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This document specifies the Interface Control Document (ICD) of the Live Schedule Board application.

SATELLITE OPERATIONS

LIVE SCHEDULE BOARD

INTERFACE CONTROL DOCUMENT (ICD)

MMCSA-IC0002

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1 INTRODUCTION

1.1 Purpose

This document is intended to provide a detailed description of the interfaces used by the Live Schedule Board application except the graphical user interface (GUI) [redacted]

1.2 Scope

This document defines the format of the files used during data import process and the description of configuration files.

1.3 Outline

Section 1	Presents the document purpose, scope and definitions
Section 2	Specifies relevant documents
Section 3	Identifies the interfaces' architectural design
Section 4	Provides a detailed description of the interfaces
Section 5	Provides samples for input files
Section 6	Provides the interface verification specifications

1.4 Definitions and Acronyms

1.4.1 Definitions

Schedule Board	Abbreviation for Live Schedule Board web application showing all scheduled contacts during a specific number of upcoming days.
Server	The 'mcfmail.mcc.satops.ca' platform running the Apache server and containing all application components. (i.e. PHP scripts, Python scripts and libraries, MySQL databases, configuration files, images)
Client	Any client PC running a web browser and accessing Schedule Board application on Server.
Home directory	Directory residing on Server and containing application component files o */home/sb/www* with operational installation o */home/sb_test/www* with testing installation o */home/sb_dev/www* with development installation Any directory further addressed in this document will be a relative path to operational home directory. (e.g. "log" directory means "/home/sb/www/log")
Pass	Common term for real-time satellite contact at the TT&C antenna.
User	Any person accessing the Schedule Board page on a client PC.

1.4.2 Acronyms

AOS	Acquisition of Signal
CC	Cyclic Counter
DOY	Day-of-Year numbering system
GSA	Ground Systems Analyst
GUI	Graphical User Interface
HWCI	Hardware Configuration Item
ICD	Interface Control Document
I/O	Input / Output
LOS	Loss of Signal
LTM	Long Term Pass Schedule for R2
LTT	Long Term Trending
LAN	Local Area Network
MOC	Mission Operations Centre
MOS	Mission Operations System
PLAN	Planning (Operational Scheduling) for S1
R1	RADARSAT-1
R2	RADARSAT-2
S1	SCISAT-1
SASK	Saskatoon Ground Station
SHUB	St-Hubert Ground Station
SAS	Spacecraft Activity Schedule
S/C	Spacecraft

2 RELEVANT DOCUMENTS

2.1 Configuration Control

This document is controlled according to the policies and procedures of Satellite Operations Life-Cycle Support.

2.2 Applicable Documents

N/A

2.3 Derived Documents

N/A

2.4 Reference Documents

[redacted]

3 INTERFACE ARCHITECTURAL DESIGN

The DCS Interface architecture is based on the following components.

- File import Interface
- Configuration file

The following sections will describe the structure of these interfaces.

3.1 Generic Date/Times format

In order to reduce size and complexity of the document, the following table will detail the format used to describe dates and times during this document.

Format	Description	Range
DD	Day two-digits number (in month)	01 … 31
Doy	Day of the year three digits number	001 … 366
Mon	Month three-letters name	Jan ... Dec
Month	Month complete name	January … December
MM	Month two-digit number (in year)	01 … 12
YYYY	Year four-digit number	2000 … 2099
hh	Hour two-digit number	00 … 23
mm	Minute two-digit number	00 … 59
ss	Second two-digit number	00 … 59
ww	Week number	1...52
ff…f	Fraction of a second	Depends on the number of digits
nn…n	Integer value.	Depends on the number of digits Note: If related to the orbit field inside of the product file (and not in the file name), all leading digits will not be printed/shown if zero.
cc	Cyclic counter.	Two-digit cyclic counter.
aa…a	Variable length character string.	Depends on the number of characters.

Note: Unless otherwise mentioned, numbers will be added with leading zeros if their value is too small to fit the format.

Table 1: Fields Format

Within the generic mission MOC, a specific format for displaying a generic time will be used as follows:

- YYYY-Doy-hh:mm:ss.fff - in the case where fractional seconds are necessary;
- YYYY-Doy-hh:mm:ss - in the case where whole seconds are acceptable.

This format for full date and time will be used whenever possible (both in header information and within the data itself).

3.2 Generic File Naming Convention

A generic approach to naming files will be considered in order to help all components of the MOC (including personnel) identify both the type of data and its content. No single format can

encapsulate the entire range of requirements however a minimum convention must be respected in all MOC products:

- All file names will begin with a mission identification code (e.g. S1).
- The filename extension will identify the file types (e.g. S1xxxxxxxxx.STC for SCISAT-1 Station Contact Times).
- <S/C name> represents the S/C full name (e.g. SCISAT-1, RADARSAT_1, Radarsat-II, NEOSSat, …)
- <S/C identifier> represents the S/C ID (e.g. S1, R1, R2, N1)

The remainder of the filename is used to uniquely, and unambiguously identify the product. In all cases where time information is used to identify a product, the time used in the name will describe the **content** of the file, specifically the start time of the product information.

4 INTERFACE DESCRIPTION

4.1 INPUT FILES INTERFACE

4.1.1 Generic mission – T3S import file

Interface Information	
Name	T3 Schedule
Overview	This file will be used as a prime input file when importing S/C planned contacts. If the file is found as not valid after file validation process, a backup input file type (e.g. NEOS_WEEKww.SAS) will be searched on the import repository and used to import contact data.
Type	ASCII File
Category	Planning
Frequency	Weekly
File Information	
Name	<S/C identifier>_YYYYDoy.T3S
Size	Variable

File Format		
Header	Notes: - Rows are composed of 6 columns, separated by spaces only. - A carriage-return character separates the rows.	
	Column 1	Column 2
1	;###FILENAME:	<S/C identifier>_YYYYDoy.T3S
2	;###SPACECRAFT_IDENTIFIER:	<S/C name>
3	;###FILE_CREATION_TIME:	<YYYY-Doy-hh:mm:ss.fff> UTC
4	;###FILE_SOURCE:	PLAN-<S/C identifier>
5	;###FILE_DESTINATION:	< Mission data management system identifier> (e.g. DM)
6	;###FILE_TYPE:	T3 SCHEDULE
7	;**********	
8	;	
9	; SAS_START_OF_SPAN	<YYYY-Doy-hh:mm:ss>
10	; SAS_END_OF_SPAN	<YYYY-Doy-hh:mm:ss>
11	;	
12	;Station AOS(UTC) LOS(UTC) Duration Rate Orbit	

File Format				
13	;			
14	;			
Body	Notes: - Rows are composed of 6 columns, separated by spaces only.			
Field	Row	Format	Description	Length
Station	1	<Station ID>	Station identifier. (Shub,Sask,Asf,Krn)	Variable
AOS	2	<yyyy-doy-hh:mm:ss>	Station identifier. <a…a>: Link type (RF, HBR) <nnnnn>: Orbit number	17
LOS	3	<yyyy-doy-hh:mm:ss>	AOS date,time	17
Duration	4	<mm:ss>	RF/HBR duration	5
Rate	5	<4M>		2
Orbit	6	<nnnnnn>	Orbit number	Variable
Footer				
1	;			
2	;End_of_File			

4.1.2 S1 mission – data import main file (SAS_WEEKww.SAS)

Interface Information	
Name	Plan Activity Schedule
Overview	This file will be used as a prime input file when importing S/C planned contacts. If the file is found as not valid after file validation process, a backup input file type (SAS_LT_WKww.SAS) will be searched in the import repository and used to import data.
Type	ASCII File
Category	Planning
Frequency	Weekly
File Information	
Name	<S/C identifier>_WEEK<ww>.SAS (<w> stands for the week number)
Size	Variable

File Format		
Header	Notes: - Rows are composed of 2 columns, separated by spaces only. - A carriage-return character separates the rows.	
	Column 1	Column 2
1	;###FILENAME:	SAS_WEEK<ww>.SAS
2	;###SPACECRAFT_IDENTIFIER:	<S/C name>
3	;###FILE_CREATION_TIME:	<YYYY-Doy-hh:mm:ss> UTC
4	;###FILE_SOURCE:	PLAN-<S/C identifier>
5	;###FILE_DESTINATION:	< Mission data management system identifier> (e.g. DM for S1 mission)
6	;###FILE_TYPE:	PLAN-<S/C identifier>_ACTIVITY_SCHEDULE
7	;**********	
8	;	
9	; SAS_START_OF_SPAN	<YYYY-Doy-hh:mm:ss>
10	; SAS_END_OF_SPAN	<YYYY-Doy-hh:mm:ss>
11	;	
12	;ACTIVITY START TIME/DURATION(RF) END TIME	
13	;	
Body	Notes:	

File Format				
	- Rows are composed of 3 columns, separated by spaces only. - A carriage-return character separates the rows. - Rows are grouped by (station + orbit number) and each row in group will be addressed below as Row1, Row2.			
Field	Row	Format	Description	Length
Activity	1	<Station ID> <a...a><nnnnn>	<Station ID>: Station identifier. Shub,Sask,Asf,Krn) <a...a>: Variable string. (Signal, HBR) <nnnnn>: Orbit number	Variable
	2	<Station ID> <a…a><nnnnn>	Station identifier. <a…a>: Link type (RF, HBR) <nnnnn>: Orbit number	Variable
Start time/ Duration(RF)	1	<yyyy-doy-hh:mm:ss>	AOS date,time	17
	2	~~ <hh:mm>	RF/HBR duration	9
End time	1	<yyyy-doy-hh:mm:ss>	LOS date,time	17
Footer				
1	;			
2	;End_of_File			

4.1.3 S1 mission – data import backup file (SAS_LT_WKww.SAS)

Interface Information	
Name	Spacecraft Activity Schedule
Overview	This file will be used as a backup import file when a prime type import file is not available or has invalid data. The file will be used to import S/C passes for the week specified in the file name.
Type	ASCII File
Category	Planning
Frequency	Weekly
File Information	
Name	<S/C identifier>_LT_WK<ww>.SAS (<ww> stands for the week number)
Size	Variable

File Format		
Header	Notes: - Rows are composed of 2 columns, separated by spaces only. - A carriage-return character separates the rows.	
	Column 1	Column 2
1	;FILENAME:	<S/C identifier>_LT_WK<WW>.SAS
2	;SPACECRAFT_IDENTIFIER:	<<S/C name>
3	;FILE_CREATION_TIME:	<DD Mon YYYY hh:mm:ss UTC>
4	;FILE_SOURCE:	DECONFLICT-<S/C identifier>
5	;FILE_DESTINATION:	Mission data management system ID (e.g. DM for S1 mission)
6	;FILE_TYPE:	<S/C identifier>_PASS_SCHEDULE
7	;**********	
8	;	
9	;SAS_START_OF_SPAN	<YYYY-Doy-hh:mm:ss.fff>
10	;SAS_END_OF_SPAN	< YYYY-Doy-hh:mm:ss.fff>

File Format			
11	; Daily Daily Planning		
12	;PASS START TIME END TIME RF HBR Passes RF Day		
13	;		
Body	Notes: - Rows are composed of 9 columns separated by spaces only. - A carriage-return character separates the rows. - The line*: ‘ nn HOUR GAP’* is added after the current row each time a gap of <nn> hours is detected between the LOS time of the current row and the AOS time of the next row.		
Field	Format	Description	Length
Station	<aaaa>	Station identifier. (SHUB, SASK)	4
Pass #	<nnnnnn>	Orbit number.	6
START TIME	<YYYY-Doy-hh:mm:ss>	Start time of the activity. (See Table 1: Fields Format)	17
END TIME	<YYYY-Doy-hh:mm:ss>	End time of the activity. (See Table 1: Fields Format)	17
RF	<mm:ss>	Total RF duration in format: <total minutes:total seconds>	5
HBR	<mm:ss>	Total HBR duration in format: <total minutes:total seconds>	5
Daily Passes	<nn>	Total passes by planning day.	2
Daily RF	<nn:nn>	Total RF duration by planning day.	5
Planning Day	PD <nnn>	Planning day.	6
Footer	;		

4.1.4 S1 mission – events import file (STC)

Interface Information	
Name	Station Contact Time
Overview	This file will be used as an input file when importing S/C events planned for a long term period. (typically four weeks)
Type	ASCII File
Category	Planning
Frequency	Weekly
File Information	
Name	<S/C identifier><YYYYMonDDcc>.STC
Size	Variable

File Format		
Header	Notes: - Rows are composed of 2 columns, separated by spaces only. - A carriage-return character separates the rows.	
	Column 1	Column 2
1	;###FILENAME:	<S/C identifier><YYYYMonDDcc>.STC
2	;###SPACECRAFT_IDENTIFIER:	<S/C name>
3	;###FILE_CREATION_TIME:	<YYYY-Doy-hh:mm:ss UTC>
4	;###FILE_SOURCE:	OAS-<S/C identifier>
5	;###FILE_DESTINATION:	< Mission data management system identifier> (e.g. DM for S1 mission)
6	;###FILE_TYPE:	OAS-<S/C identifier>_STATION _CONTACT_TIMES
7	;**********	
8	;	

File Format			
9	;OAS_STC_START_OF_SPAN:	<YYYY-Doy-hh:mm:ss>	
10	;OAS_STC_END_OF_SPAN:	< YYYY-Doy-hh:mm:ss>	
11	;		
12	;Station Event Time (UTC) Elevation Azimuth Orbit		
13	; (deg) (deg)		
14	;		
Body	Notes: - Rows are composed of 6 columns, separated by spaces only. - A carriage-return character separates the rows. - Rows are grouped by orbit number - Groups are separated by rows containing ';'character only.		
Field	Format	Description	Length
Station	<Station ID	Station identifier. (e.g. ASF, BANG, DRDC, KRN, MAUR, SASK, SHUB, WHM,…)	4
Event	<aaaaaaaa>	Event identifier. (e.g. AOS, LOS, RF_ON, RF_OFF, MAX_EL, NULL_ST, NULL_END)	8
Time	<YYYY-Doy-hh:mm:ss>	Event time.(UTC) (See Table 1: Fields Format)	17
Elevation	<nn.n> or "N/A"	Event elevation. (deg)	4
Azimuth	<nnn.n> or "N/A"	Event azimuth. (deg)	5
Orbit	<nnnnnn> or "N/A"	Orbit number.	6
Footer			
1	;End_of_File		

4.1.5 R1 mission – import file (WKS)

Interface Information	
Name	Spacecraft Activity Weekly Schedule
Overview	This file is used as a input file for importing R1 contacts
Type	ASCII File
Category	Planning
Frequency	Weekly
File Information	
Name	S<YYDOYcc>.WKS
Size	Variable

File Format		
Header	Notes: - Some rows are composed of two columns, separated by spaces only and others rows are composed of one column. - A carriage-return character separates the rows.	
	Column 1	Column 2
1	;###FILENAME:	S<YYDOYcc>.WKS
2	;###SPACECRAFT_IDENTIFIER:	RADARSAT_1
3	;###FILE_CREATION_TIME:	<YYYY-Doy-hh:mm:ss.fff>
4	;###FILE_SOURCE:	SSCM
5	;###FILE_DESTINATION:	SDB
6	;###FILE_TYPE:	SPACECRAFT ACTIVITY WEEKLY SCHEDULE
7	Empty row	
8	RADARSAT WEEKLY SCHEDULE	
9	Empty row	
10	SAWS ID: SAWS_<yyyy>_<Doy>	

File Format			
11	SAWS CONFLICT STATUS: CONFLICTS		
12	SAWS START: <YYYY-Doy-hh:mm:ss>		
13	SAWS END: <YYYY-Doy-hh:mm:ss>		
14	Empty row		
15	ORBIT# STATION START STOP DURATION TELEMETRY ACTIVITIES OBJECTIVES PLEX		
16	------ ------- ------------ ------------ -------- --------- ----------------------------- ---------------------- ----------------------------------- --------		
17	Empty row		
Body	Notes: - Rows are composed of 9 columns separated by spaces only. - A carriage-return character separates the rows. - Rows are grouped by orbit and groups are separated with the empty row. - Rows are ordered by orbit number.		
Field	Format	Description	Length
Orbit	<nnnnn>	Orbit number.	5
Station	<Station ID>	Station identifier.(e.g. SHUB, SASK, AUS, STC, KRU, KER, HBK)	6
Start	<Doy-hh:mm:ss>	Contact start time. (See Table 1: Fields Format)	12
Stop	<Doy-hh:mm:ss>	Contact start time. (See Table 1: Fields Format)	12
Duration	<nn.nn>	Contact duration time.	5
Telemetry	<a...a>	Telemetry type. (e.g. 4K_MEM, 2K_ENG_CO, ...)	Variable
Activities	<a...a>	Activity ID list.(e.g. ECLIPSE_ST, ECLIPSE_END, XMITON_DSU2, ...)	5
Objectives	<a...a>	Objective list.(e.g. FDEV,Penumbra outage)	Variable
Plex	<aaaaaaaa>	String. (e.g. -XOOI---, --------)	8
Footer	Notes: - SAWS CONFLICTS are displayed on two columns separated by spaces. - A carriage-return character separates the rows.		
1	SAWS CONFLICTS		
2	--------------		
3	Empty row		
4...N	Column 1	Column 2	
	<nn> (Conflict#)	<a...a> (Conflict description)	

4.1.6 RADARSAT-2 mission – import file (LTM)

Interface Information	
Name	Radarsat-2 Long Term Pass Schedule
Overview	Input file used for importing R2 long term planning contacts.
Type	ASCII File
Category	Planning
Frequency	Weekly
File Information	
Name	SPS__OP__LongTerm_R2_<YYYY-Doy_YYYY-Doy-hhmmss>.LTM
Size	Variable

File Format			
Header	Notes: - Rows are composed of 2 columns, separated by spaces only. - A carriage-return character separates the rows.		
	Column 1		
1	Radarsat-II Long Term Pass Schedule		
2	Empty row		
3	Schedule Start Time: <YYYY-Doy-hh:mm:ss> Schedule EndTime: <YYYY-Doy-hh:mm:ss		
4	Empty row		
5	Empty row		
6	CID StationID Orbit RF AOS LOS Product Released RASE Template Applied		
7	--- --------- ----- -- --- --- ---------- ----------		
8			
Body	Notes: - Rows are composed of 8 columns separated by spaces only. - A carriage-return character separates the rows.		
Field	Format	Description	Length
CID	<nnnnnnn>	Pass ID	7
Station ID	<aaaaaaa>	Station ID (SHUB, SASK, SVALSAT,…)	7
Orbit	<nnnnn>	Orbit number	5
RF	<nnn>	Contact RF duration.(sec)	3
AOS	< YYYY-Doy-hh:mm:ss>	AOS time. (See Table 1: Fields Format)	17
LOS	< YYYY-Doy-hh:mm:ss>	LOS time. (See Table 1: Fields Format)	17
Product Released	SPS__CA__R2_SHUB_nnnnn_YYYY-Doy-nnnnnn	Product Released.	38
RASE Template Applied	RASE template string. (e.g.: CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284552__20113432114.XSCH)	RASE template name.	65
Footer	Empty row		

4.1.7 Trigger alert – input file

Interface Information	
Name	Alert trigger text file.
Overview	Input file issued inside the alert pool repository (‘/var/tmp/alert_pool’ with the operational installation) used to trigger a new alert popup on the Schedule Board SCT room screen. The file content will be shown inside the alarm popup frame.
Type	ASCII File
Category	File created by CRAMS application.
Frequency	Random
File Information	
Name	Name can differ but the templates specified in main configuration file (sb.conf) must be matched. (e.g. CSM_Alert-<yyyyMMDD>-<hh:mm:ss>, JSpOC_Alert-<yyyyMMDD>-<hh:mm:ss>, …)
Size	Variable

File Format	
Body	Variable ASCII string.

4.2 CONFIGURATION FILES INTERFACE

4.2.1 Configuration file (sb.conf)

```
#
# Main configuration file for schedule board web application
# Notes:  - The final alert message is composed by alert_msg_one + alert_msg_two
#
[database]
servername    = localhost
db_servertype = mysql
db_username   = root
db_password   = martimal
db_name       = pass_history
table_name    = passes
;
[path]
# Application home directory
home_dir   = /home/sb/www
# Directory holding data import files
import_dir = /home/sb/www/mcf
# Directory where triggering alert files must be issued
alert_pool = /var/tmp/alert_pool
# Alias in apache config file indicating the alert pool web repository
web_alert_pool = /apool
;
############### sample #################
# Alert originator configuration sample
# 'file' reference below means name of the file issued
# in alert_pool repository triggering a new alarm
#
;[alert_originator_CSM]
# File template. Only *,? wildcard permited
;file_template = CSM_Alert*
# String that the file must contains - for alert to be trigered
;file_must_contain = ACTION REQUIRED
# String that file must not contains - for alert to be trigered
;file_must_not_contain = NO ACTION REQUIRED
# First part of alert message
;alert_msg_one = You have received a message from DLR
# If you want to put the file content on alert message
;alert_msg_one  = file_content
# Last part of alert message
;alert_msg_two = Please page on-call
# Alert priority  / 1-5, 5:highest, 5:default
#   1,2,3 black blinking letter/blue background
#   4     black blinking/yellow
#   5     red blinking/black
;priority = 2
########################################
;
;
[alert_originator_CSM]
file_template = CSM_Alert*
alert_msg_one     = file_content
alert_msg_two     = Please page on-call
;
```

```
[alert_originator_DLR]
file_template = DLR_Valid_Conjunctions*
alert_msg_one = You have received a message from DLR.
alert_msg_two = Please page on-call
;
[alert_originator_SOCRATES]
file_template = SOCRATES_Alert*
alert_msg_one = You have received a message from SOCRATES.
alert_msg_two = Please page on-call
;
[alert_originator_JSpOC]
file_template = JSpOC_Alert*
alert_msg_one = You have received a message from JSpOC.
alert_msg_two = Please page on-call
;
[alert_originator_CCRS]
file_template = R1_*_dataloss.doc
alert_msg_one = New negative X-Band report received from CCRS.
priority  = 2
;
[alert_originator_TEST]
file_template = test*.*
alert_msg_one = This is just a test message.
alert_msg_two = Please ignore it.
priority  = 1
;
[file_name]
;Name of XML generated file.
xml_file = passes.xml
log_file = log/sb.log
;
[session]
; this will set the session timeout value to 45 minutes
maxlifetime = 2700

[screen]
; number of days to be printed on XML file
xml_query_days = 10
; number of days to be displayed on board
show_days = 5
; number of rows showing the clock countdown container
show_cd_rows = 3
refresh_rate = 60
;
[sc]
addpass_sc_list = RADARSAT-1,SCISAT-1,RADARSAT-2,NEOSSAT,CNES CALIPSO,CNES H-
2A,CNES H-2B,CNES Pleiades,CNES SPOT5,DLR TSR-X,DLR TSR-X-2,DLR TDM-X,DLR TET-1,DLR
ENMAP,DLR PAZ,PTP0-SHUB,PTP1-SHUB,PTP2-SHUB,PTP3-SHUB,PTP1-SASK,PTP2-
SASK,SOC1,SOC2,ITOS3,ITOS4,SOYUZ,ARIANE 5,Other
addssi_sc_list = R1-RSI,S1-SSI,R2-SSI,N1-SSI
; Special Instr. stations showing aos/los fields
si_st_show_aos_los = KRN-VC4,ASF-VC4
;
[stations]
; internal staion list
import_st_list = SHUB,SASK
; addpass station list
addpass_st_list = SHUB,SASK,AUS,HBK,KER,KRU,STC,SVAL,WHM,KRN-VC4,ASF-VC4,GARS
;
[data_import]
;Life duration for data import files.
import_file_life_time = 30
;
[constraint]
; add pass constraints
```

```
cnstr = RADARSAT-1/SASK/SOC1/PTP3-SHUB, RADARSAT-1/SASK/SOC2/PTP3-SHUB, RADARSAT-
1/SHUB/SOC1, RADARSAT-1/SHUB/SOC2, SCISAT-1/SHUB/ITOS3/PTP1-SHUB, SCISAT-
1/SHUB/ITOS4/PTP1-SHUB, SCISAT-1/SASK/ITOS3/PTP1-SASK, SCISAT-1/SASK/ITOS4/PTP1-SASK
;
[buffer]
; add pass buffer used to check constraints
buffer_after_los= 15
buffer_before_aos= 60
;
[oper]
; list of operators allowed to add/edit/delete custom passes
addpass_oper = yrancourt,sdesjardins,apayne,stakacs,omt-shub,omt-sask,msauvageau,pmehu
; list of operators allowed to add/edit/delete special instructions
addssi_oper = yrancourt,sdesjardins
; list of operators allowed to toggle * flag (Science data dumps out of timeline)
toggle_flag1_oper = yrancourt,sdesjardins
; list of IPs allowed to acknowledge alerts
; SCT big screen: 138.214.242.142
; Dorin: 192.168.1.41
pc_can_ack_alert = 138.214.242.142,192.168.1.41
;
[debug]
;When true - extra information will be printed on sb.log file.
;isdebug = true
isdebug = false
;
;
```

4.2.2 XML style sheet configuration file (sb.xsl)

```
<?xml version="1.0" encoding="ISO-8859-1"?> <xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<!--
##############################################################################################
#
# File:          sb.xsl
# Description:  stylesheet file used to show passes.xml file
# Input:         None
# Output:       None
#
# Author:       D.Popovici
# Revisions:  1.0   10-Apr-2012 - Initial release
##############################################################################################
-->
<xsl:template match="/">
<html><body>
 <table border="0" width = '100%'>
   <tr>
    <td width = '5%' align='left'>
            <img src='logo-csa.jpg'></img>
       </td><td width = '5%' align='left'>
      <A HREF='javascript:javascript:window.close()' rel='prev'>Home</A>
   </td><td width = '5%' align='left'>
         <A HREF='javascript:window.print()'>Print </A>
       </td><td width = '80%' align='right'>
            <A HREF='file_download.php?file=passes.xml'
        rel='next' target='_blank'>Download</A>
       </td>
       <td  width = '10%' align='right'>
      <img src='logo-sed.gif'></img>
    </td>
   </tr>
</table>
<!--<h2>Live Schedule Board</h2>-->
```

```
<table border="1"  width = '100%'>
<tr bgcolor="#9acd32">
  <th>S/C   </th>
    <th>Site  </th>
    <th>Orbit </th>
    <th>AOS   </th>
    <th>RF.On </th>
    <th>RF.Off</th>
    <th>LOS   </th>
    <th>RF.Dur</th>
      <!--<th>Oper</th>
  <th>Desc</th>-->
</tr>
<xsl:for-each select="BOARD/PASS">
<tr>
      <td align='center'>
        <font size="4">
       <xsl:value-of select="SC"/>
        </font>
    </td>
    <td><xsl:value-of select="SITE"              /></td>
    <td><xsl:value-of select="ORBIT"              /></td>
    <td><xsl:value-of select="substring(AOS,6)"   /></td>
    <td><xsl:value-of select="substring(RF_ON,6)" /></td>
    <td><xsl:value-of select="substring(RF_OFF,6)"/></td>
    <td><xsl:value-of select="substring(LOS,6)"   /></td>
    <td align='right'>
      <xsl:value-of select="RFDUR" />
    </td>
       <!--<td><xsl:value-of select="OPER" /></td>
      <td><xsl:value-of select="DESC" /></td>-->
</tr>
</xsl:for-each>
</table>
<table border="0" width = '100%'>
<tr>
      <td width = '5%' align='left'>
     <A HREF='javascript:javascript:window.close()' rel='prev'>Home</A>
      </td><td width = '5%' align='left'>
     <A HREF='javascript:window.print()'>Print </A>
  </td><td width = '80%' align='right'>
            <A HREF='file_download.php?file=passes.xml'
               rel='next' target='_blank'>Download</A>
      </td>
</tr>
</table>
</body></html>
</xsl:template>
</xsl:stylesheet>
```

5 INTERFACES VERIFICATION

The current version 1.0 has interface verification capabilities for the input interface and the following verifications are executed during the data import process:

- Mission specific imported file is present in the import directory
- File name properly specified in file header.
- S/C name properly specified in file header.
- Span window properly specified in file header.
- Consistent data present inside the imported file.

Appendix A: S1 – main import file (SAS) sample

```
;FILENAME:                    SAS_WEEK28.SAS
;SPACECRAFT_IDENTIFIER:           SCISAT-1
;FILE_CREATION_TIME:          2012-193-11:24:18 UTC
;FILE_SOURCE:                 PLAN-S1
;FILE_DESTINATION:            DM
;FILE_TYPE:                   PLAN-S1_ACTIVITY_SCHEDULE
;*********************************************************************************
;
;
;SAS_START_OF_SPAN            2012-193-17:00:00
;SAS_END_OF_SPAN              2012-204-23:59:59
;
;ACTIVITY          START TIME/DURATION(RF)      END TIME
;
ShubSignal47994     2012-193-18:49:24          2012-193-19:00:40
ShubRF47994         ~~  09:49
SaskSignal47995     2012-193-20:29:46          2012-193-20:40:12
SaskRF47995         ~~  06:49
KrnHBR47995         2012-193-20:44:11          2012-193-20:53:56
KrnHBR47995         ~~  09:45
SaskSignal47996     2012-193-22:06:40          2012-193-22:20:24
SaskRF47996         ~~  11:13
KrnHBR47996         2012-193-22:23:37          2012-193-22:32:00
KrnHBR47996         ~~  08:23
SaskSignal47997     2012-193-23:47:10          2012-193-23:59:46
SaskRF47997         ~~  09:39
SaskSignal47998     2012-194-01:30:18          2012-194-01:39:17
SaskRF47998         ~~  03:23
AsfHBR47999         2012-194-03:11:11          2012-194-03:17:35
AsfHBR47999         ~~  06:24
ShubSignal47999     2012-194-03:19:33          2012-194-03:25:54
ShubRF47999         ~~  04:25
SaskSignal48002     2012-194-08:12:37          2012-194-08:25:44
SaskRF48002         ~~  10:28
AsfHBR48003         2012-194-09:47:11          2012-194-09:56:00
AsfHBR48003         ~~  08:49
AsfHBR48004         2012-194-11:27:05          2012-194-11:33:26
AsfHBR48004         ~~  06:21
KrnHBR48006         2012-194-14:30:14          2012-194-14:40:13
KrnHBR48006         ~~  09:59
KrnHBR48007         2012-194-16:12:34          2012-194-16:19:47
KrnHBR48007         ~~  07:13
ShubSignal48009     2012-194-19:13:58          2012-194-19:26:36
ShubRF48009         ~~  11:03
KrnHBR48009         2012-194-19:31:42          2012-194-19:40:02
KrnHBR48009         ~~  08:20
SaskSignal48010     2012-194-20:53:36          2012-194-21:06:00
SaskRF48010         ~~  09:35
SaskSignal48011     2012-194-22:32:00          2012-194-22:45:43
SaskRF48011         ~~  11:10
KrnHBR48011         2012-194-22:48:58          2012-194-22:56:40
KrnHBR48011         ~~  07:42
SaskSignal48012     2012-195-00:13:37          2012-195-00:25:02
SaskRF48012         ~~  07:59
AsfHBR48013         2012-195-01:55:12          2012-195-02:03:22
AsfHBR48013         ~~  08:10
AsfHBR48014         2012-195-03:37:47          2012-195-03:43:01
AsfHBR48014         ~~  05:14
ShubSignal48014     2012-195-03:44:03          2012-195-03:55:17
ShubRF48014         ~~  08:34
SaskSignal48015     2012-195-05:19:02          2012-195-05:31:01
SaskRF48015         ~~  08:48
SaskSignal48016     2012-195-06:58:21          2012-195-07:12:10
SaskRF48016         ~~  11:18
.....
;
;End_of_File
```

Appendix B: S1 – backup import file (SAS) sample

```
;FILENAME:                    SAS_LT_WK33.SAS
;SPACECRAFT_IDENTIFIER:           SCISAT-1
;FILE_CREATION_TIME:              23 Jul 2012 11:10:41 UTC
;FILE_SOURCE:                 DECONFLICT-S1
;FILE_DESTINATION:                DM
;FILE_TYPE:                   S1_PASS_SCHEDULE
;*******************************************************************************************
;
;
;SAS_START_OF_SPAN                2012-225-05:00:00.000
;SAS_END_OF_SPAN                  2012-233-00:00:00.000
;                                      Daily     Daily  Planning
;PASS       START TIME        END TIME        RF      HBR    Passes    RF     Day
;
SHUB 48463   2012-225-14:04:14   2012-225-14:17:10   11:00   11:00
SHUB 48464   2012-225-15:46:56   2012-225-15:56:02   04:38   04:38
SASK 48465   2012-225-17:23:06   2012-225-17:35:57   10:00   10:00
SASK 48466   2012-225-19:06:04   2012-225-19:15:24   04:16   04:16
SASK 48468   2012-225-22:29:55   2012-225-22:40:10   06:06   06:06
SASK 48469   2012-226-00:09:16   2012-226-00:22:34   10:37   10:37
SASK 48470   2012-226-01:48:46   2012-226-02:02:01   10:40   10:40     7   57:17  PD 225
   11 HOUR GAP
SHUB 48478   2012-226-14:30:13   2012-226-14:42:22   09:50   09:50
SASK 48480   2012-226-17:49:26   2012-226-18:01:11   08:27   08:27
SASK 48483   2012-226-22:55:12   2012-226-23:06:50   08:18   08:18
SHUB 48484   2012-227-00:39:36   2012-227-00:49:47   06:24   04:35     4   32:59  PD 226
SHUB 48506   2012-228-12:01:53   2012-228-12:13:21   09:59   01:16
SHUB 48507   2012-228-13:40:49   2012-228-13:53:35   10:45   10:45
SASK 48508   2012-228-15:19:13   2012-228-15:33:00   11:17   11:17
SASK 48509   2012-228-16:59:49   2012-228-17:12:21   09:35   09:35
SASK 48510   2012-228-18:43:00   2012-228-18:51:53   03:05   03:05
SASK 48512   2012-228-22:06:21   2012-228-22:17:02   06:52   06:52
SHUB 48513   2012-228-23:50:13   2012-229-00:02:06   08:54   06:00     7   60:27  PD 228
   11 HOUR GAP
SHUB 48521   2012-229-12:26:29   2012-229-12:39:13   11:08   09:10
SHUB 48522   2012-229-14:06:58   2012-229-14:18:44   09:14   09:14
SASK 48523   2012-229-15:44:34   2012-229-15:58:17   11:09   11:09
SASK 48524   2012-229-17:26:15   2012-229-17:37:35   07:50   07:50
SASK 48527   2012-229-22:31:37   2012-229-22:43:37   08:51   08:51
SHUB 48528   2012-230-00:16:23   2012-230-00:25:27   04:24   00:18     6   52:36  PD 229
   11 HOUR GAP
SHUB 48536   2012-230-12:51:40   2012-230-13:04:42   11:13   11:13
SHUB 48537   2012-230-14:33:45   2012-230-14:43:44   06:23   06:23
SASK 48538   2012-230-16:10:22   2012-230-16:23:31   10:26   10:26
SASK 48539   2012-230-17:53:01   2012-230-18:02:54   05:25   05:25
SASK 48541   2012-230-21:17:26   2012-230-21:27:07   05:02   05:02
SASK 48542   2012-230-22:56:51   2012-230-23:09:51   10:15   10:15     6   48:44  PD 230
   11 HOUR GAP
SHUB 48551   2012-231-13:17:26   2012-231-13:29:58   10:23   10:23
SASK 48553   2012-231-16:36:33   2012-231-16:48:45   09:05   09:05
SHUB 48555   2012-231-20:08:13   2012-231-20:17:04   06:36   06:36
SASK 48556   2012-231-21:42:46   2012-231-21:53:53   07:32   07:32
SASK 48557   2012-231-23:22:04   2012-231-23:35:41   11:02   11:02     5   44:38  PD 231
   11 HOUR GAP
SHUB 48566   2012-232-13:43:47   2012-232-13:55:04   08:32   08:32
SASK 48568   2012-232-17:03:06   2012-232-17:14:00   07:10   07:10
SHUB 48570   2012-232-20:32:54   2012-232-20:45:01   09:19   09:19
SASK 48571   2012-232-22:08:01   2012-232-22:20:22   09:20   09:20     4   34:21  PD 232
;
```

Appendix C: S1 – events import file (STC) sample

```
;FILENAME:                    S112072389.STC
;SPACECRAFT_IDENTIFIER:          SCISAT-1
;FILE_CREATION_TIME:           2012-201-11:29:00 UTC
;FILE_SOURCE:                 OAS-S1
;FILE_DESTINATION:              DM
;FILE_TYPE:                   OAS-S1_STATION_CONTACT_TIMES
;*********************************************************************************
;
;OAS_STC_START_OF_SPAN:          2012-205-00:00:00
;OAS_STC_END_OF_SPAN:           2012-234-00:00:00
;
;Station  Event      Time (UTC)      Elevation   Azimuth    Orbit
;                                    (deg)      (deg)
;
ASF      AOS      2012-205-01:06:19     2.0      246.1     48160
ASF      NULL_ST  2012-205-01:06:19     2.0      246.1     48160
ASF      RF_ON    2012-205-01:07:04     5.0      247.9     48160
ASF      NULL_END 2012-205-01:10:12     24.5     264.9     48160
ASF      MAX_EL   2012-205-01:12:36     46.2     325.8     48160
ASF      RF_OFF   2012-205-01:18:10     5.0      43.7      48160
ASF      LOS      2012-205-01:18:55     2.0      45.5      48160
;
ASF      AOS      2012-205-02:47:32     4.1      282.8     48161
ASF      NULL_ST  2012-205-02:47:32     4.1      282.8     48161
ASF      RF_ON    2012-205-02:47:47     5.0      283.9     48161
ASF      NULL_END 2012-205-02:49:50     14.4     297.5     48161
ASF      MAX_EL   2012-205-02:52:59     28.1     350.5     48161
ASF      RF_OFF   2012-205-02:58:12     5.0      57.2      48161
ASF      LOS      2012-205-02:58:59     2.1      60.6      48161
;
ASF      AOS      2012-205-04:27:32     2.0      304.3     48162
ASF      NULL_ST  2012-205-04:27:32     2.0      304.3     48162
ASF      RF_ON    2012-205-04:28:19     5.0      307.4     48162
ASF      NULL_END 2012-205-04:30:06     13.2     318.0     48162
ASF      MAX_EL   2012-205-04:33:36     30.2     15.9      48162
ASF      RF_OFF   2012-205-04:38:52     5.0      84.3      48162
ASF      LOS      2012-205-04:39:34     2.3      87.1      48162
;
ASF      AOS      2012-205-06:07:27     2.0      316.7     48163
ASF      NULL_ST  2012-205-06:07:27     2.0      316.7     48163
ASF      RF_ON    2012-205-06:08:12     5.0      318.0     48163
ASF      NULL_END 2012-205-06:09:53     13.9     322.4     48163
ASF      MAX_EL   2012-205-06:13:50     57.8     40.4      48163
ASF      NULL_ST  2012-205-06:18:30     9.5      120.5     48163
ASF      RF_OFF   2012-205-06:19:27     5.0      122.7     48163
ASF      NULL_END 2012-205-06:20:11     2.0      123.9     48163
ASF      LOS      2012-205-06:20:11     2.0      123.9     48163
;
... ... ...
;
;End_of_File
```

Appendix D: R1 - import file (ALS) sample

```
;###FILENAME:                    D1134507.ALS
;###SPACECRAFT_IDENTIFIER:          RADARSAT_1
;###FILE_CREATION_TIME:            2011-345-16:49:15.000
;###FILE_SOURCE:                  FD
;###FILE_DESTINATION:              SDB
;###FILE_TYPE:                    FD_AOS_LOS_DATA
;*****************************************************************************
;
FD_AOS_LOS_START_SPAN              2011-346-18:30:00.000
FD_AOS_LOS_END_SPAN                2012-009-19:30:00.000
;
01122                          ;Number of AOS-LOS Entries
;
;
;ID    Rev#   Station  Event      Time   (UTC MCF Format) Azimuth    Elevation
;                                          (deg)      (deg)
;
;
A60338  84068  SHUB    AOS        2011-346-20:34:24.880    112.7     0.0
A60338  84068  SHUB    RF START   2011-346-20:36:02.880    103.8     5.0
A60338  84068  SHUB    MAX ELEV   2011-346-20:40:33.680     57.0    15.2
A60338  84068  SHUB    RF END     2011-346-20:45:06.080     10.2     5.0
A60338  84068  SHUB    LOS        2011-346-20:46:43.680      1.5     0.0
;
A60339  84069  SHUB    AOS        2011-346-22:11:51.246    165.0     0.0
A60339  84069  SHUB    RF START   2011-346-22:13:06.846    165.4     5.0
A60339  84069  SHUB    MAX ELEV   2011-346-22:19:21.646    254.2    86.5
A60339  84069  SHUB    RF END     2011-346-22:25:40.446    345.8     5.0
A60339  84069  SHUB    LOS        2011-346-22:26:56.446    346.2     0.0
;
A60340  84070  SHUB    AOS        2011-346-23:53:47.356    221.1     0.0
A60340  84070  SHUB    RF START   2011-346-23:55:39.756    233.1     5.0
A60340  84070  SHUB    MAX ELEV   2011-346-23:59:38.556    273.3    11.5
A60340  84070  SHUB    RF END     2011-347-00:03:38.956    313.6     5.0
A60340  84070  SHUB    LOS        2011-347-00:05:32.556    325.6     0.0
;
A60341  84076  SHUB    AOS        2011-347-10:22:37.141     23.5     0.0
A60341  84076  SHUB    RF START   2011-347-10:24:02.341     28.8     5.0
A60341  84076  SHUB    MAX ELEV   2011-347-10:29:45.941     94.9    28.8
A60341  84076  SHUB    RF END     2011-347-10:35:27.141    160.7     5.0
A60341  84076  SHUB    LOS        2011-347-10:36:50.341    165.8     0.0
;
A61928  84465  HBK     AOS        2012-009-16:33:22.153    174.1     5.0
A61928  84465  HBK     RF START   2012-009-16:33:36.153    174.4     6.0
A61928  84465  HBK     MAX ELEV   2012-009-16:39:36.553    254.8    62.1
A61928  84465  HBK     RF END     2012-009-16:45:34.553    336.4     6.0
A61928  84465  HBK     LOS        2012-009-16:45:47.353    336.7     5.0
.....
.....
.....
;
;###END_OF_FILE
```

Appendix E: R2 – import file (LTM) sample

Radarsat-II Long Term Pass Schedule

Schedule Start Time: 2011-343-18:10:50 Schedule EndTime: 2012-009-03:00:00

CID StationID Orbit RF AOS LOS Product Released RASE Template Applied
--- --------- ----- -- --- --- ---------- ----------

7284552 SHUB 20813 679 2011-343-21:13:15 2011-343-21:27:21 SPS__CA__R2_SHUB_20813_2011-343-160414 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284552__20113432114.XSCH
7284591 SHUB 20814 728 2011-343-22:52:15 2011-343-23:07:04 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284591__20113432253.XSCH
7284630 SASK 20815 755 2011-344-00:34:55 2011-344-00:50:05 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284630__20113440036.XSCH
7284665 SASK 20816 474 2011-344-02:17:10 2011-344-02:28:56 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7284665__20113440219.XSCH
7284743 SHUB 20820 304 2011-344-09:24:28 2011-344-09:34:37 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7284743__20113440927.XSCH
7284769 SHUB 20821 751 2011-344-11:02:32 2011-344-11:17:39 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284769__20113441103.XSCH
7284813 SASK 20822 697 2011-344-12:41:59 2011-344-12:56:25 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284813__20113441243.XSCH
7284843 SASK 20823 735 2011-344-14:21:31 2011-344-14:36:23 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7284843__20113441422.XSCH
7284878 SASK 20824 462 2011-344-16:01:39 2011-344-16:13:04 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7284878__20113441603.XSCH
7284926 SHUB 20827 584 2011-344-20:45:09 2011-344-20:58:01 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284926__20113442046.XSCH
7284961 SHUB 20828 757 2011-344-22:22:57 2011-344-22:38:07 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284961__20113442224.XSCH
7285009 SASK 20829 756 2011-345-00:05:52 2011-345-00:21:01 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7285009__20113450007.XSCH
7285039 SASK 20830 620 2011-345-01:46:50 2011-345-02:00:18 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7285039__20113450148.XSCH
7285139 SHUB 20835 710 2011-345-10:33:37 2011-345-10:48:12 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7285139__20113451035.XSCH
7285174 SHUB 20836 702 2011-345-12:13:13 2011-345-12:27:38 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7285174__20113451214.XSCH
7285204 SASK 20837 757 2011-345-13:52:25 2011-345-14:07:35 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7285204__20113451353.XSCH
7285239 SASK 20838 579 2011-345-15:32:23 2011-345-15:45:11 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7285239__20113451533.XSCH
7285287 SHUB 20841 433 2011-345-20:17:27 2011-345-20:28:33 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7285287__20113452019.XSCH
7285322 SHUB 20842 749 2011-345-21:54:00 2011-345-22:09:03 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7285322__20113452155.XSCH
.....
.....
.....

The same (upper) TLM sample file shown in landscape mode.

Radarsat-II Long Term Pass Schedule

Schedule Start Time: 2011-343-18:10:50 Schedule EndTime: 2012-009-03:00:00

CID StationID Orbit RF AOS LOS Product Released RASE Template Applied
--- --------- ----- -- --- --- ---------- ----------

7284552 SHUB 20813 679 2011-343-21:13:15 2011-343-21:27:21 SPS__CA__R2_SHUB_20813_2011-343-160414 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284552__20113432114.XSCH
7284591 SHUB 20814 728 2011-343-22:52:15 2011-343-23:07:04 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284591__20113432253.XSCH
7284630 SASK 20815 755 2011-344-00:34:55 2011-344-00:50:05 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284630__20113440036.XSCH
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7284743 SHUB 20820 304 2011-344-09:24:28 2011-344-09:34:37 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7284743__20113440927.XSCH
7284769 SHUB 20821 751 2011-344-11:02:32 2011-344-11:17:39 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284769__20113441103.XSCH
7284813 SASK 20822 697 2011-344-12:41:59 2011-344-12:56:25 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284813__20113441243.XSCH
7284843 SASK 20823 735 2011-344-14:21:31 2011-344-14:36:23 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7284843__20113441422.XSCH
7284878 SASK 20824 462 2011-344-16:01:39 2011-344-16:13:04 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7284878__20113441603.XSCH
7284926 SHUB 20827 584 2011-344-20:45:09 2011-344-20:58:01 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284926__20113442046.XSCH
7284961 SHUB 20828 757 2011-344-22:22:57 2011-344-22:38:07 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7284961__20113442224.XSCH
7285009 SASK 20829 756 2011-345-00:05:52 2011-345-00:21:01 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7285009__20113450007.XSCH
7285039 SASK 20830 620 2011-345-01:46:50 2011-345-02:00:18 CA_SPS_RT-NOM-TTCS-PRIME-MonitorOnly-1__7285039__20113450148.XSCH
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7285174 SHUB 20836 702 2011-345-12:13:13 2011-345-12:27:38 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7285174__20113451214.XSCH
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7285322 SHUB 20842 749 2011-345-21:54:00 2011-345-22:09:03 CA_SPS_RT-NOM-TTCS-PRIME-Uplink-1__7285322__20113452155.XSCH
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