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CNS/ATM-1 Package SARPs Requirement Database Tables

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SUMMARY

The purpose and structure of the ATN Requirements Database has been reconsidered at ATNP WG2 meeting #6 in Banff. This document prepares the data for inclusion into the ATN Requirements Database. It contains a set of tables which will be transferred into MS ACCESS 2.0 database format. This document also describes the intended use and future maintenance of the database, and makes recommendations to that end.

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1. Introduction

1.1 Background

The purpose and structure of the ATN Requirements Database has been reconsidered at ATNP WG2 meeting #6 in Banff. The new approach was summarised in Flimsy #12 attached to the WG2 report. EUROCONTROL was tasked to develop the database (Action 6/15).

The work was carried under subtask 5 of the Validation Exercise Task specified in [REF 2]. Its objective was to upgrade the ATN requirements database to make it consistent with the CNS/ATM-1 package SARPs, version 3.0 [REF1]. A simplified database shall be produced that will efficiently support the SARPs validation process [REF 3].

1.2 Document Purpose

This document prepares the data for inclusion into the ATN Requirements Database. It contains a set of tables which will be transferred into MS ACCESS 2.0 database format.

This document also describes the intended use and future maintenance of the database, and makes recommendations to that end.

1.3 Document Scope

The document is structured according to the following outline:

Chapter 2 summarises the work that has been performed to prepare the set of tables to be included into the ATN requirements database.

Chapter 3 addresses the future use and maintenance of the database

Chapter 4 contains a conclusion and makes recommendations to ATNP WG2 for the progression of this work.

Chapter 5 contains a new set of ATN Requirement Lists (ARLs) that have been created to provide a high-level view of the SARPs material related to *ATN topology and ATN operators/administrators.*

Chapter 6 contains a second new set of ATN Requirement Lists (ARLs) that have been created to provide a high-level view of the SARPs material related to *ATN systems and ATN system implementors*.

Chapter 7 contains a set of harmonised APRLs which were incorporated from the SARPs [REF1].

Chapter 8 contains an ARL/APRL guide that gives an overview of the created ARLs and incorporated APRLs.

Chapter 9 contains a Notation and Predicate Guide explaining all notations used in ARLs and APRLs and all predicates used in some APRLs, which are not already included in the APRL.

1.4 References

[REF 1] CNS/ATM-1 Package Draft SARPs, version 3.0, 07 August 1995

[REF 2] Harmonisation Studies - Validation Exercises - Task Specification and Planning Document, ESG_4.0_WD_10, version 2.0, 29 November 1995

[REF 3] Issues on ATN RDB Work, ATNP/WG2-WP 183, Issue 1.0, 11 October 1995

[REF 4] Guideline for the Update of the ATN Requirement Database, Eurocontrol Draft Paper (file: dbwork.doc), 9 November 1995

2. Summary of Work Performed

During this task, the abbreviation ARL for "ATN Requirements List" was introduced so as to avoid misunderstandings with the existing "APRL" which literally would apply to protocols only. In this work there was a need to collect in PICS-like tables requirements and recommendations with associated status information even when not applicable to protocol operations. Hence the general term "ARL".

Note: existing tables termed "APRL" are kept as such.

A principle was adopted in this development to identify exhaustively all the recommendations in the SARPs and to provide a table entry for each of them. In support of this, a new status "REC" was defined to enhance the difference between an option and a recommendation. In order to be consistent with existing ISO notations, the use of this "REC" status has been restricted to ARL/APRL which have been defined specifically for ATN SARPs.

The complete set of ARL/APRL was divided in two groups whether they apply to ATN systems or to global ATN issues such as topology, policy, etc. Both groups have led to different table layouts.

The following work has been performed to prepare the tables for inclusion into the ATN requirements database:

- Creation of new ARLs related to SARPs on ATN topology and ATN operators/administrators
- Creation of new ARLs related to SARPs on ATN systems and system implementors
- Incorporation and Harmonisation of original APRLs
- Production of an ARL/APRL guide
- Production of a Notation Guide
- Collection of possible defects

2.1 Creation of New ARLs Related to SARPs on ATN Topology and ATN Operators/Administrators

A new set of ATN Requirement Lists (ARLs) has been created to provide a high-level view of the SARPs material related to ATN topology and ATN operators/administrators. These ARLs have been derived from SARPs sections:

- 2.5 ATN Definitions
- 3. ATN Routing
- 4. Network and Transport Addressing Specification,
- 7.2 ATN requirements placed on Subnetworks, and
- 7.4 Subnetwork Service Primitives
- 9. Systems Management Provisions

The tables have the following design:

ARL Index	Item	Description	CNS/ATM-1 Package SARPs Reference	CNS/ATM-1 Package Support

The **ARL Index** contains a unique reference for each table that was created.

The **Item** field contains a unique reference assigned to each entry of the table.

The **Description** field contains either explicit recommendations and options or summarised requirements of the SARPs text. Note: Requirement statements have been summarised, that is one single entry has been produced containing the title of a subsection of the SARPs, under which a number of requirements exist. Recommendations and options have always been put into separate entries.

The **CNS/ATM-1 Package SARPs Reference** field contains a reference to the SARPs section

The **CNS/ATM-1 Package Support** field contains either one of the following notations: M (for a requirement), O (for an option) or REC (for a recommendation).

2.2 Creation of New ARLs Related to SARPs on ATN Systems and System Implementors

A second new set of ATN Requirement Lists (ARLs) has been created to provide a high-level view of the SARPs material related to ATN systems and ATN system implementors. These ARLs have been derived from SARPs sections:

- 5.1 - 5.2.3 ATN Transport Service and Protocol Specification,
- 6.1 - 6.3 ATN Internetwork Service and Protocol Specification,
- 8.2.1, 8.2.2 ATN Routing Information Exchange Protocol Specification for ISO 9542 (ES-IS),
- 8.3.1, 8.3.2 ATN Routing Information Exchange Protocol Specification for ISO 10747 (IDRP), and
- 7.5 and 7.6 ATN Subnetwork Service and Protocol Specification

The tables have the following design:

Note that these tables have the same design as used for incorporation of original APRLs (see below).

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS

The **APRL Index** contains a unique reference for each table that was created.

The **Item** field contains a unique reference assigned to each entry of the table.

The **Description** field contains either explicit recommendations and options or summarised requirements of the SARPs text. Note: Requirement statements have been summarised, that is one single entry has been produced containing the title of a subsection of the SARPs, under which a number of requirements exist. Recommendations and options have always been put into separate entries.

The **Reference** field and the **Status** field are placeholders to reference the applicable ISO standard and have not been filled out.

The **CNS/ATM-1 Package SARPs Reference** field contains a reference to the SARPs section.

The **ES, G-G BIS, A/G BIS and Airborne BIS** fields present the support status for the different ATN system types and contain the notations as used for the original APRLs (see also Notation Guide below).

2.3 Incorporation and Harmonisation of Original APRLs

All original APRL tables contained in [REF1] have been incorporated. They have been transferred from the following SARPs section:

- 5.2.4 Transport APRL (COTP)
- 5.3.4 Transport APRL (CLTP)
- 6.4.3 - 6.4.22 Network APRL

- 8.2.2 ES-IS APRL
- 8.3.3 IDRP APRL
- 7.11 Mobile SNDCF APRL
- 7.12 Routing Initiation APRL

The following modifications were necessary in order to harmonise the tables and to prepare the APRLs for transfer into the database:

- wherever "sub-headings" were found in an APRL, the APRL was partitioned into a number of tables according to the number of "subheadings" found, for example the Connectionless Mode Transport APRL in SARPs section 5.3.4.3.
- for each APRL one column has been added to contain a unique APRL Index;
- the reference column in the original APRLs was used in a different way. Most APRLs contained a reference to the ISO standard, some contained a reference to the SARPs section, and some contained both. Therefore, an additional column has been added to all APRLs to separate ISO and SARPs section references. Note that in many APRLs the SARPs reference fields are empty. The ISO standard reference number has been added to the referenced clause to make the field contents unambiguous. Note, that in most (but not all) original APRLs, the ISO standard number was indicated in the column header.
- the CNS/ATM-1 Package Support column has been replaced by four columns for the different system types: ES, G-G BIS, A/G BIS and Airborne BIS. The contents of the CNS/ATM-1 Package Support column was then copied into to the applicable column. Contents have not been modified.

The tables for the APRLs have the following design:

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS

The **APRL Index** contains a unique reference for each table that was incorporated.

The **Item** field contains the original entry index given in the "Item" or "Index" column.

The **Description** field contains the text given for the entry of the original APRL. Note, that the meaning of the description field varies according to what is indicated in the column heading of the original APRL. Therefore, the column heading of the original APRL was captured in the APRL guide.

The **Reference** field contains a reference to the applicable section of the ISO standard. If a reference to a SARPs section was found in this field, it has been moved to the CNS/ATM-1 Package SARPs Reference column.

The **Status** field contains the ISO support status.

The **CNS/ATM-1 Package SARPs Reference** field contains a reference to the SARPs section associated with the entry, if such a reference was found in the Reference field.

The **ES, G-G BIS, A/G BIS and Airborne BIS** fields present the support status for the different ATN system types and contain the notations as used for the original APRLs (see also Notation Guide below).

2.4 Production of an ARL/APRL Guide

An ARL/APRL guide was produced to provide an overview of the set of ARLs and APRLs, and most of all to hold information associated with an original APRL table, which would be lost after harmonisation and transfer in a database table. The ARL/APRL guide contains one entry for every table associated with an ARL index or APRL index.

The ARL/APRL guide has the following table design:

Index	Number of Entries	SARPs Reference	APRL Title	Description Field Meaning	ISO Standard	Note

The **Index** field contains the ARL index or APRL index respectively associated with an ARL/APRL.

The **Number of Entries** field contains the number of entries that an individual ARL/APRL has and supports the checking for completeness after the transfer of tables to the database.

The **CNS/ATM-1 Package SARPs Reference** field contains a reference to the SARPs section from which the new ARL has been created or it references the SARPs section in which the original APRL was found.

The **APRL Title** field contains the (next preceding) title of the SARPs referenced by the CNS/ATM-1 Package SARPs field.

The **Description Field Meaning** field is only applicable to the incorporated APRLs and contains the heading of the text description column of the original APRL, which generally is the second column following the Item/Index column. It explains the context of an entry, e.g. "function", "feature", "supported PDUs" and is necessary in many cases to understand the text of an entry or to make the entry unambiguous.

The **ISO Standard** field contains the ISO standard reference number, which is applicable to the APRL and to which the reference column of the original APRL is related to, if it does not contain a SARPs reference.

The **Note** field indicates specific modifications made to the original APRL that were necessary for harmonisation of the tables.

2.5 Production of a Notation and Predicate Guide

A Notation and Predicate Guide has been produced to explain the notations, i.e. "M", "O", "REC", "C", "X" etc., used in the ISO status and CNS/ATM-1 Package support column or the columns for the different system types respectively. It also explains the predicates, e.g. O.1, ISMOB, used in some APRLs, that were found in form of a note underneath the original APRL.

The Notation and Predicate Guide has the following table design:

Index	Notation	Meaning

The **Index** field contains either "all", for a notation applicable to all ARLs/APRLs or the APRL index for a predicate used in a specific APRL.

The **Notation** field contains the notation or predicate used.

The **Meaning** field contains a text description of the notation or predicate used.

2.6 Collection of Defects

Some defects were found in APRLs. The original field content has not been modified in the APRL, but a the defects were collected in a "Defect" table together with a reference to the APRL index and entry index.

2.7 Assessment of coverage

A review was conducted internally to EUROCONTROL to verify the completeness of Database/SARPs mapping, taking into account the methods and working assumptions.

All sections of the SARPs that specify requirements/recommendations in a textual form have a corresponding table or table entry. Exceptions to this are listed in the following table with a justification:

1.	no requirements
2.1	no requirements
2.2	reflected in subsequent tables
2.3	reflected in subsequent tables
2.4	reflected in subsequent tables
3.1	introductory text and forward references to requirements
5.2.6	no requirements
6.3.1	already referenced in network APRLs
6.3.2	already referenced in network APRLs (except recommendation in 6.3.2.8)
7.1	introductory text and forward references to requirements
7.3	no requirements

3. Use and maintenance of the database

The production of the new ATN Requirements Database tables was based on revisited assumptions about its future use. The primary objective retained for the database was that it should become a support to the SARPs validation work. This section describes the possible uses of the database and the implications in terms of maintenance.

3.1 Database uses

3.1.1 SARPs Validation

The support of SARPs validation is the primary use of the database. Database tables provide an unambiguous referencing of SARPs elements and they will be linked to validation objectives and hence to validation exercises results.

The tables will provide a means of collecting the various report contributions and will allow an assessment of the coverage.

3.1.2 Compliance statement

Because of their nature, the database tables are suitable to be used as proformas by implementers to state the level of compliance of their implementation. Although the table layout does not enhance this possible use (as a PICS proforma normally does), an additional column can be easily added to hold the actual implementation support status.

In the context of validation exercises which will be targeted at reviewing the existing tools and implementations, this use of tables to collect detailed information can be very helpful.

3.1.3 Procurement specification

Like PICS proformas, database tables can be used to express the mandatory requests in the context of a procurement specification. An additional column can be added to hold the status of detailed recommendations and options in the context of a planned development.

3.1.4 Certification

The database may be the basis for the future development of certification schemes. This can be viewed as a follow-on to the validation work after endorsement by ICAO. It will require that the maintenance of the database is arranged withing the ICAO SARPs maintenance scheme.

It is not clear at this stage what the implications of such a use on the design of the ATN database are. Contributions on the subject are required before the database can be oriented towards use in a certification scheme.

3.2 Maintenance

Because of the working assumptions described in [REF3], the tables contained in this document are not linked to the source SARPs text by any formal link. Only SARPs paragraph references are used to establish the relationship. It is therefore necessary that rules are set up to guarantee the alignment to the SARPs as it evolves via the CCB.

A second issue related to maintenance is the following: for planning reason, the database work had to be based on the SARPs version available at the start of the task, i.e. version 3.0. A task is required to bring the tables in line with version 4.0 to be produced after the Brisbane WG2 meeting.

Two maintenance schemes can be envisaged for the database:

1) database tables are maintained in an ATNP WG2 standing document derived from this document. Editorship is assigned to current SARPs editor or to a newly appointed editor. CCB procedures and templates are amended to include the reporting of defects/changes impacts on database tables.

2) the SARPs chapters are restructured so as to include all the database tables into the text, in a way similar to what is currently done in chapter 5, 6 and 8. Maintenance would then be implicit by normal SARPs CCB.

Due to current situation, option 1 seems more practical and avoids large number of text changes. Option 2 may be retained as a longer term solution, in the event of SARPs restructuring work.

4. Conclusion and recommendations

ATNP WG2 has confirmed the necessity of the ATN Requirements Database as the basis for the SARPs validation work. This document contains the main input from which the database will be built. It is therefore recommended that:

a) WG2 members review the material contained in this document and assess its completeness and suitability for the validation work

b) A standing ATNP WG2 is produced from this material and from eventual WG2 agreed comments

c) WG2 takes a decision on the maintenance scheme required for this document.

5. New ARLs on ATN Topology and ATN Operators/Administrators

5.1 ARL on ATN Definitions

ATN Definitions

ARL Index	Item	Description	CNS/ATM-1 Package SARPs Reference	CNS/ATM-1 Package Support
ARL010	ATND1	The ATN Internet	SARPs 2.5.1	**M**
ARL010	ATND2	ATN RDs	SARPs 2.5.2	**M**
ARL010	ATND3	*ATSC and AINSC End-Systems and Intermediate Systems located within a mobile platform should form a single Routing Domain, within the appropriate Administrative Domain.*	SARPs 2.5.2.3	*REC*
ARL010	ATND4	The Ground ATN Internet	SARPs 2.5.3	**M**
ARL010	ATND5	The Global ATN Backbone	SARPs 2.5.4	**M**
ARL010	ATND1	*Within each ATN Island, those ATN RDs that are members of the Global ATN Backbone should form a single RDC, the ATN Backbone RDC.*	SARPs 2.5.4.1	*REC*
ARL010	ATND7	The Home Domain	SARPs 2.5.5	**M**
ARL010	ATND8	Administrative Domains and the ATN	SARPs 2.5.6	**M**
ARL010	ATND9	ATN Priority Provisions	SARPs 2.6	**M**

5.2 ARL on ATN Routing

ATN Routing

ARL Index	Item	Description	CNS/ATM-1 Package SARPs Reference	CNS/ATM-1 Package Support
ARL020	ATNR1	Service Provided by an ATN Routing Domain	SARPs 3.2	**M**
ARL020	ATNR2	Forwarding CLNP NPDUs	SARPs 3.2.1	**M**
ARL020	ATNR3	Interconnection of ATN RDs	SARPs 3.3.1	**M**
ARL020	ATNR12	Handling Routing Information	SARPs 3.6	**M**
ARL020	ATNR13	Routing Policy Requirements for Members of an ATN Island Backbone RDC	SARPs 3.7.1	**M**

ARL020	ATNR14	*An ATN RD that is a member of a Backbone RDC should also provide to each adjacent Mobile RD, and for the Security RIB-Att and for which a suitable route exists: a) An aggregated route to NSAPs and NETs contained within the local ATN Island RDC;* Note 3 The objective of this rule is to ensure that an RD that is a member of a backbone RDC provides to each connected mobile RD, a route to all fixed ATN RDs within the island. b) *An aggregated route to NSAPs and NETs contained within all other ATN Islands for which a route is available*. Note 4 The objective of this rule is to ensure that an RD that is a member of a backbone RDC will be willing to provide to each connected mobile RD routing information to the backbone of other ATN islands.	SARPs 3.7.1.3	*REC*
ARL020	ATNR15	Routing Policy Requirements for a Mobile RD	SARPs 3.7.2	**M**
ARL020	ATNR16	Routing Policy Requirements for an ATN TRD that is not a Member of the ATN Island Backbone RDC	SARPs 3.7.3	**M**
ARL020	ATNR17	*An ATN TRD should also provide to each adjacent Mobile RD, and for the Security RIB-Att and for which a suitable route exists: a) an aggregated route to NSAPs and NETs contained within the local ATN Island RDC; b) an aggregated route to NSAPs and NETs contained within all other ATN Islands for which a route is available*.	SARPs 3.7.3.3	*REC*
ARL020	ATNR18	The Routing Policy for a Fixed ATN ERD	SARPs 3.7.4	**M**
ARL020	ATNR19	Use of the Forwarding Information Base	SARPs 3.8	**M**

5.3 ARL on ATN Addressing

ATN Addressing

ARL Index	Item	Description	CNS/ATM-1 Package SARPs Reference	CNS/ATM-1 Package Support
ARL030	ADDR1	General Provisions	SARPs 4.1	**M**
ARL030	ADDR2	Administrative Provisions	SARPs 4.2	**M**
ARL030	ADDR3	Abstract Syntax Provisions	SARPs 4.3	**M**
ARL030	ADDR4	Encoding Provisions	SARPs 4.4	**M**
ARL030	ADDR5	Authority/Format Identifier	SARPs 4.5.1	**M**
ARL030	ADDR6	Initial Domain Identifier	SARPs 4.5.2	**M**
ARL030	ADDR7	Version Identifier	SARPs 4.5.3	**M**
ARL030	ADDR8	Administration Identifier	SARPs 4.5.4	**M**

ARL030	ADDR9	*The AINSC ADM field value should be derived from the set of three-character alphanumeric symbols representing an IATA Airline or Aeronautical Stakeholder Designator.*	SARPs 4.5.4.1.2	*REC*
ARL030	ADDR10	*The AINSC ADM field should contain the IA-5 encoding of valid three-character alphanumeric IATA Airline or Aeronautical Stakeholder Designator values, as specified in the IATA Airline Coding Directory. For this purpose, the AINSC ADM field should be represented using upper-case alphabetic characters and decimal numerals.*	SARPs 4.5.4.3.2	*REC*
ARL030	ADDR11	Routing Domain Format	SARPs 4.5.5	**M**
ARL030	ADDR12	Administrative Region Selector	SARPs 4.5.6	**M**
ARL030	ADDR13	*An ATSC administration may opt to derive six-digit hexadecimal ATSC-Fixed ARS field value syntax from the IA-5 encoding of the three least-significant characters of a four-character alphabetic symbol representing an appropriate ICAO Location Indicator.*	SARPs 4.5.6.1.1	*O*
ARL030	ADDR14	*An AINSC administration may opt to derive six-digit hexadecimal AINSC-Fixed ARS field value syntax from the IA-5 encoding of a three-character alphabetic symbol representing an appropriate IATA Location Identifier.*	SARPs 4.5.6.1.2	*O*
ARL030	ADDR15	Location Identifier	SARPs 4.5.7	**M**
ARL030	ADDR16	*An ATSC administration may opt to derive four-digit hexadecimal ATSC LOC field value syntax from the three least-significant characters of a four-character identifier meta-character representing appropriate ICAO Location Indicators, encoded using ordinal rules defined in A.7.4.7.*	SARPs 4.5.7.1.1	*O*
ARL030	ADDR17	*An AINSC administration may opt to derive four-digit hexadecimal AINSC LOC field value syntax from a three-character identifier meta-character representing appropriate IATA Location Identifiers, encoded using ordinal rules defined in A.7.4.7.*	SARPs 4.5.7.1.2	*O*
ARL030	ADDR18	System Identifier	SARPs 4.5.8	**M**
ARL030	ADDR19	NSAP Selector	SARPs 4.5.9	**M**
ARL030	ADDR20	Definition of a Network Entity Title	SARPs 4.6	**M**
ARL030	ADDR21	Transport Layer Addressing	SARPs 4.7	**M**
ARL030	ADDR22	TSAP selector values in the range **[0] - [255]** should be encoded using one octet, higher values should be encoded using two octets.	SARPs 4.7.6	*REC*

5.4 ARL on ATN Subnetworks

ATN Subnetworks and Subnetwork Service Primitives

ARL Index	Item	Description	CNS/ATM-1 Package SARPs Reference	CNS/ATM-1 Package Support
ARL040	ATNSN1	Requirements for all ATN subnetworks	SARPs 7.2	**M**
ARL040	ATNSN2	*Mobile ATN Subnetworks should provide a mechanism for invocation of subnetwork QOS. Subnetwork QOS parameters include transit delay, protection against unauthorized access, cost determination and residual error probability.*	SARPs 7.2.2.2	*REC*
ARL040	ATNSN3	*An ATN subnetwork should provide a mechanism that allows the conveyance of large SNSDUs greater than the subnetwork's internal packet size between subnetwork points of attachment.*	SARPs 7.2.2.5	*REC*
ARL040	ATNSN4	Subnetwork service primitives	SARPs 7.4	**M**

Systems Management Provisions

ARL Index	Item	Description	CNS/ATM-1 Package SARPs Reference	CNS/ATM-1 Package Support
ATL050	SYSMAN1	*ATN managed resources should be grouped into management domains in order to assign responsibility for control of the resources. An organization should assign an administrative authority to establish and maintain the respective management authorities of each of its management domains, and to manage the transfer of control of resources from one management domain to another.*	SARPs 9.1	*REC*

6. New ARLs on ATN Systems and ATN System Implementers

6.1 ARL on ATN Transport Service and Protocol Specification

ATN Transport Layer ARL

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL401	ATNT1	Support of ISO 8073 and ATN specific requirements			SARPs 5.1	M			
ARL401	ATNT2	Support of ISO 8602 and ATN specific requirements			SARPs 5.1	M			
ARL401	ATNT3	TSAP addresses			SARPs 5.1.3	M			
ARL401	ATNT4	Exchange of Transport Selector parameters			SARPs 5.1.5	M			
ARL401	ATNT5	*The transport entity should support remote Transport-Selector parameters of variable size from 0 up to 32 octets using any encoding and any value.*			SARPs 5.1.5	*REC*			
ARL401	ATNT6	Network Service			SARPs 5.1.4	M			

ATN Connection Mode Transport Layer

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL402	COTP1	Connection Mode Transport Priority provisions			SARPs 5.2.2.1 and 2.6	M			
ARL402	COTP2	Connection Mode Transport Security provisions			SARPs 5.2.2.2	M			

ARL402	COTP3	The transport layer shall not concatenate TPDUs from TCs with different transport priorities			SARPs 5.2.4.1.3.1.3	M			
ARL402	COTP4	*The Selective Acknowledgement should be used for conservation of bandwidth by preventing retransmission of correctly received out-of-sequence TPDUs*			SARPs 5.2.4.1.3.1.3	*REC*			
ARL402	COTP5	*The Request of Acknowledgement should be used to reduce AK traffic*			SARPs 5.2.4.1.3.1.3	*REC*			
ARL402	COTP6	*The transport layer should propose a TPDU size of 1024 octets or more*			SARPs 5.2.4.1.5.2.1	*REC*			
ARL402	COTP7	*The transport layer should use the TPDU size parameter rather than the preferred maximum TPDU size parameter*			SARPs 5.2.4.1.5.2.1	*REC*			
ARL402	COTP8	*1024 octets is the recommended minimum maximum-TPDU size*			SARPs 5.2.4.1.9.3	*REC*			
ARL402	COTP9	*The supported TPDU size of 1024 octets is recommended to support efficient transmission of anticipated application data exchanges*			SARPs 5.2.4.1.9.3	*REC*			
ARL402	COTP10	*Implementations of the ATN transport layer should propose use of normal format in the CR TPDU*			SARPs 5.2.4.1.9.4	*REC*			
ARL402	COTP11	*The transport layer should accept non-use of checksum when proposed in a CR TPDU*			SARPs 5.2.4.1.9.6	*REC*			
ARL402	COTP12	Use of Network Service by COTP			SARPs 5.2.5	M			

ARL402	COTP13	*The following timers and variables should be configurable on a TC basis: a) the local retransmission timer (T1), b) the acknowledgement timer (A_L), c) the window update timer (W), d) the inactivity timer (I), e) the frozen reference time (L), f) the maximum retransmission number (N), g)the persistence timer (R)*			SARPs 5.4	*REC*			

ATN Connectionless Mode Transport Layer

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL403	CLTP1	Connectionless Mode Transport Priority provisions			SARPs 5.3.2.1	M			
ARL403	CLTP2	Connectionless Mode Transport Security provisions			SARPs 5.3.2.2	M			
ARL403	CLTP3	*The transport layer should support the dynamic selection of checksums on a per TSDU basis*			SARPs 5.3.2	*REC*			
ARL403	CLTP4	CL Transport Service primitives			SARPs 5.3.3	M			
ARL403	CLTP5	Use of Network Service by CLTP			SARPs 5.3.5	M			

6.2 ARL on ATN Internetwork Service and Protocol Specification

ATN Connectionless Mode Network Layer ARL

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL500	CLNP1	Support of ISO 8473 and ATN specific requirements			SARPs 6.1	M	M	M	M
ARL500	CLNP2	ATN Security function			SARPs 6.2.2	M	M	M	M

ARL500	CLNP3	Encoding of Security parameter			SARPs 6.2.2.1	M	M	M	M
ARL500	CLNP4	Use of CLNP Security parameter to convey a security classification.			SARPs 6.2.2.1	O	O	O	O
ARL500	CLNP5	Registration ID field			SARPs 6.2.2.2, 6.2.2.3	M	M	M	M
ARL500	CLNP6	Security Information field			SARPs 6.2.2.4, 6.2.2.5	M	M	M	M
ARL500	CLNP7	Management of Network Priority			SARPs 6.2.3 and 2.6	M	M	M	M
ARL500	CLNP8	*ATN ES and IS Network entities should support the ECHO REQUEST Function as invoked by Network layer management.*			SARPs 6.3.2.8	*REC*	*REC*	*REC*	*REC*

6.3 ARL on ATN Routing Exchange Protocol Specification

Ground-Ground Interconnection

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL600	ATNR4	Ground-Ground Route Initiation			SARPs 3.4.2		M	M	
ARL600	ATNR5	Ground-Ground Routing Information Exchange			SARPs 3.4.3		M	M	
ARL600	ATNR6	Ground-Ground Route Termination			SARPs 3.4.4		M	M	

Air-Ground Interconnection

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL601	ATNR7	Air-Ground Route Initiation			SARPs 3.5.2			M	M

ARL601	ATNR8	*When in the initiator role, an ATN Router should use the ISO 8208 "Fast Select" facility, if supported by the subnetwork, and encode the first ISH PDU in the Call Request user data, according to the procedures for the Mobile SNDCF specified in Section 7.*			SARPs 3.5.2.5			*REC*	*REC*
ARL601	ATNR9	*When in the responder role and the initiator has proposed use of the Fast Select Facility, the ATN Router should encode the first ISH PDU in the Call Accept User Data, according to the procedures for the Mobile SNDCF specified in Section 7.*			SARPs 3.5.2.5			*REC*	*REC*
ARL601	ATNR10	*When a BIS-BIS connection has been established, the periodic transmission of ISH PDUs should be suppressed, except when a watchdog timer is applied to the subnetwork connection (see 3.5.2.12).*			SARPs 3.5.2.9			*REC*	*REC*
ARL601	ATNR11	*The timer should be configurable according to the characteristics of the subnetwork.*			SARPs 3.5.2.12			*REC*	*REC*

Routing Information Exchange Protocol

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL602	ATNROUT	Support of Routing Exchange protocols and ATN specific requirements			SARPs 8.1		M	M	M

ARL602	ESIS1	ISO 9542 over mobile air-to-ground subnetworks			SARPs 8.2.1		-	M	M
ARL602	IDRP1	Support of ATN specific features for ISO 10747			SARPs 8.3.1.1		M	M	M
ARL602	IDRP2	Use of the Security Path Attribute			SARPs 8.3.1.2		M	M	M
ARL602	IDRP3	*When an ATN Router supports data classified according to security policy and for the purpose of implementing mandatory access controls, then the ATN Router should also support the security classification security tag set defined in 6.2.2.5.*			SARPs 8.3.1.2		*REC*	*REC*	*REC*
ARL602	IDRP4	Encoding of the Security Path Attribute Security Information Field			SARPs 8.3.1.3		M	M	M
ARL602	IDRP5	Update of Security Information			SARPs 8.3.1.4		M	M	M
ARL602	IDRP6	Route Selection			SARPs 8.3.1.5		M	M	M
ARL602	IDRP7	Route Aggregation and Route Information Reduction			SARPs 8.3.1.6		M	M	-
ARL602	IDRP8	Support of true route aggregation			SARPs 8.3.1.6.2		O.1	O.1	-
ARL602	IDRP9	Support of route merging			SARPs 8.3.1.6.2		O.1	O.1	-
ARL602	IDRP10	Frequency of Route Advertisement			SARPs 8.3.1.7		M	M	M
ARL602	IDRP11	Interpretation of route capacity			SARPs 8.3.1.8		M	M	M
ARL602	IDRP12	Network layer Reachability information			SARPs 8.3.1.9		M	M	M
ARL602	IDRP13	BISPDU Authentication			SARPs 8.3.1.10		M	M	M
ARL602	IDRP14	RIB-Att Support			SARPs 8.3.1.11		M	M	M

ARL602	IDRP15	*An Air/Ground Router should aggregate all routes to destinations in Routing Domains in its own ATN Island, other than those to destinations in its own Routing Domain, and similarly perform route information reduction as permitted by the ATN Addressing Plan, before advertising such routes to an airborne Routing Domain.*			SARPs 8.3.1.6.1		-	*REC*	-
ARL602	IDRP16	*An Air/Ground Router should aggregate all routes to destinations in ATN Islands, other than its own ATN Island, and similarly perform route information reduction as permitted by the ATN Addressing Plan, before advertising such routes to an airborne Routing Domain.*			SARPs 8.3.1.6.1		-	*REC*	-
ARL602	IDRP17	*ATN Ground-Ground Routers should perform Route Aggregation and Route Information Reduction on routes to ground destinations, in line with local policy requirements for reducing the amount of routing information distributed within the ATN Ground Environment.*			SARPs 8.3.1.6.1		*REC*	-	-
ARL602	IDRP18	*An ATN Air/Ground Router should implement Route Aggregation and Route Information Reduction Procedures.*			SARPs 8.3.2.2		-	*REC*	-

ARL602	IDRP19	*An ATN Ground-Ground Router should implement Route Aggregation and Route Information Reduction Procedures.*			SARPs 8.3.2.2		*REC*	-	-

6.4 ARL on ATN Subnetwork Service and Protocol Specification

Subnetwork Service and Protocol

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
ARL700	SNDCF1	Subnetwork Dependent Convergence Function			SARPs 7.5	M	M	M	M
ARL700	SNDCF2	Convergence provisions for ISO8208 subnetworks - general			SARPs 7.6	C1:M	C1:M	M	M
ARL700	SNDCF3	Convergence provisions for ISO8208 subnetworks - service coordination			SARPs 7.6.1, 7.6.2	C1:M	C1:M	M	M
ARL700	SNDCF4	*The Subnetwork Provider, when able to do so, should allocate resources and route the Virtual Circuit in a manner such that the transit delay applicable to that circuit does not exceed the desired transit delay*			SARPs 7.6.2.1.1	C1:REC	C1:REC	REC	REC
ARL700	SNDCF5	*If the throughput required by the SN-Service-User is greater than the throughput which can be provided, the SNDCF should opt for another Subnetwork Provider, if available*			SARPs 7.6.2.5	C1:REC	C1:REC	REC	REC

ARL700	SNDCF6	*The SNDCF should make use of the ISO 8208 Throughput Class Negotiation Facility for indication and/or negotiation of Throughput Class, if offered by the subnetwork service provider*			SARPs 7.6.2.5.1	C1:REC	C1:REC	REC	REC
ARL700	SNDCF7	Convergence provisions for ISO8208 general topology subnetworks			SARPs 7.6.3	C2:M	C2:M	C2:M	C2:M
ARL700	SNDCF8	*All ATN ESs and ISs using ISO 8208 Fixed Subnetworks for communication with other ATN ESs and ISs should implement the SNDCF as specified in 7.6.4.*			SARPs 7.6.3	C2:REC	C2:REC	C2:REC	C2:REC
ARL700	SNDCF9	Convergence provisions for ISO8208 mobile subnetworks			SARPs 7.6.4	C3:M	C3:M	M	M
ARL700	SNDCF10	*Implementations using this SNDCF for air-ground communications should only implement the optional facility for local reference cancellation when the lifetime of the virtual circuits is of the same order as the flight time*			SARPs 7.6.4	-	-	REC	REC
ARL700	SNDCF11	*Implementations using this SNDCF for ground/ground communications should use the optional local reference cancellation mechanism*			SARPs 7.6.4	C2:REC	C2:REC	REC	-
ARL700	SNDCF12	*When this SNDCF is used for air-ground communication or when the local reference cancellation option is available for use, then the PDU should be sent unmodified over the virtual circuit*			SARPs 7.6.4.5.3	-	-	REC	REC

ARL700	SNDCF20	Convergence provisions for ISO8802-2 Broadcast subnetworks			SARPs 7.7	C4:M	C4:M	C4:M	C4:M
ARL700	SNDCF30	Convergence provisions for CIDIN			SARPs 7.8	C5:M	C5:M	C5:M	C5:M

7. Incorporated APRLs

7.1 Transport APRL

7.1.1 Connection Mode Transport APRL

Classes Implemented

APRL Index	Index	Class	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL101	C0	Class 0	ISO/IEC 8073: 14.2	O.1		O			
APRL101	C1	Class 1	ISO/IEC 8073: 14.4	C0:O		O			
APRL101	C2	Class 2	ISO/IEC 8073: 14.2	O.1		O			
APRL101	C3	Class 3	ISO/IEC 8073: 14.3	C2:O		O			
APRL101	C4	Class 4 operation over CONS	ISO/IEC 8073: 14.3	C2:O		O			
APRL101	C4L	Class 4 operation over CLNS	ISO/IEC 8073: 14.3	C2:O		M			

Specific ATN Requirements

APRL Index	Index	Feature	ISO Reference	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL102	ATN1	Initiating CR TPDU?				M			
APRL102	ATN2	Responding to CR TPDU?				M			

APRL102	ATN3	Extended TPDU Numbering				O			
APRL102	ATN4	Acceptance of Non-use of Checksum?				M			
APRL102	ATN5	Use of Concatenation?				O			
APRL102	ATN6	Use of Selective Acknowledgement?				O			
APRL102	ATN7	Use of Request of Acknowledgement?				O			
APRL102	ATN8	Reduction of Credit Window				O			
APRL102	ATN9	ER TPDU Transmission?				O			
APRL102	ATN10	Use of Called Transport-Selector Parameter in CR TPDU?				M			
APRL102	ATN11	Use of Calling Transport-Selector Parameter in CR TPDU?				M			
APRL102	ATN12	Use of TPDU Size Parameter in CR TPDU?				O			
APRL102	ATN13	Use of the Additional Option Selection Parameter in CR TPDU?				M			
APRL102	ATN14	Use of the Priority Parameter in CR TPDU?				O			
APRL102	ATN15	Use of the Acknowledgement Timer Parameter in CR TPDU?				O			
APRL102	ATN16	Use of Preferred Maximum TPDU Size Parameter in CR TPDU?				O			
APRL102	ATN17	Use of Inactivity Time Parameter in CR TPDU?				O			
APRL102	ATN18	Use of Called Transport-Selector Parameter in CC TPDU?				M			
APRL102	ATN19	Use of Calling Transport-Selector Parameter in CC TPDU?				M			
APRL102	ATN20	Use of TPDU Size Parameter in CC TPDU?				O			

APRL102	ATN21	Use of the Additional Option Selection Parameter in CC TPDU?				M			
APRL102	ATN22	Use of the Priority Parameter in CC TPDU?				O			
APRL102	ATN23	Use of the Acknowledgement Timer Parameter in CC TPDU?				O			
APRL102	ATN24	Use of Preferred Maximum TPDU Size Parameter in CC TPDU?				O			
APRL102	ATN25	Use of Inactivity Time Parameter in CC TPDU?				O			
APRL102	ATN26	1024 octets as the minimum preferred maximum TPDU size in a CR TPDU?				O			
APRL102	ATN27	1024 octets as the minimum preferred maximum TPDU size in a CC TPDU?				O			
APRL102	ATN28	1024 octets as the largest value of the maximum TPDU size parameter in a CR TPDU with preferred class 4?				O			
APRL102	ATN29	1024 octets as the largest value of the maximum TPDU size parameter which may be sent in a CC TPDU when class 4 is selected?				O			
APRL102	ATN30	Congestion Avoidance Measures?				O			
APRL102	ATN31	Quality of Service Mapping?				O			
APRL102	ATN32	Timer Settings?				O			

Initiator/Responder Capability for Protocol Classes 0-4

APRL Index	Index		ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL103	IR1	Initiating CR TPDU	ISO/IEC 8073: 14.5 a)	O.2		M			
APRL103	IR2	Responding to CR TPDU	ISO/IEC 8073: 14.5 a)	O.2		M			

Mandatory Functions for Class 4

APRL Index	Index	Function	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL104	T4F1	TPDU transfer	ISO/IEC 8073: 6.2	M		M			
APRL104	T4F2	Segmenting	ISO/IEC 8073: 6.3	M		M			
APRL104	T4F3	Reassembling	ISO/IEC 8073: 6.3	M		M			
APRL104	T4F4	Separation	ISO/IEC 8073: 6.4	M		M			
APRL104	T4F5	Connection establishment	ISO/IEC 8073: 6.5	M		M			
APRL104	T4F6	Connection refusal	ISO/IEC 8073: 6.6	M		M			
APRL104	T4F7	Data TPDU numbering (normal)	ISO/IEC 8073: 6.10	M		M			
APRL104	T4F8	Retention and acknowledgement of TPDUs (AK)	ISO/IEC 8073: 6.13.4.1	M		M			
APRL104	T4F9	Explicit flow control	ISO/IEC 8073: 6.16	M		M			
APRL104	T4F10	Checksum	ISO/IEC 8073: 6.17	M		M			
APRL104	T4F11	Frozen references	ISO/IEC 8073: 6.18	M		M			
APRL104	T4F12	Retransmission on time-out	ISO/IEC 8073: 6.19	M		M			
APRL104	T4F13	Resequencing	ISO/IEC 8073: 6.20	M		M			
APRL104	T4F14	Inactivity control	ISO/IEC 8073: 6.21	M		M			

Mandatory Functions for Operation over Connectionless Network Service

APRL Index	Index	Function	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL105	T4F23	Transmission over CLNS	ISO/IEC 8073: 6.1.2	M		M			

APRL105	T4F24	Normal release when operating over CLNS (explicit)	ISO/IEC 8073: 6.7.2	M		M			
APRL105	T4F25	Association of TPDUs with transport connections when operating over CLNS	ISO/IEC 8073: 6.9.2	M		M			
APRL105	T4F26	Expedited data transfer when operating over CLNS (Network normal)	ISO/IEC 8073: 6.11.2	M		M			
APRL105	T4F27	Treatment of protocol errors when operating over CLNS	ISO/IEC 8073: 6.22.2	M		M			

ISO 8073 Optional Functions

APRL Index	Index	Feature	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL106	T4F28	Data TPDU numbering (extended)	ISO/IEC 8073: 6.10	O		ATN3:M			
APRL106	T4F29	Non-use of checksum	ISO/IEC 8073: 6.17	O		ATN4:M			
APRL106	T4F30	Concatenation	ISO/IEC 8073: 6.4	O		ATN5:M			
APRL106	T4F31	Retention and acknowledgement of TPDUs Use of selective acknowledgement	ISO/IEC 8073: 6.13.4.3	O		ATN6:M			
APRL106	T4F32	Retention and acknowledgement of TPDUs Use of request acknowledgement	ISO/IEC 8073: 6.13.4.2	O		ATN7:M			

Supported TPDUs

APRL Index	Index	Function	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL107	ST1	CR supported on transmission	ISO/IEC 8073: 13.1	IR1:M		M			
APRL107	ST2	CR supported on receipt	ISO/IEC 8073: 13.1	IR2:M		M			

APRL107	ST3	CC supported on transmission	ISO/IEC 8073: 13.1	IR2:M		M			
APRL107	ST4	CC supported on receipt	ISO/IEC 8073: 13.1	IR1:M		M			
APRL107	ST5	DR supported on transmission	ISO/IEC 8073: 13.1	IR2:M		M			
APRL107	ST6	DR supported on receipt	ISO/IEC 8073: 13.1	IR1:M		M			
APRL107	ST7	DC supported on transmission	ISO/IEC 8073: 13.1	C4L:M		M			
APRL107	ST8	DC supported on receipt	ISO/IEC 8073: 13.1	C4L:M		M			
APRL107	ST9	DT supported on transmission	ISO/IEC 8073: 13.1	M		M			
APRL107	ST10	DT supported on receipt	ISO/IEC 8073: 13.1	M		M			
APRL107	ST11	ED supported on transmission	ISO/IEC 8073: 13.1	C4L:M		MO			
APRL107	ST12	ED supported on receipt	ISO/IEC 8073: 13.1	C4L:M		MO			
APRL107	ST13	AK supported on transmission	ISO/IEC 8073: 13.1	C4L:M		M			
APRL107	ST14	AK supported on receipt	ISO/IEC 8073: 13.1	C4L:M		M			
APRL107	ST15	EA supported on transmission	ISO/IEC 8073: 13.1	C4L:M		MO			
APRL107	ST16	EA supported on receipt	ISO/IEC 8073: 13.1	C4L:M		MO			
APRL107	ST19	ER supported on receipt	ISO/IEC 8073: 13.1	M		M			

Supported TPDUs

APRL Index	Index	Class	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL108	SER4L	Class 4 over CLNS	ISO/IEC 8073: 6.22.2	O		ATN9:M			

Parameter Values for CR TPDU (C4L::)

APRL Index	Index		ISO/IEC 8073 Reference	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL109	ICR2	Is class 0 always offered as an alternative class?	ISO/IEC 8073: 14.4	O		X			

Optional Parameters for a Connection Request TPDU

APRL Index	Index	Supported parameters	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL110	I4CR7	Called Transport-Selector	ISO/IEC 8073: 13.3.4 a)	O		M			
APRL110	I4CR8	Calling Transport-Selector	ISO/IEC 8073: 13.3.4 a)	O		M			
APRL110	I4CR9	TPDU size	ISO/IEC 8073: 13.3.4 b)	O		ATN12:M			
APRL110	I4CR10	Version Number	ISO/IEC 8073: 13.3.4 d)	O		O			
APRL110	I4CR11	Protection parameters	ISO/IEC 8073: 13.3.4 e)	O		O			
APRL110	I4CR12	Additional option selection	ISO/IEC 8073: 13.3.4 g)	O		M			
APRL110	I4CR13	Throughput	ISO/IEC 8073: 13.3.4 k)	O		O			
APRL110	I4CR14	Residual error rate	ISO/IEC 8073: 13.3.4 m)	O		O			
APRL110	I4CR15	Priority	ISO/IEC 8073: 13.3.4 n)	O		ATN14:M			
APRL110	I4CR16	Transit delay	ISO/IEC 8073: 13.3.4 p)	O		O			
APRL110	I4CR17	Acknowledgement time	ISO/IEC 8073: 13.3.4 j)	O		ATN15:M			
APRL110	I4CR18	Preferred maximum TPDU size	ISO/IEC 8073: 13.3.4 c)	O		ATN16:M			
APRL110	I4CR19	Inactivity timer	ISO/IEC 8073: 13.3.4 r)	O		ATN17:M			

Optional Parameters for a Connection Confirm TPDU

APRL Index	Index	Supported parameters	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL111	I4CC6	Called Transport-Selector	ISO/IEC 8073: 13.4.4	O		M			
APRL111	I4CC7	Calling Transport-Selector	ISO/IEC 8073: 13.4.4	O		M			
APRL111	I4CC8	TPDU size	ISO/IEC 8073: 13.4.4	O		ATN20:M			
APRL111	I4CC9	Protection parameters	ISO/IEC 8073: 13.4.4	O		O			
APRL111	I4CC10	Additional option selection	ISO/IEC 8073: 13.4.4	O		M			
APRL111	I4CC11	Acknowledgement time	ISO/IEC 8073: 13.4.4	O		ATN23:M			
APRL111	I4CC12	Throughput	ISO/IEC 8073: 13.4.4	O		O			
APRL111	I4CC13	Residual error rate	ISO/IEC 8073: 13.4.4	O		O			
APRL111	I4CC14	Priority	ISO/IEC 8073: 13.4.4	O		ATN22:M			
APRL111	I4CC15	Transit delay	ISO/IEC 8073: 13.4.4	O		O			
APRL111	I4CC16	Preferred maximum TPDU size	ISO/IEC 8073: 13.4.4	I4CR18:O		ATN24:M			

APRL111	I4CC17	Inactivity timer	ISO/IEC 8073: 13.4.4	O		ATN25:M			

Optional Parameter for a Disconnect Request TPDU

APRL Index	Index	Supported parameter	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL112	I4DR4	Additional information	ISO/IEC 8073: 13.5.4 a)	O		O			

Mandatory Parameter for a Data TPDU

APRL Index	Index	Supported parameter	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL113	I4DT4	ROA	13.7.3 b)	T4F32: M		T4F32:M			

Optional Parameter for an Acknowledgement TPDU

APRL Index	Index	Supported parameter	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL114	I4AK4	Flow control confirmation	ISO/IEC 8073: 13.9.4 c)	O		M			

Use of the Subsequence Number Parameter in the Acknowledgement TPDU

APRL Index	Index	Supported parameters	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL115	I4AK5	Subsequence number	ISO/IEC 8073: 13.9.4. b)	O		ATN8:M			

Use of the Selective Acknowledgement Parameter in the Acknowledgement TPDU

APRL Index	Index	Supported parameter	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL116	I4AK6	Selective acknowledgement parameters	ISO/IEC 8073: 13.9.4. d)	T4F31:O		T4F31:O			

Optional Parameters for an Error TPDU

APRL Index	Index	Supported parameter	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL117	I4ER3	Invalid TPDU	ISO/IEC 8073: 13.12.4 a)	O		O			

TPDUs in Class 4 (C4L::)

APRL Index	Index	TPDU	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL118	R4CCch	CC TPDU	ISO/IEC 8073: 13.4.4	M		M			
APRL118	R4DRch	DR TPDU	ISO/IEC 8073: 13.5.4 b)	M		M			
APRL118	R4DCch	DC TPDU	ISO/IEC 8073: 13.6.4	M		M			
APRL118	R4DTch	DT TPDU	ISO/IEC 8073: 13.7.4	M		M			
APRL118	R4EDch	ED TPDU	ISO/IEC 8073: 13.8.4	M		M			
APRL118	R4AKch	AK TPDU	ISO/IEC 8073: 13.9.4 a)	M		M			
APRL118	R4EAch	EA TPDU	ISO/IEC 8073: 13.10.4	M		M			
APRL118	R4ERch	ER TPDU	ISO/IEC 8073: 13.12.4 b)	M		M			

User Data in Issued TPDUs

APRL Index	Index	User Data	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL119	D4ICR	User data of up to 32 octets in a CR with preferred class 4	ISO/IEC 8073: 13.3.5	M		M			
APRL119	D4ICC	User data of up to 32 octets in a CC	ISO/IEC 8073: 13.4.5	M		M			
APRL119	D4IDR	User data of up to 64 octets in a DR	ISO/IEC 8073: 13.5.5	M		M			

User Data in Received TPDUs

APRL Index	Index	User Data	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL120	DRCC	32 octets of user data in a CC TPDU	ISO/IEC 8073: 13.4.5	IR1:M		IR1:M			
APRL120	DRDR	64 octets of user data in a DR TPDU	ISO/IEC 8073: 13.5.5	IR1:M		IR1:M			
APRL120	DRCR	32 octets of user data in a CR TPDU	ISO/IEC 8073: 13.3.5	IR2:M		IR2:M			

Class Negotiation - Initiator

APRL Index	Index	Feature	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL121	NC	The preferred class in the CR TPDU may contain any of the classes supported by the implementation	ISO/IEC 8073: 6.5.5 j)			Class 4			

Class Negotiation - Initiator

APRL Index	Index	Preferred class	ISO/IEC 8073 References	ISO Allowed values	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL122	NAC5	Class 4 over CLNS	ISO/IEC 8073: 6.5.5 j)	None		None			

Class negotiation - responder side

APRL Index	Index	Preferred class	ISO/IEC 8073 References	ISO Allowed responses	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL123	RC4	What classes can you respond with if CR proposes only class 4?	ISO/IEC 8073: 6.5.4 j) Table 3	2,4 or connection refused depending on classes supported		4			
APRL123	RC4a	What classes can you respond with if CR proposes class 4 as preferred class and the alternative class parameter is present?	ISO/IEC 8073: 6.5.4 j) Table 3	0,1,2,3,4 or connection refused depending on classes supported and coding of alternative class		4			

TPDU Size Negotiation

APRL Index	Index	TPDU size	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL124	TS1	If maximum TPDU size is proposed in a CR TPDU then the initiator shall support all TPDU sizes from 128 octets to the maximum proposed, as defined in ISO 8073	ISO/IEC 8073: 14.6 e)	I4CR9: M		I4CR9:M			
APRL124	TS2	If the preferred maximum TPDU size parameter is used in a CR TPDU then the initiator shall support all TPDU sizes, except 0, that are multiples of 128 octets up to the preferred maximum proposed	ISO/IEC 8073: 14.6 e)	I4CR18: M		I4CR18:M			

TPDU Size Negotiation

APRL Index	Index	TPDU size	ISO/IEC 8073 References	ISO Allowed values	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL125	TS3	What is the largest value of the preferred maximum TPDU size parameter in a CR TPDU?	ISO/IEC 8073: 14.6 e)	any multiple of 128 octets		any multiple of 128 octets			
APRL125	TS4	What is the largest value of the preferred maximum TPDU size parameter in a CC TPDU?	ISO/IEC 8073: 14.6 e)	any multiple of 128 octets		any multiple of 128 octets			

TPDU Size Negotiation

APRL Index	Index	TPDU size	ISO/IEC 8073 References	Allowed Values		ES	G-G BIS	A/G BIS	Airborne BIS
APRL126	T4S1	What is the largest value of the maximum TPDU size parameter in a CR TPDU with preferred class 4?	ISO/IEC 8073: 14.6 e)	One of 128, 256, 512, 1024, 2048, 4096, 8192		One of 128, 256, 512, 1024, 2048, 4096, 8192			
APRL126	T4S2	What is the largest value of the maximum TPDU size parameter which may be sent in the CC TPDU when class 4 is selected?	ISO/IEC 8073: 14.6 e)	128, 256, 512, 1024, 2048, 4096, 8192		128, 256, 512, 1024, 2048, 4096, 8192			

Use of Extended Format

APRL Index	Index	Extended format	ISO/IEC 8073 References	ISO Allowed Values		ES	G-G BIS	A/G BIS	Airborne BIS
APRL127	NEF3	What formats can you propose in the CR TPDU in class 4?	ISO/IEC 8073: 6.5.5 n)	normal, extended		normal, extended			
APRL127	NEF6	What formats can you select in CC when extended has been proposed in CR in class 4?	ISO/IEC 8073: 6.5.5 n)	normal, extended		normal, extended			

Expedited data Transport service

APRL Index	Index	Expedited data	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL128	TED1	Is the expedited data indication supported in CR and CC TPDU?	ISO/IEC 8073: 6.5.5 r)	M		MO			

Non-use of Checksum (C4L and T4F29::)

APRL Index	Index	Non-use of checksum	ISO/IEC 8073 References	ISO Allowed Values	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL129	NUC1	What proposals can you make in the CR?	ISO/IEC 8073: 6.5.5 p)	non-use, use		non-use, use			
APRL129	NUC2	What proposals can you make in CC when non-use of checksum has been proposed in CR?	ISO/IEC 8073: 6.5.5 p)	non-use, use		non-use, use			

Use of selective acknowledgement

APRL Index	Index	Selective Acknowledgement	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL130	USA1	Is use of selective acknowledgement proposed in CR TPDUs ?	ISO/IEC 8073: 6.5.5 s)	O		ATN6:M			
APRL130	USA2	Is use of selective acknowledgement selected in a CC when it has been proposed in a CR ?	ISO/IEC 8073: 6.5.5 s)	O		ATN6:M			

Use of Request Acknowledgement

APRL Index	Index	Request of Acknowledgement	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL131	ROA1	Is use of request of acknowledgement proposed in CR TPDUs ?	ISO/IEC 8073: 6.5.5 t)	O		ATN7:M			

APRL131	ROA2	Is use of request of acknowledgement selected in a CC when it has been proposed in a CR ?	ISO/IEC 8073: 6.5.5 t)	O		ATN7:M			

Action on Detection of a Protocol Error

APRL Index	Index	Item	ISO/IEC 8073References	ISO Allowed Values	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL132	PE4L	Class 4 over CLNS	ISO/IEC 8073: 6.22.2	ER, DR, Discard		ER, DR, Discard			

Actions on receipt of an invalid or undefined parameter in a CR TPDU

APRL Index	Index	Event	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL133	RR1	A parameter not defined in ISO 8073 shall be ignored	ISO/IEC 8073: 13.2.3	M		M			
APRL133	RR2	An invalid value in the alternative protocol class parameter shall be treated as a protocol error	ISO/IEC 8073: 13.2.3	M		M			
APRL133	RR3	An invalid value in the class and option parameter shall be treated as a protocol error	ISO/IEC 8073: 13.2.3	M		M			
APRL133	RR4	On receipt of the additional option selection parameter bits 8 to 7, and bits 6 to 1 if not meaningful for the proposed class, shall be ignored	ISO/IEC 8073: 13.3.4 g)	M		M			

APRL133	RR6	On receipt of the class option parameter bits 4 to 1 if not meaningful for the proposed class shall be ignored	ISO/IEC 8073: 13.3.3 h)	M		M			

Actions on receipt of an invalid or undefined parameter in a CR TPDU

APRL Index	Index	Event	ISO/IEC 8073 Reference	ISO Allowed Value	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL134	RR7	A parameter defined in ISO 8073 (other than those covered above) and having an invalid value	13.2.3	Ignore, Protocol Error		Ignore, Protocol Error			

Actions on receipt of an invalid or undefined parameter in a TPDU other than a CR TPDU

APRL Index	Index	Event	ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL135	U11	A parameter not defined in ISO 8073 shall be treated as a protocol error	ISO/IEC 8073: 13.2.3	M		M			
APRL135	U12	A parameter which has an invalid value as defined in ISO 8073 shall be treated as a protocol error	ISO/IEC 8073: 13.2.3	M		M			
APRL135	U13 (class 4 only)	A TPDU received with a checksum which does not satisfy the defined formula shall be discarded	ISO/IEC 8073: 6.17.3	M		M			

Class 4 Timers and Protocol Parameters

APRL Index	Index		ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL136	TA1	T1 (Local Retransmission)	ISO/IEC 8073: 12.2.1.1.4	M		M			
APRL136	TA2	N (Maximum Transmission)	ISO/IEC 8073: 12.2.1	M		M			
APRL136	TA3	I_L (Inactivity Time)	ISO/IEC 8073: 12.2.1.1.7	M		M			
APRL136	TA4	W (Window Update)	ISO/IEC 8073: 12.2.1	M		M			
APRL136	TA5	L (Frozen Reference Time)	ISO/IEC 8073: 12.2.1.1.6	M		M			

Class 4 Timers and Protocol Parameters

APRL Index	Index		ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL137	ATN-TA1	R (Persistence)	ISO/IEC 8073: 12.2.1.1.5	O		O			
APRL137	ATN-TA2	M_{LR} (NSDU Lifetime)	ISO/IEC 8073: 12.2.1.1.1	O		O			
APRL137	ATN-TA3	M_{RL} (NSDU Lifetime)	ISO/IEC 8073: 12.2.1.1.1	O		O			
APRL137	ATN-TA4	E_{LR} (Maximum Transmission Delay)	ISO/IEC 8073: 12.2.1.1.2	O		O			
APRL137	ATN-TA5	E_{RL} (Maximum Transmission Delay)	ISO/IEC 8073: 12.2.1.1.2	O		O			
APRL137	ATN-TA6	A_L (Acknowledgement Time)	ISO/IEC 8073: 12.2.1.1.3	O		ATN15:M			
APRL137	ATN-TA7	A_R (Acknowledgement Time)	ISO/IEC 8073: 12.2.1.1.3	O		ATN15:M			
APRL137	ATN-TA8	I_R (Inactivity Time)	ISO/IEC 8073: 12.2.1.1.7	O		ATN17:M			

Class 4 Timers and Protocol Parameters

APRL Index	Index		ISO/IEC 8073 References	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL138	OT9	Does IUT support optional timer TS2 when operating in class 4?	ISO/IEC 8073: 6.22.2.3	O		O			

7.1.2 Connectionless Mode Transport APRL

ATN Connectionless Transport Protocol APRL

APRL Index	Item	Protocol Function Support	ISO 8602 Clause	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL151	NS	Network service selection	ISO/IEC 8602: 5.3.2.2	M		M			
APRL151	AM	Address mapping	ISO/IEC 8602: 5.3.2.3	M		M			

ATN Connectionless Transport Protocol APRL

APRL Index	Item	PDU Support	ISO 8602 Clause	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL152	UD1	Unitdata PDU supported on transmission	ISO/IEC 8602: 6.1.3	M		M			
APRL152	UD2	Unitdata PDU supported on reception	ISO/IEC 8602: 6.1.3	M		M			

ATN Connectionless Transport Protocol APRL

APRL Index	Item	Parameters of the Unitdata PDU on Transmission	ISO 8602 Clause	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL153	TpTc	<t> TPDU UD Checksum	ISO/IEC 8602: 6.2.4.1	O		M			
APRL153	TpTs	<t> TPDU UD Source Transport-Selector	ISO/IEC 8602: 6.2.4.1	M		M			

APRL153	TpTd	<t> TPDU UD Destination Transport-Selector	ISO/IEC 8602: 6.2.4.1	M		M			
APRL153	TpTu	<t> TPDU UD User Data	ISO/IEC 8602: 6.2.4.1	O		M			

ATN Connectionless Transport Protocol APRL

APRL Index	Item	Parameters of the Unitdata PDU on Reception	ISO 8602 Clause	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL154	TpRc	<r> TPDU UD Checksum	ISO/IEC 8602: 6.2.4.2	M		M			
APRL154	TpRs	<r> TPDU UD Source Transport-Selector	ISO/IEC 8602: 6.2.4.2	M		M			
APRL154	TpRd	<r> TPDU UD Destination Transport-Selector	ISO/IEC 8602: 6.2.4.2	M		M			
APRL154	TpRu	<r> TPDU UD User Data	ISO/IEC 8602: 6.2.4.2	M		M			

ATN Connectionless Transport Protocol APRL

APRL Index	Item	Service Support	ISO 8602 Clause	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL155	CL	Connectionless Mode Network Service	ISO/IEC 8602: 6.2	M		M			

7.2 Network APRL

7.2.1 Network APRL Applicable to all System Types

Support of ATN-Specific Recommendations

APRL Index	Index	Item	ISO Reference	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS

APRL201	ATN CLNP1	Encoding and use of the Security Parameter			SARPs 6.2.2	M	M	M	M
APRL201	ATN CLNP2	Management of Network Priority			SARPs 2.6	M	M	M	M

Major Capabilities

APRL Index	Item	Capability	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL202	ES	End System		O.1		O.1	O.1	O.1	O.1
APRL202	IS	Intermediate System		O.1		O.1	O.1	O.1	O.1
APRL202	FL-r	<r> Full protocol	ISO/IEC 8473: 6	M		M	M	M	M
APRL202	FL-s	<s> Full protocol	ISO/IEC 8473: 6	M		M	M	M	M
APRL202	NSS-r	<r> Non-segmenting subset	ISO/IEC 8473: 5.2	M		M	M	M	M
APRL202	NSS-s	<s> Non segmenting subset	ISO/IEC 8473: 5.2	IS:M ^IS:O		IS:M ^IS:X	IS:M ^IS:X	IS:M ^IS:X	IS:M ^IS:X
APRL202	IAS-r	<r> Inactive subset	ISO/IEC 8473: 5.2	ES:O		ES:O	ES:O	ES:O	ES:O
APRL202	IAS-s	<s> Inactive subset	ISO/IEC 8473: 5.2	IAS-r:M ^IAS-r:X		IAS-r:M ^IAS-r:X	IAS-r:M ^IAS-r:X	IAS-r:M ^IAS-r:X	IAS-r:M ^IAS-r:X
APRL202	S802	SNDCF for ISO 8802	ISO/IEC 8473-2: 5.4	O.2		O	O	O	O
APRL202	SCLL	SNDCF for CL Link Service	ISO/IEC 8473-4: 5.3.1	O.2		O	O	O	O
APRL202	SCOL	SNDCF for CO Link Service	ISO/IEC 8473-4: 5.3.2	O.2		O	O	O	O
APRL202	SX25	SNDCF for ISO 8208	ISO/IEC 8473-3: 5.4	O.2		O	O	O	O
APRL202	ATN SNDCF	SNDCF for Mobile Subnetworks		N/A	SARPs 7	ISMOB:M ISGRD:O ^IS:O	ISMOB:M ISGRD:O ^IS:O	ISMOB:M ISGRD:O ^IS:O	ISMOB:M ISGRD:O ^IS:O

7.2.2 Network APRL Applicable to End Systems

End Systems - Supported Functions

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL203	ePDUC	PDU Composition	ISO/IEC 8473: 6.1	M		M			
APRL203	ePDUD	PDU Decomposition	ISO/IEC 8473: 6.2	M		M			
APRL203	eHFA	Header Format Analysis	ISO/IEC 8473: 6.3	M		M			
APRL203	ePDUL-s	<s> PDU Lifetime Control	ISO/IEC 8473: 6.4	M	SARPs 6.3.2.10	M			
APRL203	ePDUL-r	<r> PDU Lifetime Control	ISO/IEC 8473: 6.4	O	SARPs 6.3.2.10	M			
APRL203	eRout	Route PDU	ISO/IEC 8473: 6.5	M		M			
APRL203	eForw	Forward PDU	ISO/IEC 8473: 6.6	M		M			
APRL203	eSegm	Segment PDU	ISO/IEC 8473: 6.7	M		M			
APRL203	eReas	Reassemble PDU	ISO/IEC 8473: 6.8	M		M			
APRL203	eDisc	Discard PDU	ISO/IEC 8473: 6.9	M		M			
APRL203	eErep	Error Reporting	ISO/IEC 8473: 6.10	M		M			
APRL203	eEdec-s	<s> Header Error Detection	ISO/IEC 8473: 6.11	M		M			
APRL203	eEdec-r	<r> Header Error Detection	ISO/IEC 8473: 6.11	M		M			
APRL203	eSecu-s	<s> Security	ISO/IEC 8473: 6.13:	O	SARPs 6.2.2	M			
APRL203	eSecu-r	<r> Security	ISO/IEC 8473: 6.13	O	SARPs 6.2.2	M			
APRL203	eCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 6.15	O		OX			
APRL203	eCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 6.15	O		O			
APRL203	ePRR-s	<s> Partial Route Recording	ISO/IEC 8473: 6.15	O		M			
APRL203	ePRR-r	<r> Partial Route Recording	ISO/IEC 8473: 6.15	O		M			
APRL203	eCSR	Complete Source Routing	ISO/IEC 8473: 6.14	O	SARPs 6.3.2.3	OX			
APRL203	ePSR	Partial Source Routing	ISO/IEC 8473: 6.14	O	SARPs 6.3.2.3	OX			
APRL203	ePRI-s	<s> Priority	ISO/IEC 8473: 6.17	O	SARPs 6.3.2.6	M			
APRL203	ePRI-r	<r> Priority	ISO/IEC 8473: 6.17	O	SARPs 6.3.2.6	M			
APRL203	eQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 6.16	O	SARPs 6.3.2.5	O			
APRL203	eQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 6.16	O	SARPs 6.3.2.5	O			
APRL203	eCong-s	<s> Congestion Notification	ISO/IEC 8473: 6.18	eQOSM-s:M		eQOSM-s:M			

APRL203	eCong-r	<r> Congestion Notification	ISO/IEC 8473: 6.18	O		O			
APRL203	ePadd-s	<s> Padding		O	SARPs 6.3.2.1	OX			
APRL203	ePadd-r	<r> Padding		M	SARPs 6.3.2.1	M			
APRL203	eEreq	Echo request	ISO/IEC 8473: 6.19	O		O			
APRL203	eErsp	Echo response	ISO/IEC 8473: 6.20	O		M			
APRL203	eSegS	Create segments smaller than necessary	ISO/IEC 8473: 6.8	O		O			

End Systems - Supported NPDUs

APRL Index	Item	NPDU	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL204	eDT-t	DT (full protocol) transmit	ISO/IEC 8473: 7.7	M		M			
APRL204	eDT-r	DT (full protocol) receive	ISO/IEC 8473: 7.7	M		M			
APRL204	eDTNS-t	DT (non-segment) transmit	ISO/IEC 8473: 7.7	NSS-s:M		NSS-s:M			
APRL204	eDTNS-r	DT (non-segment) receive	ISO/IEC 8473: 7.7	M		M			
APRL204	eER-t	ER transmit	ISO/IEC 8473: 7.9	M		M			
APRL204	eER-r	ER receive	ISO/IEC 8473: 7.9	M		M			
APRL204	eIN-t	Inactive PDU transmit	ISO/IEC 8473: 7.8	IAS-s:M		IAS-s:M			
APRL204	eIN-r	Inactive PDU receive	ISO/IEC 8473: 7.8	IAS-r:M		IAS-r:M			
APRL204	eERQ-t	ERQ transmit	ISO/IEC 8473: 7.10	eEerq:M		eEreq:M			
APRL204	eERQ-r	ERQ receive	ISO/IEC 8473: 7.10	M		M			
APRL204	eERP-t	ERP transmit	ISO/IEC 8473: 7.11	eErsp:M		eErsp:M			
APRL204	eERP-r	ERP receive	ISO/IEC 8473: 7.11	M		M			

End Systems - Supported DT Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL205	edFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL205	edFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL205	edAddr-s	<s> Address	ISO/IEC 8473: 7.3	M		M			
APRL205	edAddr-r	<r> Address	ISO/IEC 8473: 7.3	M		M			

APRL205	edSeg-s	<s> Segmentation Part	ISO/IEC 8473: 7.4	M		M			
APRL205	edSeg-r	<r> Segmentation Part	ISO/IEC 8473: 7.4	M		M			
APRL205	edPadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	ePadd-s:M		ePadd-s:M			
APRL205	edPadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M		M			
APRL205	edSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	eSecu-s:M		eSecu-s:M			
APRL205	edSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	eSecu-r:M		eSecu-r:M			
APRL205	edCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-s:M		eCRR-s:M			
APRL205	edCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-r:M		eCRR-r:M			
APRL205	edPRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePRR-s:M		ePRR-s:M			
APRL205	edPRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePRR-r:M		ePRR-r:M			
APRL205	edCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	eCSR:M		eCSR:M			
APRL205	edPSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	ePSR:M		ePSR:M			
APRL205	edQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-s or eCong-s:M		eQOSM:M			
APRL205	edQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-r or eCong-r:M		eQOSM or eCong-r:M			
APRL205	edPri-s	<s> Priority	ISO/IEC 8473: 7.5.7	ePRI-s:M		ePRI-s:M			
APRL205	edPri-r	<r> Priority	ISO/IEC 8473: 7.5.7	ePRI-r:M		eP-r:M			
APRL205	edData-s	<s> Data	ISO/IEC 8473: 7.6	M		M			
APRL205	edData-r	<r> Data	ISO/IEC 8473: 7.6	M		M			

APRL205	edUnSup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded and where appropriate an Error Report PDU generated ?	ISO/IEC 8473: 6.21	M		M			
APRL205	edUnSup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.21	M		M			

End Systems - Supported ER Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL206	eeFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL206	eeFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL206	eeAddr-s	<s> Address	ISO/IEC 8473: 7.3	M		M			
APRL206	eeAddr-r	<r> Address	ISO/IEC 8473: 7.3	M		M			
APRL206	eePadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	ePadd-s:M		ePadd-s:M			
APRL206	eePadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M		M			
APRL206	eeSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	eSecu-s:M		eSecu-s:M			
APRL206	eeSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	eSecu-r:M		eSecu-r:M			
APRL206	eeCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-s:M		eCRR-s:M			
APRL206	eeCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-r:M		eCRR-r:M			
APRL206	eePRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePRR-s:M		ePRR-s:M			
APRL206	eePRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePRR-r:M		ePRR-r:M			
APRL206	eeCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	eCSR:M		eCSR:M			
APRL206	eePSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	ePSR:M		ePSR:M			

APRL206	eeQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-s or eCong-s:M		eQOSM-s or eCong-s:OX			
APRL206	eeQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-r or eCong-r:M		eQOSM-r or eCong-r:OX			
APRL206	eePri-s	<s> Priority	ISO/IEC 8473: 7.5.7	ePri-s:M		ePri-s:M			
APRL206	eePri-r	<r> Priority	ISO/IEC 8473: 7.5.7	ePri-r:M		ePri-r:M			
APRL206	eeDisc-s	<s> Reason for discard	ISO/IEC 8473: 7.9.5	M		M			
APRL206	eeDisc-r	<r> Reason for discard	ISO/IEC 8473: 7.9.5	M		M			
APRL206	eeData-s	<s> Data	ISO/IEC 8473: 7.9.6	M		M			
APRL206	eeData-r	<r> Data	ISO/IEC 8473: 7.9.6	M		M			
APRL206	eeUnSup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded and where appropriate an Error Report PDU generated ?	ISO/IEC 8473: 6.21	M		M			
APRL206	eeUnSup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.21	M		M			

End Systems - Inactive DT Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL207	eiNLPI-s	<s> Inactive Network Layer Protocol identifier	ISO/IEC 8473: 7.8.2	IAS-s:M		IAS-s:M			
APRL207	eiNLPI-r	<r> Inactive Network Layer Protocol Identifier	ISO/IEC 8473: 7.8.2	IAS-r:M		IAS-r:M			
APRL207	eiData-s	<s> Data	ISO/IEC 8473: 7.8.3	IAS-s:M		IAS-s:M			
APRL207	eiData-r	<r> Data	ISO/IEC 8473: 7.8.3	IAS-r:M		IAS-r:M			

End Systems - Supported ERQ Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL208	eqFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL208	eqFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL208	eqAddr-s	<s> Address	ISO/IEC 8473: 7.3	M		M			
APRL208	eqAddr-r	<r> Address	ISO/IEC 8473: 7.3	M		M			
APRL208	eqSeg-s	<s> Segmentation Part	ISO/IEC 8473: 7.4	M		M			
APRL208	eqSeg-r	<r> Segmentation Part	ISO/IEC 8473: 7.4	M		M			
APRL208	eqPadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	ePadd-s:M		ePadd-s:M			
APRL208	eqPadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M		M			
APRL208	eqSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	eSecu-s:M		eSecu-s:M			
APRL208	eqSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	eSecu-r:M		eSecu-r:M			
APRL208	eqCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-s:M		eCRR-s:M			
APRL208	eqCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-r:M		eCRR-r:M			
APRL208	eqPRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePr-s:M		ePrr-s:M			
APRL208	eqPRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePr-r:M		ePrr-r:M			
APRL208	eqCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	eCSR:M		eCSR:M			
APRL208	eqPSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	ePSR:M		ePSR:M			
APRL208	eqQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-s or eCong-s:M		eQOSM:OX			
APRL208	eqQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-r or eCong-r:M		eQOSM or eCong-r:OX			
APRL208	eqPri-s	<s> Priority	ISO/IEC 8473: 7.5.7	ePri-s:M		ePri-s:M			
APRL208	eqPri-r	<r> Priority	ISO/IEC 8473: 7.5.7	ePri-r:M		ePri-r:M			

APRL208	eqData-s	<s> Data	ISO/IEC 8473: 7.6	M		M			
APRL208	eqData-r	<r> Data	ISO/IEC 8473: 7.6	M		M			
APRL208	eqUnSup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded and where appropriate an Error Report PDU generated ?	ISO/IEC 8473: 6.21	M		M			
APRL208	eqUnSup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.21	M		M			

End Systems - Supported ERP Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL209	epFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL209	epFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M		M			
APRL209	epAddr-s	<s> Address	ISO/IEC 8473: 7.3	M		M			
APRL209	epAddr-r	<r> Address	ISO/IEC 8473: 7.3	M		M			
APRL209	epSeg-s	<s> Segmentation Part	ISO/IEC 8473: 7.4	M		M			
APRL209	epSeg-r	<r> Segmentation Part	ISO/IEC 8473: 7.4	M		M			
APRL209	epPadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	ePadd-s:M		ePadd-s:M			
APRL209	epPadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M		M			
APRL209	epSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	eSecu-s:M		eSecu-s:M			
APRL209	epSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	eSecu-r:M		eSecu-r:M			
APRL209	epCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-s:M		eCRR-s:M			
APRL209	epCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	eCRR-r:M		eCRR-r:M			
APRL209	epPRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePr-s:M		ePrr-s:M			
APRL209	epPRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	ePr-r:M		ePrr-r:M			
APRL209	epCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	eCSR:M		eCSR:M			

APRL209	epPSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	ePSR:M		ePSR:M			
APRL209	epQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-s or eCong-s:M		eQOSM:OX			
APRL209	epQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	eQOSM-r or eCong-r:M		eQOSM or eCong-r:OX			
APRL209	epPri-s	<s> Priority	ISO/IEC 8473: 7.5.7	ePri-s:M		ePri-s:M			
APRL209	epPri-r	<r> Priority	ISO/IEC 8473: 7.5.7	ePri-r:M		ePri-r:M			
APRL209	epData-s	<s> Data	ISO/IEC 8473: 7.6	M		M			
APRL209	epData-r	<r> Data	ISO/IEC 8473: 7.6	M		M			
APRL209	epUnSup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded and where appropriate an Error Report PDU generated ?	ISO/IEC 8473: 6.21	M		M			
APRL209	epUnSup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.21	M		M			

End Systems - Timers

APRL Index	Item	Timer	Ref	ISO Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL210	ELifReas	Is reassembly timer <= received derived PDU lifetime?	ISO/IEC 8473: 6.8	M		M			

End Systems - Timers

APRL Index	Item	Timer	Ref	ISO Range	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS

APRL211	eReasTim	Reassembly Timer	ISO/IEC 8473: 6.8	500ms to 127.5s		<= lifetime			

7.2.3 Network APRL Applicable to Intermediate Systems

Intermediate Systems - Supported Functions

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL251	iPDUC	PDU Composition	ISO/IEC 8473: 6.1	M			M	M	M
APRL251	iPDUD	PDU Decomposition	ISO/IEC 8473: 6.2	M			M	M	M
APRL251	iHFA	Header Format Analysis	ISO/IEC 8473: 6.3	M			M	M	M
APRL251	iPDUL	<s> PDU Lifetime Control	ISO/IEC 8473: 6.4	M			M	M	M
APRL251	iRout	Route PDU	ISO/IEC 8473: 6.5	M			M	M	M
APRL251	iForw	Forward PDU	ISO/IEC 8473: 6.6	M			M	M	M
APRL251	iSegm	Segment PDU	ISO/IEC 8473: 6.7	iDSNS: M			iDSNS:M	iDSNS:M	iDSNS:M
APRL251	iReas	Reassemble PDU	ISO/IEC 8473: 6.8	O			O	O	O
APRL251	iDisc	Discard PDU	ISO/IEC 8473: 6.9	M			M	M	M
APRL251	iErep	Error Reporting	ISO/IEC 8473: 6.10	M			M	M	M
APRL251	iEdec	<s> Header Error Detection	ISO/IEC 8473: 6.11	M			M	M	M
APRL251	iSecu	<s> Security	ISO/IEC 8473: 6.13	O	SARPs 6.2.2		M	M	M
APRL251	iCRR	<s> Complete Route Recording		O	SARPs 6.3.2.4		OX	OX	OX
APRL251	iPRR	<s> Partial Route Recording	ISO/IEC 8473: 6.15	O	SARPs 6.3.2.4		M	M	M
APRL251	iCSR	Complete Source Routing		O	SARPs 6.3.2.3		OX	OX	OX
APRL251	iPSR	Partial Source Routing	ISO/IEC 8473: 6.14	O			OX	OX	OX
APRL251	iPri	<s> Priority	ISO/IEC 8473: 6.17	O	SARPs 6.3.2.6		M	M	M
APRL251	iQOSM	<s> QOS Maintenance	ISO/IEC 8473: 6.16	O	SARPs 6.3.2.5		OX	OX	OX
APRL251	iCong	<s> Congestion Notification	ISO/IEC 8473: 6.18	O	SARPs 6.3.2.7		O	O	O
APRL251	iPadd	<s> Padding	ISO/IEC 8473: 6.12	M			M	M	M
APRL251	iEreq	Echo request	ISO/IEC 8473: 6.19	O			O	O	O
APRL251	iErsp	Echo response	ISO/IEC 8473: 6.20	O			M	M	M

APRL251	iSegS	Create segments smaller than necessary	ISO/IEC 8473: 6.8	O			O	O	O
APRL251	iDSNS	Simultaneous support of subnetworks with different SN-User data sizes	ISO/IEC 8473: 6.7	O			O	O	O

Intermediate Systems - Supported Security Parameters

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL252	iSADSSEC	Source Address Specific Security	ISO/IEC 8473: 7.5.3.1	iSecu:O.5			iSecu:O	iSecu:O	iSecu:O
APRL252	iDADSSEC	Destination Address Specific Security	ISO/IEC 8473: 7.5.3.2	iSecu:O.5			iSecu:O	iSecu:O	iSecu:O
APRL252	iGUNSEC	Globally Unique Security		iSecu:O.5	SARPs 6.2.2		iSecu:M	iSecu:M	iSecu:M

Intermediate Systems - Quality of Service Maintenance Function

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL253	iQOSNAVAIL	If requested QOS not available, deliver at different QOS	ISO/IEC 8473: 6.16	iQOSM:M			iQOSM:M	iQOSM:M	iQOSM:M
APRL253	iQOSNOT	Notification of failure to meet requested QOS	ISO/IEC 8473: 6.16	iQOSM:O			iQOSM:M	iQOSM:M	iQOSM:M

Intermediate Systems - Quality of Service Maintenance Function

APRL Index	Item	Which of the following formats of QOS are implemented ?	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL254	iSADDQoS	Source Address Specific QoS	ISO/IEC 8473: 7.5.6.1	iQoSM:O.3			iQOSM:O	iQOSM:O	iQOSM:O
APRL254	iDADDQoS	Destination Address Specific QoS	ISO/IEC 8473: 7.5.6.2	iQoSM:O.3			iQOSM:O	iQOSM:O	iQOSM:O

APRL254	iGUNQoS	Globally Unique QoS	ISO/IEC 8473: 7.5.6.3	iQoSM: O.3			iQOSM:M	iQOSM:M	iQOSM:M
APRL254	iSvTD	Sequencing versus Transit Delay	ISO/IEC 8473: 7.5.6.3	iGUNQoS:O.4			iGUNQoS: O.4	iGUNQoS: O.4	iGUNQoS: O.4
APRL254	iCongE	Congestion Experienced	ISO/IEC 8473: 7.5.6.3	iGUNQoS:O.4			iGUNQoS: O.4	iGUNQoS: O.4	iGUNQoS: O.4
APRL254	iTDvCst	Transit Delay versus Cost	ISO/IEC 8473: 7.5.6.3	iGUNQoS:O.4			iGUNQoS: O.4	iGUNQoS: O.4	iGUNQoS: O.4
APRL254	iREPvTD	Residual Error Probability versus Transit Delay	ISO/IEC 8473: 7.5.6.3	iGUNQoS:O.4			iGUNQoS: O.4	iGUNQoS: O.4	iGUNQoS: O.4
APRL254	iREPvCst	Residual Error Probality versus Cost	ISO/IEC 8473: 7.5.6.3	iGUNQoS:O.4			iGUNQoS: O.4	iGUNQoS: O.4	iGUNQoS: O.4

Intemediate systems - Supported NPDUs

APRL Index	Item	NPDU	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL255	iDT-t	DT (full protocol) transmit	ISO/IEC 8473: 7.7	M			M	M	M
APRL255	iDT-r	DT (full protocol) receive	ISO/IEC 8473: 7.7	M			M	M	M
APRL255	iDTNS-t	DT (non-segment) transmit	ISO/IEC 8473: 7.7	M			M	M	M
APRL255	iDTNS-r	DT (non-segment) receive	ISO/IEC 8473: 7.7	M			M	M	M
APRL255	iER-t	ER transmit	ISO/IEC 8473: 7.9	M			M	M	M
APRL255	iER-r	ER receive	ISO/IEC 8473: 7.9	M			M	M	M
APRL255	iERQ-t	ERQ transmit	ISO/IEC 8473: 7.10	iEreq:M			O	O	O
APRL255	iERQ-r	ERQ receive	ISO/IEC 8473: 7.10	M			M	M	M
APRL255	iERP-t	ERP transmit	ISO/IEC 8473: 7.11	iErsp:M			O	O	O
APRL255	iERP-r	ERP receive	ISO/IEC 8473: 7.11	M			M	M	M

Intermediate Systems - Supported DT Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL256	idFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M
APRL256	idFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M

APRL256	idAddr-s	<s> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL256	idAddr-r	<r> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL256	idSeg-s	<s> Segmentation Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL256	idSeg-r	<r> Segmentation Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL256	idPadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL256	idPadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL256	idSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu-s:M	iSecu-s:M	iSecu-s:M
APRL256	idSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu-r:M	iSecu-r:M	iSecu-r:M
APRL256	idCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	iCRR:M			iCRR:M	iCRR:M	iCRR:M
APRL256	idCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	iCRR:M			iCRR:M	iCRR:M	iCRR:M
APRL256	idPRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	M			M	M	M
APRL256	idPRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	iPRR:M			iPRR:M	iPRR:M	iPRR:M
APRL256	idCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL256	idCSR-r	<r> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL256	idPSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	M			M	M	M
APRL256	idPSR-r	<r> Partial Source Routing	ISO/IEC 8473: 7.5.4	iPSR:M			iPSR:M	iPSR:M	iPSR:M
APRL256	idQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	M			OX	OX	OX
APRL256	idQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	iQOSM or iCong:M			iQOSM or iCong:OX	iQOSM or iCong:OX	iQOSM or iCong:OX
APRL256	idPri-s	<s> Priority	ISO/IEC 8473: 7.5.7	M			M	M	M
APRL256	idPri-r	<r> Priority	ISO/IEC 8473: 7.5.7	iPRi:M			iPRi:M	iPRi:M	iPri:M
APRL256	idData-s	<s> Data	ISO/IEC 8473: 7.6	M			M	M	M
APRL256	idData-r	<r> Data	ISO/IEC 8473: 7.6	M			M	M	M
APRL256	idUnSup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded and where appropriate an Error Report PDU generated ?	ISO/IEC 8473: 6.19	M			M	M	M
APRL256	idUnSup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.19	M			M	M	M

Intermediate Systems - Supported ER Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL257	ieFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M
APRL257	ieFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M
APRL257	ieAddr-s	<s> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL257	ieAddr-r	<r> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL257	ieSeg-s	<s> Seg Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL257	ieSeg-r	<r> Seg Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL257	iePadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL257	iePadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL257	ieSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu:M	iSecu:M	iSecu:M
APRL257	ieSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu:M	iSecu:M	iSecu:M
APRL257	ieCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	M			M	M	M
APRL257	ieCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	iCRR:M			iCRR:M	iCRR:M	iCRR:M
APRL257	iePRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	M			M	M	M
APRL257	iePRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	iPRR:M			iPRR:M	iPRR:M	iPRR:M
APRL257	ieCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL257	ieCSR-r	<r> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL257	iePSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	M			M	M	M
APRL257	iePSR-r	<r> Partial Source Routing	ISO/IEC 8473: 7.5.4	iPSR:M			iPSR:M	iPSR:M	iPSR:M
APRL257	ieQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	M			OX	OX	OX
APRL257	ieQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	iQOSM or iCong:M			iQOSM or iCong:OX	iQOSM or iCong:OX	iQOSM or iCong:OX
APRL257	iePri-s	<s> Priority	ISO/IEC 8473: 7.5.7	M			M	M	M
APRL257	iePri-r	<r> Priority	ISO/IEC 8473: 7.5.7	iPri:M			iPri:M	iPri:M	iPri:M
APRL257	ieDisc-s	<s> Reason for discard	ISO/IEC 8473: 7.9.5	M			M	M	M
APRL257	ieDisc-r	<r> Reason for discard	ISO/IEC 8473: 7.9.5	M			M	M	M
APRL257	ieData-s	<s> Data	ISO/IEC 8473: 7.6	M			M	M	M
APRL257	ieData-r	<r> Data	ISO/IEC 8473: 7.6	M			M	M	M
APRL257	ieUnsup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded ?	ISO/IEC 8473: 6.21	M			M	M	M

APRL257	ieUnsup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.21	M			M	M	M

Intermediate Systems - Supported ERQ Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL258	iqFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M
APRL258	iqFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M
APRL258	iqAddr-s	<s> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL258	iqAddr-r	<r> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL258	iqSeg-s	<s> Segmentation Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL258	iqSeg-r	<r> Segmentation Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL258	iqPadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL258	iqPadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL258	iqSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu-s:M	iSecu-s:M	iSecu-s:M
APRL258	iqSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu-r:M	iSecu-r:M	iSecu-r:M
APRL258	iqCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	iCRR:M			iCRR:M	iCRR:M	iCRR:M
APRL258	iqCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	iCRR:M			iCRR:M	iCRR:M	iCRR:M
APRL258	iqPRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	M			M	M	M
APRL258	iqPRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	iPRR:M			iPRR:M	iPRR:M	iPRR:M
APRL258	iqCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL258	iqCSR-r	<r> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL258	iqPSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	M			M	M	M
APRL258	iqPSR-r	<r> Partial Source Routing	ISO/IEC 8473: 7.5.4	iPSR:M			iPSR:M	iPSR:M	iPSR:M
APRL258	iqQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	M			OX	OX	OX
APRL258	iqQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	iQOSM or iCong:M			iQOSM or iCong:OX	iQOSM or iCong:OX	iQOSM or iCong:OX
APRL258	iqPri-s	<s> Priority	ISO/IEC 8473: 7.5.7	M			M	M	M
APRL258	iqPri-r	<r> Priority	ISO/IEC 8473: 7.5.7	iPRi:M			iPRi:M	iPRi:M	iPRi:M
APRL258	iqData-s	<s> Data	ISO/IEC 8473: 7.6	M			M	M	M
APRL258	iqData-r	<r> Data	ISO/IEC 8473: 7.6	M			M	M	M

APRL258	iqUnSup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded and where appropriate an Error Report PDU generated ?	ISO/IEC 8473: 6.19	M			M	M	M
APRL258	iqUnSup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.19	M			M	M	M

Intermediate Systems - Supported ERP Parameters

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL259	ipFxPt-s	<s> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M
APRL259	ipFxPt-r	<r> Fixed Part	ISO/IEC 8473: 7.2	M			M	M	M
APRL259	ipAddr-s	<s> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL259	ipAddr-r	<r> Address	ISO/IEC 8473: 7.3	M			M	M	M
APRL259	ipSeg-s	<s> Segmentation Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL259	ipSeg-r	<r> Segmentation Part	ISO/IEC 8473: 7.4	M			M	M	M
APRL259	ipPadd-s	<s> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL259	ipPadd-r	<r> Padding	ISO/IEC 8473: 7.5.2	M			M	M	M
APRL259	ipSecu-s	<s> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu-s:M	iSecu-s:M	iSecu-s:M
APRL259	ipSecu-r	<r> Security	ISO/IEC 8473: 7.5.3	iSecu:M			iSecu-r:M	iSecu-r:M	iSecu-r:M
APRL259	ipCRR-s	<s> Complete Route Recording	ISO/IEC 8473: 7.5.5	iCRR:M			iCRR:M	iCRR:M	iCRR:M
APRL259	ipCRR-r	<r> Complete Route Recording	ISO/IEC 8473: 7.5.5	iCRR:M			iCRR:M	iCRR:M	iCRR:M
APRL259	ipPRR-s	<s> Partial Route Recording	ISO/IEC 8473: 7.5.5	M			M	M	M
APRL259	ipPRR-r	<r> Partial Route Recording	ISO/IEC 8473: 7.5.5	iPRR:M			iPRR:M	iPRR:M	iPRR:M
APRL259	ipCSR-s	<s> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL259	ipCSR-r	<r> Complete Source Routing	ISO/IEC 8473: 7.5.4	iCSR:M			iCSR:M	iCSR:M	iCSR:M
APRL259	ipPSR-s	<s> Partial Source Routing	ISO/IEC 8473: 7.5.4	M			M	M	M
APRL259	ipPSR-r	<r> Partial Source Routing	ISO/IEC 8473: 7.5.4	iPSR:M			iPSR:M	iPSR:M	iPSR:M
APRL259	ipQOSM-s	<s> QOS Maintenance	ISO/IEC 8473: 7.5.6	M			OX	OX	OX
APRL259	ipQOSM-r	<r> QOS Maintenance	ISO/IEC 8473: 7.5.6	iQOSM or iCong:M			iQOSM or iCong:OX	iQOSM or iCong:OX	iQOSM or iCong:OX

APRL259	ipPri-s	<s> Priority	ISO/IEC 8473: 7.5.7	M			M	M	M
APRL259	ipPri-r	<r> Priority	ISO/IEC 8473: 7.5.7	iPRi:M			iPRi:M	iPRi:M	iPRi:M
APRL259	ipData-s	<s> Data	ISO/IEC 8473: 7.6	M			M	M	M
APRL259	ipData-r	<r> Data	ISO/IEC 8473: 7.6	M			M	M	M
APRL259	ipUnSup2	Are received PDUs containing parameters selecting unsupported type 2 functions discarded and where appropriate an Error Report PDU generated ?	ISO/IEC 8473: 6.19	M			M	M	M
APRL259	ipUnSup3	Are parameters selecting unsupported Type 3 functions ignored ?	ISO/IEC 8473: 6.19	M			M	M	M

Intermediate Systems - Timer and Parameter Values

APRL Index	Item	Timer	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL260	iReasTim	Reassembly Timer	ISO/IEC 8473: 6.8	iReas:M			M	M	M

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8802-2 Subnetworks - Functions

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL261	S802SNUD	Is subnetwork user data of at least 512 octets transferred transparently by the SNDCF ?	ISO/IEC 8473-2: 5.2	M			M	M	M
APRL261	S802SNTD	Is Transit Delay determined by the SNDCF prior to the processing of User Data ?	ISO/IEC 8473-2: 5.2	M			M	M	M

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8802-2 Subnetworks - Multi Layer Dependencies

APRL Index	Item	Dependency	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS

APRL262	S802SSg-r	<r> Maximum SN data unit size (RX)	ISO/IEC 8473-2: 5.2				>=512	>=512	>=512
APRL262	S802SSg-s	<s> Maximum SN data unit size (TX)	ISO/IEC 8473-2: 5.2				>=512	>=512	>=512

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL263	XSNUD	Is Subnetwork User Data of at least 512 octets transferred transparently by the SNDCF ?	ISO/IEC 8473-3: 5.2	M			M	M	M
APRL263	XSNTD	Is Transit Delay determined by the SNDCF prior to the processing of user data ?	ISO/IEC 8473-3: 5.2	M			M	M	M

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions

APRL Index	Item	Call Setup Considerations - Is a new call setup:	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL264	XCalla	a. when no suitable call exists ?	ISO/IEC 8473-3: 5.3.1a.	O			O	O	O
APRL264	XCallb	b. when queue threshold reached ?	ISO/IEC 8473-3: 5.3.1b.	O			O	O	O
APRL264	XCallc	c. by systems management ?	ISO/IEC 8473-3: 5.3.1c.	O			O	O	O
APRL264	XCalld	d. when queue threshold reached and timer expires ?	ISO/IEC 8473-3: 5.3.4	O			O	O	O
APRL264	XCalle	e. by other local means ?	ISO/IEC 8473-3: 5.3.1	O			O	O	O

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions

APRL Index	Item	Call clearing considerations Are calls cleared:	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS

APRL265	XClra	a. when idle timer expires	ISO/IEC 8473-3: 5.3.2a. ISO/IEC 8473-3: 5.3.4	O			O	O	O
APRL265	XClrb	b. when need to re-use circuit	ISO/IEC 8473-3: 5.3.2b.	O			O	O	O
APRL265	XClrc	c. by systems management	ISO/IEC 8473-3: 5.3.2c.	O			O	O	O
APRL265	XClrd	d. by provider ?	ISO/IEC 8473-3: 5.3.2d.	M			M	M	M
APRL265	XClrer	e. by other local means ?	ISO/IEC 8473-3: 5.3.2	O			O	O	O

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL266	XPD	X.25 Protocol Discrimination	ISO/IEC 8473-3: 5.3.3	M			M	M	M
APRL266	XVCC	Resolution of VC collisions	ISO/IEC 8473-3: 5.3.5	M			M	M	M
APRL266	XMCR	Multiple VCs responding	ISO/IEC 8473-3: 5.3.6	M			M	M	M
APRL266	XMCI	Multiple VCs initiating	ISO/IEC 8473-3: 5.3.6	O			O	O	O
APRL266	Xpri	X.25 Priority procedure	ISO/IEC 8473-3: 5.3.7	O			M	M	M

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - X.25 Call User Data

APRL Index	Item	Parameter	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL267	PD-s	<s> Protocol Discriminator	ISO/IEC 8473-3: 5.3.3	M			M	M	M
APRL267	PD-r	<r> Protocol Discriminator	ISO/IEC 8473-3: 5.3.3	M			M	M	M
APRL267	LI-s	<s> Length Indication	ISO/IEC 8473-3: 5.3.6	XMCI: M			XMCI:M	XMCI:M	XMCI:M
APRL267	LI-r	<r> Length Indication	ISO/IEC 8473-3: 5.3.6	M			M	M	M
APRL267	Ver-s	<s> SNCR Version	ISO/IEC 8473-3: 5.3.6	XMCI: M			XMCI:M	XMCI:M	XMCI:M
APRL267	Ver-r	<r> SNCR Version	ISO/IEC 8473-3: 5.3.6	M			M	M	M

APRL267	SNCR-s	<s> SNCR Value	ISO/IEC 8473-3: 5.3.6	XMCI: M			XMCI:M	XMCI:M	XMCI:M
APRL267	SNCR-r	<r> SNCR Value	ISO/IEC 8473-3: 5.3.6	M			M	M	M

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - ISO 8208 SNDCF Timers

APRL Index	Item	Timer	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL268	XIDL	X25 VC Idle	ISO/IEC 8473-3: 5.3.4	XClra:O			M	M	M
APRL268	XNVC	additional VC	ISO/IEC 8473-3: 5.3.4	O			M	M	M

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - SNDCF Multi Layer Dependencies

APRL Index	Item	Dependency	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL269	XSSg-r	<r> Maximum SN data unit size (Rx)	ISO/IEC 8473-3: 5.2				>=512	>=512	>=512
APRL269	XSSg-s	<s> Maximum SN data unit size (Tx)	ISO/IEC 8473-3: 5.2				>=512	>=512	>=512

Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - SNDCF Multi Layer Dependencies

APRL Index	Item	Dependency	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL270	Xvc	X.25 Virtual call service	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	Xdt	X.25 Data transfer	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	Xfc	X.25 flow control procedures	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	Xfrp	X.25 flow control + reset packets	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	Xccp	X.25 call setup and clear packets	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	Xdp	X.25 DTE and DCE data packets	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	Xrs	X.25 restart procedures	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	XDct	X.25 DCE timeouts	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	XDtT	X.25 time limits	ISO/IEC 8473-3: 5.3.8	M			M	M	M

APRL270	Xpco	X.25 network packet coding	ISO/IEC 8473-3: 5.3.8	M			M	M	M
APRL270	Xfcn	X.25 flow control parameter negotiation	ISO/IEC 8473-3: 5.3.8	O			O	O	O
APRL270	Xtd	X.25 transit delay selection and negotiation	ISO/IEC 8473-3: 5.3.8	O			O	O	O
APRL270	Xtc	X.25 throughput class negotiation	ISO/IEC 8473-3: 5.3.8	O			O	O	O
APRL270	Xoth	Other X.25 elements	ISO/IEC 8473-3: 5.3.8	O			O	O	O

7.3 ES-IS APRL

ISO 9542 - Intermediate System

APRL Index	Item	Protocol Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL301	CI	Is configuration information supported over the associated subnetwork?		O	SARPs 8.2.1			M	M
APRL301	RI	Is redirection information supported over the associated subnetwork?		O	SARPs 8.2.1			OX	OX

ISO 9542 - Intermediate System - Supported Functions

APRL Index	Item	Are the following functions supported?	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL302	ErrP	Protocol Error Processing	ISO 9542: 6.13	M				M	M
APRL302	HCsV	PDU Header Checksum Validation	ISO 9542: 6.12	M				M	M
APRL302	HCsG	PDU Header Checksum Generation	ISO 9542: 6.12	O				O	O
APRL302	RpCf	Report Configuration	ISO 9542: 6.2, 6.2.2	CI:M				M	M

APRL302	RcCf	Record Configuration	ISO 9542: 6.3, 6.3.1	CI:M				M	M
APRL302	FlCf	Flush Old Configuration	ISO 9542: 6.4	CI:M				M	M
APRL302	RqRd	Request Redirect	ISO 9542: 6.8	RI:M				OX	OX
APRL302	CfNt	Configuration Notification	ISO 9542: 6.7	CI:O				OX	OX
APRL302	CTGn	ESCT Generation	ISO 9542: 6.3.2	CI:O				O	O
APRL302	AMGn	Address Mask (only) generation	ISO 9542: 6.8	RI:O				OX	OX
APRL302	SMGn	Address mask and SNPA Mask generation	ISO 9542: 6.8	RI:O				OX	OX

ISO 9542 - Intermediate System

APRL Index	Item	Are the following PDUs supported?	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL303	ESH-r	<r> End System Hello	ISO 9542: 7.1, 7.5	CI:M				O	O
APRL303	ISH-<r>	<r> Intermediate System Hello	ISO 9542: 7.1, 7.6	CI:O				M	M
APRL303	ISH-<s>	<s> Intermediate System Hello	ISO 9542: 7.1, 7.6	CI:M				M	M
APRL303	RD-s	<s> Redirect	ISO 9542: 7.1, 7.7	RI:M				OX	OX
APRL303	RD-r	<r> (ignore) Redirect	ISO 9542: 6.9, 7.1, 7.7	M				M	M

ISO 9542 - Intermediate System

APRL Index	Item	Are the following PDU fields supported?	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL304	FxPt	<s> Fixed Part	ISO 9542: 7.2.1-7.2.7	M				M	M
APRL304	FxPt	<r> Fixed Part	ISO 9542: 7.2.1-7.2.7	M				M	M
APRL304	SA-r	<r> Source Address, one or more NSAPs	ISO 9542: 7.3.1/2/3	CI:M				M	M
APRL304	NET-s	<s> Network Entity Title	ISO 9542: 7.3.1/2/4	M				M	M
APRL304	NET-r	<r> Network Entity Title	ISO 9542: 7.3.1/2/4	ISH-r:M				ISH-r:M	ISH-r:M
APRL304	DA-s	<s> Destination Address	ISO 9542: 7.3.1/2/5	RI:M				OX	OX
APRL304	BSNPA-s	<s> Subnetwork Address	ISO 9542: 7.3.1/2/6	RI:M				OX	OX
APRL304	Scty-s	<s> Security	ISO 9542: 7.4.2	O				O	O
APRL304	Scty-r	<r> Security	ISO 9542: 7.4.2	O				O	O
APRL304	Pty-s	<s> Priority	ISO 9542: 7.4.3	O				O	O

APRL304	Pty-r	<r> Priority	ISO 9542: 7.4.3	O				O	O
APRL304	QoSM-s	<s> QOS Maintenance	ISO 9542: 7.4.4	RI:O				OX	OX
APRL304	AdMk-s	<s> Address Mask	ISO 9542: 7.4.5	RI:O				OX	OX
APRL304	SNMk-s	<s> SNPA Mask	ISO 9542: 7.4.6	RI:O				OX	OX
APRL304	ESCT-s	<s> Suggested ES Configuration Timer	ISO 9542: 7.4.7	CI:O				O	O
APRL304	ESCT-r	<r> (ignore) Suggested ES Configuration Timer	ISO 9542: 7.4.7	ISH-r:M				ISH-r:M	ISH-r:M
APRL304	OOpt-r	<r> (ignore) unsupported or unknown options	ISO 9542: 7.4.1	M				M	M
APRL304	OOpt-s	<s> Other options		P				P	P

ISO 9542 - Intermediate System

APRL Index	Item	Parameter Ranges	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL305	HTv	What range of values can be set for the Holding Time Field in transmitted PDUs ?		M				M	M
APRL305	CTv	If configuration information is supported, what range of values can be set for the Configuration Timer ?		CI:M				M	M

7.4 IDRP APRL

ATN Specific Protocol Requirements

APRL Index	Index	Item	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS

APRL401	ATNIDRP1	Encoding and use of the Security Path Attribute			SARPs 8.3.1.2, 8.3.1.3		M	M	M
APRL401	ATNIDRP2	Additional procedures for non-use of the **minRouteAdvertisementInterval** Timer			SARPs 8.3.1.5		M	M	-
APRL401	ATNIDRP3	Support of Route Aggregation and Route Information Reduction			SARPs 8.3.2.2		O	O	-
APRL401	ATNIDRP4	Support for Route Merging Procedures			SARPs 8.3.1.6		M	M	-

IDRP General

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL402	BASIC	Are all basic BIS functions implemented?	ISO 10747: 12.1	M			M	M	M
APRL402	MGT	Is this system capable of being managed[1] by the specified management information?	ISO 10747: 11	M			O	O	O
APRL402	VER	Does this BIS support Version Negotiation?	ISO 10747: 7.8	M			M	M	M
APRL402	RTSEP	Does this BIS support ROUTE_SEPARATOR attribute?	ISO 10747: 7.12.1	M			M	M	M
APRL402	HOPS	Does this BIS support the RD_HOP_COUNT attribute?	ISO 10747: 7.12.13	M			M	M	M
APRL402	PATH	Does this BIS support the RD_PATH attribute?	ISO 10747: 7.12.3	M			M	M	M
APRL402	CAPY	Does this BIS support the Capacity Attribute?	ISO 10747: 7.12.15	M			M	M	M

1 The interpretation of this Item is that mandatory compliance requires that access to the MO is provided via a Systems Management Agent. Remote Systems Management is not required for CNS/ATM-1 Package and hence it is not reasonable to require mandatory support for this requirement.

APRL402	FSM	Does this BIS manage BIS-BIS connections according to the BIS FSM description?	ISO 10747: 7.6.1	M			M	M	M
APRL402	FCTL	Does this BIS provide flow control?	ISO 10747: 7.7.5	M			M	M	M
APRL402	SEQNO	Does this BIS provide sequence number support?	ISO 10747: 7.7.4	M			M	M	M
APRL402	INTG1	Does this BIS provide Data integrity using authentication type 1?	ISO 10747: 7.7.1	O			M	M	M
APRL402	INTG2	Does this BIS provide Data integrity using authentication type 2?	ISO 10747: 7.7.2	O			O	O	O
APRL402	INTG3	Does this BIS provide Data integrity using authentication type 3?	ISO 10747: 7.7.3	O			O	O	O
APRL402	ERROR	Does this BIS handle error handling for IDRP?	ISO 10747: 7.20	M			M	M	M
APRL402	RIBCHK	Does this BIS operate in a "fail-stop" manner with respect to corrupted routing information?	ISO 10747: 7.10.2	M			M	M	M

IDRP Update Send Process

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL403	INT	Does the BIS provide the internal update procedures?	ISO 10747: 7.17.1	M			M	M	O
APRL403	RTSEL	Does this BIS support the **MinRouteAdvertisementInterval** Timer?	ISO 10747: 7.17.3.1	M			M	M	O
APRL403	RTORG	Does this BIS support the **MinRDOriginationInterval** Timer?	ISO 10747: 7.17.3.2	M			M	M	M

APRL403	JITTER	Does this BIS provide jitter on its timers?	ISO 10747: 7.17.3.3	M			M	M	M

IDRP Update Receive Process

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL404	INPDU	Does the BIS handle inbound BISPDUs correctly?	ISO 10747: 7.14	M			M	M	M
APRL404	INCONS	Does this BIS detect inconsistent routing information?	ISO 10747: 7.15.1	M			M	M	M

IDRP Decision Process

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL405	TIES	Does this BIS break ties between candidate routes correctly?	ISO 10747: 7.16.2.1	M			M	M	M
APRL405	RIBUPD	Does this BIS update the Loc-RIBs correctly?	ISO 10747: 7.16.2	M			M	M	M
APRL405	AGGRT	Does this BIS support route aggregations?	ISO 10747: 7.18.2.1, 7.18.2.2, 7.18.2.3	O			ATNIDRP3:M	ATNIDRP3:M	-
APRL405	LOCK	Does this BIS provide interlocks between its Decision Process and the updating of the information in its Adj-RIBs-In?	ISO 10747: 7.16.4	M			M	M	M

IDRP Receive

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL406	RCV	Does the BIS process incoming BISPDUs and respond correctly to error conditions?	ISO 10747: 7.14, 7.20	M			M	M	M

APRL406	OSIZE	Does this BIS accept incoming OPEN PDUs whose size in octets is between **MinBISPDULength** and 3000?	ISO 10747: 6.2, 7.20	M			M	M	M
APRL406	MXPDU	Does the BIS accept incoming UPDATE, IDRP ERROR and RIB REFRESH PDUs whose size in octets is between **minBISPDULength** and **maxBISPDULength**?	ISO 10747: 6.2, 7.20	M			M	M	BISREF: OX ^BISREF:M

Peer Entity Authentication

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL407	AUTH	Does this BIS correctly authenticate the source of a BISPDU?	ISO 10747: 7.7.2	O			M	M	M

IDRP CLNS Forwarding

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL408	PSRCRT	Does the BIS correctly handle 8473 NPDUs that contain a partial source route?	ISO 10747: 8	M			O	O	O
APRL408	DATTS	Does the BIS correctly extract the NPDU-derived Distinguishing Attributes from an 8473 NPDU?	ISO 10747: 8.2	M			M	M	M
APRL408	MATCH	Does the BIS correctly match the NPDU-derived Distinguishing Attributes with the corresponding FIB-Atts?	ISO 10747: 8.3	M			M	M	M

APRL408	EXTF	Does the BIS correctly forward NPDUs with destinations outside its own routing domain?	ISO 10747: 8.4	M			M	M	M
APRL408	INTF	Does the BIS correctly forward NPDUs with destinations inside its own routing domain?	ISO 10747: 8.1	M			M	M	M

IDRP Receive Process

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL409	RCV	Does the BIS process incoming BISPDUs and respond correctly to error conditions?	ISO 10747: 7.14, 7.20	M			M	M	M
APRL409	OSIZE	Does this BIS accept incoming OPEN PDUs whose size in octets is between **MinBISPDULength** and 3000?	ISO 10747: 6.2, 7.20	M			M	M	M
APRL409	MXPDU	Does the BIS accept incoming UPDATE, IDRP ERROR and RIB REFRESH PDUs whose size in octets is between **minBISPDULength** and **maxBISPDULength**?	ISO 10747: 6.2, 7.20	M			M	M	M

IDRP Optional Transitive Attributes

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL410	MEXIT	Does this BIS support use of the MULTI-EXIT DISC attribute?	ISO 10747: 7.12.7	O			O	O	O

Generating Well-Known Discretionary Attributes

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL411	EXTG	Does the BIS support generation of the EXT_INFO attribute?	ISO 10747: 7.12.2	O			O	O	O
APRL411	NHRS	Does the BIS support generation of the NEXT_HOP attribute in support of route servers?	ISO 10747: 7.12.4	O			O	IDRPAG:OX ^IDRPAG:O	O
APRL411	NHSN	Does the BIS support generation of the NEXT_HOP attribute to advertise SNPAs?	ISO 10747: 7.12.4	O			O	IDRPAG:OX ^IDRPAG:O	O
APRL411	DLI	Does the BIS support generation of the DIST_LIST_INCL attribute?	ISO 10747: 7.12.5	O			O	O	O
APRL411	DLE	Does the BIS support generation of the DIST_LIST_EXCL attribute?	ISO 10747: 7.12.6	O			O	IDRPAG:OX ^IDRPAG:O	O
APRL411	TDLY	Does the BIS support generation of the TRANSIT DELAY attribute?	ISO 10747: 7.12.8	O			O	IDRPAG:OX ^IDRPAG:O	O
APRL411	RERR	Does the BIS support generation of the RESIDUAL ERROR attribute?	ISO 10747: 7.12.9	O			O	IDRPAG:OX ^IDRPAG:O	O
APRL411	EXP	Does the BIS support generation of the EXPENSE attribute?	ISO 10747: 7.12.10	O			O	IDRPAG:OX ^IDRPAG:O	O
APRL411	LQOSG	Does the BIS support generation of the LOCALLY DEFINED QOS attribute?	ISO 10747: 7.12.11	O			OX	OX	OX
APRL411	HREC	Does the BIS support generation of the HIERARCHICAL RECORDING attribute?	ISO 10747: 7.12.12	O			OX	OX	OX
APRL411	SECG	Does the BIS support generation of the SECURITY attribute?	ISO 10747: 7.12.14	O			M	M	M

APRL411	PRTY	Does the BIS support generation of the PRIORITY attribute?	ISO 10747: 7.12.16	O			O	IDRPAG:OX ^IDRPAG:O	O

Propagating Well-Known Discretionary Attributes

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL412	EXTGP	Does the BIS support propagation of the EXT_INFO attribute?	ISO 10747: 7.12.2	M			M	M	
APRL412	NHRSP	Does the BIS support propagation of the NEXT_HOP attribute in support of route servers?	ISO 10747: 7.12.4	O			O	IDRPAG:OX ^IDRPAG:O	
APRL412	NHSNP	Does the BIS support propagation of the NEXT_HOP attribute to advertise SNPAs?	ISO 10747: 7.12.4	O			O	IDRPAG:OX ^IDRPAG:O	
APRL412	DLIP	Does the BIS support propagation of the DIST_LIST_INCL attribute?	ISO 10747: 7.12.5	O			M	M	
APRL412	DLEP	Does the BIS support propagation of the DIST_LIST_EXCL attribute?	ISO 10747: 7.12.6	O			M	IDRPAG:OX ^IDRPAG:M	
APRL412	TDLYP	Does the BIS support propagation of the TRANSIT DELAY attribute?	ISO 10747: 7.12.8	O			O	IDRPAG:OX ^IDRPAG:O	
APRL412	RERRP	Does the BIS support propagation of the RESIDUAL ERROR attribute?	ISO 10747: 7.12.9	O			O	IDRPAG:OX ^IDRPAG:O	

APRL412	EXPP	Does the BIS support propagation of the EXPENSE attribute?	ISO 10747: 7.12.10	O			O	IDRPAG:O X ^IDRPAG: O	
APRL412	LQOSP	Does the BIS support propagation of the LOCALLY DEFINED QOS attribute?	ISO 10747: 7.12.11	O			OX	OX	
APRL412	HRECP	Does the BIS support propagation of the HIERARCHICAL RECORDING attribute?	ISO 10747: 7.12.12	O			OX	OX	
APRL412	SECP	Does the BIS support propagation of the SECURITY attribute?	ISO 10747: 7.12.14	O			M	M	
APRL412	PRTYP	Does the BIS support propagation of the PRIORITY attribute?	ISO 10747: 7.12.16	O			O	IDRPAG:O X ^IDRPAG: O	

Receiving Well-Known Discretionary Attributes

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL413	EXTR	Does the BIS recognise upon receipt the EXT_INFO attribute?	ISO 10747: 7.12.2	M			M	M	M
APRL413	NHRSR	Does the BIS recognise upon receipt the NEXT_HOP attribute ?	ISO 10747: 7.12.4	M			M	M	O
APRL413	DLIR	Does the BIS recognise upon receipt the DIST_LIST_INCL attribute?	ISO 10747: 7.12.5	M			M	M	M
APRL413	DLER	Does the BIS recognise upon receipt the DIST_LIST_EXCL attribute?	ISO 10747: 7.12.6	M			M	M	O

APRL413	TDLYR	Does the BIS recognise upon receipt the TRANSIT DELAY attribute?	ISO 10747: 7.12.8	M			M	M	O
APRL413	RERRR	Does the BIS recognise upon receipt the RESIDUAL ERROR attribute?	ISO 10747: 7.12.9	M			M	M	O
APRL413	EXPR	Does the BIS recognise upon receipt the EXPENSE attribute?	ISO 10747: 7.12.10	M			M	M	O
APRL413	LQOSR	Does the BIS recognise upon receipt the LOCALLY DEFINED QOS attribute?	ISO 10747: 7.12.11	O			O	O	O
APRL413	HRECR	Does the BIS recognise upon receipt the HIERARCHICAL RECORDING attribute?	ISO 10747: 7.12.12	M			M	M	O
APRL413	SECR	Does the BIS recognise upon receipt the SECURITY attribute?	ISO 10747: 7.12.14	M			M	M	M
APRL413	PRTYR	Does the BIS recognise upon receipt the PRIORITY attribute?	ISO 10747: 7.12.16	M			M	M	O

IDRP Timers

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL414	Ta	KeepAlive time	ISO 10747: 7.6.5	M			M	M	M
APRL414	Tr	Retransmission (tr) timer	ISO 10747: 7.6.5	M			M	M	M
APRL414	Tmr	maxRIBIntegrityCheck timer	ISO 10747: 7.10.2	M			M	M	M
APRL414	Tma	MinRouteAdvertisement timer	ISO 10747: 7.17.3.1	M			M	M	O
APRL414	Trd	MinRDOriginationInterval timer	ISO 10747: 7.17.3.2	M			M	M	M
APRL414	Tcw	closeWaitDelay timer	ISO 10747: 7.6.4	M			M	M	M

7.5 Mobile SNDCF APRL

Major Capabilities

APRL Index	Item	Capability	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL501	*mcNego	Negotiation of Compression Algorithm			SARPs 7.6.4.3.2			M	M
APRL501	*mcLocRef	Local Reference Header Compression			SARPs 7.6.4.1			M	M
APRL501	*mcCan	Local Reference Cancellation			SARPs 7.6.4.5.4			O	O
APRL501	*mcACA	ICAO Address Compression Algorithm			SARPs 7.6.4.1			O	O
APRL501	mcV42	V.42bis Compression			SARPs 7.6.4.1			O	O

Call Setup and Clearing Procedures

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL502	csDynam	Dynamic Call Setup			SARPs 7.6.4.3.2			M	M
APRL502	csSys	Call Setup by Systems Management			SARPs 7.6.4.3.2			O	O
APRL502	csDef	Use of non-standard Default packet size			SARPs 7.6.4.3.2			M	M
APRL502	csFast	Use of Fast Select[2]			SARPs 7.6.4.3.2			M	M
APRL502	csOther	Use of other optional User Facilities and CCITT-specified DTE facilities			SARPs 7.6.4.3.2			O	O
APRL502	csCol	Call Collision Resolution			SARPs 7.6.4.3.2			M	M
APRL502	csAcp	Call Acceptance Procedures			SARPs 7.6.4.3.5			M	M
APRL502	csRej	Call rejection Procedures			SARPs 7.6.4.3.6			M	M

[2] Only required if supported by subnetwork

APRL502	csOrd	Order of compression Procedures			SARPs 7.6.4.3.4			M	M
APRL502	csDiag	Use of call rejection diagnostic codes			SARPs 7.6.4.3.6			M	M
APRL502	csReset	Call Reset Procedures			SARPs 7.6.4.11			M	M

Negotiation of Compression Algorithm

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL503	caMaxd	Indication of the maximum of directories entries in the call user Data			SARPs 7.6.4.3.2			mcNego:O	mcNego:O

Local Reference Header Compression

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL504	lrVC	Opening additional virtual circuits			SARPs 7.6.4.5			M	M
APRL504	*lrDirSize	Local Directory with more than 128 entries			SARPs 7.6.4.4			O	O
APRL504	lrProt	Identification of Network Layer Protocol			SARPs 7.6.4.5.1			M	M
APRL504	lrMod	Processing of SN-UnitData Requests			SARPs 7.6.4.5.2			M	M
APRL504	lrEst	Establishment of new local reference			SARPs 7.6.4.5.3			M	M
APRL504	lrTransfer	Transfer of modified ISO 8473 PDU			SARPs 7.6.4.5.5			M	M
APRL504	lrInitial	Initial DT PDU Compression			SARPs 7.6.4.6.1			M	M
APRL504	lrDerived	Derived DT PDU Compression			SARPs 7.6.4.6.2			M	M
APRL504	*lrError-s	Generation of Error PDU Compression			SARPs 7.6.4.6.2			M	M

APRL504	lrDiscard	Compression of discarded PDU encapsulated within Error PDU			SARPs 7.6.4.6.3			lrError-s:M	lrError-s:M
APRL504	lrCompTr	Transfer of compressed PDUs			SARPs 7.6.4.6.3.10			M	M
APRL504	lrReceived	Processing of received PDUs			SARPs 7.6.4.7			M	M
APRL504	lrUncomp-r	Processing of received uncompressed PDUs			SARPs 7.6.4.7.2			M	M
APRL504	LrReset	Purging directories entries on Reset			SARPs 7.6.4.11			mcMocRef: M	mcMocRef: M
APRL504	lrUnMod-r	Processing of received unmodified PDUs			SARPs 7.6.4.7.2.1			M	M
APRL504	lrComp-r	Processing of received compressed data PDUs			SARPs 7.6.4.7.3			M	M
APRL504	lrError-r	Processing of received compressed Error PDUs			SARPs 7.6.4.7.4			M	M
APRL504	lrSNDCFerr-s	Generation of SNDCF Error Report			SARPs 7.6.4.8			M	M
APRL504	lrSNDCFerr-r	Processing of received SNDCF Error Report			SARPs 7.6.4.7.5			M	M

Local Reference Cancellation

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL505	lrcMgmt	Management of local references			SARPs 7.6.4.5.4			mcCan:M	mcCan:M
APRL505	lrcRequest-s	Generation of Cancellation Request PDU			SARPs 7.6.4.9			mcCan:M	mcCan:M
APRL505	lrcRequest-r	Processing of incoming Cancellation Request PDU			SARPs 7.6.4.9			mcCan:M	mcCan:M
APRL505	lrcReliable	Reliable transfer of Cancellation Request			SARPs 7.6.4.9			mcCan:M	mcCan:M
APRL505	lrcAccept-s	Generation of Cancellation Accept PDU			SARPs 7.6.4.9			mcCan:M	mcCan:M
APRL505	lrcAccept-r	Processing of incoming Cancellation Accept PDU			SARPs 7.6.4.9			mcCan:M	mcCan:M

ICAO Address Compression Algorithm

APRL Index	Item	Function	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL506	acOut	Compression of outgoing PDUs			SARPs 7.9.1			mcACA:M	mcACA:M
APRL506	acIn	Decompression of incoming PDUs			SARPs 7.9.1			mcACA:M	mcACA:M
APRL506	acAddr	Address Length Determination			SARPs 7.9.2			mcACA:M	mcACA:M
APRL506	acComp	Compression of NSAP Addresses and address prefixes			SARPs 7.9.5			mcACA:M	mcACA:M
APRL506	acDecomp	Decompression of NSAP Addresses and address prefixes			SARPs 7.9.6			mcACA:M	mcACA:M

PDU Formats - Call Request User Data

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL507	crLen	Length Indicator			SARPs 7.6.4.3.3			M	M
APRL507	crVersion	Version Indicator			SARPs 7.6.4.3.3			M	M
APRL507	crSNCR	Subnetwork Connection Reference (SNCR)			SARPs 7.6.4.3.3			M	M
APRL507	crComp	Offerred Compression Techniques			SARPs 7.6.4.3.3			M	M
APRL507	crDir	Maximum Directory Size			SARPs 7.6.4.3.3			M[3]	M[4]
APRL507	crAdd-s	Additional User Data on send			SARPs 7.6.4.3.3			O	O
APRL507	crAdd-r	Additional User Data on receive			SARPs 7.6.4.3.3			O	O
APRL507	MaxDir	Maximum number of directory entries supported			SARPs 7.6.4.3.3			≥128	≥128

[3] Dynamically, this field is only generated if Local Reference Compression is offered.
[4] Dynamically, this field is only generated if Local Reference Compression is offered.

PDU Formats - Call Accept User Data

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL508	caComp	Offerred Compression Techniques			SARPs 7.6.4.3.3			mcNego:M	mcNego:M
APRL508	caAdd-s	Additional User Data on send			SARPs 7.6.4.3.3			mcNego:O	mcNego:O
APRL508	caAdd-r	Additional User Data on receive			SARPs 7.6.4.3.3			mcNego:O	mcNego:O

PDU Formats - Modified ISO 8473 NPDU

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL509	npLocRef-s	Local Reference Option field			SARPs 7.6.4.5.2			M	M

PDU Formats - Compressed Initial PDU

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL510	inType	PDU Type			SARPs 7.6.4.6.1.1			M	M
APRL510	inPri	Priority			SARPs 7.6.4.6.1.2			M	M
APRL510	inLifetime	Lifetime			SARPs 7.6.4.6.1.3			M	M
APRL510	inFlags	Flag Bits			SARPs 7.6.4.6.1.4 to 7.6.4.6.1.8			M	M
APRL510	inLocRef	Local Reference (1 octet)			SARPs 7.6.4.6.1.8			M	M
APRL510	inLocRef2	Local Reference (2 octet)			SARPs 7.6.4.6.1.8			lrDirSize:M ^lrDirsize: X	lrDirSize:M ^lrDirsize: X

APRL510	inPDUId	PDU Identifier			SARPs 7.6.4.6.1.9			M	M
APRL510	inNSDU	User Data			SARPs Figure 7.3			M	M

PDU Formats - Compressed Derived PDU

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL511	drType	PDU Type			SARPs 7.6.4.6.2.1			M	M
APRL511	drPri	Priority			SARPs 7.6.4.6.2.2			M	M
APRL511	drLifetime	Lifetime			SARPs 7.6.4.6.2.3			M	M
APRL511	drFlags	Flag Bits			SARPs 7.6.4.6.2.4 to 7.6.4.6.2.7			M	M
APRL511	drLocRef	Local Reference (1 octet)			SARPs 7.6.4.6.1.7			M	M
APRL511	drLocRef2	Local Reference (2 octet)			SARPs 7.6.4.6.1.7			lrDirSize: M ^lrDirsize: X	lrDirSize: M ^lrDirsize: X
APRL511	drPDUId	PDU Identifier			SARPs 7.6.4.6.2.8			M	M
APRL511	drSegOff	Segment Offset			SARPs 7.6.4.6.2.9			M	M
APRL511	drTotalLen	Total Length			SARPs 7.6.4.6.2.10			M	M
APRL511	drNSDU	User Data			SARPs Figure 7.3			M	M

PDU Formats - Compressed Error PDU

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL512	erType	PDU Type			SARPs 7.6.4.6.3.1			M	M
APRL512	erPri	Priority			SARPs 7.6.4.6.3.2			M	M
APRL512	erLifetime	Lifetime			SARPs 7.6.4.6.3.3			M	M
APRL512	erFlags	Flag Bits			SARPs 7.6.4.6.3.4 to 7.6.4.6.3.7			M	M

APRL512	erLocRef	Local Reference (1 octet)			SARPs 7.6.4.6.1.7			M	M
APRL512	erLocRef2	Local Reference (2 octet)			SARPs 7.6.4.6.1.7			lrDirSize: M ^lrDirsize: X	lrDirSize: M ^lrDirsize: X
APRL512	erReason	Discard Reason			SARPs 7.6.4.6.3.8			M	M
APRL512	erNSDU	Compressed Header of discarded PDU			SARPs 7.6.4.6.3			M	M

PDU Formats - SNDCF Error Report PDU

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL513	sfType	PDU Type			SARPs 7.6.4.8			M	M
APRL513	sfReason	Discard Reason			SARPs 7.6.4.8			M	M
APRL513	sfLocRef	Local Reference			SARPs 7.6.4.8			M	M
APRL513	sfLocRef2	Local Reference (2 octet)			SARPs 7.6.4.6.1.8			lrDirSize: M ^lrDirsize: X	lrDirSize: M ^lrDirsize: X

PDU Formats - Cancellation Request

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL514	cqType	PDU Type			SARPs 7.6.4.9			mcCan:M	mcCan:M
APRL514	cqRef	Cancellation Reference			SARPs 7.6.4.9			mcCan:M	mcCan:M
APRL514	cqLocRef	Local Reference			SARPs 7.6.4.9			M	M
APRL514	cqLocRef2	Local Reference (2 octet)			SARPs 7.6.4.6.1.8			lrDirSize:M ^lrDirsize: X	lrDirSize:M ^lrDirsize: X

PDU Formats - Cancellation Accept

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL515	ccType	PDU Type			SARPs 7.6.4.9			mcCan:M	mcCan:M
APRL515	ccRef	Cancellation Reference			SARPs 7.6.4.9			mcCan:M	mcCan:M

7.6 Routing Initiation APRL

ISO 8208 Subnetworks that do not Provide Information on Subnetwork Connectivity - Airborne BIS

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL601	A-itConf	Configuration of Subnetwork addresses			SARPs 3.5.2				M
APRL601	A-itCR	Repeated Call Requests			SARPs 3.5.2				M
APRL601	A-itFstISH	Mapping ISH in call user DATA			SARPs 3.5.2				O
APRL601	A-itFltISH	Filtering ISH when call is established			SARPs 3.5.2				M
APRL601	A-itBckoff	Backoff procedure			SARPs 3.5.2				M
APRL601	A-itTSMn	Termination System Management Notification			SARPs 3.5.2				M
APRL601	A-itWatch	Watchdog timer			SARPs 3.5.2				M

ISO 8208 Subnetworks that do not Provide Information on Subnetwork Connectivity - Ground BIS

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL602	G-itCnx	Connection establishment			SARPs 3.5.2			M	
APRL602	G-itTSMn	Termination System Management Notification			SARPs 3.5.2			M	

APRL602	G-itFstISH	Mapping ISH in Call Confirm user data			SARPs 7.6.4.3.3			O	

ISO 8208 Subnetworks that Provide Connectivity Information - Initiating BIS

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL603	I-itConf	Handling of Join Event			SARPs 3.5.2			M	M
APRL603	I-itFstISH	Mapping ISH in call user DATA			SARPs 3.5.2			O	O
APRL603	I-itFltISH	Filtering ISH when call is established			SARPs 3.5.2			M	M
APRL603	I-itTSMn	Termination System Management Notification			SARPs 3.5.2			M	M
APRL603	I-itLeave	Clear all Virtual circuits on Leave Event			SARPs 3.5.2			M	M

ISO 8208 Subnetworks that Provide Connectivity Information - Responding BIS

APRL Index	Item	Description	Reference	Status	CNS/ATM-1 Package SARPs Reference	ES	G-G BIS	A/G BIS	Airborne BIS
APRL604	R-itCnx	Connection establishment			SARPs 3.5.2			M	M
APRL604	R-itTSMn	Termination System Management Notification			SARPs 3.5.2			M	M
APRL604	R-itWatch	Watchdog timer			SARPs 3.5.2			M	M
APRL604	R-itFstISH	Mapping ISH in Call Confirm user data			SARPs 7.6.4.3.3			O	O

8. ARL/APRL Guide

ATN Topology and ATN Operators/Administrators ARL Guide

ARL Index	Number of Entries	SARPs Reference	ARL Title	Description Field Meaning	ISO Standard	Note
ARL010	9	SARPS 2.5	ATN Definitions			
ARL020	11	SARPs 3	ATN Routing			
ARL030	22	SARPs 4	ATN Addressing			
ARL040	4	SARPs 7.2 and 7.4	ATN Subnetworks and Subnetwork Service Primitives			
ARL050	1	SARPS 9.1	Systems Management Provisions			

ATN Systems and ATN System Implementers ARL Guide

ARL Index	Number of Entries	SARPs Reference	ARL Title	Description Field Meaning	ISO Standard	Note
ARL401	6		ATN Transport Layer ARL			
ARL402	13		ATN Connection Mode Transport Layer			
ARL403	5		ATN Connectionless Mode Transport Layer			
ARL500	8		ATN Connectionless Mode Network Layer ARL			
ARL600	3		Ground-Ground Interconnection			
ARL601	5		Air-Ground Interconnection			
ARL602	21		Routing Information Exchange Protocol			
ARL700	19		Subnetwork Service and Protocol			

Transport APRL Guide

APRL Index	Number of Entries	SARPs Reference	APRL Title	Description Field Meaning	ISO Standard	Note
APRL101	6	5.2.4.1.1.1	Classes Implemented	Class	ISO/IEC 8073	
APRL102	32	5.2.4.1.1.2	Specific ATN Requirements	Feature		
APRL103	2	5.2.4.1.2	Initiator/Responder Capability for Protocol Classes 0-4		ISO/IEC 8073	
APRL104	14	5.2.4.1.3.1.1	Mandatory Functions for Class 4	Function	ISO/IEC 8073	
APRL105	5	5.2.4.1.3.1.2	Mandatory Functions for Operation over Connectionless Network Service	Function	ISO/IEC 8073	
APRL106	5	5.2.4.1.3.1.3	ISO 8073 Optional Functions	Feature	ISO/IEC 8073	
APRL107	17	5.2.4.1.4	Supported TPDUs	TPDUs	ISO/IEC 8073	
APRL108	1	5.2.4.1.4	Supported TPDUs	Class	ISO/IEC 8073	*Note. The following table states for which classes, if any, ER TPDU is supported on transmission:*
APRL109	1	5.2.4.1.5.1	Parameter Values for CR TPDU (C4L::)		ISO/IEC 8073	
APRL110	13	5.2.4.1.5..2.1	Optional Parameters for a Connection Request TPDU	Supported parameters	ISO/IEC 8073	
APRL111	12	5.2.4.1.5.2.2	Optional Parameters for a Connection Confirm TPDU	Supported parameters	ISO/IEC 8073	
APRL112	1	5.2.4.1.5.2.3	Optional Parameter for a Disconnect Request TPDU	Supported parameter	ISO/IEC 8073	
APRL113	1	5.2.4.1.5.2.4	Mandatory Parameter for a Data TPDU	Supported parameter	ISO/IEC 8073	
APRL114	1	5.2.4.1.5.2.5	Optional Parameter for an Acknowledgement TPDU	Supported parameter	ISO/IEC 8073	
APRL115	1	5.2.4.1.5.2.6	Use of the Subsequence Number Parameter in the Acknowledgement TPDU	Supported parameter	ISO/IEC 8073	

APRL116	1	5.2.4.1.5.2.7	Use of the Selective Acknowledgement Parameter in the Acknowledgement TPDU	Supported parameter	ISO/IEC 8073	
APRL117	1	5.2.4.1.5.2.8	Optional Parameters for an Error TPDU	Supported parameter	ISO/IEC 8073	
APRL118	8	5.2.4.1.6.1	TPDUs in Class 4 (C4L::)	TPDU	ISO/IEC 8073	
APRL119	3	5.2.4.1.7	User Data in Issued TPDUs - Class 4	User Data	ISO/IEC 8073	The next higher level section title has been taken as APRL title
APRL120	3	5.2.4.1.8	User Data in Received TPDUs	User Data	ISO/IEC 8073	
APRL121	1	5.2.4.1.9.1	Class Negotiation - Initiator	Feature	ISO/IEC 8073	
APRL122	1	5.2.4.1.9.1	Class Negotiation - Initiator	Preferred class	ISO/IEC 8073	
APRL123	2	5.2.4.1.9.2	Class negotiation - responder side	Preferred class	ISO/IEC 8073	
APRL124	2	5.2.4.1.9.3	TPDU Size Negotiation	TPDU size	ISO/IEC 8073	
APRL125	2	5.2.4.1.9.3	TPDU Size Negotiation	TPDU size	ISO/IEC 8073	Value column replaced by Status/Support column
APRL126	2	5.2.4.1.9.3	TPDU Size Negotiation	TPDU size	ISO/IEC 8073	Value column replaced by Status/Support column
APRL127	2	5.2.4.1.9.4	Use of Extended Format	Extended format	ISO/IEC 8073	Value column replaced by Status/Support column
APRL128	1	5.2.4.1.9.5	Expedited data Transport service	Expedited data	ISO/IEC 8073	
APRL129	2	5.2.4.1.9.6	Non-use of Checksum (C4L and T4F29::)	Non-use of checksum	ISO/IEC 8073	
APRL130	2	5.2.4.1.9.7	Use of selective acknowledgement	Selective Acknowledgement	ISO/IEC 8073	
APRL131	2	5.2.4.1.9.8	Use of Request Acknowledgement	Request of Acknowledgement	ISO/IEC 8073	

APRL132	1	5.2.4.1.10.1	Action on Detection of a Protocol Error	Item	ISO/IEC 8073	Value column replaced by Status/Support column
APRL133	5	5.2.4.1.10.2	Actions on receipt of an invalid or undefined parameter in a CR TPDU	Event	ISO/IEC 8073	
APRL134	1	5.2.4.1.10.2	Actions on receipt of an invalid or undefined parameter in a CR TPDU	Event	ISO/IEC 8073	Value column replaced by Status/Support column
APRL135	3	5.2.4.1.10.3	Actions on receipt of an invalid or undefined parameter in a TPDU other than a CR TPDU	Event	ISO/IEC 8073	
APRL136	5	5.2.4.1.11	Class 4 Timers and Protocol Parameters		ISO/IEC 8073	
APRL137	8	5.2.4.1.11	Class 4 Timers and Protocol Parameters		ISO/IEC 8073	
APRL138	1	5.2.4.1.11	Class 4 Timers and Protocol Parameters		ISO/IEC 8073	
APRL151	2	5.3.4.3	**ATN Connectionless Transport Protocol APRL**	Protocol Function Support	ISO/IEC 8602	Original APRL has been divided into 5 APRLs (APRL151 - APRL155) according to different "subtitles" in the original APRL. The subtitles are those given in the description field meaning
APRL152	2	5.3.4.3	**ATN Connectionless Transport Protocol APRL**	PDU Support	ISO/IEC 8602	Original APRL has been divided into 5 APRLs (APRL151 - APRL155) according to different "subtitles" in the original APRL. The subtitles are those given in the description field meaning
APRL153	4	5.3.4.3	**ATN Connectionless Transport Protocol APRL**	Parameters of the Unitdata PDU on Transmission	ISO/IEC 8602	Original APRL has been divided into 5 APRLs (APRL151 - APRL155) according to different "subtitles" in the original APRL. The subtitles are those given in the description field meaning
APRL154	4	5.3.4.3	**ATN Connectionless Transport Protocol APRL**	Parameters of the Unitdata PDU on Reception	ISO/IEC 8602	Original APRL has been divided into 5 APRLs (APRL151 - APRL155) according to different "subtitles" in the original APRL. The subtitles are those given in the description field meaning

APRL155	1	5.3.4.3	**ATN Connectionless Transport Protocol APRL**	Service Support	ISO/IEC 8602	Original APRL has been divided into 5 APRLs (APRL151 - APRL155) according to different "subtitles" in the original APRL. The subtitles are those given in the description field meaning

Network APRL Guide

APRL Index	Number of Entries	SARPs Reference	APRL Title	Description Field Meaning	ISO Standard	Note
APRL201	2	6.4.1	Support of ATN-Specific Recommendations	Item		
APRL202	13	6.4.2	Major Capabilities	Capability	ISO/IEC 8473	
APRL203	32	6.4.3	End Systems - Supported Functions	Function	ISO/IEC 8473	
APRL204	12	6.4.4	End Systems - Supported NPDUs	NPDU	ISO/IEC 8473	
APRL205	24	6.4.5	End Systems - Supported DT Parameters	Parameter	ISO/IEC 8473	
APRL206	24	6.4.6	End Systems - Supported ER Parameters	Parameter	ISO/IEC 8473	
APRL207	4	6.4.7	End Systems - Inactive DT Parameters	Parameter	ISO/IEC 8473	
APRL208	24	6.4.8	End Systems - Supported ERQ Parameters	Parameter	ISO/IEC 8473	
APRL209	24	6.4.9	End Systems - Supported ERP Parameters	Parameter	ISO/IEC 8473	
APRL210	1	6.4.10	End Systems - Timers	Timer	ISO/IEC 8473	Original APRL has been divided into two APRLs (APRL 210 and APRL 211)
APRL211	1	6.4.10	End Systems - Timers	Timer	ISO/IEC 8473	Original APRL has been divided into two APRLs (APRL 210 and APRL 211)
APRL251	24	6.4.11	Intermediate Systems - Supported Functions	Function	ISO/IEC 8473	
APRL252	3	6.4.11.1	Intermediate Systems - Supported Security Parameters	Parameter	ISO/IEC 8473	

APRL253	3	6.4.11.2	Intermediate Systems - Quality of Service Mainenance Function	Function	ISO/IEC 8473	Original APRL has been divided into two APRLs (APRL 253 and APRL 254)
APRL254	8	6.4.11.2	Intermediate Systems - Quality of Service Mainenance Function	Which of the following formats of QOS are implemented ?	ISO/IEC 8473	Original APRL has been divided into two APRLs (APRL 253 and APRL 254)
APRL255	10	6.4.12	Intermediate Systems - Supported NPDUs	NPDU	ISO/IEC 8473	
APRL256	26	6.4.13	Intermediate Systems - Supported DT Parameters	Parameter	ISO/IEC 8473	
APRL257	28	6.4.14	Intermediate Systems - Supported ER Parameters	Parameter	ISO/IEC 8473	
APRL258	26	6.4.15	Intermediate Systems - Supported ERQ Parameters	Parameter	ISO/IEC 8473	
APRL259	26	6.4.16	Intermediate Systems - Supported ERP Parameters	Parameter	ISO/IEC 8473	
APRL260	1	6.4.17	Intermediate Systems - Timer and Parameter Values	Timer	ISO/IEC 8473	
APRL261	2	6.4.18	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8802-2 Subnetworks - Functions	Function	ISO/IEC 8473	
APRL262	2	6.4.19	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8802-2 Subnetworks - Multi Layer Dependencies	Dependency	ISO/IEC 8473	
APRL263	2	6.4.20	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions	Function	ISO/IEC 8473	

APRL264	5	6.4.20	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions	Call Setup Considerations - Is a new call setup:	ISO/IEC 8473	
APRL265	5	6.4.20	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions	Call clearing considerations Are calls cleared:	ISO/IEC 8473	
APRL266	5	6.4.20	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - Functions	Function	ISO/IEC 8473	
APRL267	8	6.4.21	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - X.25 Call User Data	Parameter	ISO/IEC 8473	
APRL268	2	6.4.22	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - ISO 8208 SNDCF Timers	Timer	ISO/IEC 8473	
APRL269	2	6.4.23	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - SNDCF Multi Layer Dependencies	Dependency	ISO/IEC 8473	Value column replaced by Status/Support column
APRL270	14	6.4.23	Intermediate Systems - Subnetwork Dependent Convergence Functions SNDCF for use with ISO 8208 Subnetworks - SNDCF Multi Layer Dependencies	Dependency	ISO/IEC 8473	

ES-IS APRL Guide

APRL Index	Number of Entries	SARPs Reference	APRL Title	Description Field Meaning	ISO Standard	Note
APRL301	2	8.2.2	**ISO 9542 - Intermediate System**	**Protocol Function**	ISO/IEC 9542	
APRL302	11	8.2.2	**ISO 9542 - Intermediate System**	Are the following functions supported?	ISO/IEC 9542	
APRL303	5	8.2.2	**ISO 9542 - Intermediate System**	Are the following PDUs supported?	ISO/IEC 9542	
APRL304	17	8.2.2	**ISO 9542 - Intermediate System**	Are the following PDU fields supported?	ISO/IEC 9542	
APRL305	2	8.2.2	**ISO 9542 - Intermediate System**	Parameter Ranges	ISO/IEC 9542	

IDRP APRL Guide

APRL Index	Number of Entries	SARPs Reference	APRL Title	Description Field Meaning	ISO Standard	Note
APRL401	4	8.3.3.1.1	ATN Specific Protocol Requirements	Item	ISO/IEC 10747	
APRL402	15	8.3.3.1.2	IDRP General	Description	ISO/IEC 10747	
APRL403	4	8.3.3.1.3	IDRP Update Send Process	Description	ISO/IEC 10747	
APRL404	2	8.3.3.1.4	IDRP Update Receive Process	Description	ISO/IEC 10747	
APRL405	4	8.3.3.1.5	IDRP Decision Process	Description	ISO/IEC 10747	

APRL406	3	8.3.3.1.6	IDRP Receive	Description	ISO/IEC 10747	
APRL407	1	8.3.3.1.7	Peer Entity Authentication	Description	ISO/IEC 10747	
APRL408	5	8.3.3.1.8	IDRP CLNS Forwarding	Description	ISO/IEC 10747	
APRL409	3	8.3.3.1.9	IDRP Receive Process	Description	ISO/IEC 10747	
APRL410	1	8.3.3.1.10	IDRP Optional Transitive Attributes	Description	ISO/IEC 10747	
APRL411	12	8.3.3.1.11	Generating Well-Known Discretionary Attributes	Description	ISO/IEC 10747	
APRL412	12	8.3.3.1.12	Propagating Well-Known Discretionary Attributes	Description	ISO/IEC 10747	
APRL413	11	8.3.3.1.13	Receiving Well-Known Discretionary Attributes	Description	ISO/IEC 10747	
APRL414	6	8.3.3.1.14	IDRP Timers	Description	ISO/IEC 10747	

Mobile SNDCF APRL Guide

APRL Index	Number of Entries	SARPs Reference	APRL Title	Description Field Meaning	ISO Standard	Note
APRL501	5	7.11.1	Major Capabilities	Capability		
APRL502	11	7.11.2	Call Setup and Clearing Procedures	Function		
APRL503	1	7.11.3	Negotiation of Compression Algorithm	Function		
APRL504	19	7.11.4	Local Reference Header Compression	Function		
APRL505	6	7.11.5	Local Reference Cancellation	Function		
APRL506	5	7.11.6	ICAO Address Compression Algorithm	Function		
APRL507	8	7.11.7.1	PDU Formats - Call Request User Data	Description		
APRL508	3	7.11.7.2	PDU Formats - Call Accept User Data	Description		
APRL509	1	7.11.7.3	PDU Formats - Modified ISO 8473 NPDU	Description		

APRL510	8	7.11.7.4	PDU Formats - Compressed Initial PDU	Description		
APRL511	10	7.11.7.5	PDU Formats - Compressed Derived PDU	Description		
APRL512	8	7.11.7.6	PDU Formats - Compressed Error PDU	Description		
APRL513	4	7.11.7.7	PDU Formats - SNDCF Error Report PDU	Description		
APRL514	4	7.11.7.8	PDU Formats - Cancellation Request	Description		
APRL515	2	7.11.7.9	PDU Formats - Cancellation Accept	Description		

Routing Initiation APRL Guide

APRL Index	Number of Entries	SARPs Reference	APRL Title	Description Field Meaning	ISO Standard	Note
APRL601	7	7.12.1.1	ISO 8208 Subnetworks that do not Provide Information on Subnetwork Connectivity - Airborne BIS	Description		
APRL602	3	7.12.1.2	ISO 8208 Subnetworks that do not Provide Information on Subnetwork Connectivity - Ground BIS	Description		
APRL603	5	7.12.2.1	ISO 8208 Subnetworks that Provide Connectivity Information - Initiating BIS	Description		
APRL604	4	7.12.2.2	ISO 8208 Subnetworks that Provide Connectivity Information - Responding BIS	Description		

9. Notation and Predicate Guide

Index	Notation	Meaning
all	M	mandatory
all	C	conditional
all	O	optional
all	X	excluded
all	I	out of scope
all	-	not applicable
all	REC	recommended
all	MO	mandatory to be implemented, optional to be used
all	OX	optional to be implemented, prohibited for use, if implemented
APRL101	O.1	see ISO/IEC 8073:
APRL103	O.2	see ISO/IEC 8073
APRL202	O.1	see ISO/IEC 8473
APRL202	ISMOB	If ISO 8473 is used over mobile subnetworks, then ISMOB is true, else ISMOB is false.
APRL202	ISGRD	If ISO 8473 is used over ground subnetworks, then ISGRD is true, else ISGRD is false.
APRL202	O.1	The supported functions, NPDUs, associated parameters and timers required for ESs are provided in APRLs 6.4.3 through 6.4.10. The supported functions, NPDUs, associated parameters and timers required for ISs are provided in APRLs 6.4.11 through 6.4.23.
APRL202	O.2	APRLs for the SNDCF for use with ISO 8802-2 subnetworks are provided in 6.4.18 and 6.4.19. APRLs for the SNDCF for use with ISO

		8208 subnetworks are provided in 6.4.20 through 6.4.23
APRL252	O.5	The Security parameter within a single NPDU specifies a security format code indicating Source Address Specific, Destination Address Specific or Globally Unique Security
APRL253	O.3	The Quality of Service Maintenance parameter within a single NPDU specifies a QoS format code indicating Source Address Specific, Destination Address Specific or Globally Unique QoS.
APRL253	O.4	If the QOS format code indicates that the Globally Unique QoS maintenance function is employed, then each bit in the associated parameter value may be set to indicate the order of intra and inter domain routing decisions based on QoS. The parameter values which apply to inter-domain routing are provided in Table 4 of ISO/IEC 10747
APRL406	**BISREF**	**if** RIB REFRESH PDU **then** true **else** false
APRL411	**IDRPAG**	**if** Air/Ground adjacency **then** true **else** false
ARL602	O.1	either one of the two options shall be supported
ARL700	C1	(= C2 v C3) The ATN system is connected to an ISO 8208 subnetwork, either mobile or general topology. Note that C1 is true for A/G BIS and Airborne BIS
ARL700	C2	The ATN system is connected to an ISO 8208 general topology subnetwork
ARL700	C3	The ATN system is connected to an ISO 8208 mobile subnetwork
ARL700	C4	The ATN system is connected to an ISO 8802-2 broadcast subnetwork
ARL700	C5	The ATN system is connected to CIDIN

10. Table of APRL Defects

APRL Index	Item	Comment
APRL204	[type REQ]eIN-r	Replace "[type REQ]"
APRL206	[type REQ]eePRR-s	Replace "[type REQ]"
APRL251	iCRR	Replace SARPs reference " A9.3.2.4" by "6.3.2.4"