CM address of the facility designation specified in the Logon Request parameter, the CM-ground-user may use alternate means to provide the aircraft's information to that facility or do nothing.>

14/ In 2.1.7.2.3.1, change from:
When invoking the CM-update service request, the CM-ground-user shall provide a CMUpdate containing application names, addresses, and version numbers for each of the data link applications being updated.

to:
When invoking the CM-update service request, the CM-ground-user shall provide a CMUpdate containing the facility designation relevant to the application information to be updated and application names, addresses, and version numbers for each of the data link applications being updated.

SME Recommendation to CCB:	ACCEPTED
CCB Decision:	atnp_ccb_chair: SUBMITTED (29/05/98) CCB-6 (Utrecht) : ACCEPTED (25/06/98)

CCB-6 requests the SME2 Team to revisit the PDR and to propose a solution not impacting the interoperability, even if this restricts the server capability of the ground CM. The full capability will be provided in version 2.

Title: ADS - Error in Tables 2.2.1.5-31 and 32

PDR Reference:	98030001
Originator Reference:	-
SARPs Document Reference:	ADS SARPs, Tables 2.2.1.5-31 and 32
Status:	RESOLVED
PDR Revision Date:	25/06/98 (PROPOSED -> RESOLVED) 25/05/98 (ACCEPTED -> PROPOSED) 13/03/98 (SUBMITTED -> ACCEPTED) 04/03/98 (SUBMITTED)
Submitting State/Organization:	CENA - DGAC
Submitting Author Name:	Jean, M
Submitting Author E-mail Address:	jean@cenatls.cena.dgac.fr
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2, Rio
SARPs Language:	English

Summary of Defect:

Upon receipt of an ADS-cancel-contract-PDU, the air EC module shall invoke an ADS-cancel indication with the contract type parameter set to the value "event-contract" and create an ADS-positive-acknowledgement-PDU with the Request type APDU-element set to the value "cancel-event-contract".

Tables 2.2.1.5-31 and 2.2.1.5-32 specify the two values in the reverse order.

If implemented as described in the SARPs, any attempt to cancel an event contract causes the abort of the dialogue and all pending ADS contracts by the ADS-ground-ASE. The ADS-air-user receives an ADS-provider-abort indication with abort reason "invalid-PDU".

Impact on Interoperability:
None.

Impact on Safety:

Presenting an abort to the pilot - algthough all procedures have been correctly followed - could be potentially dangerous and distracting. The pilot has to figure out in that particular case (reception of an ADS-cancel indication followed by an ADS-abort indication) that the abort is (probably) a false alarm.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ Change Table 2.2.1.5-31 from:
Contract type | cancel-event-contract

to:
Contract type | event-contract

2/ Change Table 2.2.1.5-32 from
Request type | event-contract

to:
Request type | cancel-event-contract

SME Recommendation to CCB:

CCB Decision: CCB-5 (Rio): ACCEPTED
atnp_ccb_chair: PROPOSED (25/05/98)
CCB-6 (Utrecht): RESOLVED

Title: ADS - Minor defects

PDR Reference:	98050004
Originator Reference:	ATNSI_ADS01
SARPs Document Reference:	ADS SARPs, Section numbers: see below
Status:	FORWARDED
PDR Revision Date:	26/06/98 (PROPOSED -> FORWARDED) 20/05/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	Ilkiewicz, M / Stokes, S.
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

1/ Section 2.2.1.4.1.1 should be changed from:
"An ADS-air-ASE shall be capable of decoding [ADSAircraftPDUs] APDUs and decoding [ADSGroundPDUs] APDUs."

to:
"An ADS-air-ASE shall be capable of encoding [ADSAircraftPDUs] APDUs and decoding [ADSGroundPDUs] APDUs."
2/ Section 2.2.1.4.1.2 should be changed from:
"An ADS-ground-ASE shall be capable of decoding [ADSGroundPDUs] APDUs and decoding [ADSAircraftPDUs] APDUs."

to:
"An ADS-ground-ASE shall be capable of encoding [ADSGroundPDUs] APDUs and decoding [ADSAircraftPDUs] APDUs."

3/ Section 2.2.1.5.3.6.3.1, table 2.2.1.5-7, should be changed from:
report element of the ADS-demand-contract-PDU

to:
report element of the ADS-demand-report-PDU

4/ Section 2.2.1.5.3.6.4.1, table 2.2.1.5-8, should be changed from:
report element of the ADS-demand-contract-PDU

to:
report element of the ADS-demand-report-PDU

5/ Section 2.2.1.5.3.10.10.1, table 2.2.1.5-40 should be changed from:
from the event-ncn PDU element

to:
from the periodic-ncn PDU element

6/ Section 2.2.1.5.3.15.4 should be changed from:
from the ground DC, EC, PC or EM modules

to:
from the ground EC, PC or EM modules

7/ Section 2.2.1.5.3.16.4 should be changed from:
from the ground AB module

to:
from the air AB module

8/ Section 2.2.1.5.3.16.4.1 should be changed from:
enter the LI-G-IDLE state

to:
enter the LI-A-IDLE state

9/ Section 2.2.1.5.5.1.1, note 1 should be changed from:
internal system error

to:
unrecoverable error

10/ Table 2.2.1.5-74, in LI-A-IDLE state, on D-START ind event, next state should be changed from:
LI-G-START

to:
LI-A-START

11/ Section 2.2.1.7.1.5.3 should be changed from:
an ADS-demand-contract request, or an ADS-event-contract-request or an ADS-periodic-contract-request

to:
an ADS-demand-contract indication, or an ADS-event-contract indication or an ADS-periodic-contract indication

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

See above.

SME Recommendation to CCB:

All changes are relevant. However, these changes are mainly editorial:
1 and 2/ there is no ambiguity on which APDUs the air and the ground ASEs shall be able to encode and decode.
3, 4 and 5/ typo, sections 2.2.1.5.3.6.3, 2.2.1.5.3.6.4 and 2.2.1.5.3.10.10 define clearly the type of the received APDU.
6/ overspecification, the situation can not occur for the DC module.
7 and 8/ typo, section 2.2.1.5.3.16 makes clear that this section is related to the air ADS-ASE LI module.
9/ change in a note.
10/ change in the state table, the textual description takes precedence.
11/ no ambiguity, the change is obvious.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: ACCEPTED (20/05/98)
CCB-6 (Utrecht): FORWARDED

Title: ADS - Useless parameters passed from PC to LI

PDR Reference:	98050005
Originator Reference:	ATNSI_ADS02
SARPs Document Reference:	ADS SARPs, Section 2.2.1.5.3.10.3.2
Status:	FORWARDED
PDR Revision Date:	25/06/98 (PROPOSED -> FORWARDED) 20/05/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

When the PC module receives an ADS-periodic-contract request in the PC-G-ACTIVE state, it passes the aircraft identifier and the class of communication service parameter values to LI. Both these parameters values are useless.

In a similar situation, the EC module does not pass these parameters values to LI (see section 2.2.1.5.3.8.2.2).

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

- Section 2.2.5.3.10.3.2 should be changed from:
"pass it, the aircraft identifier parameter value, and the Class of communication service parameter value, to the ground LI module"

to:
"pass it to the ground LI module"

SME Recommendation to CCB: FORWARDED

This editorial change makes the SARPs more accurate.

CCB Decision:
atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: ACCEPTED (20/05/98)
CCB-6 (Utrecht) : FORWARDED (26/06/98)

Title: ADS - Erroneous parameter name and PDU element name for cancel event contract

PDR Reference:	98050006
Originator Reference:	ATNSI_ADS03
SARPs Document Reference:	ADS SARPs, Section 2.2.1.5.3.9.8.1
Status:	REJECTED
PDR Revision Date:	20/05/98 (SUBMITTED -> REJECTED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

Tables 2.2.1.5-31 and 2.2.1.5-32 contained derived values which do not match the text above them.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

- Table 2.2.1.5-31 should be changed from:
"cancel-event-contract"

to:
"event-contract"

- Table 2.2.1.5-32 should be changed from:
"event-contract"

to:
"cancel-event-contract"

SME Recommendation to CCB: REJECTED

This PDR is already covered by PDR 98030001.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: REJECTED (20/05/98)

Title: ADS - Erroneous exception handling for D-START confirmation

PDR Reference:	98050007
Originator Reference:	ATNSI_ADS04
SARPs Document Reference:	ADS SARPs, Section 2.2.1.5.4.3.2
Status:	REJECTED
PDR Revision Date:	11/06/98 (SUBMITTED -> REJECTED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV1.1
SARPs Language:	English

Summary of Defect:

The LI module does not request the AB module to abort with reason invalid-PDU on receipt of a D-START confirmation containing an ADS-positive-acknowledgement PDU with a request type equal to cancel-event-contract, cancel-periodic-contract or modify-emergency contract.

The LI module does not request the AB module to abort with reason invalid-PDU on receipt of a D-START confirmation containing an ADS-negative-acknowledgement PDU with a request type equal to cancel-event-contract, cancel-periodic-contract or modify-emergency contract.

This is erroneous, since a SARPs conformant air ASE does not send these PDUs in a D-START response.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The list of valid APDUs in D-START confirmations which do not lead the LI module to request the AB module to abort with reason invalid-PDU should be reduced by excluding ADS-positive-acknowledgement PDUs with a request type equal to cancel-event-contract, cancel-periodic-contract or modify-emergency contract and by excluding ADS-negative-acknowledgement PDUs with a request type equal to cancel-event-contract, cancel-periodic-contract or modify-emergency contract.

SME Recommendation to CCB:

In Section 2.2.1.5.4.3.2, the ground LI module is filtering the PDUs which are not allowed to be present in the User Data parameter of the D-START confirmation parameter. The ADS-positive-acknowledgement PDU and the ADS-negative-acknowledgement PDU are allowed. Therefore they can not be rejected with reason "invalid-PDU".

Actually, the validity of the values in the PDU fields is then checked by the ground EC, PC and EM modules. If the PDU on receipt of a D-START confirmation contains an ADS-positive-acknowledgement PDU or an ADS-negative-acknowledgement PDU with a request type equal to cancel-event-contract, cancel-periodic-contract or modify-emergency contract is passed to these modules, these modules will detect an out of sequence situation (i.e. invalid state). Section 2.2.1.5.4.4.1 applies (abort with reason "sequence-error").

With the current specifications, the error situation described in this PDR is detected by the ADS protocol machine and the dialogue is aborted with the correct abort reason. There is no reason to modify the SARPs.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: REJECTED (11/06/98)

Title: ADS - Erroneous exception handling for D-DATA indication

PDR Reference:	98050008
Originator Reference:	ATNSI_ADS05
SARPs Document Reference:	ADS SARPs, Section 2.2.1.5.4.3.3
Status:	RESOLVED
PDR Revision Date:	25/06/98 (PROPOSED RESOLVED) 20/06/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

The air LI module does not request the AB module to abort with reason "invalid-PDU" on receipt of a D-DATA indication containing an ADS-cancel-all-contracts PDU.

This is erroneous, since a SARPs conformant ground ASE does not send this PDU in a D-DATA request (always in a D-END data).

Impact on Safety:

If not corrected, and if the ground ASE sends by error the ADS-cancel-all-contracts PDU in a D-DATA request, the air LI module will not detect the error, as it should do, and will invoke the ADS-cancel-all-contracts indication to the ADS-air-user. However, the DC, EC, PC and EM modules won't be stopped and the ADS-positive-acknowledgment PDU (cancel-all-contracts) will not be sent to the ground LI as stated in section 2.2.1.5.3.16.7.1.1.

This abnormal state will cause later on an abort (probably because of the t-end timeout) with no way for the controller to understand the real origine of the fault.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The list of valid APDUs in D-DATA indications which do not lead the LI module to request the AB module to abort with reason invalid-PDU should be reduced by excluding ADS-cancel-all-contracts PDUs, i.e. in section 2.2.1.5.4.3.3 take out ", an ADS-cancel-all-contracts".

Change 2.2.1.5.4.3.3 from:

2.2.1.5.4.3.3 When the user data parameter value of a D-DATA indication is a valid APDU and is not an ADS-demand-contract-PDU, an ADS-event-contract-PDU, an ADS-periodic-report-PDU, an ADS-modify-emergency-contract-PDU, an ADS-cancel-emergency-acknowledgment-PDU, an ADS-cancel-all-contracts-PDU or an ADS-cancel-contract-PDU, the air LI module shall request the AB module to abort with reason invalid-PDU.

to:

2.2.1.5.4.3.3 When the user data parameter value of a D-DATA indication is a valid APDU and is not an ADS-demand-contract-PDU, an ADS-event-contract-PDU, an ADS-periodic-report-PDU, an ADS-modify-emergency-contract-PDU, an ADS-cancel-emergency-acknowledgment-PDU or an ADS-cancel-contract-PDU, the air LI module shall request the AB module to abort with reason invalid-PDU.

SME Recommendation to CCB: RESOLVED

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: ACCEPTED (11/06/98)
CCB-6 (Utrecht): RESOLVED (25/06/98)

Title: ADS - Erroneous exception handling for D-ABORT indication

PDR Reference:	98050009
Originator Reference:	ATNSI_ADS06
SARPs Document Reference:	ADS SARPs, Section 2.2.1.5.4.3.6
Status:	FORWARDED
PDR Revision Date:	25/06/98 (PROPOSED -> FORWARDED) 11/06/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

The LI module does not request the AB module to abort with reason invalid-PDU on receipt of a D-ABORT PDU with originator equal to user and containing a valid ADS-provider-abort PDU.

This is erroneous, since a SARPs conformant ASE does not send this PDU with this originator in a D-ABORT request.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The requirement should be changed from:

When the user data parameter value of D-ABORT indication is a valid APDU and is not an ADS-provider-abort-PDU

to:

When the user data parameter value of D-ABORT indication with originator equal to user is not empty or when the user data parameter value of D-ABORT indication with originator equal to provider is a valid APDU and is not an ADS-provider-abort-PDU

SME Recommendation to CCB:

In Section 2.2.1.5.4.3.6, the ground LI module is filtering the PDUs which are not allowed to be present in the User Data parameter of the D-ABORT indication parameter. The ADS-provider-abort PDU is allowed. Therefore this PDU can not be rejected with reason "invalid-PDU". The proposed solution is therefore rejected.

The check should be performed by the AB module in section 2.2.1.5.3.14.4 as follows:

2.2.1.5.4.14.4 Upon receipt of a D-ABORT indication with the originator parameter value set to the abstract value "user" ** and with data in the User Data parameter **, the AB module shall:

Anyway, the proposed change would make the SARPs more accurate but would not change the behaviour of the ASEs. With the current specifications, the user data sent (by error) with a ADS-user abort are simply ignored. With the proposed change, the error is detected.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: ACCEPTED(11/06/98)
CCB-6 (Utrecht) : FORWARDED (25/06/98)

Title: ADS - Erroneous exception handling for D-END confirmation

PDR Reference:	98050010
Originator Reference:	ATNSI_ADS07
SARPs Document Reference:	ADS SARPs, Section 2.2.1.5.4.6.1
Status:	FORWARDED
PDR Revision Date:	25/06/98 (PROPOSED -> FORWARDED) 11/06/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

The air ASE is required to abort on receipt of certain invocations of D-END confirmation.

This is erroneous, since a SARPs conformant air ASE does not invoke D-END requests.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The requirement should be changed from:
"the air and ground AB module shall be requested to abort"

to:
"the ground AB module shall be requested to abort"

SME Recommendation to CCB:

The proposed change makes the SARPs more accurate but does not change the behaviour of the ASEs.

CCB Decision:	atnp_ccb_chair: SUBMITTED (12/05/98) atnp_ccb_chair: ACCEPTED (11/06/98)1 CCB-6 (Utrecht): FORWARDED (26/05/98)

Title: ADS - State Table / Protocol Description inconsistency

PDR Reference:	98050018
Originator Reference:	
SARPs Document Reference:	ADS SARPs, Section 2.2.1.5.3.15.4.2 and Table 2.2.1.5-73
Status:	FORWARDED
PDR Revision Date:	25/06/98 (PROPOSED -> FORWARDED) 11/06/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	20/05/98
Submitting State/Organization:	ATNP/WG3/SG2 (Lansing Meeting)
Submitting Author Name:	
Submitting Author E-mail Address:	
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

[Note: This issue was initially presented in PDR 98030004 - ADS - Editorial Error. Since the proposed resolution is to modify SARPs chapter 5, this issue can not be considered editorial anymore]

Section 2.2.1.5.3.15.4.2 is in conflict with Table 2.2.1.5-73 cell (event=ADS-cancel-contract-PDU,...,ADS-cancel-emergency-ack-PDU, state=LI-G-END).

Impact on interoperability:

None.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

Delete 2.2.1.5.3.15.4.2 as this situation should not be allowed to occur.

SME Recommendation to CCB:

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: ACCEPTED (11/06/98)
CCB-6 (Utrecht): FORWARDED (26/05/98)

Title: ADS - EPP Issue

PDR Reference:	98060001
Originator Reference:	7039/TO3/
SARPs Document Reference:	ADS SARPs sections 2.2.1.7.2.4.3, 2.2.1.7.3.5.7, 2.2.1.7.3.5.8, 2.2.1.7.4.4.7
Status:	FORWARDED
PDR Revision Date:	25/06/98 (SUBMITTED -> FORWARDED)
PDR Submission Date:	17/06/98
Submitting State/Organisation:	Eurocontrol
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SARPs Date:	ICAO Edition 2.2 (Rio)
SARPs Language:	English

Summary of Defect::

If the air-user is required to send an extended projected profile based on number-of-way points, there is a requirement that it sends the number of way points required in the contract. If the number of way points required in the contract exceeds the number of way points in the FMS, this is not possible.

The requirement should be to send as many way points as are stored, up to the number of way points requested in the contract.

A similar issue arises when the time interval variation on EPP is used, although the current text appears vague on this point.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The following new text, to replace existing paragraphs 2.2.1.7.2.4.3, 2.2.1.7.2.4.4., 2.2.1.7.3.5.7, 2.2.1.7.3.5.8, 2.2.1.7.4.4.7, is proposed by T Maude. The proposed changes do not affect interoperability. Note that text in angular brackets like <this> means that the text should be italicised:

2.2.1.7.2.4.3 When <number-of-way-points> was provided in the ADS-demand-contract indication, and <extended-projected-profile> is provided in the subsequent ADS-report request, the <extended-projected-profile> shall cover the number of way points indicated in <number-of -way-points> or the number of way points stored in the avionics, which ever is the lesser.

2.2.1.7.2.4.4 When <time-interval> was provided in the ADS-demand-contract indication, and <extended-projected-profile> is provided in the subsequent ADS-report request, the <extended-projected-profile> shall cover the time interval indicated in <time-interval> or the time interval covered by way points stored in the avionics, which ever is the lesser.

2.2.1.7.3.5.7 Subject to the restrictions stated in 2.2.1.7.1.5.5, when <extended-projected-profile-change> is provided in the ADS-event-contract <contract details> parameter, and contains the <time-interval> element, and is not indicated in the non-compliance notification if sent, then for the duration of the event contract, whenever one or more way points on the active route of flight within the time-interval as measured from the current time changes, the ADS-air-user shall invoke ADS report request including <extended-projected-profile> element containing way points covering the <time-interval> from the current time, or the time interval stored in the avionics, which ever is the lesser time interval, in the ADS-report request <report details> parameter.

2.2.1.7.3.5.8 Subject to the restrictions stated in 2.2.1.7.1.5.5, when <extended-projected-profile change> is provided in the ADS-event-contract <contract details> parameter, and contains the <number-of-way-points> element, and is not indicated in the non-compliance notification if sent, then for the duration of the event contract, whenever one or more way points on the active route of flight are within the <number-of-points> changes, the ADS-air-user shall invoke ADS report request including the <extended-projected-profile> element containing next <number-of-way-points> or the number of way points stored in the avionics, whichever is the lesser.

2.2.1.7.4.4.7 When <number-of-way-points> was provided in the <extended-projected-profile-modulus> of the ADS-periodic-contract indication, and <extended-projected-profile> is provided in the subsequent ADS-report request, the <extended-projected-profile> shall cover the number of way points indicated in <number-of-way-points> or the number of way points stored in the avionics, which ever is the lesser.

2.2.1.7.4.4.8 When <time-interval> was provided in the <extended-projected-profile-modulus> of the ADS-periodic-contract indication and <extended-projected-profile> is provided in the subsequent ADS-report request, the <extended-projected-profile> shall cover the time interval indicated in <time-interval> or the time interval covered by way points stored in the avionics, which ever is the lesser.

Renumber paragraph 2.2.1.7.4.4.8 to 2.2.1.7.4.4.9

SME Recommendation to CCB:

CCB Decision:	atnp_ccb_chair: SUBMITTED (17/06/98) CCB-6 (Utrecht) : FORWARDED (25/06/98)

Title: CPDLC - Incomplete requirement

PDR Reference:	98050011
Originator Reference:	ATNSI_CPC01
SARPs Document Reference:	CPDLC SARPs, Section 2.3.5.4.4.2
Status:	REJECTED
PDR Revision Date:	10/06/98 (SUBMITTED -> REJECTED)
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Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV1.1
SARPs Language:	English

Summary of Defect:

The timers are stopped only if the D-START Result parameter is set to the abstract value "accepted".

This is erroneous, because the timers should be stopped independent of the value of the D-START Result parameter, otherwise they would continue to run.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The requirement should be made similar to requirement 2.3.5.6.4.2.

SME Recommendation to CCB:

PDR 97100026 (CPDLC - Exception Handling Correction) takes care of the inconsistency between sections 2.3.5.4.4.2 and 2.3.5.6.4.2. These two sections are aligned in SARPs Edition 2.2.

In version 2.2, the timer t-start is stopped in all cases (independently of the value of the D-START parameter). as shown below:

	Result	User Data	Reject Source	DSC	state
section 2.3.5.3.3.1	"accepted"	absent	n/a	"false"	"START-REQ"
section 2.3.5.3.3.3	"accepted"	absent	n/a	"true"	"START-REQ"
section 2.3.5.4.4.2	"accepted"	present	n/a		
can not occur	"accepted"				not "START REQ"
section 2.3.5.3.3.2	"rejected(permanent)"	present	"DS user"	"false"	"START-REQ"
section 2.3.5.3.3.4	"rejected(permanent)"	present	"DS user"	"true"	"START-REQ"
section 2.3.5.4.3.2	"rejected(permanent)"	absent/notvalid			
section 2.3.5.4.5.1	"rejected(transient)"				
section 2.3.4.4.5.1			"DS provider"		

There is therefore no need to modify the SARPs.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: REJECTED (10/06/98)

Title: CPDLC - Erroneous handling of unexpected QOS

PDR Reference:	98050012
Originator Reference:	ATNSI_CPC02
SARPs Document Reference:	CPDLC SARPs, Sections 2.3.5.4.6.1 and 2.3.5.6.6.1
Status:	REJECTED
PDR Revision Date:	10/06/98 (SUBMITTED -> REJECTED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV1.1
SARPs Language:	English

Summary of Defect:

On receipt of a D-START indication with an unexpected QOS, if the CPDLC-user is active, the CPDLC-ASE invokes the CPDLC-provider-abort indication service primitive.

This is erroneous, because the CPDLC-user cannot be active. Anyway the CPDLC-user does not need to be notified a CPDLC-provider-abort indication, because no CPDLC connection has been set up yet. It should specified that the CPDLC-ASE can only be in the IDLE state. It thus does not need to enter the IDLE state at the end of the exception handling procedure, but just needs to remain in the IDLE state.

Furthermore, the CPDLC-ASE should create an AircraftPDUs APDU or a GroundPDUs APDU with a CPDLCProviderAbortReason [invalid-QOS-parameter] APDU message element and invoke the D-ABORT request service primitive.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The requirement in section 2.3.5.4.6.1 should be changed to:

If a D-START indication QOS Priority parameter does not have the abstract value of "high priority flight safety message" or if the QOS Residual Error Rate parameter does not have the abstract value of "low", if the CPDLC-air-ASE is in the IDLE state, the CPDLC-air-ASE shall:

a) create an AircraftPDUs APDU with a CPDLCProviderAbortReason [invalid-QOS-parameter] APDU message element,

b) invoke D-ABORT request with:

1) the abstract value "provider" as the D-ABORT Originator parameter value, and

2) the APDU as the D-ABORT User Data parameter value, and

c) remain in the IDLE state.

The requirement in section 2.3.5.6.6.1 should be changed to:

If a D-START indication QOS Priority parameter does not have the abstract value of "high priority flight safety message" or if the QOS Residual Error Rate parameter does not have the abstract value of "low", if the CPDLC-ground-ASE is in the IDLE state, the CPDLC-ground-ASE shall:

a) create an GroundPDUs APDU with a CPDLCProviderAbortReason [invalid-QOS-parameter] APDU message element,

b) invoke D-ABORT request with:

1) the abstract value "provider" as the D-ABORT Originator parameter value, and

2) the APDU as the D-ABORT User Data parameter value, and

c) remain in the IDLE state.

SME Recommendation to CCB:
The problem raised in this PDR has been fixed already in PDR 97100026 resolution, items #7 and #8.
However, this resolution has not been correctly applied (see PDR 98050018).

CCB Decision:	atnp_ccb_chair: SUBMITTED (12/05/98) atnp_ccb_chair: REJECTED (10/06/98)

Title: PROBLEMS WITH ICAO V2.2 CPDLC SARPS

PDR Reference:	98050019
Originator Reference:	
SARPs Document Reference:	CPDLC SARPs section 2.3.4.2.1 AIDC SARPs section 3.2.7.1.1
Status:	RESOLVED
PDR Revision Date:	25/06/98 (PROPOSED -> RESOLVED) 10/06/98 (item #6 added and SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	29/05/98
Submitting State/Organization:	Eurocontrol (TES)
Submitting Author Name:	Kerr, T
Submitting Author E-mail Address:	
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2, Rio
SARPs Language:	English

Summary of Defect:

In order to update the Eurocontrol TES implementation to be compatible with the official ICAO V2.2 publication, the PDRs which are RESOLVED in V2.2 are being applied to the existing software, which is compliant to the Phuket (V1.1) SARPs. In comparing the PDRs for CPDLC with the ICAO V2.2 text, I encountered the following discrepancies:

1. PDR 97100015 changed the name of AirwayIdentifier to ATSRouteDesignator. In the Phuket SARPs, the constraint of AirwayIdentifier was given as (2..6), yet both PDR 97100015 and the CPDLC V2.2 text show the constraint as (2..7). Where did the changed constraint come from?

2. In CPDLC V2.2 text, PDR 97100016 has not been applied exactly as stated in the PDR. Frequencyvhf should be Frequencyvhfchannel throughout, and the unit of Frequencyvhfchannel should be VHFchannel, not Megahertz.

3. In CPDLC V2.2 text, PDR 97100039 has not been applied exactly as stated in the PDR. PositionRouteClearance should have been renamed PositionRouteClearanceIndex, and the identifier routeClearance should be routeClearanceIndex.

4. Errors in PDR 97100039: In the PDR itself, the ATCDownlinkMessageData definition should not contain the line: "header ATCMessageHeader,". In bullet 5/, ATCUplinkMsgElementId should read ATCDownlinkMsgElementId (the 2.2 texts are OK)

5. In CPDLC V2.2 text, tags [1], [2] and [3] have been added to UnitName. PDR 97080010 did not include such tags.

6. In CPDLC V2.2 text, item #7 and #8 of PDR 97100026 have not been applied exactly as stated in the PDR. item b) in proposed section 2.3.5.4.6.1 and 2.3.5.6.6.1 are missing in the SARPs text. In section 2.3.5.6.6.1, the reference to the CPDLC-ASE should be "CPDLC-ground-user". In addition, the reference in section 8 of the PDR itself is wrong (it should be 2.3.5.6.6.1).

Assigned SME: Sub-Volumes II and III SMEs

Proposed SARPs amendment:

1. (2..6) is the operational constraint given in the ICAO Manual of the ATS Data Link Applications. Edition 2.2 ICAO SARPs specifies (2..7) probably because of the collision of two PDR resolutions (change of the constraint + change of the name). The ADSP was made aware of the 2-7 from 2-6 range for size. This was put in as there was input that in the future this size would be needed. No SARPs modification is proposed.

2. The ADSP strongly disagreed with renaming choice [1] to frequencyvhfchannel, and wanted it to remain frequencyvhf (since it still is for VHF frequencies, but it can with resolution changes handle the new requirement (the change used to be accomplished with a new independent choice [4] for the 8.33 split)). ADSP requested the CPDLC editor to rename it "Frequencyvhf". This has been done but not reported in the PDR. PDR 97100016 will be updated accordingly.

The same change - for the same reason - should have been applied to the AIDC ASN.1 definition.

Change in AIDC SARPs section 3.2.7.1.1 from:

```
Frequency ::=  CHOICE
    {
    frequencyHF             [0]     FrequencyHF,
    frequencyVHFChannel     [1]     FrequencyVHFChannel,
    frequencyUHF            [2]     FrequencyUHF,
    frequencySatChannel     [3]     FrequencySatChannel
    }

FrequencyVHFChannel ::= INTEGER (23600..27398)
```

-- Unit= VHF Channel, Range (118.000..136.990), resolution = 0.005

to:

```
Frequency ::=  CHOICE
    {
    frequencyHF             [0]     FrequencyHF,
    frequencyVHF            [1]     FrequencyVHF,
    frequencyUHF            [2]     FrequencyUHF,
    frequencySatChannel     [3]     FrequencySatChannel
    }

FrequencyVHF ::= INTEGER (23600..27398)
--unit = Megahertz, Range (118.0000..136.990), resolution = 0.005
```

3. This change for some unknown reason was incorrectly implemented in CPDLC.

Change CPDLC section 2.3.4.2.1 from:

```
PositionRouteClearance ::= SEQUENCE
{
   position            Position,
   routeClearance              RouteClearanceIndex
}
```

to:

```
PositionRouteClearanceIndex ::= SEQUENCE
{
   position            Position,
   routeClearanceIndex      RouteClearanceIndex
}
```

4. This is correct. The change has been agreed at the CCB level but the PDR was not updated. The PDR will be updated accordingly.

5. This is correct. The convention used by the SARPs editor when generating the ASN.1 is to tag the fields in a SEQUENCE when at least one is optional. This convention has been applied when changing the SARPs. The PDR will be updated accordingly.

6. Item 8 of PDR 97100026 will be updated to refer section 2.3.5.6.6.1.

Change SARPs section 2.3.5.4.6.1 from:

a) Stop any timer,
b) Invoke D-ABORT request with:
c)
d)

to:

a) Stop any timer,
b) Create an AircraftPDUs APDU with CPDLCProviderAbortReason [invalid-QOS-parameter] APDU message element,
c) Invoke D-ABORT request with
d)
e)

Change SARPs section 2.3.5.6.6.1 from:

the CPDLC-air-ASE shall:

a) Stop any timer,
b) Invoke D-ABORT request with:
c)
d)

to:

the CPDLC-ground-ASE shall:

a) Stop any timer,
b) Create an GroundPDUs APDU with CPDLCProviderAbortReason [invalid-QOS-parameter] APDU message element,
c) Invoke D-ABORT request with

d)
e)

SME Recommendation to CCB:

CCB Decision:	atnp_ccb_chair: SUBMITTED (29/05/98) atnp_ccb_chair: ACCEPTED (10/06/98) CCB-6 (Utrecht): RESOLVED (25/06/98)

Title: FIS - Simultaneous air and ground cancellation

PDR Reference:	98040001
Originator Reference:	collision
SARPs Document Reference:	FIS SARPs, Section 2.4.5.1 and 2.4.5.3
Status:	RESOLVED
PDR Revision Date:	25/06/98 (PROPOSED -> RESOLVED) 20/05/98 (ACCEPTED->PROPOSED) 20/04/98 (SUBMITTED->ACCEPTED)
PDR Submission Date:	01/04/98
Submitting State/Organization:	STNA
Submitting Author Name:	Picard, F
Submitting Author E-mail Address:	PICARD_Frederic@stna.dgac.fr
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

A figure describing a collision case is missing:
1/ the FIS-air-user invokes the FIS-cancel-contracts request for a given type of contracts (atis, for instance),
2/ at the same time the FIS-ground-user invokes the FIS-cancel-update-contract request on a particular pending update contract of this type (atis, for instance).

The protocol description does not take into account this situation.

With the current description, when the collision situation occurs, the FIS-air-ASE CL module sends a [FISCancelContracts] APDU to the FIS-ground-ASE CL module and stop the operation of all UC and DC modules. At the same time, the FIS-ground-ASE UC module sends a [FISCancelUpdateContract] APDU to the corresponding FIS-air-ASE UC module. As this FIS-air-ASE UC module has been stopped, the FIS-air-ASE LI module is unable to forward the APDU to the UC module. An abort is therefore generated by the air LI module.

Impact on interoperability:
None. An abort is generated and all FIS contracts are cancelled.

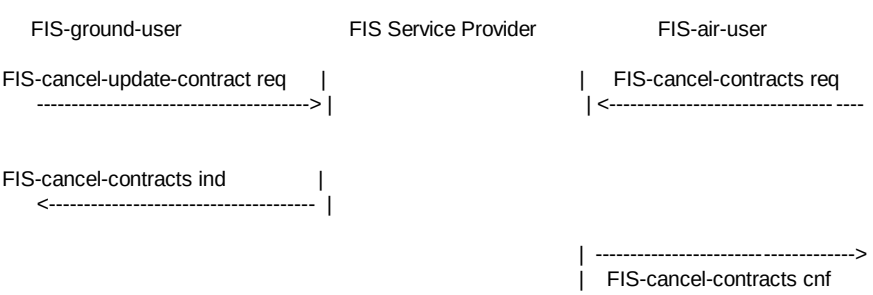
Impact on safety:
This situation results in the abort of the air/ground dialogue and the automatic cancellation of all pending contracts. This situation generates a false alarm to the pilot which has to figure out what is the source of the abort and then to re-install the FIS contracts which should not have normally been cancelled. This will disturb the pilot and increase the crew workload.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The FIS-cancel-contracts service shall take precedence over the FIS-cancel-update-contract service. It is therefore proposed, when the FIS-cancel-contracts service has been invoked, to stop in the FIS-air-ASE the processing any subsequent FIS-cancel-update-contract service (i.e. by discarding the received APDU requesting the cancellation).

1/ Add a new figure 2.4.5-18 as follows:



2/ Add a test on reception of a [FISCancelUpdateContract] APDU to check whether a FIS-cancel-contracts has already been initiated. If this is the case, the APDU is discarded.

In 2.4.5.3.12.10.1, replace the bullets b) and c) by the following:

b) if the APDU is not a [FISCancelUpdateContract], pass the APDU to that module,

c) if the APDU is a [FISCancelUpdateContract] APDU

1) if the FIS-air-user has not initiated a global cancellation (FIS-cancel-contracts) for the type of FIS contracts identified in the APDU-element FISCancelUpdateData (atis in CNS/ATM-1), pass the APDU to that module, or

2) otherwise, discard the APDU, and

d) remain in the same state.

SME Recommendation to CCB:

CCB Decision: atnp_ccb_chair: SUBMITTED (01/04/98)
atnp_ccb_chair: ACCEPTED (20/04/98)
CCB-6 (Utrech): RESOLVED (25/06/98)

Title: FIS - FIS-abort-indication Reason parameter

PDR Reference:	98040002
Originator Reference:	abrtsrv
SARPs Document Reference:	FIS SARPs, Section 2.4.3.9.2.1
Status:	RESOLVED 25/06/98 (PROPOSED -> RESOLVED)
PDR Revision Date:	20/05/98 (ACCEPTED -> PROPOSED) 20/04/98 (SUBMITTED->ACCEPTED)
PDR Submission Date:	01/04/98
Submitting State/Organization:	CENA, CHARME
Submitting Author Name:	Jean, M
Submitting Author E-mail Address:	jean@cenatls.cena.dgac.fr
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:
The syntax description of the Reason parameter of the FIS-provider-abort service is incomplete. Three values shall be added "cannot establish contact with the peer", "contact refused by the peer" and "communication system failure". This will allow sections 2.4.5.3.12.8.1, 2.4.5.3.12.9.1 and 2.4.5.3.9.4 to be implemented correctly.

Impact On Interoperability:
None. This PDR makes SARPs chapter 3 (Service Description) consistent with SARPs chapter 5 (Protocol Specification).

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

Change Section 2.4.3.9.2.1 from:
The Reason parameter value shall conform to the ASN.1 abstract syntax FISProtocolErrorDiag.

to:
The Reason parameter value shall conform to one of the following abstract values:
a) "timer expiration",
b) "protocol error",
c) "sequence error",
d) "decoding error",
e) "unrecoverable internal error",
f) "invalid contract number",
g) "dialogue end not supported",
h) "undefined",
i) "invalid QOS parameter",
j) "cannot establish contact with the peer",
k) "contact refused by the peer", and
l) "communication system failure".

SME Recommendation to CCB:

Two mandatory requirements in the FIS SARPs are in conflict and can not be implemented both. The current specifications prevent any implementation from being SARPs compliant.

CCB Decision:
atnp_ccb_chair: SUBMITTED (01/04/98)
atnp_ccb_chair: ACCEPTED (20/04/98)
CCB-6 (Utrecht): RESOLVED (25/06/98)

Title: FIS - t-inactivity timer management

PDR Reference:	98040006
Originator Reference:	badtimer
SARPs Document Reference:	FIS SARPs, Sections 2.4.5.3.7.9.3 and 2.4.5.3.7.10.1
Status:	RESOLVED
PDR Revision Date:	25/06/98 (PROPOSED -> RESOLVED) 20/05/98 (ACCEPTED -> PROPOSED) 27/04/98 (SUBMITTED -> ACCEPTED)
PDR Submission Date:	08/04/98
Submitting State/Organization:	CENA, CHARME
Submitting Author Name:	Jean, M
Submitting Author E-mail Address:	jean@cenatls.cena.dgac.fr
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

1/ In section 2.4.5.3.7.10.1 and table 2.4.5-8/b, the FIS protocol specification omits to request the air UC module to start the t-inactivity timer when a [FISCancelUpdateAccept] APDU is received.

2/ In section 2.4.5.3.7.9.3, the FIS protocol specification requests the air UC module to start the t-inactivity timer when receiving an [FISCancelUpdateContract] APDU in the UC-A-CANCEL state (collision situation). This is too early, the timer should be started later, actually after the reception of the [FISCancelUpdateAccept] APDU.

Impact On Interoperability:
1/ None. As the t-inactivity timer is not set, the dialogue is maintained open.
2/ None. As the t-inactivity timer is set too early, the dialogue will be closed sooner.

Impact on Safety:
None.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ In section 2.4.5.3.7.10.1, change
b) request .... APDU-element, and
c) enter the UC-A-IDLE state.

to:
b) request .... APDU-element,
c) if there is no other FIS contract in place, start the t-inactivity timer, and
d) enter the UC-A-IDLE state.

2/ In section 2.4.5.3.7.9.3, change:
b) request the LI module to send the APDU to the FIS-ground-ASE,
c) if there is no other FIS contract in place, start the t-inactivity timer, and
d) remain in the UC-A-CANCEL state.

to:
b) request the LI module to send the APDU to the FIS-ground-ASE, and
c) remain in the UC-A-CANCEL state.

3/ In table 2.4.5-8/b, move the statement "if last FIS Contract start t-inactivity" from cell ([FISCancelUpdateContract] APDU, UC-A-CANCEL) to ([FISCancelCancelUpdateAccept] APDU, UC-A-CANCEL)

SME Recommendation to CCB:

This PDR might have an economical impact for airlines since the dialogue is maintained open after the cancellation of the last update contract during all the flight.

CCB Decision: atnp_ccb_chair: SUBMITTED (08/04/98)
atnp_ccb_chair: ACCEPTED (08/04/98)
CCB-6 (Utrecht): RESOLVED (25/06/98)

Title: FIS - Invalid list of allowed APDU in the D-START confirmation

PDR Reference:	98040007
Originator Reference:	dstart
SARPs Document Reference:	FIS SARPs, Sections 2.4.5.3.12.7
Status:	FORWARDED
PDR Revision Date:	25/06/98 (PROPOSED -> FORWARDED) 20/05/98 (ACCEPTED -> PROPOSED) 27/04/98 (SUBMITTED -> ACCEPTED)
PDR Submission Date:	09/04/98
Submitting State/Organization:	CENA, CHARME
Submitting Author Name:	Jean, M
Submitting Author E-mail Address:	jean@cenatls.cena.dgac.fr
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

In order to allow the sequence of events described in Figure 2.4.5-11 "ground cancellation during contract establishment phase", the air LI-module shall be designed to receive in a D-START confirmation User Data parameter a [FISCancelUpdateContract] APDU.

Section 2.4.5.3.12.7 specifies only the [FISAccept] and the [FISReject] APDUs as valid D-START confirmation User Data parameter.

Editor's note: Further study of this situation showed that Figure 2.4.5-11 is operationally incorrect. Indeed, when the ground user receive a FIS-udate-contract indication it can either accept or reject the contract by invoking the FIS-update-contract response. It is meaningless to allow him to cancel the update contract before accepting it.

Impact On Interoperability:

With the current specification, if the ground user replies to an FIS-update-contract indication with a FIS-cancel-update-contract, the FIS-air-ASE aborts the dialogue. This is not clean, since all the contracts not impacted by the cancellation have to be re-installed. However, this situation does not jeopardize the interoperability.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ Allow the ground user to invoke the FIS-cancel-update request after receipt of an FIS-update-contract indication. Change the SARPs to fix the problem.

Change section 2.4.5.3.12.7 from:
Upon receipt of a D-START confirmation with a Result parameter containing the abstract value "accepted" and with a UserData parameter containing a FISUplinkAPDU [FISAccept] or [FISReject] APDU, then

to:
Upon receipt of a D-START confirmation with a Result parameter containing the abstract value "accepted" and with a UserData parameter containing a FISUplinkAPDU [FISAccept], [FISReject] or [FISCancelUpdateContract] APDU, then

2/ Forbid the ground user to invoke the FIS-cancel-update request after receipt of an FIS-update-contract indication.

SME Recommendation to CCB:

SG2 proposes to keep the SARPs unchanged for Package-1 but to identify the problem in the Guidance. Advices should be given in the GM to ground ASE implementors to not allow the cancellation of an update contract during the contract establishment phase (and to reject the contract instead). The FIS protocol in Package-2 should be modified in such a way the cancellation is not authorized during the contract establishment phase.

CCB Decision: atnp_ccb_chair: SUBMITTED (09/04/98)
atnp_ccb_chair: ACCEPTED (27/04/98)
CCB-6 (Utrecht): FORWARDED (25/06/98)

Title: FIS - Invalid state change

PDR Reference:	98040008
Originator Reference:	invstate
SARPs Document Reference:	FIS SARPs, Section 2.4.5.3.8.8.3 and Table 2.4.5-9/b
Status:	RESOLVED
PDR Revision Date:	25/06/98 (PROPOSED -> RESOLVED) 20/05/98 (ACCEPTED -> PROPOSED) 27/04/98 (SUBMITTED -> ACCEPTED)
PDR Submission Date:	09/04/98
Submitting State/Organization:	CENA, CHARME
Submitting Author Name:	Jean, M
Submitting Author E-mail Address:	jean@cenatls.cena.dgac.fr
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

In order to allow the sequence of events described in Figure 2.4.5-10 "Use of FIS-cancel-update service by both FIS-users", both air and ground UC modules shall upon receipt of the [FISCancelUpdateContract] APDU from the peer send the [FISCancelUpdateAccept] APDU and stay in the UC-CANCEL state. This will allow them to process the [FISCancelUpdateAccept] sent by the peer.

This is correctly described for the air FIS UC module.

This is not for the ground FIS UC module since section 2.4.53.8.8.3 c) specifies that it shall enter the UC-G-IDLE state.

Impact On Interoperability:

With the current specification, in case both FIS-users request the cancellation of an update contract, the FIS-ground-ASE will abort the dialogue on receipt of the [FISCancelUpdateContract] APDU, since no UC module matches the contract number anymore. This is not clean, since all the contracts not impacted by the cancellation have to be re-installed. However, this situation does not jeopardize the interoperability.

Impact on safety:
This situation results in the abort of the air/ground dialogue and the automatic cancellation of all pending contracts. This situation generates a false alarm to the pilot which has to figure out what is the source of the abort and then to re-install the FIS contracts which should not have normally been cancelled. This will disturb the pilot and increase the crew workload.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ Change section 2.4.5.3.8.8.3 c) from:
c) enter the UC-G-IDLE state

to:
c) remain in the UC-G-CANCEL state.

2/ change in Table 2.4.5-9/b in cell ([FISCancelUpdateAccept] APDU, UC-G-CANCEL) from
UC-G-IDLE

to
UC-G-CANCEL

SME Recommendation to CCB:

CCB Decision: atnp_ccb_chair: SUBMITTED (09/04/98)
atnp_ccb_chair: ACCEPTED (27/04/98)
CCB-6 (Utrecht): RESOLVED (25/06/98)

Title: FIS - Minor defects

PDR Reference:	98050013
Originator Reference:	ATNSI_FIS01
SARPs Document Reference:	FIS SARPs, Sections: see below
Status:	FORWARDED
PDR Revision Date:	25/06/98 (PROPOSED -> FORWARDED) 20/05/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	Ilkiewicz, M / Stokes, S.
Submitting Author E-mail Address:	michel.ilkiewicz@cdv.vly.sextant.thomson.fr Shawn.Stokes@ATNSI.COM
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

1/ Section 2.4.5.3.9.1 should be changed from:
Upon receipt of a request to abort from the HI, LI, DC or UC modules,
to:
Upon receipt of a request to abort from the HI, LI, DC, UC or CL modules.

2/Section 2.4.5.3.5.7 should be changed from:
Upon receipt of a request from the AB module to stop operation, then
to:
Upon receipt of a request from the AB or CL modules to stop operation, then

3/ Section 2.4.5.3.6.7 should be changed from:
Upon receipt of a request from the AB module to stop operation, then
to:
Upon receipt of a request from the AB or CL modules to stop operation, then

4/ Section 2.4.5.3.7.10 should be changed from:
Upon receipt of a request from the AB module to stop operation, then
to:
Upon receipt of a request from the AB or CL modules to stop operation, then

5/ Section 2.4.5.3.8.10 should be changed from:
Upon receipt of a request from the AB module to stop operation, then
to:
Upon receipt of a request from the AB or CL modules to stop operation, then

Assigned SME:	Sub-Volume II SME
Proposed SARPs amendment:	See above.

SME Recommendation to CCB:

The proposed changes makes the SARPs more accurate. The PDR has no impact on interoperability nor safety.

CCB Decision:	atnp_ccb_chair: SUBMITTED (12/05/98) atnp_ccb_chair: ACCEPTED (20/05/98) CCB-6 (Utrecht): FORWARDED (25/06/98)

Title: FIS - Unspecified initial state in transitions

PDR Reference:	98050014
Originator Reference:	ATNSI_FIS02
SARPs Document Reference:	FIS SARPs, Sections 2.4.5.3.6.4 and 2.4.5.3.6.5
Status:	RESOLVED
PDR Revision Date:	25/06/98 (PROPOSED -> RESOLVED) 20/05/98 (SUBMITTED -> ACCEPTED -> PROPOSED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	Ilkiewicz, M / Stokes, S.
Submitting Author E-mail Address:	michel.ilkiewicz@cdv.vly.sextant.thomson.fr Shawn.Stokes@ATNSI.COM
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

These two sections do not indicate the initial the state for the specified transitions. This erroneous, because the specified transitions are valid only if the ground FIS DC module is in the DC-G-PENDING state.

Impact on interoperability:

None. The error - instead of being detected immediatly by the FIs-ground-ASE - is detected by the FIS-air-ASE on receipt of the [FISAccept] or [FISReject] APDU.

Impact on safety:

This may increase the crew workload since an abort alarm is sent to the pilot indicating an error of the ground system. It is much more efficient to detect the error on the ground before any data be sent to the aircraft.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

1/ Section 2.4.5.3.6.4 should be changed from:

2.4.5.3.6.4 Upon receipt of a FIS-demand-contract response with the Result parameter containing the abstract value "positive acknowledgement", the ground FIS DC module shall:

to:

2.4.5.3.6.4 Upon receipt of a FIS-demand-contract response with the Result parameter containing the abstract value "positive
acknowledgement", then

2.4.5.3.6.4.1 If in the DC-G-PENDING state, the ground FIS DC module shall:

2/ Section 2.4.5.3.6.5 should be changed from:

2.4.5.3.6.5 Upon receipt of a FIS-demand-contract response with the Result parameter containing the abstract value "rejected", the ground FIS DC module shall:

to:

2.4.5.3.6.5 Upon receipt of a FIS-demand-contract response with the Result parameter containing the abstract value "rejected", then

2.4.5.3.6.5.1 If in the DC-G-PENDING state, the ground FIS DC module shall:

SME Recommendation to CCB:

CCB Decision:	atnp_ccb_chair: SUBMITTED (12/05/98) atnp_ccb_chair: ACCEPTED (20/05/98) CCB-6 (Utrecht): RESOLVED (25/06/98)

Title: FIS - Error in Altimeter setting

PDR Reference:	98050015
Originator Reference:	ATNSI_FIS03
SARPs Document Reference:	FIS SARPs, Sections 2.4.4.2.1
Status:	REJECTED
PDR Revision Date:	20/05/98 (SUBMITTED -> REJECTED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	Ilkiewicz, M / Stokes, S.
Submitting Author E-mail Address:	michel.ilkiewicz@cdv.vly.sextant.thomson.fr Shawn.Stokes@ATNSI.COM
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

In the "ATIS fields", the AltimeterSetting contains qFE described as a sequence of Runway. If the parameter is a Runway, qFE should be qFU, or if qFE is the correct name, it should be a pressure measure like the qNH.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:
None.

SME Recommendation to CCB:

The SARPs are using the terminology of the ADSP Manual of the ATS Data link Applications which states the following: "Altimeter setting indicates the QNH, and optionally the QFE for the specified runway(s)". The current ASN.1 allows to specify a QFE per runway as a a pressure measure.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: REJECTED (20/05/98)

Title: FIS - Extraneous transitions in ground LI and air LI modules

PDR Reference:	98050016
Originator Reference:	ATNSI_FIS04
SARPs Document Reference:	FIS SARPs, Section 2.4.5.3.12
Status:	REJECTED
PDR Revision Date:	20/05/98 (SUBMITTED -> REJECTED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	Ilkiewicz, M / Stokes, S.
Submitting Author E-mail Address:	michel.ilkiewicz@cdv.vly.sextant.thomson.fr Shawn.Stokes@ATNSI.COM
Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

The first note of the section indicates that all the statements in the section apply to both the FIS ground LI module and FIS air LI module.

This is erroneous, since a SARPs conformant ground ASE never uses a D-START request. As a consequence, the LI-START-I state is not relevant for the ground LI module and the LI-START-R state is not relevant for the air LI module. All the associated transitions are thus also irrelevant.

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

Section 2.4.5.3.12 should be replaced by two sections, one addressing the FIS ground LI module and the other addressing the FIS air LI module. These sections should be populated with the relevant contents of the original section 2.4.5.3.12.

SME Recommendation to CCB: REJECTED

The FIS application has been designed as a generic application able to support in the future several types of FIS services (both air and ground-initiated)even if in version 1 only the air-initiated ATIS service is defined. The LI module has been designed to be able to support - in the future - ground-initiated FIS services, as for instance the RVR service.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/098)
atnp_ccb_chair: REJECTED (20/05/98)

Title: FIS - Additional APDU to expect in D-START confirmation

PDR Reference:	98050017
Originator Reference:	ATNSI_FIS05
SARPs Document Reference:	FIS SARPs, Section 2.4.5.3.12.7
Status:	REJECTED
PDR Revision Date:	20/05/98 (SUBMITTED -> REJECTED)
PDR Submission Date:	12/05/98
Submitting State/Organization:	AIRSYS ATM (ACI/ATNSI)
Submitting Author Name:	Ilkiewicz, M / Stokes, S.
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Submitting Author Supplemental Contact Information:	
SARPs Date:	IV2.2
SARPs Language:	English

Summary of Defect:

The FIS air LI module only expects a FISUplinkAPDU [FISAccept] APDU or a FISUplinkAPDU [FISReject] APDU in a D-START confirmation.

This is erroneous, because a SARPs conformant FIS-ground-ASE can send a FISUplinkAPDU [FISCancelUpdateContract] APDU in a D-START response (cf. section 2.4.5.3.8.7.2, if the dialogue connection is under establishment).

Assigned SME: Sub-Volume II SME

Proposed SARPs amendment:

The section should be changed from:
containing a FISUplinkAPDU [FISAccept] or [FISReject] APDU

to:
containing a FISUplinkAPDU [FISAccept], [FISReject] or [FISCancelUpdateContract] APDU

SME Recommendation to CCB: REJECTED

This defect is already covered by PDR 98040007.

CCB Decision: atnp_ccb_chair: SUBMITTED (12/05/98)
atnp_ccb_chair: REJECTED (20/05/98)