3.5 PLANNING AND SCHEDULING DATA SPECIFICATION

There are two types of data related to the planning functions: the ECS activity (EAP) plan which ECS sends to the instrumenters and the instrumenters' input to the activity plan (IAP). These data are in a file format as described in the following sections.

3.5.1 INSTRUMENTERS INPUT TO THE ACTIVITY PLAN

The instrumenters' Input to the Activity Plan is a file used by each instrument team to specify their activity requests. One input file relates to a single instrument and covers an entire single operational day. When updates and modifications are necessary, the IAP for the entire operational day must be re-submitted to the ECS. In order to allow for greater flexibility in the input, the "keyword=value" format is used for the IAP files.

3.5.1.1 Input to the Activity Plan File Header

The IAP file header is defined in table 3.11.

Table 3.11. File Header for the Instrumenter Input to the Activity Plan

KEYWORD	DESCRIPTION
DATATYPE	"INSTRUMENTER INPUT TO THE ACTIVITY PLAN"
FILENAME	Name of this file: iiicccccccccc.IAP (see Appendix A)
INSTRUME	Instrument for which this IAP is submitted (see section 3.1.4)
ORIG_ID	E-Mail address where a validation report on the IAP will be sent
OBSERVER	Person who generated this file
DATE_CRE	Date file was created YYYY/MM/DD HH:MM:SS (GMT)
STARTIME	Start time of period covered YYYY/MM/DD HH:MM:SS (GMT) ECS will assume that HH:MM:SS is 00:00:00
ENDTIME	End time of period covered YYYY/MM/DD HH:MM:SS (GMT) ECS will assume that HH:MM:SS is 00:00:00 for the day following the start time
COMMENT	Free text. This keyword may be repeated to allow several comment lines
END	

3.5.1.2 Input to the Activity Plan File Body Format

The file body is in the keyword format. It contains a list of statements, each statement consisting of a series of fields of the form KEYWORD = value.

The keywords that may be used in the IAP are defined in the Software User's Guide (Reference 13).

Notes:

- Comment lines may be inserted anywhere in the IAP file. They consist of the keyword COMMENT= followed by free text.

- Typically, the duration of an activity is specified using the STARTIME= and ENDTIME=

keywords, followed by a time field.
All time fields are in the standard format YYYY/MM/DD HH:MM:SS.

- The originator ID (ORIG_ID) must be a valid E-Mail address where a validation report on the IAP will be sent: when the IAP is received, the ECS planning software validates it and generates a report indicating errors if any where found. This report is sent in the form of an E-mail message to the address indicated in the ORIG_ID field. This address will also be used to send availability notifications for the EAP.

3.5.2 ECS ACTIVITY PLAN

The ECS Activity plan (EAP) is a file containing information provided by the SMOCC such as DSN schedule and FOT reserved times as well as merged activity requests as specified by the instrumenters in the IAP files. The activity plan file is made available in two different formats: the fixed-field format which provides more readability but limits the amount of information provided, and the keyword format which offers more flexibitity.

3.5.2.1 ECS Activity Plan File Header

The activity plan file header is defined in table 3.10.

Table 3.10. File Header for the ECS Activity Plan

KEYWORD	DESCRIPTION
DATATYPE	"ECS ACTIVITY PLAN"
FILENAME	Name of this file: (see Appendix A) ECSYYYYMMDDHHv.EAP for files in the fixed-field format ECSYYYYMMDDHHv.KAP for files in the keyword format
OBSERVER	Person who generated this file
DATE_CRE	Date file was created YYYY/MM/DD HH:MM:SS (GMT)
STARTIME	Start time of period covered YYYY/MM/DD HH:MM:SS (GMT) where HH:MM:SS is 00:00:00 for a given day DD
ENDTIME	End time of period covered YYYY/MM/DD HH:MM:SS (GMT) where HH:MM:SS is 00:00:00 for day DD+1
OUT_FORM	Format indicator KEYWORD for the keyword format FIXED_FIELD for the fixed field format
COMMENT	Free text. This keyword may be repeated to allow several comment lines
END	

3.5.2.2 ECS Activity Plan Fixed-field Format

In the fixed-field format, the file body for the ECS activity plan is an ASCII-text formatted report. Each line corresponds to the description of one activity and contains the following in fixed-length fields:

FIELD NAME	BYTE NUMBER	LENGTH (BYTES)	DESCRIPTION

Activity	1	20	Name of the activity or ressource (see keywords as defined in SUG, Ref 13)
Blank-fill	20	2	
Activity Qualifier	22	6	Instrument performing the activity or Ground station ID for DSN contacts or Originating entity for the activity such a FOT or SOC
Blank-fill	28	2	
Start Time	30	19	Start time of the activity in the format YYYY/MM/DD HH:MM:SS
Blank-fill	49	2	
End Time	51	19	End time of the activity in the format YYYY/MM/DD HH:MM:SS
Blank-fill	70	2	
Duration	72		Duration of the activity in the format HH:MM:SS
Blank-fill	80	2	
Description/Comment (optional)	82	80	Textual description of or remarks applying to the activity
New-line separator	162	1	X'0A'

An example of the proposed fixed-field format is included in Appendix B.

3.5.2.3 ECS Activity Plan Keyword Format

In the keyword format, the file body for the ECS activity plan is ASCII text. Refer to The User's Guide (Reference 13) for a list of valid keywords and their format specification.