

MMO Switch to Cruise Dormant Mode by OBCP  
File: JX-FCP-002.xls  
Author: a.dietz-bc



## Procedure Summary

### Objectives

The objective of this OBCP is to switch MMO to the MMO Cruise dormant mode from the MMO standby mode of the MMO Cruise active mode.

### Summary of Constraints

All Science Instrument of MMO are turned off .  
MMO TWTA HV is OFF.  
MMO RCS HLV is closed.

### Spacecraft Configuration

#### Start of Procedure

MMO in Cruise Standby Mode

#### End of Procedure

MMO in Cruise Dormant Mode

### Reference File(s)

#### Input Command Sequences

#### Output Command Sequences

AJXF002A

### Referenced Displays

**ANDs**      **GRDs**      **SLDs**  
DJXA0001           (None)

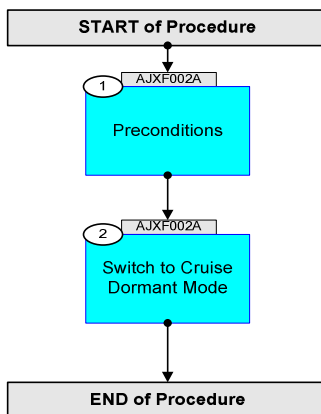
### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
20/02/2017		1	Created	a.dietz-bc	
13/12/2017		2	Update after SVT-1b: added commands to disable MMO HK SID 2.	a.dietz-bc	

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## Procedure Flowchart Overview



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Step	Label/Time	Activity/Remarks/Branch	CK	Display
<b>Beginning of Procedure</b>				
Beginning of Sequence				
AJXF002A		<b>MMO TO DORMANT OBCP</b>  TimeTag type : B <b>MPS Info below</b> State Initial = MMO_CRUISE_ACTIVE State During = MMO_CRUISE_ACTIVE State Final = MMO_CRUISE_DORMANT Duration = 00.01.10		
1		<b>Preconditions</b>  <b>Next step(s):</b> -> 2		
1.1		<b>Check MMO in active mode</b>  Check that the MMO is in Cruise Active mode.		
		<b>Verify Telemetry</b> NPWD1601 MMO-CNV-A-ON-ST = On		AND=DJXA0001 PKT=YCD0Z066
		<b>Verify Telemetry</b> NRUD4002 MMO_CNV_A_RLY_ST-A = Main		AND=DJXA0001 PKT=YCD0Z068
		OR		
		<b>Verify Telemetry</b> NPWD1602 MMO-CNV-B-ON-ST = On		AND=DJXA0001 PKT=YCD0Z066
		<b>Verify Telemetry</b> NRUD3002 MMO_CNV_B_RLY_ST-A = Main		AND=DJXA0001 PKT=YCD0Z068
2		<b>Switch to Cruise Dormant Mode</b>  <b>Next step(s):</b> -> END		

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
	+00.00.00	<b>Execute Telecommand</b> <b>ZJXK4241 Start OBCP: MMO Switch to Dormant Mode</b> TC Control Flags: GBM IL DSE --Y -- ---		
		Verify Packet Reception <b>YCDV36B4 DMS OBCP Load and Start Success</b> TM(5,1), APID 167 (10/7) PI1=14004 PI2=0		
		<b>NCDBFA4H</b> OBCP Identifier = <b>4241</b> <dec>		(None)
		The OBCP checks that all science instruments of the MMO are turned off, as well as the TWTA HV is OFF and the RCS HLV is closed. The OBCP verifies that the MMO battery relay is set to external, before it switches the MMO to dormant mode.		
		Note: During the switch off of the LCLs for CNV-A and B the DRU is turned off and the operational heater control is stopped automatically.		
		After about 1 minute and 10 seconds (including 50 seconds wait time), the OBCP will finish execution.		
		The end of the OBCP will be signalled by the following event:		
		Verify Packet Reception <b>YCDV36B0 DMS OBCP has been stopped</b> TM(5,1), APID 167 (10/7) PI1=14000 PI2=0		
		<b>NCDBFA0H</b> OBCP Identifier = <b>4241</b> <dec>		(None)
		Disable the generation of MMO HK SID 2.		
	+00.01.10	<b>Execute Telecommand</b> <b>ZCL00306 CPL Disable HK Telemetry Generation</b> TC Control Flags: GBM IL DSE --Y -- --- Command Parameters : <b>PCG03011</b> HK Packet Structure ID = <b>2</b> <dec>		
		Verify that the MMO is in Cruise dormant mode.		
		<b>Verify Telemetry</b> <b>NPWD1601</b> MMO-CNV-A-ON-ST = On		AND=DJXA0001 PKT=YCD0Z066

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
		<b>Verify Telemetry</b> NPWD1602 MMO-CNV-B-ON-ST = On		AND=DJXA0001 PKT=YCD0Z066
		<b>Verify Telemetry</b> NRUD4002 MMO_CNV_A_RLY_ST-A = Heater		AND=DJXA0001 PKT=YCD0Z068
		<b>Verify Telemetry</b> NRUD3002 MMO_CNV_B_RLY_ST-A = Heater		AND=DJXA0001 PKT=YCD0Z068
<b>AJXF002A</b>		End of Sequence		
<b>End of Procedure</b>				