

Title: SPIRE Warm Electronics first functional Test Report

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1 Scope

This test report describes the results of the first functional test performed for the Herschel SPIRE Instrument containing of the DPU and DRCU according to following Test Procedure:

- SPIRE-RAL-PRC-0022??, Draft 1 from 18.11.2004 (Warm electronics Integration Test Procedure)

The Test was performed at ASED in Ottobrunn from 30.11.2004 until 02.12.2004

1.1 Summary

Detailed results are given in the as-run-procedure in chapter 2.

Following points were detected which held up more or less a smooth test run:

- Bus profile with SPIRE being prime was provided by ASP, but had a wrong definition in TC-packet: 2 instruments in the same SA
- TC to RT routing table in CDMU DFE had to be updated because APID 1280 was NOT assigned to RT 21 (SPIRE)
- The TMD.dat file did not contain the SPIDs for SPIRE, therefore TM packets from instrument were not passed to HIEGSE. For the time being two entries (190000559 and 190001559) were manually added.
- Science packets are received at the CCS but not forwarded to HIEGSE. This is due to the fact that they are not in the TMD.dat file. Currently no SPIDs are defined for Science packets. This has to be made up for next time.
- OBT from SPIRE has a delta of 1h. It seems CDMU DFE sends local time instead of GMT.
- All SPIRE commands are currently being defined as critical in the MIB files. They had to be authorised before sending. Critical status can be removed.
MIB file ccf.dat file modified to remove the criticality of all SPIRE TCs.
- IEGSE does not send the packet CCS_IF_1023 which contains the parameter YM3FF964 which is used (fetched) in the a.m. TCL procedure to get a timestamp. This leads to an endless wait-loop in the procedure.
CLASSPATH had to be changed in spire account in hos4-d IEGSE host to pick up the hcsc ccshandler updated locally in hos4-d ,which issues acknowledge packets (1,1) .The current hcsc version (515) of ccshandler DOES NOT issue this acknowledge packets causing the subsequent drop in the PIPEGW protocol.
- TCL procedures had to be modified: The request command was sent twice with a time delay of 60 sec. to overcome the known CCS bug (1703). This is NOT a problem of the IEGSE.

**2 Results of Warm electronics Integration Test Procedure
(SPIRE-RAL-PRC-0022??)**

2.1 SPIRE EGSE Setup Checks

Before any test can be executed the following applications must be running in the correspondent machines. These applications will normally have been already started by the SPIRE EGSE personnel. Ask the SPIRE EGSE personnel .Fill the blanks as appropriate when the test is performed:

Herschel IEGSE component	Version	Status	HIEGSE Machine	Check	Comments
EGSE router	515	Running		√	
EGSE Gateway	515	Running		√	
CDMS Simulator	2.5	Running		NA	CDMU DFE instead
SCOS2000	2.3 Patch level 5	Running		√	
TOPE environment	?	Started (EXIF task running)		√	See CCS
Packet Display	515	Running		√	On IEGSE and CCS
TM Ingestion	515	Running		√	On IEGSE

CCS component	Version	Status	HIEGSE Machine	Check	Comments
PIPE gateway		Running		√	
SCOS2000		Running		√	
CCS TOPE		Running		√	

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Comments :

- PLM SCOE running (28 V power provide)

- CDMU DFE running:

- Bus profile with SPIRE being prime was provided by ASP, but had a wrong definition in TC-packet: 2 instruments in the same SA
- TC to RT routing table in CDMU DFE had to be updated because APID 1280 was NOT assigned to RT 21 (SPIRE)
- The TMD.dat file did not contain the SPIDs for SPIRE, therefore TM packets from instrument were not passed to HIEGSE. For the time being two entries (19000559 and 190001559) were manually added.
- OBT from SPIRE has a delta of 1h. It seems CDMU DFE sends local time instead of GMT.
- All SPIRE commands are currently being defined as critical in the MIB files. They had to be authorised before sending. Critical status can be removed.

2.2 On board software startup and obs cheks

2.2.1 HSDPU power on

Note:

This switch ON procedure assumes the 28V power supply to be used is the one used in the SPIRE cryolab at RAL. If this is not the case the only applicable step of this procedure is step 3.

To power ON the DPU and start up the OBS follow these steps:

Step #	Action	Comments	Check
1	Power ON 28V main power supply to HSDPU	Wait for voltage reading to stabilize at 28.8 V	NA
2	Power ON secondary power supply (button on the bottom right part of power supply)	Wait for current to stabilize at 0.42 A. At this moment an Event Report (5, 2) is received on packet display. The last word in the packet contains the number of errors found in the memory checks and should be 0. Check it.	NA
3	From MANUAL STACK in SCOS2000 send manual command	Command mnemonic is SCD09505 4 Event packets are generated at this moment and they account for the fact that the DRCU is still not ON so	NA

	FORCE_BOOT	there is no subsystem response.	
--	-------------------	---------------------------------	--

Once the OBS is running HK reports should be generated automatically and packet display tool should show telemetry packets of (type, subtype) = (3, 25) with APID 0x500 (critical HK) and 0x502 (nominal HK). The Telemetry Display page DPU AND OBS PARAMETERS on SCOS 2000 displays all the DPU and OBS specific parameters from the nominal HK report. The Telemetry Display page CRITICAL HK PARAMETERS displays the entire contents of the critical HK report.

Comments:

- **Steps performed by using ASED EGSE (CCS, PLM SCOE, CDMU DFE).**
- **“FORCE_BOOT” command had to be sent twice.**

2.2.2 HK Generation Rate check

On the DPU AND OBS PARAMETERS display page check the following parameters:

Nominal HK parameter Name	Expected Behaviour	Actual Behaviour	Success/Failure	Comments
THSK	Incrementing once every second	Incrementing once every second	√	AND "SA_1_559" used (APID 1282)
TM2N	Incrementing once every second	Incrementing once every second	√	"
TSYNC	Incrementing once every second	Incrementing once every second	√	"

On the CRITICAL HK REPORT display page check:

Critical HK parameter Name	Expected Behaviour	Actual Behaviour	Success/Failure	Comments
ALL	Updating once every 2 seconds	Sample time is updating once every 2 seconds	√	AND "SA_0_559" used (APID 1280)

2.2.3 DPU and OBS Parameter Monitoring

Some further monitoring checks must be performed before carrying on with the integration tests.

On the DPU AND OBS PARAMETERS display page check the following parameters:

Nominal HK parameter Name	Expected Value	Actual Value	Success/Failure	Comments
OBSVER	OBS version as specified in the release note 0x2000 for version 2.0	0x2000	√	
TMMODE	0 – Normal TM Mode	0	√	
DPUP5V	~5.0 V	5.00	√	
DPUP15V	~14.70 V	14.70	√	
DPUM15V	~-14.98 V	14.98	√	
DPUTEMP	~304.68K	305.03	√	
DPUP2_5V	~2.48V	2.48	√	

Comments:

- OBT from SPIRE has a delta of 1h. It seems CDMU DFE sends local time instead of GMT.
- Command "DISABLE_TM_GENERATION" (SCP01500) needs to be sent in order to clear the events (3, 5, 1, 0x50B, 5, 1, 0x50C, 5, 1, 0x509) because MCU is not connected.

2.2.4 DRCU switch ON procedure

In order to switch on the DRCU follow these steps:

Step #	Action	Comments	Check
1	In CCS TOPE run template ClearSPIREHKReport.tcl	Two CLEAR_HK_REPORT commands to stop the HK request are sent to the OBS.	NOK
	<ul style="list-style-type: none"> IEGSE does not send the packet CCS_IF_1023 which contains the parameter YM3FF964 which is used (fetched) in the a.m. TCL procedure to get a timestamp. This leads to an endless wait-loop in the procedure. CLASSPATH had to be changed in spire account in hos4-d IEGSE host to pick up the hcsc ccshandler updated locally in hos4-d ,which issues acknowledge packets (1,1) .The current hcsc version (515) of ccshandler DOES NOT issue this acknowledge packets causing the subsequent drop in the PIPEGW protocol. MIB file ccf.dat file modified to remove the criticality of all SPIRE TCs. 		√
2	Check that commands are successful and SPIRE HK generation stops updating in the TMPH task in SCOS2000		√
3	Power on the main power supply (Button on the top rear right side of the bench looking from in front)	The PRIME POWER LED on the front of the power bench will come on.	√
3	Power on the secondary power supply.Pull UP (loaded) the spring in the front side of the DRCU.	The SECONDARY POWER LED on the front of the power bench will come on.	√
	In CCS TOPE run template procedure DefineSPIRENewHKReport.tcl	Two DEFINE_NEW_HK_REPORT commands to restart the HK request are sent to the OBS.	
	TCL procedure was modified: The request command was sent twice with a time delay of 20 sec. An extra one was sent manually to overcome the known CCS bug (1703). This is NOT a problem of the IEGSE.		√
4	Check that commands are successful.		√
	In the DPU AND OBS PARAMETERS display in SCOS2000 check that HK parameter: MONSTAT=5		NOK
	Was actually 7 (0b111) because MCU is not connected and therefore the OBSW sets the corresponding bit to 1		√

At this moment the DRCU is ON and both the DCU and the SCU are ready to receive and execute instrument commands.

2.3 TOPE procedure results

2.3.1 SPIRE_Template_WEIT01

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
SPIRE_Template_WEIT01.tcl	Refer to 4.4	DCUFRAMECNT	700	0	700		√
<p>Start time @: 14:47:44 End time @: 14:52:20 OBSID: 4000021</p> <p>Comments:</p> <ul style="list-style-type: none"> • Science packets are received at the CCS but not forwarded to HIEGSE. This is due to the fact that they are not in the TMD.dat file. Currently no SPIDs are defined for Science packets. This has to be made up for next time. • TCL procedure was modified: The request command was sent twice with a time delay of 60 sec. to overcome the known CCS bug (1703). This is NOT a problem of the IEGSE. 							

2.3.2 Test_SPIRE_WEIT02

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT02.tcl	Refer to 4.4	DCUFRAMECNT	700				
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

2.3.3 Test_SPIRE_WEIT03

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT03.tcl	Refer to 4.4	DCUFRAMECNT	~1400 This number may change depending on the period of time specified for data generation				
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

2.3.4 Test_SPIRE_WEIT04

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT04.tcl	Refer to 4.4	SCUFRAMECNT	31				
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

2.3.5 Test_SPIRE_WEIT05

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT05.tcl	Refer to 4.4	SCUFRAMECNT	31				
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

2.3.6 Test_SPIRE_WEIT06

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT06.tcl	Refer to 4.4	DCUFRAMECNT	~4000 (same as Test_SPIRE_WEI03)				
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

2.3.7 Test_SPIRE_WEIT07

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT07.tcl	Refer to 4.4	DCUFRAMECNT					
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

2.3.8 Test_SPIRE_WEIT08

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT08.tcl	Refer to 4.4	DCUFRAMECNT	700				
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

2.3.9 Test_SPIRE_WEIT09

Test Name	Test Description	HK Key Parameter	Number of frames expected	Actual Value Before/After	Number of frames received	Comments	Test Result Success/Fail
Test_SPIRE_WEIT09.tcl	Refer to 4.4	DCUFRAMECNT					
<p>Start time @: End time @: OBSID: Comments:</p> <p style="text-align: center;">NOT performed</p>							

3 Used TOPE procedures

3.1 Template_DefineSPIRENewHKReport.tcl

```
#
# This script is generated by HCSS software. There are no
# user maintainable parts in it.
# Breaking the seals stops warranty.
#
proc putLog {msg} {
    putlog "*** $msg"
}

proc putError {msg} {
    putlog "***! $msg"
    uplevel return
}

proc setTimeMarker {} {
    return [clock clicks -milliseconds]
}

proc waitSinceMarker {timeMarker milliSecondsToWait} {
    set currentTime [clock clicks -milliseconds]
    set timeToWait [expr $timeMarker + $milliSecondsToWait - $currentTime]
    putLog "Time to wait for TC since start of sequence: $milliSecondsToWait
milliseconds, actual time to wait: $timeToWait milliseconds"
    update
    if {$timeToWait > 0} {
        waittime [expr $timeToWait / 1000.]
    }
}

proc hex2string {hexString} {
    set numberOfChars [string length $hexString]
    for {set ix 0} {$ix < $numberOfChars} {incr ix 2} {
        set subStr [string range $hexString $ix [expr $ix + 1]]
        scan $subStr %2x intVal
        append retVal [format %c $intVal]
    }
    return [string trimright $retVal]
}

#proc fetchParameter {name CCS_IEGSE_timeStamp} {
#    set var [fetch $name]
#    set timeStamp [gettimestamp $var]
#    while {$timeStamp < $CCS_IEGSE_timeStamp} {
#        waittime 5.0
#        putlog "oops, new fetch necessary"
#        set var [fetch $name]
#        set timeStamp [gettimestamp $var]
#    }
#    return $var
#}

proc fetchRawValue {name CCS_IEGSE_timeStamp} {
```

```

    set var [fetch $name]
    set timeStamp [gettimestamp $var]
    while {$timeStamp < $CCS_IEGSE_timeStamp} {
        putlog "TM packet too old, new fetch necessary"
        waittime 5.0
        set var [fetch $name]
        set timeStamp [gettimestamp $var]
    }
    return [getrawvalue $var]
}

proc getTcName {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0x000 | $cnt]]
    return [hex2string [fetchRawValue $YMname $CCS_IEGSE_timeStamp]]
}

proc getWaitTime {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0x800 | $cnt]]
    return [fetchRawValue $YMname $CCS_IEGSE_timeStamp]
}

proc getTcID {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0x400 | $cnt]]
    return [fetchRawValue $YMname $CCS_IEGSE_timeStamp]
}

proc getTcParams {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0xC00 | $cnt]]
    set codedString [hex2string [fetchRawValue $YMname $CCS_IEGSE_timeStamp]]
    set tcParams ""
    foreach single [split $codedString "\177"] {
        if {[string length $single] != 0} {
            append tcParams "\"{" [string range $single 0 7]
            append tcParams " \"" [string range $single 9 end]
            if {[string index $single 8] == "R"} {
                append tcParams "\" RAW\" "
            } elseif {[string index $single 8] == "E"} {
                append tcParams "\" ENG\" "
            } else {
                putError "Invalid TC parameter type received from IEGSE"
            }
        }
    }
    return $tcParams
}

#
# attached instrument EGSE
#
attach HIEGSE

#
# Number of instrument TCs in this script
#
set numberOfTcs 3;

#

```



```

# touch all required TM packets
#   (seems necessary for initial request for EXIF_TM{1|2|3})
#
#putLog "Touch all necessary TM packets"
#for {set ix 0} {$ix < $numberOfTcs} {incr ix} {
#   set YMname [format "YM%3.3X964" [expr 0x400 | $ix]]
#   fetch $YMname
#   update
#}
#fetch YM3FF964
#fetch YM7FF964
#fetch YMBFF964

set CCS_IEGSE_timeStamp [clock format [clock seconds] -format
"%Y.%j.%H.%M.%S" -gmt 1 ]
putLog "Get time Stamp: $CCS_IEGSE_timeStamp"
#
# Transfer test procedure name by sending a telecommand packet to EGSE
#
set procedureName [file tail [info script]]
tcsend YC001964 nowait [list YP000964 "$procedureName;0" BS]
#
# trigger observation generation by sending a telecommand packet to EGSE
#
tcsend YC000964 nowait {YP000964 "CCS_Define_HK;" BS} \
  {YP001964 2} \
  {YP002964 "hkpacket_id0=768;" BS} \
  {YP002964 "hkpacket_id1=769;" BS} \

waittime 20.000
update
tcsend YC000964 nowait {YP000964 "CCS_Define_HK;" BS} \
  {YP001964 2} \
  {YP002964 "hkpacket_id0=768;" BS} \
  {YP002964 "hkpacket_id1=769;" BS}
#
# wait for TM parameter YM3FF964 which is in the last TM packet
#
putLog "Waiting for IEGSE TM packets"

waittime 5.0
set ObsName [fetch YM3FF964]
set timeStamp [gettimestamp $ObsName]
while {$timeStamp < $CCS_IEGSE_timeStamp} {
  putlog "still waiting for last IEGSE TM packet: $timeStamp >
$CCS_IEGSE_timeStamp"
  update
  waittime 5.0
  set ObsName [fetch YM3FF964]
  set timeStamp [gettimestamp $ObsName]
}

#
# check number of received TCinfo packets
#
putLog "Check number of returned TC infos"
set varYMBFF964 [fetch YMBFF964]

```

```

set timeStamp [gettimestamp $varYMBFF964]
while {$timeStamp < $CCS_IEGSE_timeStamp} {
  waittime 5.0
  set varYMBFF964 [fetch YMBFF964]
  set timeStamp [gettimestamp $varYMBFF964]
}

set rcvNoTcs [getrawvalue $varYMBFF964]
if {$rcvNoTcs != $numberOfTcs} {
  putError "Number of received TCinfos ($rcvNoTcs) does not match expected
count ($numberOfTcs)"
}
update
set ObsName [fetch YM3FF964]
set timeStamp [gettimestamp $ObsName]
while {$timeStamp < $CCS_IEGSE_timeStamp} {
  putlog "still waiting for last IEGSE TM packet: $timeStamp >
$CCS_IEGSE_timeStamp"
  update
  waittime 5.0
  set ObsName [fetch YM3FF964]
  set timeStamp [gettimestamp $ObsName]
}

#
# get all TC data
#
putLog "Retrieve TCinfo data"
for {set ix 0} {$ix < $numberOfTcs} {incr ix} {
  set tcName_$ix [getTcName $ix $CCS_IEGSE_timeStamp]
  set waitTime_$ix [getWaitTime $ix $CCS_IEGSE_timeStamp]
  set userId_$ix [getTcID $ix $CCS_IEGSE_timeStamp]
  set tcParams_$ix [getTcParams $ix $CCS_IEGSE_timeStamp]
  update
}
putLog "Got all TC info data"

putLog "Got all TM packets for ObservationMode [hex2string [getrawvalue
$ObsName]]"
update
#
# check TC names in TCinfo packets
#
if { \
  $tcName_0 == "SCR00500" && \
  $tcName_1 == "SCR00500" && \
  $tcName_2 == "SC002500" && \
1} {} else {putError "improper Telecommand name sequence"}

#
# reset timeMarker
#
set timeMarker [setTimeMarker]

putLog "Start of TC sequence"

```

```
#
# Telecommand sequence to be executed
#
waitSinceMarker $timeMarker $waitTime_0
eval tcsend SCR00500 nowait userrequestid $userId_0 $tcParams_0
waitSinceMarker $timeMarker $waitTime_1
eval tcsend SCR00500 nowait userrequestid $userId_1 $tcParams_1
waitSinceMarker $timeMarker $waitTime_2
eval tcsend SC002500 nowait userrequestid $userId_2 $tcParams_2
#
# Indicate end of test by sending a telecommand packet to EGSE
#
set procedureName [file tail [info script]]
tcsend YC002964 nowait [list YP000964 "$procedureName;" BS]
#
# a typical example of the telecommand sequence
#
set dummy {
waitsincemarker 0
tcsend SCR00500 nowait userrequestid 2 {SPR0N500 "768" RAW} {SPR1N500 "768"
RAW} {SPR2N500 "2000" RAW} {SPR3N500 "1" RAW} {SPR4N500 "0" RAW} {SPR5N500
"0" RAW}

waitsincemarker 0
tcsend SCR00500 nowait userrequestid 3 {SPR0N500 "769" RAW} {SPR1N500 "769"
RAW} {SPR2N500 "1000" RAW} {SPR3N500 "1" RAW} {SPR4N500 "1" RAW} {SPR5N500
"1" RAW}

waitsincemarker 1000
tcsend SC002500 nowait userrequestid 4 {SP02N500 "256" RAW}

}
set dummy {}

#
# detach from instrument EGSE
#
detach HIEGSE
```

3.2 SPIRE_Template_WEIT01.tcl

```
#
# This script is generated by HCSS software. There are no
# user maintainable parts in it.
# Breaking the seals stops warranty.
#
proc putLog {msg} {
    putlog "*** $msg"
}

proc putError {msg} {
    putlog "***! $msg"
    uplevel return
}

proc setTimeMarker {} {
    return [clock clicks -milliseconds]
}

proc waitSinceMarker {timeMarker milliSecondsToWait} {
    set currentTime [clock clicks -milliseconds]
    set timeToWait [expr $timeMarker + $milliSecondsToWait - $currentTime]
    putLog "Time to wait for TC since start of sequence: $milliSecondsToWait
milliseconds, actual time to wait: $timeToWait milliseconds"
    update
    if {$timeToWait > 0} {
        waittime [expr $timeToWait / 1000.]
    }
}

proc hex2string {hexString} {
    set numberOfChars [string length $hexString]
    for {set ix 0} {$ix < $numberOfChars} {incr ix 2} {
        set subStr [string range $hexString $ix [expr $ix + 1]]
        scan $subStr %2x intVal
        append retVal [format %c $intVal]
    }
    return [string trimright $retVal]
}

#proc fetchParameter {name CCS_IEGSE_timeStamp} {
#    set var [fetch $name]
#    set timeStamp [gettimestamp $var]
#    while {$timeStamp < $CCS_IEGSE_timeStamp} {
#        waittime 5.0
#        putlog "oops, new fetch necessary"
#        set var [fetch $name]
#        set timeStamp [gettimestamp $var]
#    }
#    return $var
#}

proc fetchRawValue {name CCS_IEGSE_timeStamp} {
    set var [fetch $name]
    set timeStamp [gettimestamp $var]
    while {$timeStamp < $CCS_IEGSE_timeStamp} {
```

```

        putlog "TM packet too old, new fetch necessary"
        waittime 5.0
        set var [fetch $name]
        set timeStamp [gettimestamp $var]
    }
    return [getrawvalue $var]
}

proc getTcName {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0x000 | $cnt]]
    return [hex2string [fetchRawValue $YMname $CCS_IEGSE_timeStamp]]
}

proc getWaitTime {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0x800 | $cnt]]
    return [fetchRawValue $YMname $CCS_IEGSE_timeStamp]
}

proc getTcID {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0x400 | $cnt]]
    return [fetchRawValue $YMname $CCS_IEGSE_timeStamp]
}

proc getTcParams {cnt CCS_IEGSE_timeStamp} {
    set YMname [format "YM%3.3X964" [expr 0xC00 | $cnt]]
    set codedString [hex2string [fetchRawValue $YMname $CCS_IEGSE_timeStamp]]
    set tcParams ""
    foreach single [split $codedString "\177"] {
        if {[string length $single] != 0} {
            append tcParams "\"{" [string range $single 0 7]
            append tcParams " \"" [string range $single 9 end]
            if {[string index $single 8] == "R"} {
                append tcParams "\" RAW\" "
            } elseif {[string index $single 8] == "E"} {
                append tcParams "\" ENG\" "
            } else {
                putError "Invalid TC parameter type received from IEGSE"
            }
        }
    }
    return $tcParams
}

#
# attached instrument EGSE
#
attach HIEGSE

#
# Number of instrument TCs in this script
#
set numberOfTcs 134;

#
# touch all required TM packets
# (seems necessary for initial request for EXIF_TM{1|2|3})
#

```

```

#putLog "Touch all necessary TM packets"
#for {set ix 0} {$ix < $numberOfTcs} {incr ix} {
#   set YMname [format "YM%3.3X964" [expr 0x400 | $ix]]
#   fetch $YMname
#   update
#}
#fetch YM3FF964
#fetch YM7FF964
#fetch YMBFF964

set CCS_IEGSE_timeStamp [clock format [clock seconds] -format
"%Y.%j.%H.%M.%S" -gmt 1 ]
putLog "Get time Stamp: $CCS_IEGSE_timeStamp"
#
# Transfer test procedure name by sending a telecommand packet to EGSE
#
set procedureName [file tail [info script]]
tcsend YC001964 nowait [list YP000964 "$procedureName;0" BS]
#
# trigger observation generation by sending a telecommand packet to EGSE
#
tcsend YC000964 nowait {YP000964 "SPIRE_WEIT01;" BS} \
  {YP001964 5} \
  {YP002964 "photbiasfreq=200.0;" BS} \
  {YP002964 "hotsampfreq=15.0;" BS} \
  {YP002964 "specbiasfreq=160.0;" BS} \
  {YP002964 "specsampfreq=80.0;" BS} \
  {YP002964 "frames=100;" BS} \

waittime 60.000
update
tcsend YC000964 nowait {YP000964 "SPIRE_WEIT01;" BS} \
  {YP001964 5} \
  {YP002964 "photbiasfreq=200.0;" BS} \
  {YP002964 "hotsampfreq=15.0;" BS} \
  {YP002964 "specbiasfreq=160.0;" BS} \
  {YP002964 "specsampfreq=80.0;" BS} \
  {YP002964 "frames=100;" BS}
#
# wait for TM parameter YM3FF964 which is in the last TM packet
#
putLog "Waiting for IEGSE TM packets"

waittime 5.0
set ObsName [fetch YM3FF964]
set timeStamp [gettimestamp $ObsName]
while {$timeStamp < $CCS_IEGSE_timeStamp} {
  putlog "still waiting for last IEGSE TM packet: $timeStamp >
$CCS_IEGSE_timeStamp"
  update
  waittime 5.0
  set ObsName [fetch YM3FF964]
  set timeStamp [gettimestamp $ObsName]
}
#
# check number of received TCinfo packets

```

```

#
putLog "Check number of returned TC infos"
set varYMBFF964 [fetch YMBFF964]
set timeStamp [gettimestamp $varYMBFF964]
while {$timeStamp < $CCS_IEGSE_timeStamp} {
  waittime 5.0
  set varYMBFF964 [fetch YMBFF964]
  set timeStamp [gettimestamp $varYMBFF964]
}

set rcvNoTcs [getrawvalue $varYMBFF964]
if {$rcvNoTcs != $numberOfTcs} {
  putError "Number of received TCinfos ($rcvNoTcs) does not match expected
count ($numberOfTcs)"
}
update
set ObsName [fetch YM3FF964]
set timeStamp [gettimestamp $ObsName]
while {$timeStamp < $CCS_IEGSE_timeStamp} {
  putlog "still waiting for last IEGSE TM packet: $timeStamp >
$CCS_IEGSE_timeStamp"
  update
  waittime 5.0
  set ObsName [fetch YM3FF964]
  set timeStamp [gettimestamp $ObsName]
}

#
# get all TC data
#
putLog "Retrieve TCinfo data"
for {set ix 0} {$ix < $numberOfTcs} {incr ix} {
  set tcName_$ix [getTcName $ix $CCS_IEGSE_timeStamp]
  set waitTime_$ix [getWaitTime $ix $CCS_IEGSE_timeStamp]
  set userId_$ix [getTcID $ix $CCS_IEGSE_timeStamp]
  set tcParams_$ix [getTcParams $ix $CCS_IEGSE_timeStamp]
  update
}
putLog "Got all TC info data"

putLog "Got all TM packets for ObservationMode [hex2string [getrawvalue
$ObsName]]"
update
#
# check TC names in TCinfo packets
#
if { \
  $tcName_0 == "SC003500" && \
  $tcName_1 == "SC001500" && \
  $tcName_2 == "SC003500" && \
  $tcName_3 == "SC000500" && \
  $tcName_4 == "SC003500" && \
  $tcName_5 == "SC001500" && \
  $tcName_6 == "SC003500" && \
  $tcName_7 == "SC001500" && \
  $tcName_8 == "SC003500" && \
}

```

```
$tcName_9 == "SC000500" && \  
$tcName_10 == "SCD00505" && \  
$tcName_11 == "SC003500" && \  
$tcName_12 == "SC001500" && \  
$tcName_13 == "SC003500" && \  
$tcName_14 == "SC001500" && \  
$tcName_15 == "SC003500" && \  
$tcName_16 == "SCD06505" && \  
$tcName_17 == "SCD06505" && \  
$tcName_18 == "SCD06505" && \  
$tcName_19 == "SCD06505" && \  
$tcName_20 == "SCD06505" && \  
$tcName_21 == "SCD06505" && \  
$tcName_22 == "SCD06505" && \  
$tcName_23 == "SCD06505" && \  
$tcName_24 == "SCD00505" && \  
$tcName_25 == "SCD06505" && \  
$tcName_26 == "SCD06505" && \  
$tcName_27 == "SCD01505" && \  
$tcName_28 == "SC003500" && \  
$tcName_29 == "SC003500" && \  
$tcName_30 == "SC001500" && \  
$tcName_31 == "SC003500" && \  
$tcName_32 == "SC001500" && \  
$tcName_33 == "SC003500" && \  
$tcName_34 == "SCD06505" && \  
$tcName_35 == "SCD06505" && \  
$tcName_36 == "SCD06505" && \  
$tcName_37 == "SCD06505" && \  
$tcName_38 == "SCD06505" && \  
$tcName_39 == "SCD06505" && \  
$tcName_40 == "SCD06505" && \  
$tcName_41 == "SCD00505" && \  
$tcName_42 == "SCD06505" && \  
$tcName_43 == "SCD06505" && \  
$tcName_44 == "SCD01505" && \  
$tcName_45 == "SC003500" && \  
$tcName_46 == "SC003500" && \  
$tcName_47 == "SC001500" && \  
$tcName_48 == "SC003500" && \  
$tcName_49 == "SC001500" && \  
$tcName_50 == "SC003500" && \  
$tcName_51 == "SCD06505" && \  
$tcName_52 == "SCD06505" && \  
$tcName_53 == "SCD06505" && \  
$tcName_54 == "SCD06505" && \  
$tcName_55 == "SCD06505" && \  
$tcName_56 == "SCD06505" && \  
$tcName_57 == "SCD00505" && \  
$tcName_58 == "SCD06505" && \  
$tcName_59 == "SCD06505" && \  
$tcName_60 == "SCD01505" && \  
$tcName_61 == "SC003500" && \  
$tcName_62 == "SC003500" && \  
$tcName_63 == "SC001500" && \  
$tcName_64 == "SC003500" && \  
$tcName_65 == "SC001500" && \  

```


\$tcName_66 == "SC003500" && \
\$tcName_67 == "SCD06505" && \
\$tcName_68 == "SCD06505" && \
\$tcName_69 == "SCD06505" && \
\$tcName_70 == "SCD06505" && \
\$tcName_71 == "SCD06505" && \
\$tcName_72 == "SCD06505" && \
\$tcName_73 == "SCD00505" && \
\$tcName_74 == "SCD06505" && \
\$tcName_75 == "SCD06505" && \
\$tcName_76 == "SCD01505" && \
\$tcName_77 == "SC003500" && \
\$tcName_78 == "SC003500" && \
\$tcName_79 == "SC001500" && \
\$tcName_80 == "SC003500" && \
\$tcName_81 == "SC001500" && \
\$tcName_82 == "SC003500" && \
\$tcName_83 == "SCD06505" && \
\$tcName_84 == "SCD06505" && \
\$tcName_85 == "SCD06505" && \
\$tcName_86 == "SCD06505" && \
\$tcName_87 == "SCD06505" && \
\$tcName_88 == "SCD06505" && \
\$tcName_89 == "SCD00505" && \
\$tcName_90 == "SCD06505" && \
\$tcName_91 == "SCD06505" && \
\$tcName_92 == "SCD01505" && \
\$tcName_93 == "SC003500" && \
\$tcName_94 == "SC003500" && \
\$tcName_95 == "SC001500" && \
\$tcName_96 == "SC003500" && \
\$tcName_97 == "SC001500" && \
\$tcName_98 == "SC003500" && \
\$tcName_99 == "SCD06505" && \
\$tcName_100 == "SCD06505" && \
\$tcName_101 == "SCD06505" && \
\$tcName_102 == "SCD06505" && \
\$tcName_103 == "SCD06505" && \
\$tcName_104 == "SCD06505" && \
\$tcName_105 == "SCD00505" && \
\$tcName_106 == "SCD06505" && \
\$tcName_107 == "SCD06505" && \
\$tcName_108 == "SCD01505" && \
\$tcName_109 == "SC003500" && \
\$tcName_110 == "SC003500" && \
\$tcName_111 == "SC001500" && \
\$tcName_112 == "SC003500" && \
\$tcName_113 == "SC001500" && \
\$tcName_114 == "SC003500" && \
\$tcName_115 == "SCD06505" && \
\$tcName_116 == "SCD06505" && \
\$tcName_117 == "SCD06505" && \
\$tcName_118 == "SCD06505" && \
\$tcName_119 == "SCD06505" && \
\$tcName_120 == "SCD06505" && \
\$tcName_121 == "SCD00505" && \
\$tcName_122 == "SCD06505" && \

```

    $tcName_123 == "SCD06505" && \
    $tcName_124 == "SCD01505" && \
    $tcName_125 == "SC003500" && \
    $tcName_126 == "SC003500" && \
    $tcName_127 == "SC001500" && \
    $tcName_128 == "SC003500" && \
    $tcName_129 == "SC001500" && \
    $tcName_130 == "SC003500" && \
    $tcName_131 == "SC000500" && \
    $tcName_132 == "SC003500" && \
    $tcName_133 == "SC001500" && \
1} {} else {putError "improper Telecommand name sequence"}

#
# reset timeMarker
#
set timeMarker [setTimeMarker]

putLog "Start of TC sequence"

#
# Telecommand sequence to be executed
#
waitSinceMarker $timeMarker $waitTime_0
eval tcsend SC003500 nowait userrequestid $userId_0 $tcParams_0
waitSinceMarker $timeMarker $waitTime_1
eval tcsend SC001500 nowait userrequestid $userId_1 $tcParams_1
waitSinceMarker $timeMarker $waitTime_2
eval tcsend SC003500 nowait userrequestid $userId_2 $tcParams_2
waitSinceMarker $timeMarker $waitTime_3
eval tcsend SC000500 nowait userrequestid $userId_3 $tcParams_3
waitSinceMarker $timeMarker $waitTime_4
eval tcsend SC003500 nowait userrequestid $userId_4 $tcParams_4
waitSinceMarker $timeMarker $waitTime_5
eval tcsend SC001500 nowait userrequestid $userId_5 $tcParams_5
waitSinceMarker $timeMarker $waitTime_6
eval tcsend SC003500 nowait userrequestid $userId_6 $tcParams_6
waitSinceMarker $timeMarker $waitTime_7
eval tcsend SC001500 nowait userrequestid $userId_7 $tcParams_7
waitSinceMarker $timeMarker $waitTime_8
eval tcsend SC003500 nowait userrequestid $userId_8 $tcParams_8
waitSinceMarker $timeMarker $waitTime_9
eval tcsend SC000500 nowait userrequestid $userId_9 $tcParams_9
waitSinceMarker $timeMarker $waitTime_10
eval tcsend SCD00505 nowait userrequestid $userId_10 $tcParams_10
waitSinceMarker $timeMarker $waitTime_11
eval tcsend SC003500 nowait userrequestid $userId_11 $tcParams_11
waitSinceMarker $timeMarker $waitTime_12
eval tcsend SC001500 nowait userrequestid $userId_12 $tcParams_12
waitSinceMarker $timeMarker $waitTime_13
eval tcsend SC003500 nowait userrequestid $userId_13 $tcParams_13
waitSinceMarker $timeMarker $waitTime_14
eval tcsend SC001500 nowait userrequestid $userId_14 $tcParams_14
waitSinceMarker $timeMarker $waitTime_15
eval tcsend SC003500 nowait userrequestid $userId_15 $tcParams_15
waitSinceMarker $timeMarker $waitTime_16
eval tcsend SCD06505 nowait userrequestid $userId_16 $tcParams_16

```

waitSinceMarker \$timeMarker \$waitTime_17
eval tcsend SCD06505 nowait userrequestid \$userId_17 \$tcParams_17
waitSinceMarker \$timeMarker \$waitTime_18
eval tcsend SCD06505 nowait userrequestid \$userId_18 \$tcParams_18
waitSinceMarker \$timeMarker \$waitTime_19
eval tcsend SCD06505 nowait userrequestid \$userId_19 \$tcParams_19
waitSinceMarker \$timeMarker \$waitTime_20
eval tcsend SCD06505 nowait userrequestid \$userId_20 \$tcParams_20
waitSinceMarker \$timeMarker \$waitTime_21
eval tcsend SCD06505 nowait userrequestid \$userId_21 \$tcParams_21
waitSinceMarker \$timeMarker \$waitTime_22
eval tcsend SCD06505 nowait userrequestid \$userId_22 \$tcParams_22
waitSinceMarker \$timeMarker \$waitTime_23
eval tcsend SCD06505 nowait userrequestid \$userId_23 \$tcParams_23
waitSinceMarker \$timeMarker \$waitTime_24
eval tcsend SCD06505 nowait userrequestid \$userId_24 \$tcParams_24
waitSinceMarker \$timeMarker \$waitTime_25
eval tcsend SCD06505 nowait userrequestid \$userId_25 \$tcParams_25
waitSinceMarker \$timeMarker \$waitTime_26
eval tcsend SCD06505 nowait userrequestid \$userId_26 \$tcParams_26
waitSinceMarker \$timeMarker \$waitTime_27
eval tcsend SCD01505 nowait userrequestid \$userId_27 \$tcParams_27
waitSinceMarker \$timeMarker \$waitTime_28
eval tcsend SC003500 nowait userrequestid \$userId_28 \$tcParams_28
waitSinceMarker \$timeMarker \$waitTime_29
eval tcsend SC003500 nowait userrequestid \$userId_29 \$tcParams_29
waitSinceMarker \$timeMarker \$waitTime_30
eval tcsend SC001500 nowait userrequestid \$userId_30 \$tcParams_30
waitSinceMarker \$timeMarker \$waitTime_31
eval tcsend SC003500 nowait userrequestid \$userId_31 \$tcParams_31
waitSinceMarker \$timeMarker \$waitTime_32
eval tcsend SC001500 nowait userrequestid \$userId_32 \$tcParams_32
waitSinceMarker \$timeMarker \$waitTime_33
eval tcsend SC003500 nowait userrequestid \$userId_33 \$tcParams_33
waitSinceMarker \$timeMarker \$waitTime_34
eval tcsend SCD06505 nowait userrequestid \$userId_34 \$tcParams_34
waitSinceMarker \$timeMarker \$waitTime_35
eval tcsend SCD06505 nowait userrequestid \$userId_35 \$tcParams_35
waitSinceMarker \$timeMarker \$waitTime_36
eval tcsend SCD06505 nowait userrequestid \$userId_36 \$tcParams_36
waitSinceMarker \$timeMarker \$waitTime_37
eval tcsend SCD06505 nowait userrequestid \$userId_37 \$tcParams_37
waitSinceMarker \$timeMarker \$waitTime_38
eval tcsend SCD06505 nowait userrequestid \$userId_38 \$tcParams_38
waitSinceMarker \$timeMarker \$waitTime_39
eval tcsend SCD06505 nowait userrequestid \$userId_39 \$tcParams_39
waitSinceMarker \$timeMarker \$waitTime_40
eval tcsend SCD06505 nowait userrequestid \$userId_40 \$tcParams_40
waitSinceMarker \$timeMarker \$waitTime_41
eval tcsend SCD06505 nowait userrequestid \$userId_41 \$tcParams_41
waitSinceMarker \$timeMarker \$waitTime_42
eval tcsend SCD06505 nowait userrequestid \$userId_42 \$tcParams_42
waitSinceMarker \$timeMarker \$waitTime_43
eval tcsend SCD06505 nowait userrequestid \$userId_43 \$tcParams_43
waitSinceMarker \$timeMarker \$waitTime_44
eval tcsend SCD01505 nowait userrequestid \$userId_44 \$tcParams_44
waitSinceMarker \$timeMarker \$waitTime_45

eval tcsend SC003500 nowait userrequestid \$userId_45 \$tcParams_45
waitSinceMarker \$timeMarker \$waitTime_46
eval tcsend SC003500 nowait userrequestid \$userId_46 \$tcParams_46
waitSinceMarker \$timeMarker \$waitTime_47
eval tcsend SC001500 nowait userrequestid \$userId_47 \$tcParams_47
waitSinceMarker \$timeMarker \$waitTime_48
eval tcsend SC003500 nowait userrequestid \$userId_48 \$tcParams_48
waitSinceMarker \$timeMarker \$waitTime_49
eval tcsend SC001500 nowait userrequestid \$userId_49 \$tcParams_49
waitSinceMarker \$timeMarker \$waitTime_50
eval tcsend SC003500 nowait userrequestid \$userId_50 \$tcParams_50
waitSinceMarker \$timeMarker \$waitTime_51
eval tcsend SCD06505 nowait userrequestid \$userId_51 \$tcParams_51
waitSinceMarker \$timeMarker \$waitTime_52
eval tcsend SCD06505 nowait userrequestid \$userId_52 \$tcParams_52
waitSinceMarker \$timeMarker \$waitTime_53
eval tcsend SCD06505 nowait userrequestid \$userId_53 \$tcParams_53
waitSinceMarker \$timeMarker \$waitTime_54
eval tcsend SCD06505 nowait userrequestid \$userId_54 \$tcParams_54
waitSinceMarker \$timeMarker \$waitTime_55
eval tcsend SCD06505 nowait userrequestid \$userId_55 \$tcParams_55
waitSinceMarker \$timeMarker \$waitTime_56
eval tcsend SCD06505 nowait userrequestid \$userId_56 \$tcParams_56
waitSinceMarker \$timeMarker \$waitTime_57
eval tcsend SCD00505 nowait userrequestid \$userId_57 \$tcParams_57
waitSinceMarker \$timeMarker \$waitTime_58
eval tcsend SCD06505 nowait userrequestid \$userId_58 \$tcParams_58
waitSinceMarker \$timeMarker \$waitTime_59
eval tcsend SCD06505 nowait userrequestid \$userId_59 \$tcParams_59
waitSinceMarker \$timeMarker \$waitTime_60
eval tcsend SCD01505 nowait userrequestid \$userId_60 \$tcParams_60
waitSinceMarker \$timeMarker \$waitTime_61
eval tcsend SC003500 nowait userrequestid \$userId_61 \$tcParams_61
waitSinceMarker \$timeMarker \$waitTime_62
eval tcsend SC003500 nowait userrequestid \$userId_62 \$tcParams_62
waitSinceMarker \$timeMarker \$waitTime_63
eval tcsend SC001500 nowait userrequestid \$userId_63 \$tcParams_63
waitSinceMarker \$timeMarker \$waitTime_64
eval tcsend SC003500 nowait userrequestid \$userId_64 \$tcParams_64
waitSinceMarker \$timeMarker \$waitTime_65
eval tcsend SC001500 nowait userrequestid \$userId_65 \$tcParams_65
waitSinceMarker \$timeMarker \$waitTime_66
eval tcsend SC003500 nowait userrequestid \$userId_66 \$tcParams_66
waitSinceMarker \$timeMarker \$waitTime_67
eval tcsend SCD06505 nowait userrequestid \$userId_67 \$tcParams_67
waitSinceMarker \$timeMarker \$waitTime_68
eval tcsend SCD06505 nowait userrequestid \$userId_68 \$tcParams_68
waitSinceMarker \$timeMarker \$waitTime_69
eval tcsend SCD06505 nowait userrequestid \$userId_69 \$tcParams_69
waitSinceMarker \$timeMarker \$waitTime_70
eval tcsend SCD06505 nowait userrequestid \$userId_70 \$tcParams_70
waitSinceMarker \$timeMarker \$waitTime_71
eval tcsend SCD06505 nowait userrequestid \$userId_71 \$tcParams_71
waitSinceMarker \$timeMarker \$waitTime_72
eval tcsend SCD06505 nowait userrequestid \$userId_72 \$tcParams_72
waitSinceMarker \$timeMarker \$waitTime_73
eval tcsend SCD00505 nowait userrequestid \$userId_73 \$tcParams_73

waitSinceMarker \$timeMarker \$waitTime_74
eval tcsend SCD06505 nowait userrequestid \$userId_74 \$tcParams_74
waitSinceMarker \$timeMarker \$waitTime_75
eval tcsend SCD06505 nowait userrequestid \$userId_75 \$tcParams_75
waitSinceMarker \$timeMarker \$waitTime_76
eval tcsend SCD01505 nowait userrequestid \$userId_76 \$tcParams_76
waitSinceMarker \$timeMarker \$waitTime_77
eval tcsend SC003500 nowait userrequestid \$userId_77 \$tcParams_77
waitSinceMarker \$timeMarker \$waitTime_78
eval tcsend SC003500 nowait userrequestid \$userId_78 \$tcParams_78
waitSinceMarker \$timeMarker \$waitTime_79
eval tcsend SC001500 nowait userrequestid \$userId_79 \$tcParams_79
waitSinceMarker \$timeMarker \$waitTime_80
eval tcsend SC003500 nowait userrequestid \$userId_80 \$tcParams_80
waitSinceMarker \$timeMarker \$waitTime_81
eval tcsend SC001500 nowait userrequestid \$userId_81 \$tcParams_81
waitSinceMarker \$timeMarker \$waitTime_82
eval tcsend SC003500 nowait userrequestid \$userId_82 \$tcParams_82
waitSinceMarker \$timeMarker \$waitTime_83
eval tcsend SCD06505 nowait userrequestid \$userId_83 \$tcParams_83
waitSinceMarker \$timeMarker \$waitTime_84
eval tcsend SCD06505 nowait userrequestid \$userId_84 \$tcParams_84
waitSinceMarker \$timeMarker \$waitTime_85
eval tcsend SCD06505 nowait userrequestid \$userId_85 \$tcParams_85
waitSinceMarker \$timeMarker \$waitTime_86
eval tcsend SCD06505 nowait userrequestid \$userId_86 \$tcParams_86
waitSinceMarker \$timeMarker \$waitTime_87
eval tcsend SCD06505 nowait userrequestid \$userId_87 \$tcParams_87
waitSinceMarker \$timeMarker \$waitTime_88
eval tcsend SCD06505 nowait userrequestid \$userId_88 \$tcParams_88
waitSinceMarker \$timeMarker \$waitTime_89
eval tcsend SCD00505 nowait userrequestid \$userId_89 \$tcParams_89
waitSinceMarker \$timeMarker \$waitTime_90
eval tcsend SCD06505 nowait userrequestid \$userId_90 \$tcParams_90
waitSinceMarker \$timeMarker \$waitTime_91
eval tcsend SCD06505 nowait userrequestid \$userId_91 \$tcParams_91
waitSinceMarker \$timeMarker \$waitTime_92
eval tcsend SCD01505 nowait userrequestid \$userId_92 \$tcParams_92
waitSinceMarker \$timeMarker \$waitTime_93
eval tcsend SC003500 nowait userrequestid \$userId_93 \$tcParams_93
waitSinceMarker \$timeMarker \$waitTime_94
eval tcsend SC003500 nowait userrequestid \$userId_94 \$tcParams_94
waitSinceMarker \$timeMarker \$waitTime_95
eval tcsend SC001500 nowait userrequestid \$userId_95 \$tcParams_95
waitSinceMarker \$timeMarker \$waitTime_96
eval tcsend SC003500 nowait userrequestid \$userId_96 \$tcParams_96
waitSinceMarker \$timeMarker \$waitTime_97
eval tcsend SC001500 nowait userrequestid \$userId_97 \$tcParams_97
waitSinceMarker \$timeMarker \$waitTime_98
eval tcsend SC003500 nowait userrequestid \$userId_98 \$tcParams_98
waitSinceMarker \$timeMarker \$waitTime_99
eval tcsend SCD06505 nowait userrequestid \$userId_99 \$tcParams_99
waitSinceMarker \$timeMarker \$waitTime_100
eval tcsend SCD06505 nowait userrequestid \$userId_100 \$tcParams_100
waitSinceMarker \$timeMarker \$waitTime_101
eval tcsend SCD06505 nowait userrequestid \$userId_101 \$tcParams_101
waitSinceMarker \$timeMarker \$waitTime_102

eval tcsend SCD06505 nowait userrequestid \$userId_102 \$tcParams_102
waitSinceMarker \$timeMarker \$waitTime_103
eval tcsend SCD06505 nowait userrequestid \$userId_103 \$tcParams_103
waitSinceMarker \$timeMarker \$waitTime_104
eval tcsend SCD06505 nowait userrequestid \$userId_104 \$tcParams_104
waitSinceMarker \$timeMarker \$waitTime_105
eval tcsend SCD00505 nowait userrequestid \$userId_105 \$tcParams_105
waitSinceMarker \$timeMarker \$waitTime_106
eval tcsend SCD06505 nowait userrequestid \$userId_106 \$tcParams_106
waitSinceMarker \$timeMarker \$waitTime_107
eval tcsend SCD06505 nowait userrequestid \$userId_107 \$tcParams_107
waitSinceMarker \$timeMarker \$waitTime_108
eval tcsend SCD01505 nowait userrequestid \$userId_108 \$tcParams_108
waitSinceMarker \$timeMarker \$waitTime_109
eval tcsend SC003500 nowait userrequestid \$userId_109 \$tcParams_109
waitSinceMarker \$timeMarker \$waitTime_110
eval tcsend SC003500 nowait userrequestid \$userId_110 \$tcParams_110
waitSinceMarker \$timeMarker \$waitTime_111
eval tcsend SC001500 nowait userrequestid \$userId_111 \$tcParams_111
waitSinceMarker \$timeMarker \$waitTime_112
eval tcsend SC003500 nowait userrequestid \$userId_112 \$tcParams_112
waitSinceMarker \$timeMarker \$waitTime_113
eval tcsend SC001500 nowait userrequestid \$userId_113 \$tcParams_113
waitSinceMarker \$timeMarker \$waitTime_114
eval tcsend SC003500 nowait userrequestid \$userId_114 \$tcParams_114
waitSinceMarker \$timeMarker \$waitTime_115
eval tcsend SCD06505 nowait userrequestid \$userId_115 \$tcParams_115
waitSinceMarker \$timeMarker \$waitTime_116
eval tcsend SCD06505 nowait userrequestid \$userId_116 \$tcParams_116
waitSinceMarker \$timeMarker \$waitTime_117
eval tcsend SCD06505 nowait userrequestid \$userId_117 \$tcParams_117
waitSinceMarker \$timeMarker \$waitTime_118
eval tcsend SCD06505 nowait userrequestid \$userId_118 \$tcParams_118
waitSinceMarker \$timeMarker \$waitTime_119
eval tcsend SCD06505 nowait userrequestid \$userId_119 \$tcParams_119
waitSinceMarker \$timeMarker \$waitTime_120
eval tcsend SCD06505 nowait userrequestid \$userId_120 \$tcParams_120
waitSinceMarker \$timeMarker \$waitTime_121
eval tcsend SCD00505 nowait userrequestid \$userId_121 \$tcParams_121
waitSinceMarker \$timeMarker \$waitTime_122
eval tcsend SCD06505 nowait userrequestid \$userId_122 \$tcParams_122
waitSinceMarker \$timeMarker \$waitTime_123
eval tcsend SCD06505 nowait userrequestid \$userId_123 \$tcParams_123
waitSinceMarker \$timeMarker \$waitTime_124
eval tcsend SCD01505 nowait userrequestid \$userId_124 \$tcParams_124
waitSinceMarker \$timeMarker \$waitTime_125
eval tcsend SC003500 nowait userrequestid \$userId_125 \$tcParams_125
waitSinceMarker \$timeMarker \$waitTime_126
eval tcsend SC003500 nowait userrequestid \$userId_126 \$tcParams_126
waitSinceMarker \$timeMarker \$waitTime_127
eval tcsend SC001500 nowait userrequestid \$userId_127 \$tcParams_127
waitSinceMarker \$timeMarker \$waitTime_128
eval tcsend SC003500 nowait userrequestid \$userId_128 \$tcParams_128
waitSinceMarker \$timeMarker \$waitTime_129
eval tcsend SC001500 nowait userrequestid \$userId_129 \$tcParams_129
waitSinceMarker \$timeMarker \$waitTime_130
eval tcsend SC003500 nowait userrequestid \$userId_130 \$tcParams_130

```
waitSinceMarker $timeMarker $waitTime_131
eval tcsend SC000500 nowait userrequestid $userId_131 $tcParams_131
waitSinceMarker $timeMarker $waitTime_132
eval tcsend SC003500 nowait userrequestid $userId_132 $tcParams_132
waitSinceMarker $timeMarker $waitTime_133
eval tcsend SC001500 nowait userrequestid $userId_133 $tcParams_133
#
# Indicate end of test by sending a telecommand packet to EGSE
#
set procedureName [file tail [info script]]
tcsend YC002964 nowait [list YP000964 "$procedureName;" BS]
#
# a typical example of the telecommand sequence
#
set dummy {
waitsincemarker 0
tcsend SC003500 nowait userrequestid 1615 {SP03N500 "0x0" RAW}

waitsincemarker 1000
tcsend SC001500 nowait userrequestid 1616 {SP01N500 "0x80070001" RAW}

waitsincemarker 2000
tcsend SC003500 nowait userrequestid 1617 {SP03N500 "0x1" RAW}

waitsincemarker 3000
tcsend SC000500 nowait userrequestid 1618 {SP00N500 "0x40000000" RAW}

waitsincemarker 4000
tcsend SC003500 nowait userrequestid 1619 {SP03N500 "0x0" RAW}

waitsincemarker 5000
tcsend SC001500 nowait userrequestid 1620 {SP01N500 "0x80000000" RAW}

waitsincemarker 6000
tcsend SC003500 nowait userrequestid 1621 {SP03N500 "0x0" RAW}

waitsincemarker 7000
tcsend SC001500 nowait userrequestid 1622 {SP01N500 "0x80090001" RAW}

waitsincemarker 8000
tcsend SC003500 nowait userrequestid 1623 {SP03N500 "0x1" RAW}

waitsincemarker 9000
tcsend SC000500 nowait userrequestid 1624 {SP00N500 "0x40000015" RAW}

waitsincemarker 10000
tcsend SCD00505 nowait userrequestid 1625

waitsincemarker 10000
tcsend SC003500 nowait userrequestid 1626 {SP03N500 "0x0" RAW}

waitsincemarker 11000
tcsend SC001500 nowait userrequestid 1627 {SP01N500 "0x80000000" RAW}

waitsincemarker 12000
tcsend SC003500 nowait userrequestid 1628 {SP03N500 "0x0" RAW}
```

```
waitsincemarker 13000
tcsend SC001500 nowait userrequestid 1629 {SP01N500 "0x88000000" RAW}

waitsincemarker 14000
tcsend SC003500 nowait userrequestid 1630 {SP03N500 "0x1" RAW}

waitsincemarker 15000
tcsend SCD06505 nowait userrequestid 1631 {SPD4N505 "0x84190062" RAW}

waitsincemarker 16000
tcsend SCD06505 nowait userrequestid 1632 {SPD4N505 "0x8418000c" RAW}

waitsincemarker 17000
tcsend SCD06505 nowait userrequestid 1633 {SPD4N505 "0x841a0000" RAW}

waitsincemarker 18000
tcsend SCD06505 nowait userrequestid 1634 {SPD4N505 "0x841b0000" RAW}

waitsincemarker 19000
tcsend SCD06505 nowait userrequestid 1635 {SPD4N505 "0x841c0000" RAW}

waitsincemarker 20000
tcsend SCD06505 nowait userrequestid 1636 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 21000
tcsend SCD06505 nowait userrequestid 1637 {SPD4N505 "0x843d0064" RAW}

waitsincemarker 22000
tcsend SCD06505 nowait userrequestid 1638 {SPD4N505 "0x843c0000" RAW}

waitsincemarker 23000
tcsend SCD00505 nowait userrequestid 1639

waitsincemarker 24000
tcsend SCD06505 nowait userrequestid 1640 {SPD4N505 "0x843e0001" RAW}

waitsincemarker 31000
tcsend SCD06505 nowait userrequestid 1641 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 34000
tcsend SCD01505 nowait userrequestid 1642 {SPD0N505 "0x1000" RAW}

waitsincemarker 36000
tcsend SC003500 nowait userrequestid 1643 {SP03N500 "0xffff" RAW}

waitsincemarker 38000
tcsend SC003500 nowait userrequestid 1644 {SP03N500 "0x0" RAW}

waitsincemarker 39000
tcsend SC001500 nowait userrequestid 1645 {SP01N500 "0x80000000" RAW}

waitsincemarker 40000
tcsend SC003500 nowait userrequestid 1646 {SP03N500 "0x0" RAW}

waitsincemarker 41000
tcsend SC001500 nowait userrequestid 1647 {SP01N500 "0x88010000" RAW}
```



```
waitsincemarker 42000
tcsend SC003500 nowait userrequestid 1648 {SP03N500 "0x1" RAW}

waitsincemarker 43000
tcsend SCD06505 nowait userrequestid 1649 {SPD4N505 "0x8439007a" RAW}

waitsincemarker 44000
tcsend SCD06505 nowait userrequestid 1650 {SPD4N505 "0x84380001" RAW}

waitsincemarker 45000
tcsend SCD06505 nowait userrequestid 1651 {SPD4N505 "0x843a0000" RAW}

waitsincemarker 46000
tcsend SCD06505 nowait userrequestid 1652 {SPD4N505 "0x843b0000" RAW}

waitsincemarker 47000
tcsend SCD06505 nowait userrequestid 1653 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 48000
tcsend SCD06505 nowait userrequestid 1654 {SPD4N505 "0x843d0064" RAW}

waitsincemarker 49000
tcsend SCD06505 nowait userrequestid 1655 {SPD4N505 "0x843c0004" RAW}

waitsincemarker 50000
tcsend SCD00505 nowait userrequestid 1656

waitsincemarker 51000
tcsend SCD06505 nowait userrequestid 1657 {SPD4N505 "0x843e0001" RAW}

waitsincemarker 53000
tcsend SCD06505 nowait userrequestid 1658 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 56000
tcsend SCD01505 nowait userrequestid 1659 {SPD0N505 "0x1000" RAW}

waitsincemarker 58000
tcsend SC003500 nowait userrequestid 1660 {SP03N500 "0xffff" RAW}

waitsincemarker 60000
tcsend SC003500 nowait userrequestid 1661 {SP03N500 "0x0" RAW}

waitsincemarker 61000
tcsend SC001500 nowait userrequestid 1662 {SP01N500 "0x80000000" RAW}

waitsincemarker 62000
tcsend SC003500 nowait userrequestid 1663 {SP03N500 "0x0" RAW}

waitsincemarker 63000
tcsend SC001500 nowait userrequestid 1664 {SP01N500 "0x88020000" RAW}

waitsincemarker 64000
tcsend SC003500 nowait userrequestid 1665 {SP03N500 "0x1" RAW}

waitsincemarker 65000
tcsend SCD06505 nowait userrequestid 1666 {SPD4N505 "0x84190062" RAW}
```

```
waitsincemarker 66000
tcsend SCD06505 nowait userrequestid 1667 {SPD4N505 "0x8418000c" RAW}

waitsincemarker 67000
tcsend SCD06505 nowait userrequestid 1668 {SPD4N505 "0x841a0000" RAW}

waitsincemarker 68000
tcsend SCD06505 nowait userrequestid 1669 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 69000
tcsend SCD06505 nowait userrequestid 1670 {SPD4N505 "0x843d0064" RAW}

waitsincemarker 70000
tcsend SCD06505 nowait userrequestid 1671 {SPD4N505 "0x843c0001" RAW}

waitsincemarker 71000
tcsend SCD00505 nowait userrequestid 1672

waitsincemarker 72000
tcsend SCD06505 nowait userrequestid 1673 {SPD4N505 "0x843e0001" RAW}

waitsincemarker 79000
tcsend SCD06505 nowait userrequestid 1674 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 82000
tcsend SCD01505 nowait userrequestid 1675 {SPD0N505 "0x1000" RAW}

waitsincemarker 84000
tcsend SC003500 nowait userrequestid 1676 {SP03N500 "0xffff" RAW}

waitsincemarker 86000
tcsend SC003500 nowait userrequestid 1677 {SP03N500 "0x0" RAW}

waitsincemarker 87000
tcsend SC001500 nowait userrequestid 1678 {SP01N500 "0x80000000" RAW}

waitsincemarker 88000
tcsend SC003500 nowait userrequestid 1679 {SP03N500 "0x0" RAW}

waitsincemarker 89000
tcsend SC001500 nowait userrequestid 1680 {SP01N500 "0x88030000" RAW}

waitsincemarker 90000
tcsend SC003500 nowait userrequestid 1681 {SP03N500 "0x1" RAW}

waitsincemarker 91000
tcsend SCD06505 nowait userrequestid 1682 {SPD4N505 "0x84190062" RAW}

waitsincemarker 92000
tcsend SCD06505 nowait userrequestid 1683 {SPD4N505 "0x8418000c" RAW}

waitsincemarker 93000
tcsend SCD06505 nowait userrequestid 1684 {SPD4N505 "0x841b0000" RAW}

waitsincemarker 94000
tcsend SCD06505 nowait userrequestid 1685 {SPD4N505 "0x843e0000" RAW}
```

```
waitsincemarker 95000
tcsend SCD06505 nowait userrequestid 1686 {SPD4N505 "0x843d0064" RAW}

waitsincemarker 96000
tcsend SCD06505 nowait userrequestid 1687 {SPD4N505 "0x843c0002" RAW}

waitsincemarker 97000
tcsend SCD00505 nowait userrequestid 1688

waitsincemarker 98000
tcsend SCD06505 nowait userrequestid 1689 {SPD4N505 "0x843e0001" RAW}

waitsincemarker 105000
tcsend SCD06505 nowait userrequestid 1690 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 108000
tcsend SCD01505 nowait userrequestid 1691 {SPD0N505 "0x1000" RAW}

waitsincemarker 110000
tcsend SC003500 nowait userrequestid 1692 {SP03N500 "0xffff" RAW}

waitsincemarker 112000
tcsend SC003500 nowait userrequestid 1693 {SP03N500 "0x0" RAW}

waitsincemarker 113000
tcsend SC001500 nowait userrequestid 1694 {SP01N500 "0x80000000" RAW}

waitsincemarker 114000
tcsend SC003500 nowait userrequestid 1695 {SP03N500 "0x0" RAW}

waitsincemarker 115000
tcsend SC001500 nowait userrequestid 1696 {SP01N500 "0x88040000" RAW}

waitsincemarker 116000
tcsend SC003500 nowait userrequestid 1697 {SP03N500 "0x1" RAW}

waitsincemarker 117000
tcsend SCD06505 nowait userrequestid 1698 {SPD4N505 "0x84190062" RAW}

waitsincemarker 118000
tcsend SCD06505 nowait userrequestid 1699 {SPD4N505 "0x8418000c" RAW}

waitsincemarker 119000
tcsend SCD06505 nowait userrequestid 1700 {SPD4N505 "0x841c0000" RAW}

waitsincemarker 120000
tcsend SCD06505 nowait userrequestid 1701 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 121000
tcsend SCD06505 nowait userrequestid 1702 {SPD4N505 "0x843d0064" RAW}

waitsincemarker 122000
tcsend SCD06505 nowait userrequestid 1703 {SPD4N505 "0x843c0003" RAW}

waitsincemarker 123000
tcsend SCD00505 nowait userrequestid 1704
```

```
waitsincemarker 124000
tcsend SCD06505 nowait userrequestid 1705 {SPD4N505 "0x843e0001" RAW}

waitsincemarker 131000
tcsend SCD06505 nowait userrequestid 1706 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 134000
tcsend SCD01505 nowait userrequestid 1707 {SPD0N505 "0x1000" RAW}

waitsincemarker 136000
tcsend SC003500 nowait userrequestid 1708 {SP03N500 "0xffff" RAW}

waitsincemarker 138000
tcsend SC003500 nowait userrequestid 1709 {SP03N500 "0x0" RAW}

waitsincemarker 139000
tcsend SC001500 nowait userrequestid 1710 {SP01N500 "0x80000000" RAW}

waitsincemarker 140000
tcsend SC003500 nowait userrequestid 1711 {SP03N500 "0x0" RAW}

waitsincemarker 141000
tcsend SC001500 nowait userrequestid 1712 {SP01N500 "0x88050000" RAW}

waitsincemarker 142000
tcsend SC003500 nowait userrequestid 1713 {SP03N500 "0x1" RAW}

waitsincemarker 143000
tcsend SCD06505 nowait userrequestid 1714 {SPD4N505 "0x8439007a" RAW}

waitsincemarker 144000
tcsend SCD06505 nowait userrequestid 1715 {SPD4N505 "0x84380001" RAW}

waitsincemarker 145000
tcsend SCD06505 nowait userrequestid 1716 {SPD4N505 "0x843a0000" RAW}

waitsincemarker 146000
tcsend SCD06505 nowait userrequestid 1717 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 147000
tcsend SCD06505 nowait userrequestid 1718 {SPD4N505 "0x843d0064" RAW}

waitsincemarker 148000
tcsend SCD06505 nowait userrequestid 1719 {SPD4N505 "0x843c0005" RAW}

waitsincemarker 149000
tcsend SCD00505 nowait userrequestid 1720

waitsincemarker 150000
tcsend SCD06505 nowait userrequestid 1721 {SPD4N505 "0x843e0001" RAW}

waitsincemarker 152000
tcsend SCD06505 nowait userrequestid 1722 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 155000
tcsend SCD01505 nowait userrequestid 1723 {SPD0N505 "0x1000" RAW}
```

```
waitsincemarker 157000
tcsend SC003500 nowait userrequestid 1724 {SP03N500 "0xffff" RAW}

waitsincemarker 159000
tcsend SC003500 nowait userrequestid 1725 {SP03N500 "0x0" RAW}

waitsincemarker 160000
tcsend SC001500 nowait userrequestid 1726 {SP01N500 "0x80000000" RAW}

waitsincemarker 161000
tcsend SC003500 nowait userrequestid 1727 {SP03N500 "0x0" RAW}

waitsincemarker 162000
tcsend SC001500 nowait userrequestid 1728 {SP01N500 "0x88060000" RAW}

waitsincemarker 163000
tcsend SC003500 nowait userrequestid 1729 {SP03N500 "0x1" RAW}

waitsincemarker 164000
tcsend SCD06505 nowait userrequestid 1730 {SPD4N505 "0x8439007a" RAW}

waitsincemarker 165000
tcsend SCD06505 nowait userrequestid 1731 {SPD4N505 "0x84380001" RAW}

waitsincemarker 166000
tcsend SCD06505 nowait userrequestid 1732 {SPD4N505 "0x843b0000" RAW}

waitsincemarker 167000
tcsend SCD06505 nowait userrequestid 1733 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 168000
tcsend SCD06505 nowait userrequestid 1734 {SPD4N505 "0x843d0064" RAW}

waitsincemarker 169000
tcsend SCD06505 nowait userrequestid 1735 {SPD4N505 "0x843c0006" RAW}

waitsincemarker 170000
tcsend SCD00505 nowait userrequestid 1736

waitsincemarker 171000
tcsend SCD06505 nowait userrequestid 1737 {SPD4N505 "0x843e0001" RAW}

waitsincemarker 173000
tcsend SCD06505 nowait userrequestid 1738 {SPD4N505 "0x843e0000" RAW}

waitsincemarker 176000
tcsend SCD01505 nowait userrequestid 1739 {SPD0N505 "0x1000" RAW}

waitsincemarker 178000
tcsend SC003500 nowait userrequestid 1740 {SP03N500 "0xffff" RAW}

waitsincemarker 180000
tcsend SC003500 nowait userrequestid 1741 {SP03N500 "0x0" RAW}

waitsincemarker 181000
tcsend SC001500 nowait userrequestid 1742 {SP01N500 "0x80000000" RAW}
```

```
waitsincemarker 182000
tcsend SC003500 nowait userrequestid 1743 {SP03N500 "0x0" RAW}

waitsincemarker 183000
tcsend SC001500 nowait userrequestid 1744 {SP01N500 "0x800a0001" RAW}

waitsincemarker 184000
tcsend SC003500 nowait userrequestid 1745 {SP03N500 "0x1" RAW}

waitsincemarker 185000
tcsend SC000500 nowait userrequestid 1746 {SP00N500 "0x40000000" RAW}

waitsincemarker 186000
tcsend SC003500 nowait userrequestid 1747 {SP03N500 "0x0" RAW}

waitsincemarker 187000
tcsend SC001500 nowait userrequestid 1748 {SP01N500 "0x80000000" RAW}

}
set dummy {}

#
# detach from instrument EGSE
#
detach HIEGSE
```


4 Used bus profiles

4.1 Herschel_Spire_nominal_bus_profile_DPU.PST

```
;Nominal HERSCHEL/PACS Prime bus profile  
;SPIRE is RT 21: 25TM, 2TC  
;PACS is RT 25: 2TM, 1TC  
;HIFI is RT 16: 2TM, 1TC
```

```
[Config]  
NumberOfSubFrames=64
```

```
[SubFrame1]  
1=RTreadSA,21,1 ;RT status from: SPIRE
```

```
[SubFrame2]  
1=RTreadSA,25,1 ;RT status from: PACS
```

```
[SubFrame3]  
1=RTreadSA,16,1 ;RT status from: HIFI
```

```
[SubFrame4]  
;1=RTreadSA,21,1 ;RT status from: SPIRE  
1=TMpoll,25 ;TM poll from: PACS  
2=RTaccessSA
```

```
[SubFrame5]  
1=TMpacket,25 ;TM packet from: PACS  
2=TMpoll,16 ;TM poll from: HIFI  
3=RTaccessSA
```

```
[SubFrame6]  
1=TMpacket,16 ;TM packet from: HIFI  
2=TMpoll,21 ;TM poll from: SPIRE  
3=RTaccessSA
```

```
[SubFrame7]  
1=TMpacket,21 ;TM packet from: SPIRE  
2=TMpoll,25 ;TM poll from: PACS  
3=RTaccessSA
```

```
[SubFrame8]  
1=TMpacket,25 ;TM packet from: PACS  
2=TMpoll,16 ;TM poll from: HIFI  
3=RTaccessSA
```

```
[SubFrame9]  
1=TMpacket,16 ;TM packet from: HIFI  
2=TMpoll,21 ;TM poll from: SPIRE  
3=RTaccessSA
```

```
[SubFrame10]  
1=TMpacket,21 ;TM packet from: SPIRE  
2=RTaccessSA
```


[SubFrame11]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame12]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame13]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame14]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame15]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame16]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame17]
1=TCpacket,21 ;TC packet to: SPIRE
2=RTaccessSA

[SubFrame18]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame19]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame20]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame21]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame22]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame23]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame24]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame25]

1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame26]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame27]
1=TMpacket,21 ;TM packet from: SPIRE
2=TMpoll,25 ;TM poll from: PACS
3=RTaccessSA

[SubFrame28]
1=TMpacket,25 ;TM packet from: PACS
2=TMpoll,21 ;TM poll from: SPIRE
3=RTaccessSA

[SubFrame29]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame30]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame31]
1=TMpacket,21 ;TM packet from: SPIRE
2=TMpoll,16 ;TM poll from: HIFI
3=RTaccessSA

[SubFrame32]
1=TMpacket,16 ;TM packet from: HIFI
2=RTaccessSA

[SubFrame33]
1=TimeSync ;Time distribution broadcast
2=TCpacket ;TC packet to: SPIRE
3=TMpoll,21 ;TM poll from: SPIRE
4=RTaccessSA

[SubFrame34]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame35]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame36]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame37]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame38]

1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame39]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame40]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame41]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame42]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame43]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame44]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame45]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame46]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame47]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame48]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame49]
1=TCpacket,16 ;TC packet to: HIFI
2=TMpoll,21 ;TM poll from: SPIRE
3=RTaccessSA

[SubFrame50]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame51]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame52]

1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame53]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame54]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame55]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame56]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame57]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame58]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame59]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame60]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame61]
1=TMpoll,21 ;TM poll from: SPIRE
2=RTaccessSA

[SubFrame62]
1=TMpacket,21 ;TM packet from: SPIRE
2=RTaccessSA

[SubFrame63]
1=RTaccessSA

5 Generated Test Logs of the TOPE procedures

5.1 Template_DefineSPIRENewHKReport.tcl Log file

2004.337.14.30.39.181325 Template_DefineSPIRENewHKReport: attach HIEGSE

2004.337.14.30.39.183490 Template_DefineSPIRENewHKReport: ** Get time Stamp: 2004.337.14.30.39

2004.337.14.30.39.183740 Template_DefineSPIRENewHKReport: tcsend YC001964 nowait {YP000964 {Template_DefineSPIRENewHKReport.tcl;0} BS}

2004.337.14.30.39.185370 Template_DefineSPIRENewHKReport: tcsend YC000964 nowait {YP000964 "CCS_Define_HK;" BS} {YP001964 2} {YP002964 "hkpacket_id0=768;" BS} {YP002964 "hkpacket_id1=769;" BS}2004.337.14.30.39.190663 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.30.59.191775 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.30.59.192255 Template_DefineSPIRENewHKReport: tcsend YC000964 nowait {YP000964 "CCS_Define_HK;" BS} {YP001964 2} {YP002964 "hkpacket_id0=768;" BS} {YP002964 "hkpacket_id1=769;" BS}2004.337.14.30.59.192932 Template_DefineSPIRENewHKReport: ** Waiting for IEGSE TM packets

2004.337.14.30.59.193048 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.04.195346 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.04.324507 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 > 2004.337.14.30.39

2004.337.14.31.04.324733 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.09.325868 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.09.326677 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 > 2004.337.14.30.39

2004.337.14.31.09.326871 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.14.327498 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.14.328306 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.14.328499 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.19.329136 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.19.329937 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.19.330129 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.24.330774 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.24.331632 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.24.331824 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.29.332402 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.29.333221 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.29.333413 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.34.334034 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.34.334838 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.34.335029 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.39.335668 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.39.336477 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.39.336674 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.44.337307 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.44.338123 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.44.338318 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.49.338933 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.49.339731 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.49.339923 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.54.340575 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.54.341413 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.54.341593 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.31.59.342197 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.31.59.342995 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.31.59.343166 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.04.343843 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.04.344674 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.32.04.344849 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.09.345467 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.09.346291 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.32.09.346470 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.14.347109 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.14.347899 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.32.14.348073 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.19.348728 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.19.349539 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.32.19.349714 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.24.350377 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.24.351191 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.32.24.351363 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.29.352005 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.29.352799 Template_DefineSPIRENewHKReport: still waiting for last IEGSE TM packet: 2004.337.14.29.49.653000 >
2004.337.14.30.39

2004.337.14.32.29.352976 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.34.353635 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.34.354478 Template_DefineSPIRENewHKReport: ** Check number of returned TC infos

2004.337.14.32.34.356552 Template_DefineSPIRENewHKReport: ** Retrieve TCinfo data

2004.337.14.32.34.881966 Template_DefineSPIRENewHKReport: ** Got all TC info data

2004.337.14.32.34.882224 Template_DefineSPIRENewHKReport: ** Got all TM packets for ObservationMode

2004.337.14.32.34.882476 Template_DefineSPIRENewHKReport: ** Start of TC sequence

2004.337.14.32.34.882658 Template_DefineSPIRENewHKReport: ** Time to wait for TC since start of sequence: 0 milliseconds, actual time to wait: 0 milliseconds

2004.337.14.32.34.882903 Template_DefineSPIRENewHKReport: tcsend SCR00500 nowait userrequestid 1636 {SPR0N500 "0x300" RAW} {SPR1N500 "0x300" RAW} {SPR2N500 "0x7d0" RAW} {SPR3N500 "0x1" RAW} {SPR4N500 "0x0" RAW} {SPR5N500 "0x0" RAW}

2004.337.14.32.34.885565 Template_DefineSPIRENewHKReport: ** Time to wait for TC since start of sequence: 0 milliseconds, actual time to wait: -3 milliseconds

2004.337.14.32.34.887067 Template_DefineSPIRENewHKReport: tcsend SCR00500 nowait userrequestid 1637 {SPR0N500 "0x301" RAW} {SPR1N500 "0x301" RAW} {SPR2N500 "0x3e8" RAW} {SPR3N500 "0x1" RAW} {SPR4N500 "0x1" RAW} {SPR5N500 "0x1" RAW}

2004.337.14.32.34.891271 Template_DefineSPIRENewHKReport: ** Time to wait for TC since start of sequence: 1000 milliseconds, actual time to wait: 991 milliseconds

2004.337.14.32.34.891683 Template_DefineSPIRENewHKReport: Entering state: WAITING

2004.337.14.32.35.884807 Template_DefineSPIRENewHKReport: Entering state: RUNNING

2004.337.14.32.35.885168 Template_DefineSPIRENewHKReport: tcsend SC002500 nowait userrequestid 1638 {SP02N500 "0x100" RAW}

2004.337.14.32.35.886003 Template_DefineSPIRENewHKReport: tcsend YC002964 nowait {YP000964 {Template_DefineSPIRENewHKReport.tcl;} BS}

2004.337.14.32.35.892089 Template_DefineSPIRENewHKReport: detach HIEGSE

2004.337.14.32.35.893281 Template_DefineSPIRENewHKReport: TERMINATED

5.2 SPIRE_Template_WEIT01.tcl Log file

2004.337.14.47.44.363410 SPIRE_Template_WEIT01: attach HIEGSE

2004.337.14.47.44.366546 SPIRE_Template_WEIT01: ** Get time Stamp: 2004.337.14.47.44

2004.337.14.47.44.366803 SPIRE_Template_WEIT01: tcsend YC001964 nowait {YP000964 {SPIRE_Template_WEIT01.tcl;0} BS}

2004.337.14.47.44.367491 SPIRE_Template_WEIT01: tcsend YC000964 nowait {YP000964 "SPIRE_WEIT01;" BS} {YP001964 5} {YP002964 "photbiasfreq=200.0;" BS} {YP002964 "hotsampfreq=15.0;" BS} {YP002964 "specbiasfreq=160.0;" BS} {YP002964 "specsampfreq=80.0;" BS} {YP002964 "frames=100;" BS}

2004.337.14.47.44.373766 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.48.44.377474 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.48.44.377985 SPIRE_Template_WEIT01: tcsend YC000964 nowait {YP000964 "SPIRE_WEIT01;" BS} {YP001964 5} {YP002964 "photbiasfreq=200.0;" BS} {YP002964 "hotsampfreq=15.0;" BS} {YP002964 "specbiasfreq=160.0;" BS} {YP002964 "specsampfreq=80.0;" BS} {YP002964 "frames=100;" BS}

2004.337.14.48.44.378728 SPIRE_Template_WEIT01: ** Waiting for IEGSE TM packets

2004.337.14.48.44.378844 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.48.49.381072 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.48.49.385456 SPIRE_Template_WEIT01: ** Check number of returned TC infos

2004.337.14.48.49.387266 SPIRE_Template_WEIT01: ** Retrieve TCinfo data

2004.337.14.49.12.880157 SPIRE_Template_WEIT01: ** Got all TC info data

2004.337.14.49.12.880419 SPIRE_Template_WEIT01: ** Got all TM packets for ObservationMode

2004.337.14.49.12.883313 SPIRE_Template_WEIT01: ** Start of TC sequence

2004.337.14.49.12.883517 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 0 milliseconds, actual time to wait: 0 milliseconds

2004.337.14.49.12.883742 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1776 {SP03N500 "0x0" RAW}

2004.337.14.49.12.884416 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 1000 milliseconds, actual time to wait: 999 milliseconds

2004.337.14.49.12.884742 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.13.887336 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.13.887721 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1643 {SP01N500 "0x80070001" RAW}

2004.337.14.49.13.888418 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 2000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.49.13.888663 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.14.887258 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.14.887639 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1778 {SP03N500 "0x1" RAW}

2004.337.14.49.14.888316 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 3000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.49.14.888556 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.15.885240 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.15.885603 SPIRE_Template_WEIT01: tcsend SC000500 nowait userrequestid 1779 {SP00N500 "0x40000000" RAW}

2004.337.14.49.15.886268 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 4000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.49.15.886501 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.16.885176 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.16.885521 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1780 {SP03N500 "0x0" RAW}

2004.337.14.49.16.886375 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 5000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.49.16.886729 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.17.885107 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.17.885463 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1647 {SP01N500 "0x80000000" RAW}

2004.337.14.49.17.886124 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 6000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.49.17.886372 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.18.885046 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.18.885405 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1648 {SP03N500 "0x0" RAW}

2004.337.14.49.18.886107 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 7000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.49.18.886372 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.19.885015 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.19.885619 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1649 {SP01N500 "0x80090001" RAW}

2004.337.14.49.19.886682 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 8000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.49.19.887040 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.20.886869 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.20.887210 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1784 {SP03N500 "0x1" RAW}

2004.337.14.49.20.887911 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 9000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.20.888177 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.21.886809 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.21.887170 SPIRE_Template_WEIT01: tcsend SC000500 nowait userrequestid 1785 {SP00N500 "0x40000021" RAW}

2004.337.14.49.21.887885 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 10000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.21.888152 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.22.884786 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.22.885129 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1652

2004.337.14.49.22.885789 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 10000 milliseconds, actual time to wait: -2 milliseconds

2004.337.14.49.22.886032 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1787 {SP03N500 "0x0" RAW}

2004.337.14.49.22.892260 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 11000 milliseconds, actual time to wait: 991 milliseconds

2004.337.14.49.22.892836 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.23.886635 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.23.886955 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1788 {SP01N500 "0x80000000" RAW}

2004.337.14.49.23.887678 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 12000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.23.887911 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.24.886630 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.24.887051 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1789 {SP03N500 "0x0" RAW}

2004.337.14.49.24.888012 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 13000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.24.888414 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.25.886553 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.25.886911 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1656 {SP01N500 "0x88000000" RAW}

2004.337.14.49.25.887595 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 14000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.25.887837 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.26.886481 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.26.886830 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1791 {SP03N500 "0x1" RAW}

2004.337.14.49.26.887511 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 15000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.26.887765 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.27.886428 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.27.886769 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1658 {SPD4N505 "0x84190062" RAW}

2004.337.14.49.27.888125 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 16000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.49.27.888510 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.28.886350 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.28.886803 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1659 {SPD4N505 "0x8418000c" RAW}

2004.337.14.49.28.887528 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 17000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.28.887789 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.29.884379 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.29.884857 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1660 {SPD4N505 "0x841a0000" RAW}

2004.337.14.49.29.885632 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 18000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.49.29.885893 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.30.886229 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.30.886663 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1661 {SPD4N505 "0x841b0000" RAW}

2004.337.14.49.30.887413 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 19000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.30.887659 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.31.886173 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.31.886601 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1662 {SPD4N505 "0x841c0000" RAW}

2004.337.14.49.31.887350 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 20000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.31.887596 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.32.886101 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.32.886441 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1663 {SPD4N505 "0x843e0000" RAW}

2004.337.14.49.32.887835 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 21000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.32.888224 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.33.886034 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.33.886472 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1664 {SPD4N505 "0x843d0064" RAW}

2004.337.14.49.33.887218 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 22000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.33.887474 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.34.885968 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.34.886325 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1665 {SPD4N505 "0x843c0000" RAW}

2004.337.14.49.34.887073 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 23000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.49.34.887330 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.35.885912 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.35.886250 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1666

2004.337.14.49.35.886949 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 24000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.49.35.887199 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.36.887799 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.36.888161 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1667 {SPD4N505 "0x843e0001" RAW}

2004.337.14.49.36.888911 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 31000 milliseconds, actual time to wait: 6995 milliseconds

2004.337.14.49.36.889159 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.43.885403 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.43.885822 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1668 {SPD4N505 "0x843e0000" RAW}

2004.337.14.49.43.887154 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 34000 milliseconds, actual time to wait: 2996 milliseconds

2004.337.14.49.43.887575 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.46.885221 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.46.885592 SPIRE_Template_WEIT01: tcsend SCD01505 nowait userrequestid 1669 {SPD0N505 "0x1000" RAW}

2004.337.14.49.46.886430 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 36000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.49.46.886719 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.48.885083 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.48.885453 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1670 {SP03N500 "0xffff" RAW}

2004.337.14.49.48.886281 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 38000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.49.48.886535 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.50.886910 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.50.887264 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1671 {SP03N500 "0x0" RAW}

2004.337.14.49.50.888071 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 39000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.50.888362 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.51.884890 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.51.885250 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1672 {SP01N500 "0x80000000" RAW}

2004.337.14.49.51.885952 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 40000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.49.51.886232 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.52.884822 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.52.885169 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1673 {SP03N500 "0x0" RAW}

2004.337.14.49.52.885879 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 41000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.49.52.886165 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.53.886765 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.53.887166 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1674 {SP01N500 "0x88010000" RAW}

2004.337.14.49.53.888014 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 42000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.53.888341 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.54.886639 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.54.886979 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1675 {SP03N500 "0x1" RAW}

2004.337.14.49.54.887657 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 43000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.54.887909 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.55.886583 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.55.886945 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1676 {SPD4N505 "0x8439007a" RAW}

2004.337.14.49.55.887785 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 44000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.55.888193 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.56.886523 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.56.886872 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1677 {SPD4N505 "0x84380001" RAW}

2004.337.14.49.56.887611 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 45000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.56.887850 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.57.886450 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.57.886870 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1678 {SPD4N505 "0x843a0000" RAW}

2004.337.14.49.57.887613 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 46000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.57.887890 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.58.886392 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.58.886745 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1679 {SPD4N505 "0x843b0000" RAW}

2004.337.14.49.58.888007 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 47000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.49.58.888384 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.49.59.886347 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.49.59.886765 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1680 {SPD4N505 "0x843e0000" RAW}

2004.337.14.49.59.888215 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 48000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.49.59.888616 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.00.886268 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.00.886627 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1681 {SPD4N505 "0x843d0064" RAW}

2004.337.14.50.00.887324 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 49000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.50.00.887608 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.01.884256 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.01.884618 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1682 {SPD4N505 "0x843c0004" RAW}

2004.337.14.50.01.885334 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 50000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.50.01.885625 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.02.886131 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.02.886465 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1683

2004.337.14.50.02.887055 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 51000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.02.887293 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.03.886067 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.03.886414 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1684 {SPD4N505 "0x843e0001" RAW}

2004.337.14.50.03.887241 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 53000 milliseconds, actual time to wait: 1996 milliseconds

2004.337.14.50.03.887617 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.05.885944 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.05.886273 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1685 {SPD4N505 "0x843e0000" RAW}

2004.337.14.50.05.887008 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 56000 milliseconds, actual time to wait: 2997 milliseconds

2004.337.14.50.05.887272 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.08.885753 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.08.886205 SPIRE_Template_WEIT01: tcsend SCD01505 nowait userrequestid 1686 {SPD0N505 "0x1000" RAW}

2004.337.14.50.08.886966 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 58000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.50.08.887212 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.10.885623 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.10.885964 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1687 {SP03N500 "0xffff" RAW}

2004.337.14.50.10.886679 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 60000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.50.10.886942 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.12.887463 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.12.887876 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1688 {SP03N500 "0x0" RAW}

2004.337.14.50.12.888574 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 61000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.50.12.888840 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.13.885430 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.13.885802 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1689 {SP01N500 "0x80000000" RAW}

2004.337.14.50.13.886536 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 62000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.13.886832 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.14.885368 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.14.885729 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1690 {SP03N500 "0x0" RAW}

2004.337.14.50.14.886444 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 63000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.14.886692 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.15.885302 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.15.885661 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1691 {SP01N500 "0x88020000" RAW}

2004.337.14.50.15.886369 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 64000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.15.886617 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.16.887186 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.16.887539 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1692 {SP03N500 "0x1" RAW}

2004.337.14.50.16.888248 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 65000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.50.16.888497 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.17.885188 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.17.885578 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1693 {SPD4N505 "0x84190062" RAW}

2004.337.14.50.17.886288 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 66000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.17.886567 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.18.887058 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.18.887482 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1694 {SPD4N505 "0x8418000c" RAW}

2004.337.14.50.18.888287 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 67000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.50.18.888633 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.19.887001 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.19.887343 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1695 {SPD4N505 "0x841a0000" RAW}

2004.337.14.50.19.888051 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 68000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.50.19.888294 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.20.886932 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.20.887362 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1696 {SPD4N505 "0x843e0000" RAW}

2004.337.14.50.20.888082 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 69000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.50.20.888335 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.21.884924 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.21.885347 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1697 {SPD4N505 "0x843d0064" RAW}

2004.337.14.50.21.886079 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 70000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.50.21.886320 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.22.886802 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.22.887163 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1698 {SPD4N505 "0x843c0001" RAW}

2004.337.14.50.22.887902 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 71000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.50.22.888146 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.23.886738 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.23.887066 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1699

2004.337.14.50.23.887760 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 72000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.50.23.888005 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.24.886698 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.24.887027 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1700 {SPD4N505 "0x843e0001" RAW}

2004.337.14.50.24.887714 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 79000 milliseconds, actual time to wait: 6996 milliseconds

2004.337.14.50.24.887946 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.31.886262 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.31.886669 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1701 {SPD4N505 "0x843e0000" RAW}

2004.337.14.50.31.887527 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 82000 milliseconds, actual time to wait: 2996 milliseconds

2004.337.14.50.31.887898 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.34.886047 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.34.886387 SPIRE_Template_WEIT01: tcsend SCD01505 nowait userrequestid 1702 {SPD0N505 "0x1000" RAW}

2004.337.14.50.34.887087 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 84000 milliseconds, actual time to wait: 1996 milliseconds

2004.337.14.50.34.887323 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.36.883959 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.36.884315 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1703 {SP03N500 "0xffff" RAW}

2004.337.14.50.36.885627 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 86000 milliseconds, actual time to wait: 1998 milliseconds

2004.337.14.50.36.885990 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.38.885786 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.38.886119 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1704 {SP03N500 "0x0" RAW}

2004.337.14.50.38.886849 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 87000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.38.887124 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.39.885724 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.39.886100 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1705 {SP01N500 "0x80000000" RAW}

2004.337.14.50.39.886817 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 88000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.39.887087 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.40.885658 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.40.886095 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1706 {SP03N500 "0x0" RAW}

2004.337.14.50.40.886826 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 89000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.40.887075 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.41.885591 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.41.885952 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1707 {SP01N500 "0x88030000" RAW}

2004.337.14.50.41.886773 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 90000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.41.887126 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.42.885532 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.42.885979 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1708 {SP03N500 "0x1" RAW}

2004.337.14.50.42.886722 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 91000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.42.886999 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.43.885466 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.43.885831 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1709 {SPD4N505 "0x84190062" RAW}

2004.337.14.50.43.886515 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 92000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.43.886757 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.44.885412 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.44.885781 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1710 {SPD4N505 "0x8418000c" RAW}

2004.337.14.50.44.886630 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 93000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.44.886910 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.45.885333 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.45.885691 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1711 {SPD4N505 "0x841b0000" RAW}

2004.337.14.50.45.886526 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 94000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.45.886922 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.46.885273 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.46.885622 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1712 {SPD4N505 "0x843e0000" RAW}

2004.337.14.50.46.886435 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 95000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.50.46.886823 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.47.887152 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.47.887498 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1713 {SPD4N505 "0x843d0064" RAW}

2004.337.14.50.47.888733 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 96000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.50.47.889102 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.48.887105 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.48.887454 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1714 {SPD4N505 "0x843c0002" RAW}

2004.337.14.50.48.888171 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 97000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.50.48.888417 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.49.885080 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.49.885421 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1715

2004.337.14.50.49.886084 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 98000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.50.49.886356 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.50.886965 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.50.887313 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1716 {SPD4N505 "0x843e0001" RAW}

2004.337.14.50.50.888038 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 105000 milliseconds, actual time to wait: 6996 milliseconds

2004.337.14.50.50.888303 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.50.57.886522 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.50.57.886876 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1717 {SPD4N505 "0x843e0000" RAW}

2004.337.14.50.57.887599 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 108000 milliseconds, actual time to wait: 2996 milliseconds

2004.337.14.50.57.887969 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.00.884373 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.00.884726 SPIRE_Template_WEIT01: tcsend SCD01505 nowait userrequestid 1718 {SPD0N505 "0x1000" RAW}

2004.337.14.51.00.885423 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 110000 milliseconds, actual time to wait: 1998 milliseconds

2004.337.14.51.00.885672 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.02.884246 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.02.884602 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1719 {SP03N500 "0xffff" RAW}

2004.337.14.51.02.885286 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 112000 milliseconds, actual time to wait: 1998 milliseconds

2004.337.14.51.02.885539 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.04.886073 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.04.886431 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1720 {SP03N500 "0x0" RAW}

2004.337.14.51.04.887146 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 113000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.04.887415 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.05.884050 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.05.884386 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1721 {SP01N500 "0x80000000" RAW}

2004.337.14.51.05.885149 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 114000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.51.05.885505 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.06.885940 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.06.886291 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1722 {SP03N500 "0x0" RAW}

2004.337.14.51.06.887524 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 115000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.06.887888 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.07.885879 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.07.886237 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1723 {SP01N500 "0x88040000" RAW}

2004.337.14.51.07.887079 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 116000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.07.887450 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.08.885817 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.08.886162 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1724 {SP03N500 "0x1" RAW}

2004.337.14.51.08.886996 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 117000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.08.887395 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.09.887709 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.09.888060 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1725 {SPD4N505 "0x84190062" RAW}

2004.337.14.51.09.888761 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 118000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.51.09.888996 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.10.885687 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.10.886040 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1726 {SPD4N505 "0x8418000c" RAW}

2004.337.14.51.10.886757 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 119000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.10.887011 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.11.885623 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.11.885980 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1727 {SPD4N505 "0x841c0000" RAW}

2004.337.14.51.11.886689 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 120000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.11.887000 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.12.885568 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.12.885923 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1728 {SPD4N505 "0x843e0000" RAW}

2004.337.14.51.12.886620 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 121000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.12.886858 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.13.885497 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.13.885926 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1729 {SPD4N505 "0x843d0064" RAW}

2004.337.14.51.13.886682 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 122000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.13.886930 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.14.885437 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.14.885797 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1730 {SPD4N505 "0x843c0003" RAW}

2004.337.14.51.14.886461 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 123000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.14.886693 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.15.885381 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.15.885726 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1731

2004.337.14.51.15.886342 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 124000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.15.886593 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.16.887260 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.16.887623 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1732 {SPD4N505 "0x843e0001" RAW}

2004.337.14.51.16.888874 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 131000 milliseconds, actual time to wait: 6995 milliseconds

2004.337.14.51.16.889249 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.23.886813 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.23.887236 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1733 {SPD4N505 "0x843e0000" RAW}

2004.337.14.51.23.887952 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 134000 milliseconds, actual time to wait: 2996 milliseconds

2004.337.14.51.23.888195 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.26.886611 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.26.886949 SPIRE_Template_WEIT01: tcsend SCD01505 nowait userrequestid 1734 {SPD0N505 "0x1000" RAW}

2004.337.14.51.26.887654 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 136000 milliseconds, actual time to wait: 1996 milliseconds

2004.337.14.51.26.887894 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.28.886488 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.28.886909 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1735 {SP03N500 "0xffff" RAW}

2004.337.14.51.28.888196 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 138000 milliseconds, actual time to wait: 1995 milliseconds

2004.337.14.51.28.888616 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.30.886376 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.30.886739 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1736 {SP03N500 "0x0" RAW}

2004.337.14.51.30.887454 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 139000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.30.887721 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.31.886322 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.31.886685 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1737 {SP01N500 "0x80000000" RAW}

2004.337.14.51.31.887404 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 140000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.31.887719 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.32.886263 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.32.886631 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1738 {SP03N500 "0x0" RAW}

2004.337.14.51.32.887367 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 141000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.32.887617 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.33.884215 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.33.884646 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1739 {SP01N500 "0x88050000" RAW}

2004.337.14.51.33.885915 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 142000 milliseconds, actual time to wait: 998 milliseconds

2004.337.14.51.33.886305 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.34.886106 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.34.886468 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1740 {SP03N500 "0x1" RAW}

2004.337.14.51.34.887183 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 143000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.34.887450 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.35.886044 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.35.886410 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1741 {SPD4N505 "0x8439007a" RAW}

2004.337.14.51.35.887138 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 144000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.35.887418 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.36.885981 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.36.886348 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1742 {SPD4N505 "0x84380001" RAW}

2004.337.14.51.36.887056 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 145000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.36.887333 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.37.887871 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.37.888223 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1743 {SPD4N505 "0x843a0000" RAW}

2004.337.14.51.37.888918 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 146000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.51.37.889160 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.38.885866 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.38.886226 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1744 {SPD4N505 "0x843e0000" RAW}

2004.337.14.51.38.887511 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 147000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.38.888004 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.39.885784 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.39.886137 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1745 {SPD4N505 "0x843d0064" RAW}

2004.337.14.51.39.886833 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 148000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.39.887076 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.40.887686 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.40.888046 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1746 {SPD4N505 "0x843c0005" RAW}

2004.337.14.51.40.888732 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 149000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.51.40.888981 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.41.885690 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.41.886046 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1747

2004.337.14.51.41.887295 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 150000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.41.887782 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.42.885596 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.42.885983 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1748 {SPD4N505 "0x843e0001" RAW}

2004.337.14.51.42.886695 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 152000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.51.42.886948 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.44.885463 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.44.885821 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1749 {SPD4N505 "0x843e0000" RAW}

2004.337.14.51.44.886617 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 155000 milliseconds, actual time to wait: 2997 milliseconds

2004.337.14.51.44.886971 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.47.885282 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.47.885643 SPIRE_Template_WEIT01: tcsend SCD01505 nowait userrequestid 1750 {SPD0N505 "0x1000" RAW}

2004.337.14.51.47.886302 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 157000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.51.47.886551 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.49.887104 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.49.887471 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1751 {SP03N500 "0xffff" RAW}

2004.337.14.51.49.888269 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 159000 milliseconds, actual time to wait: 1995 milliseconds

2004.337.14.51.49.888624 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.51.885051 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.51.885517 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1752 {SP03N500 "0x0" RAW}

2004.337.14.51.51.887117 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 160000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.51.51.887524 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.52.886902 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.52.887249 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1753 {SP01N500 "0x80000000" RAW}

2004.337.14.51.52.888524 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 161000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.51.52.888977 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.53.886843 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.53.887196 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1754 {SP03N500 "0x0" RAW}

2004.337.14.51.53.887905 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 162000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.53.888183 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.54.886780 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.54.887126 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1755 {SP01N500 "0x88060000" RAW}

2004.337.14.51.54.887806 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 163000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.54.888056 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.55.886715 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.55.887061 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1756 {SP03N500 "0x1" RAW}

2004.337.14.51.55.887895 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 164000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.55.888318 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.56.886648 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.56.886987 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1757 {SPD4N505 "0x8439007a" RAW}

2004.337.14.51.56.887795 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 165000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.56.888053 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.57.886583 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.57.886945 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1758 {SPD4N505 "0x84380001" RAW}

2004.337.14.51.57.887718 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 166000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.57.888081 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.58.886525 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.58.886878 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1759 {SPD4N505 "0x843b0000" RAW}

2004.337.14.51.58.887638 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 167000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.51.58.888004 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.51.59.886470 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.51.59.886983 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1760 {SPD4N505 "0x843e0000" RAW}

2004.337.14.51.59.888406 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 168000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.51.59.889034 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.00.886391 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.00.886749 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1761 {SPD4N505 "0x843d0064" RAW}

2004.337.14.52.00.887458 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 169000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.52.00.887732 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.01.886328 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.01.886704 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1762 {SPD4N505 "0x843c0006" RAW}

2004.337.14.52.01.887457 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 170000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.52.01.887714 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.02.886260 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.02.886600 SPIRE_Template_WEIT01: tcsend SCD00505 nowait userrequestid 1763

2004.337.14.52.02.887199 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 171000 milliseconds, actual time to wait: 996 milliseconds

2004.337.14.52.02.887440 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.03.886203 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.03.886568 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1764 {SPD4N505 "0x843e0001" RAW}

2004.337.14.52.03.887234 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 173000 milliseconds, actual time to wait: 1996 milliseconds

2004.337.14.52.03.887484 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.05.886076 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.05.886421 SPIRE_Template_WEIT01: tcsend SCD06505 nowait userrequestid 1765 {SPD4N505 "0x843e0000" RAW}

2004.337.14.52.05.887255 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 176000 milliseconds, actual time to wait: 2996 milliseconds

2004.337.14.52.05.887545 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.08.885880 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.08.886238 SPIRE_Template_WEIT01: tcsend SCD01505 nowait userrequestid 1766 {SPD0N505 "0x1000" RAW}

2004.337.14.52.08.886999 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 178000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.52.08.887234 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.10.885750 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.10.886186 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1767 {SP03N500 "0xffff" RAW}

2004.337.14.52.10.887031 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 180000 milliseconds, actual time to wait: 1997 milliseconds

2004.337.14.52.10.887293 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.12.887607 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.12.887967 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1768 {SP03N500 "0x0" RAW}

2004.337.14.52.12.888628 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 181000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.52.12.888878 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.13.885567 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.13.885920 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1769 {SP01N500 "0x80000000" RAW}

2004.337.14.52.13.886686 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 182000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.52.13.886924 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.14.885493 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.14.885850 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1770 {SP03N500 "0x0" RAW}

2004.337.14.52.14.886499 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 183000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.52.14.886739 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.15.885435 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.15.885860 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1771 {SP01N500 "0x800a0001" RAW}

2004.337.14.52.15.886569 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 184000 milliseconds, actual time to wait: 997 milliseconds

2004.337.14.52.15.886819 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.16.887321 SPIRE_Template_WEIT01: Entering state: RUNNING

2004.337.14.52.16.887674 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1772 {SP03N500 "0x1" RAW}

2004.337.14.52.16.888318 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 185000 milliseconds, actual time to wait: 995 milliseconds

2004.337.14.52.16.888562 SPIRE_Template_WEIT01: Entering state: WAITING

2004.337.14.52.17.885316 SPIRE_Template_WEIT01: Entering state: RUNNING
2004.337.14.52.17.885666 SPIRE_Template_WEIT01: tcsend SC000500 nowait userrequestid 1773 {SP00N500 "0x40000000" RAW}
2004.337.14.52.17.886343 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 186000 milliseconds, actual time to wait: 997 milliseconds
2004.337.14.52.17.886581 SPIRE_Template_WEIT01: Entering state: WAITING
2004.337.14.52.18.885249 SPIRE_Template_WEIT01: Entering state: RUNNING
2004.337.14.52.18.885613 SPIRE_Template_WEIT01: tcsend SC003500 nowait userrequestid 1774 {SP03N500 "0x0" RAW}
2004.337.14.52.18.886302 SPIRE_Template_WEIT01: ** Time to wait for TC since start of sequence: 187000 milliseconds, actual time to wait: 997 milliseconds
2004.337.14.52.18.886545 SPIRE_Template_WEIT01: Entering state: WAITING
2004.337.14.52.19.885176 SPIRE_Template_WEIT01: Entering state: RUNNING
2004.337.14.52.19.885533 SPIRE_Template_WEIT01: tcsend SC001500 nowait userrequestid 1775 {SP01N500 "0x80000000" RAW}
2004.337.14.52.19.886261 SPIRE_Template_WEIT01: tcsend YC002964 nowait {YP000964 {SPIRE_Template_WEIT01.tcl;} BS}
2004.337.14.52.19.891466 SPIRE_Template_WEIT01: detach HIEGSE
2004.337.14.52.19.893547 SPIRE_Template_WEIT01: TERMINATED

END OF DOCUMENT

	Name	Dep./Comp.		Name	Dep./Comp.
	Alberti von Mathias Dr.	AOE22		Wöhler Hans	AOE22
	Barlage Bernhard	AED11			
X	Bayer Thomas	AET52			
	Fehringer Alexander	AOE13			
	Frey Albrecht	AED422			
X	Gerner Willi	AED11			
	Grasl Andreas	OTN/AET52			
	Grasshoff Brigitte	AET12			
	Hauser Armin	AOE23			
	Hendry David	Terma Resid.	X	Alcatel	ASP
	Hinger Jürgen	AOE22	X	ESA/ESTEC	ESA
X	Hohn Rüdiger	AET52			
	Huber Johann	AOA4		Instruments:	
	Hund Walter	ASE4A	X	MPE (PACS)	MPE
X	Idler Siegmund	AED432	X	RAL (SPIRE)	RAL
	Ivány von András	FAE22	X	SRON (HIFI)	SRON
	Jahn Gerd Dr.	AOE23			
	Kalde Clemens	APE3		Subcontractors:	
	Kameter Rudolf	OTN/AET52		Air Liquide, Space Department	AIR
	Kettner Bernhard	AET42		Air Liquide, Space Department	AIRS
X	Knoblauch August	AET32		Air Liquide, Orbital System	AIRT
X	Koelle Markus	AET22		Alcatel Bell Space	ABSP
X	Kroeker Jürgen	AED65		Astrium Sub-Subsyst. & Equipment	ASSE
	Kunz Oliver Dr.	AOE23		Austrian Aerospace	AAE
	Lamprecht Ernst	OTN/ASI21		Austrian Aerospace	AAEM
	Lang Jürgen	ASE4A		APCO Technologies S. A.	APCO
	Langfermann Michael	AET52		Bieri Engineering B. V.	BIER
	Mack Paul	OTN/AET52		BOC Edwards	BOCE
X	Pastorino Michel	ASPI Resid.		Dutch Space Solar Arrays	DSSA
	Peltz Heinz-Willi	AOE13		EADS CASA Espacio	CASA
	Pietroboni Karin	AED65		EADS CASA Espacio	ECAS
	Platzer Wilhelm	AED22		EADS Space Transportation	ASIP
	Rebholz Reinhold	AET52		Eurocopter	ECD
	Reuß Friedhelm	AED62		HTS AG Zürich	HTSZ
	Rühe Wolfgang	AED65		Linde	LIND
	Runge Axel	OTN/AET52		Patria New Technologies Oy	PANT
	Sachsse Bernt	AED21		Phoenix, Volkmarsen	PHOE
X	Schink Dietmar	AED422		Prototech AS	PROT
X	Schlosser Christian	OTN/AET52		QMC Instruments Ltd.	QMC
	Schmidt Rudolf	FAE22		Rembe, Brilon	REMB
	Schweickert Gunn	AOE22		Rosemount Aerospace GmbH	ROSE
	Steininger Eric	AED422		RYMSA, Radiación y Microondas S.A.	RYM
X	Stritter Rene	AED11		SENER Ingenieria SA	SEN
	Tenhaeff Dieter	AOE22		Stöhr, Königsbrunn	STOE
	Thörmer Klaus-Horst Dr.	OTN/AED65		Terma A/S, Herlev	TER
	Wagner Klaus	AOE23			
X	Wietbrock Walter	AET12			