

Solar Orbiter SRDB release

| Release Date | DB | Version | Scope |
|--------------|-----|---------|-------------------|
| 2019-11-01 | MAS | 6.51 | CSW 3.0.3p1 - PFM |

Previous release: MAS 6.50 CSW 3.0.3p1 - ETB

Build specification

Changes since the previous release: in red.

| Partition | Component | Supplier's data version | Supplier's TM/TC ICD | Compatible Unit HW or SW | Compatible CSW version |
|-------------------|---|-------------------------|--|--------------------------|------------------------|
| CSW | Central software | 3.10 | SOL.S.ASTR.ICD.00030 v13 | V3.0.3p1 | |
| CSW | AOCS SW | 3.10 | SOL-B.TER-ICD-00001 v4 | V3.0.3p1 | V3.0.3p1 |
| CSW | NRD Parameters | 15 | SOL.S.ASTR.ICD.00054 v15 | V3.0.3p1 | |
| ZSCO01, ZSCO02 | OPS/FDIR – HK TM | 3.4 | - | - | V3.0.3p1 |
| ZEQT04 | Thermal Limit TCs | 20190820 | - | Current | V3.0.3p1 |
| OBC | OBC CPDU/HPTM | V3 | SOL-A-RUA-ICD-10062 v13 | EM+FM | |
| ZEQT01 | SSMM | 1.9.10 | SOL-A-TAS-ICD-00001 v12 | ASW V02.07.00 | |
| IMU | Inertial Measuring Unit | 2.0 | SOL-B.SAS-ICD-00002 / FOG.0.ICD.177.T.ASTR v9.0 | EM+FM | 3.0.3p1 |
| RWU | Reaction Wheels (RWAB) | 02.01 | SOL-ASDF-RWAB-ICD-00001 v7.0 | EM+FM | 3.0.3p1 |
| STR | Star Tracker | 1.1 e | SOL-B.SG-UM-00001 vD | 2.1 | 3.0.3p1 |
| PCDU | PCDU | 3.1 | SOL-A-CRS-ICD-00061 v7 | EM/PFM [†] | 3.0.3p1 |
| RIU | RIU | 2 | SOL.BPATRI.ICD.53759 v7 | EM+FM | 3.0.3p1 |
| SADE | SADE | 7.0 | SOL.KDA.ICD.00007 'E' | EM+FM | 3.0.3p1 |
| APME | APME HGA/MGA | 01.02 | SOL-B.SEN-ICD-00003 v7 | EM+FM | 3.0.3p1 |
| DST | Deep Space Transponder | 4.11 | SOL.B.TAS.TN.00003 v2 | EM/PFM [†] | 3.0.3p1 |
| ZPAY01 | DEU (FDM) | V01.01 | SOL-A.SEN-ICD-00028 v4 | EM+FM | 3.0.3p1 |
| RIU, OBC, CSW | Equipment Calibrations: RIU / OBC / CSW TM | 6.3 | - | Current | 3.0.3p1 |
| OBC | OBC Resource alloc. | 9.0 | SOL.S.ASTR.TN.00169 v9.0 | Current | 3.0.3p1 |
| PCDU | PCDU Resource alloc. | 15.0 | SOL.S.ASTR.TN.00170 v15.0 | Current | 3.0.3p1 |
| RIU | RIU Resource alloc. | 16.0 | SOL.S.ASTR.TN.00171 v16.0 | Current | 3.0.3p1 |
| RWU | RWAB Resource alloc. | 4.0 | SOL.S.ASTR.TN.00354 v4.0 | Current | |
| OBC | Relay Box alloc. | 3.0 | SOL.TN.ADSS.1000208510 v3.0 | Current | |
| - | Electrical ICD | 18 | SOL.S.ASTR.ICD.00016 v18 | Current | |
| MAG | Magnetometer | 5.3 | SOL-MAG-TMTCICD v5.2 | QM/EM/FM/FS | |
| SOLOHI | SoloHI | 04.40 | SSD-ICD-SOLOHI-004 revE | FM only | |
| RPW | RPW | V4.3.5_ME B_PFM | (TC) RPW-SYS-MEB-DPS-ICD- 000210-LES v4.3.5 (TM) RPW-SYS-MEB-DPS-ICD- 000211-LES v4.3.5 | FM only | |
| EPD | EPD | 2.11 | SO-EPD-PO-IF-0003 v2.10 | FM only | |
| EUI | EUI | 04.05 | UM-MSSL-SOEUI-11001 19 | FM only | |
| SPICE | SPICE | 10.0 | SPICE-RAL-ICD-5003 v9.0 | FM only | |
| PHI | PHI | 3.0 | SOL-PHI-MPS-SW0000-IF-2 v3.0 | EM+FM | |
| METIS | Metis | 4.1 | METIS-ATI-ICD-003 v3B | FM only | |
| ZPAY02 | STIX | 2.26.28 | STIX-ICD-0812-ESC I4R1 | FM only | |
| SWA | SWA | 6.2.1 | SO-SWA-DPU_CD-IC-003 8.2 | FM only | |

Colouring:

| | | | |
|-----|----------|---------|------|
| CSW | Platform | Payload | EGSE |
|-----|----------|---------|------|

DB: IO1 MAS AI2 AI1
 Usage: OPS ESOC FV/AIT AIT Spare

Changes in this version:

| Reference | Title | Description | Status |
|-----------|-------|--|--------|
| | | Changes affecting users | |
| | | | |
| | | Changes with no impact on users | |
| | | | |

Further details on DCRs may be found in JIRA.

! Important user information

† Model selection:

Calibrations on some units differ between equipment models.

Selection is made by changing a parameter in the user environment.

| Unit | Model | Open Center (User variable) | SCOS (User Defined Constant) |
|-------|-----------------------|--------------------------------|---------------------------------|
| PCDU | EM (default) | USR.NPWZ0000=EM | NPWZ0000=10 |
| | FM | USR.NPWZ0000=FM | NPWZ0000=11 |
| DST_1 | EM (default) | USR.NDSZ0001=EM | NDSZ0001=0 |
| | PFM | USR.NDSZ0001=PFM | NDSZ0001=1 |
| | FM1 | USR.NDSZ0001=FM1 | NDSZ0001=2 |
| | FM2 (spare) | USR.NDSZ0001=FM2 | NDSZ0001=3 |
| DST_2 | EM (default) | USR.NDSZ0002=EM | NDSZ0002=0 |
| | PFM | USR.NDSZ0002=PFM | NDSZ0002=1 |
| | FM1 | USR.NDSZ0002=FM1 | NDSZ0002=2 |
| | FM2 (spare) | USR.NDSZ0002=FM2 | NDSZ0002=3 |
| SA +Y | QM | USR.NRUZ0000=QM | N/A |
| | FM (default) | USR.NRUZ0000=FM | |

Validity status of TM

TM from Platform equipment units are configured with an associated validity status in the database, which will only work in the end-user environment if the validity indicators in the CSW HK TM packets are actually being received.

The Operator must ensure that the HK TM packets listed below are being generated in order to correctly interpret the TM from the associated Equipment unit.

| TM Packet | Description |
|-----------|----------------|
| YCA1Z016 | AOCS STR |
| YCA1Z154 | AOCS Safe Slow |
| YCA2Z092 | AOCS STR |
| YCF1Z001 | PLF Summary |
| YCF1Z086 | PLF PCDU HK |

| | |
|----------|--------------------------|
| YCF1Z088 | PLF APME HK |
| YCF1Z093 | PLF DST HK |
| YCF1Z155 | PLF Essential EPS COMMS |
| YCF1Z189 | PLF Comms APME FDIR |
| YCF1Z190 | PLF Comms Generic FDIR |
| YCF1Z191 | PLF EPS PCDU SADE FDIR |
| YCF2Z010 | PLF PCDU HK |
| YCF2Z012 | PLF APME HK |
| YCF2Z017 | PLF RIU TM Statuses |
| YCF2Z077 | PLF Summary |
| YCS1Z003 | SYS Equipment SCV Status |
| YCS1Z090 | SYS LEOP |
| YCS1Z153 | SYS Safe Mode Fast |
| YCS1Z156 | SYS Safe Mode ULGA |
| YCS2Z079 | SYS Equipment SCV Status |

Model issues

Constraints to be taken into account, depending on which unit is installed in the user environment.

| Unit | Constraint is applicable on | | Details |
|--------|-----------------------------|----|--|
| MAG | EM | FM | Refer to the MAG User Manual for details (section “Command restrictions specific to EM and/or FM”). EM: Some commands are not to be used with the EM unit. FM: Some commands may be used with FM only in restricted circumstances. |
| SPICE | FM | FM | An SRDB release is compatible with only an EM <u>or</u> FM unit. Check the build specification for SPICE on p.1 |
| SoloHI | EM | | Ground monitoring limits on NIH0KC7T (HW Camera Card FPA Detector Operational Temperature AR 30) should be ignored when using the EM unit. |
| RPW | FM | FM | An SRDB release is compatible with only an EM <u>or</u> FM unit. Check the build specification for RPW on p.1 |

Hazardous commands

| Criticality key | | |
|-----------------|-------------------------|---------------------|
| Cr | Open Center designation | SCOS DB designation |
| M | Dangerous | CCF_CRITICAL=Y |
| H | Prohibited | CCF_CRITICAL=Y |

| Partition | PID | TC Name | Cr | PUS | TC Description |
|-----------|-----|----------|----|-------|---|
| ZEQT03 | 10 | ZSDG0030 | M | 2,128 | SADE A PY Motor Move |
| ZEQT03 | 10 | ZSDG0040 | M | 2,128 | SADE A MY Motor Move |
| ZEQT03 | 10 | ZSDG0080 | M | 2,128 | SADE A PYMY Motor Move |
| ZEQT03 | 10 | ZSDK0030 | M | 2,128 | SADE B PY Motor Move |
| ZEQT03 | 10 | ZSDK0040 | M | 2,128 | SADE B MY Motor Move |
| ZEQT03 | 10 | ZSDK0080 | M | 2,128 | SADE B PYMY Motor Move |
| CSW | 14 | ZCSF0013 | H | 8,1 | COMS Execute Recovery Action 1 Function |
| CSW | 14 | ZCSF0014 | H | 8,1 | COMS Execute Recovery Action 2 Function |
| CSW | 14 | ZCSF0026 | H | 8,1 | TWTA Execute Action1 Function |
| CSW | 14 | ZCSF0027 | H | 8,1 | DST Execute Recovery Action 1 Function |
| CSW | 14 | ZCSF0028 | H | 8,1 | DST Execute Recovery Action 2 Function |

| | | | | | |
|-------|----|----------|---|---------|------------------------------------|
| CSW | 14 | ZCSD2005 | H | 131,1 | Restart Spacewire Link |
| CSW | 14 | ZCSD3404 | H | 131,1 | Dst-Tx Set Output Power |
| CSW | 14 | ZCSD3505 | H | 131,1 | DST Set Ranging Mod idx |
| CSW | 14 | ZCSD3507 | H | 131,1 | Configure COMMS |
| CSW | 14 | ZCSD3905 | M | 131,1 | SADE PY Motor Move |
| CSW | 14 | ZCSD3906 | M | 131,1 | SADE MY Motor Move |
| CSW | 14 | ZCSD3907 | M | 131,1 | SADE PYMY Motor Move |
| CSW | 14 | ZCSD3912 | M | 131,1 | Execute SA Steering |
| EPD | 54 | ZID52361 | M | 129,197 | 129,197 SIS_HV_MCP_LEVEL |
| EPD | 54 | ZID52362 | M | 129,198 | 129,198 SIS_HV_MCP_LIMIT |
| EPD | 54 | ZID52363 | M | 129,199 | 129,199 SIS_HV_MCP_STEP |
| EPD | 54 | ZID52364 | M | 129,200 | 129,200 SIS_IRIS_AUTO |
| EPD | 54 | ZID52365 | M | 129,201 | 129,201 SIS_IRIS_HOME |
| EPD | 54 | ZID52366 | M | 129,202 | 129,202 SIS_IRIS_MANUAL |
| EUI | 57 | ZIU51053 | M | 6,2 | EUI_LoadMem&AbsAddr |
| EUI | 57 | ZIU51770 | M | 209,6 | EUI_FlashEraseBlocks |
| EUI | 57 | ZIU51740 | M | 214,2 | EUI_DisHV_Safe |
| EUI | 57 | ZIU51741 | M | 214,3 | EUI_SetHV |
| EUI | 57 | ZIU51807 | M | 214,4 | EUI_RampHV |
| EUI | 57 | ZIU51744 | M | 215,1 | EUI_SetupFWheelToPos |
| EUI | 57 | ZIU51745 | M | 215,2 | EUI_SetupFWheelRelSteps |
| EUI | 57 | ZIU51746 | M | 215,3 | EUI_SetupDoorToPos |
| EUI | 57 | ZIU51772 | M | 215,4 | EUI_SetupDoorRelSteps |
| EUI | 57 | ZIU51773 | M | 215,10 | EUI_LaunchLockP_FSI |
| EUI | 57 | ZIU51774 | M | 215,11 | EUI_LaunchLockP_Lya |
| EUI | 57 | ZIU51775 | M | 215,12 | EUI_LaunchLockP_EUV |
| EUI | 57 | ZIU51776 | M | 215,13 | EUI_LaunchLockR_FSI |
| EUI | 57 | ZIU51777 | M | 215,14 | EUI_LaunchLockR_Lya |
| EUI | 57 | ZIU51778 | M | 215,15 | EUI_LaunchLockR_EUV |
| EUI | 57 | ZIU51779 | M | 215,16 | EUI_LaunchLockFIRE |
| MAG | 63 | ZIM22701 | M | 227,1 | Set OBS Range (FM) |
| MAG | 63 | ZIM22702 | M | 227,2 | Set IBS Range (FM) |
| MAG | 63 | ZIM22705 | M | 227,5 | Enable FEE Auto Range (FM) |
| MAG | 63 | ZIM22706 | M | 227,6 | Disable FEE Auto Range (FM) |
| MAG | 63 | ZIM22707 | M | 227,7 | Set FEE Delay Val parameter (FM) |
| MAG | 63 | ZIM22734 | M | 227,34 | Set Active HKADC to Redundant (FM) |
| MAG | 63 | ZIM22737 | M | 227,37 | Set FOB Clock to Internal (FM) |
| MAG | 63 | ZIM22910 | M | 229,10 | Enable FIB ramp (FM) |
| MAG | 63 | ZIM22911 | M | 229,11 | Enable FOB ramp (FM) |
| MAG | 63 | ZIM23001 | M | 230,1 | Send FIB Command |
| MAG | 63 | ZIM23002 | M | 230,2 | Send FOB Comannd |
| METIS | 67 | ZIT2430A | M | 243,10 | Configure HVU |
| METIS | 67 | ZIT2431A | M | 243,10 | Configure HVU Set SCREEN |
| METIS | 67 | ZIT2432A | M | 243,10 | Configure HVU Set MCP |
| METIS | 67 | ZIT2434A | M | 243,10 | Configure HVU SAFE Dis. |
| PHI | 72 | ZIP06022 | M | 6,2 | loadConfigMem |
| PHI | 72 | ZIP06023 | M | 6,2 | loadSysFPGA |
| PHI | 72 | ZIP06024 | M | 6,2 | loadRAM |
| PHI | 72 | ZIP06025 | M | 6,2 | loadLEON |
| PHI | 72 | ZIP06026 | M | 6,2 | loadScratch |
| PHI | 72 | ZIP06027 | M | 6,2 | loadImageMem |
| PHI | 72 | ZIP06028 | M | 6,2 | loadRFPGA2Mem |
| PHI | 72 | ZIP06029 | M | 6,2 | jumpToAddress |
| PHI | 72 | ZIPE82C0 | M | 232,44 | switchFailSafe |
| PHI | 72 | ZIPE82E0 | M | 232,46 | switchLaunchLock |

| | | | | | |
|--------|----|----------|---|---------|---------------------------------|
| PHI | 72 | ZIPE8480 | M | 232,72 | setFiltergraphWavelength |
| PHI | 72 | ZIPE8490 | M | 232,73 | setHighVoltage |
| PHI | 72 | ZIPE84A0 | M | 232,74 | allowHighVoltage |
| PHI | 72 | ZIPE9010 | M | 233,1 | formatFileSystem |
| PHI | 72 | ZIPE9020 | M | 233,2 | mountFileSystem |
| PHI | 72 | ZIPE9170 | M | 233,23 | setGPIOStatus |
| PHI | 72 | ZIPE91F0 | M | 233,31 | executeSPICommand |
| PHI | 72 | ZIPE92B0 | M | 233,43 | writeSoCWireRegister |
| PHI | 72 | ZIPE92F0 | M | 233,47 | registerSoCWireStream |
| PHI | 72 | ZIPE93D0 | M | 233,61 | prepareSWUpdate |
| PHI | 72 | ZIPE93E0 | M | 233,62 | performSWUpdate |
| PHI | 72 | ZIPEA030 | M | 234,3 | getVersionInformation |
| PHI | 72 | ZIPEA0B0 | M | 234,11 | runFunctionalTest |
| PHI | 72 | ZIPEA150 | M | 234,21 | setService20Data |
| PHI | 72 | ZIPEA170 | M | 234,23 | reportService20Data |
| PHI | 72 | ZIPEAFF0 | M | 234,255 | forwardTCthroughSIIS |
| RPW | 75 | ZIW00033 | M | 180,3 | DPU_SWITCH_ON_EQUIPMENT |
| RPW | 75 | ZIW00024 | M | 180,69 | DPU_SET_BIAS1 |
| RPW | 75 | ZIW00025 | M | 180,71 | DPU_SET_BIAS2 |
| RPW | 75 | ZIW00026 | M | 180,73 | DPU_SET_BIAS3 |
| RPW | 75 | ZIW00030 | M | 180,77 | DPU_SET_BIAS_RFREQ |
| RPW | 75 | ZIW00031 | M | 180,79 | DPU_SET_BIAS_SWEEP |
| RPW | 75 | ZIW00027 | M | 180,81 | DPU_SET_BIAS_MODE |
| RPW | 76 | ZIW00083 | M | 181,61 | LFR_ENABLE_CALIBRATION |
| SOLOHI | 82 | ZIHHD00R | M | 246,149 | IHDOOR |
| SPICE | 85 | ZIC00410 | M | 255,27 | MODE_CONFIGURE |
| SPICE | 85 | ZIC00085 | M | 255,96 | SDM_OPEN_DOOR |
| SPICE | 85 | ZIC00090 | M | 255,97 | SDM_CLOSE_DOOR |
| SPICE | 85 | ZIC00100 | M | 255,113 | DA_OPEN_DOOR |
| SPICE | 85 | ZIC00145 | M | 255,130 | SLIT_CALIBRATE |
| SPICE | 85 | ZIC00250 | M | 255,195 | MCP_SET_HIGH_VOLTAGE |
| SPICE | 85 | ZIC00265 | M | 255,198 | GAP_SET_HIGH_VOLTAGE |
| SPICE | 85 | ZIC00355 | M | 255,202 | MCP_SET_OPS_HV |
| SPICE | 85 | ZIC00360 | M | 255,203 | MCP_SET_ENG_HV |
| SPICE | 85 | ZIC00430 | M | 255,204 | GAP_SET_OPS_HV |
| SPICE | 85 | ZIC00435 | M | 255,205 | GAP_SET_ENG_HV |
| SPICE | 85 | ZIC00280 | M | 255,225 | PDS_SWITCH_ON |
| STIX | 90 | ZIX36004 | M | 236,4 | STIX Power ON a STIX subsystem |
| STIX | 90 | ZIX36005 | M | 236,5 | STIX Power OFF a STIX subsystem |

Object identifiers

Objects in the database are identified by 8-character (or 10-character) strings, consisting of

| | | | |
|---------------------------|-------------|-----------------|-------------------|
| <i>Character position</i> | 1 | 2-3 | 4-8 (4-10) |
| <i>Usage</i> | Object type | Spacecraft unit | Object identifier |

1st character = Object type

| | | | | |
|-----------------------|---------------------|--------------------------|------------------------|------------------------------------|
| Z | Y | P | N | C |
| Telecommand Packet | Telemetry Packet | Telecommand Parameter | Telemetry Parameter | Calibration (transfer function) |

2nd/3rd character = Unit

Naming patterns

| Partition | Component | Names | Remarks |
|-------------------|------------------------------|----------------------------------|--|
| CSW | Central software, AOCS SW | .CD* .CS* .CF* .CA* .CL* .TC* | Exception: equipment TM in the data pool is identified per equipment, e.g. NMU* (IMU), NPW* (PCDU), NRW* (RWE), NST* (STR) |
| ZSCO01, ZSCO02 | OPS/FDIR – HK TM | ...1Z* ...2Z* | 1Z = Defaults pre-configured in the CSW. 2Z = Requires activation by TC at run-time. |
| ZSCO02 | OPS tailored commands | ...2Z* | |
| ZEQT04 | Thermal Limit TCs | ZTC4Z* | TCs for setting limits of control loops |
| ZEQT02 ZEQT03 | 1553 unit commands | Zxx* ('xx' = per equipment) | TCs 2,128 bear the identifier of the destination equipment, e.g. ZMU* (IMU), ZPW* (PCDU), ZRW* (RWE). |
| IMU | Inertial Measuring Unit | .MU* | |
| RWU | Reaction Wheels (RWAB) | .RW* | |
| STR | Star Tracker | .ST* | |
| ZEQT01 | SSMM | .SM* | |
| OBC | OBC CPDU/HPTM | .BC* | |
| PCDU | PCDU | .PW* | |
| RIU | RIU | .RU* | |
| SADE | SADE | .SD* | |
| DST | Deep Space Transponder | .DS* | |
| APME | APME HGA/MGA | .AH*, .AM* | AH=APME HGA; AM=APME MGA |
| ZPAY01 | DEU (FDM) | .DM* | |
| MAG | Magnetometer | .IM* | |
| SOLOHI | SoloHI | .IH* | |
| RPW | RPW | .IW* | |
| EPD | Energetic Particle Detector | .ID* | |
| EUI | Extreme-Ultraviolet Imager | .IU* | |
| SPICE | SPICE | .IC* | |
| PHI | PHI | .IP* | |
| METIS | METIS | .IT* | |
| ZPAY02 | STIX | .IX* | |
| SWA | SWA | .IA* | |

| Partition | Component | Names | Remarks |
|-----------|--------------------|--------|---------|
| SCOE_PWR | PWR SCOE – Siemens | .WP* | |
| SCOETMTC | TM/TC SCOE | .WT* | |
| ZSCO03 | OTB SCOE | .WB* | |
| ZSCO04 | RTS | .RT* | |
| ZSCO05 | User ASSP | .USR.* | |
| ZSCO07 | RF SCOE | .WR* | |

In each of the above listed components of the SRDB, the database objects are identified with the 'Names' pattern in the table, where '.' = any single character, '*' = a string of zero or more characters.

Examples:

| Partition | Component | Names | Object type | Example objects |
|-----------|---------------|-------|------------------------|---|
| STR | Star Tracker | .ST* | <i>PUS Command</i> | ZST15006 STR1 FOTO Mode ZST16200 STR1 Load Mem RAM ZST25309 STR2 Set SC Velocity |
| | | | <i>TM Packet</i> | YST92407 STR2 ANGULAR RATE TOO HIGH YST92200 STR2 DEFECT PIXEL DETECTED YST92660 STR2 Mem Dump 32 Ram |
| | | | <i>Calibration</i> | CSTT6000TC MEMORY_ID CSTT6013TM RESET_TYPE |
| OBC | OBC CPDU/HPTM | .BC* | <i>CPDU Command</i> | ZBC04002 Select PM A EEPROM Image 0 ZBC04009 RM A Enable |
| | | | <i>HPTM Parameters</i> | NBCD0103 PM Active NBCD1025 OBC RSA25 Status B |

1553 TM Map in CSW V3.0.3p1

“**TM Parameter**” identifies the CSW datapool parameter (structure) where the equipment telemetry is captured. The TM is only available on ground if a containing HK TM packet (in which the “**TM Parameter**” is packetized) is enabled in the CSW.

| 1553 | RT Unit | SA | TM Parameter | Length | SW Alias |
|------|---------|----|--------------|---------|---|
| BUS1 | APMH_A | 1 | NCFUAW01 | 62 byte | HKF_APMEHA_HKTM_TM1 |
| BUS1 | APMH_A | 2 | NCFUAW02 | 54 byte | HKF_APMEHA_HKTM_TM2 |
| BUS1 | APMH_A | 3 | NCFUAW03 | 16 byte | HKF_APMEHA_HKTM_TM3 |
| BUS2 | APMH_B | 1 | NCFUAX01 | 62 byte | HKF_APMEHB_HKTM_TM1 |
| BUS2 | APMH_B | 2 | NCFUAX02 | 54 byte | HKF_APMEHB_HKTM_TM2 |
| BUS2 | APMH_B | 3 | NCFUAX03 | 16 byte | HKF_APMEHB_HKTM_TM3 |
| BUS1 | APMM_A | 1 | NCFUAY01 | 62 byte | HKF_APMEMA_HKTM_TM1 |
| BUS1 | APMM_A | 2 | NCFUAY02 | 54 byte | HKF_APMEMA_HKTM_TM2 |
| BUS1 | APMM_A | 3 | NCFUAY03 | 16 byte | HKF_APMEMA_HKTM_TM3 |
| BUS2 | APMM_B | 1 | NCFUAZ01 | 62 byte | HKF_APMEMB_HKTM_TM1 |
| BUS2 | APMM_B | 2 | NCFUAZ02 | 54 byte | HKF_APMEMB_HKTM_TM2 |
| BUS2 | APMM_B | 3 | NCFUAZ03 | 16 byte | HKF_APMEMB_HKTM_TM3 |
| BUS1 | DEU_A | 1 | NCFG4XG0 | 26 byte | HKF_DEU_A_HAL_HK_TM |
| BUS2 | DEU_B | 1 | NCFG4XJ0 | 26 byte | HKF_DEU_B_HAL_HK_TM |
| BUS1 | DST_1 | 1 | NCFU3HR1 | 12 byte | HKF_DSTA_HAL_TRANSPONDER_STATUS |
| BUS1 | DST_1 | 2 | NCFU3HR2 | 10 byte | HKF_DSTA_HAL_RX_STATUS |
| BUS1 | DST_1 | 3 | NCFU3HR3 | 4 byte | HKF_DSTA_HAL_RANGING_TM |
| BUS1 | DST_1 | 4 | NCFU3HR4 | 6 byte | HKF_DSTA_HAL_ANALOG_TM |
| BUS2 | DST_2 | 1 | NCFU3HW1 | 12 byte | HKF_DSTB_HAL_TRANSPONDER_STATUS |
| BUS2 | DST_2 | 2 | NCFU3HW2 | 10 byte | HKF_DSTB_HAL_RX_STATUS |
| BUS2 | DST_2 | 3 | NCFU3HW3 | 4 byte | HKF_DSTB_HAL_RANGING_TM |
| BUS2 | DST_2 | 4 | NCFU3HW4 | 6 byte | HKF_DSTB_HAL_ANALOG_TM |
| BUS1 | IMU_11 | 16 | NCAUAF04 | 18 byte | HKA_AOCSNONCORE_IMU_A_1_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS1 | IMU_11 | 16 | NCAUAF05 | 18 byte | HKA_AOCSNONCORE_IMU_A_1_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS1 | IMU_11 | 17 | NCAUAF06 | 4 byte | HKA_AOCSNONCORE_IMU_A_1_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS1 | IMU_11 | 18 | NCAUAF02 | 22 byte | HKA_AOCSNONCORE_IMU_A_1_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS1 | IMU_11 | 18 | NCAUAF03 | 22 byte | HKA_AOCSNONCORE_IMU_A_1_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |
| BUS1 | IMU_11 | 19 | NCANAF07 | 2 byte | HKA_AOCSNONCORE_IMU_A_1_CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS1 | IMU_12 | 16 | NCAUAG04 | 18 byte | HKA_AOCSNONCORE_IMU_A_2_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS1 | IMU_12 | 16 | NCAUAG05 | 18 byte | HKA_AOCSNONCORE_IMU_A_2_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS1 | IMU_12 | 17 | NCAUAG06 | 4 byte | HKA_AOCSNONCORE_IMU_A_2_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS1 | IMU_12 | 18 | NCAUAG02 | 22 byte | HKA_AOCSNONCORE_IMU_A_2_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS1 | IMU_12 | 18 | NCAUAG03 | 22 byte | HKA_AOCSNONCORE_IMU_A_2_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |
| BUS1 | IMU_12 | 19 | NCANAG07 | 2 byte | HKA_AOCSNONCORE_IMU_A_2_CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS1 | IMU_13 | 16 | NCAUAH04 | 18 byte | HKA_AOCSNONCORE_IMU_A_3_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS1 | IMU_13 | 16 | NCAUAH05 | 18 byte | HKA_AOCSNONCORE_IMU_A_3_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS1 | IMU_13 | 17 | NCAUAH06 | 4 byte | HKA_AOCSNONCORE_IMU_A_3_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS1 | IMU_13 | 18 | NCAUAH02 | 22 byte | HKA_AOCSNONCORE_IMU_A_3_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS1 | IMU_13 | 18 | NCAUAH03 | 22 byte | HKA_AOCSNONCORE_IMU_A_3_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |
| BUS1 | IMU_13 | 19 | NCANAH07 | 2 byte | HKA_AOCSNONCORE_IMU_A_3_CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS1 | IMU_14 | 16 | NCAUAJ04 | 18 byte | HKA_AOCSNONCORE_IMU_A_4_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS1 | IMU_14 | 16 | NCAUAJ05 | 18 byte | HKA_AOCSNONCORE_IMU_A_4_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS1 | IMU_14 | 17 | NCAUAJ06 | 4 byte | HKA_AOCSNONCORE_IMU_A_4_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS1 | IMU_14 | 18 | NCAUAJ02 | 22 byte | HKA_AOCSNONCORE_IMU_A_4_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS1 | IMU_14 | 18 | NCAUAJ03 | 22 byte | HKA_AOCSNONCORE_IMU_A_4_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |
| BUS1 | IMU_14 | 19 | NCANAJ07 | 2 byte | HKA_AOCSNONCORE_IMU_A_4_CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS2 | IMU_21 | 16 | NCAUAK04 | 18 byte | HKA_AOCSNONCORE_IMU_B_1_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS2 | IMU_21 | 16 | NCAUAK05 | 18 byte | HKA_AOCSNONCORE_IMU_B_1_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS2 | IMU_21 | 17 | NCAUAK06 | 4 byte | HKA_AOCSNONCORE_IMU_B_1_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS2 | IMU_21 | 18 | NCAUAK02 | 22 byte | HKA_AOCSNONCORE_IMU_B_1_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS2 | IMU_21 | 18 | NCAUAK03 | 22 byte | HKA_AOCSNONCORE_IMU_B_1_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |
| BUS2 | IMU_21 | 19 | NCANAK07 | 2 byte | HKA_AOCSNONCORE_IMU_B_1_CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS2 | IMU_22 | 16 | NCAUAL04 | 18 byte | HKA_AOCSNONCORE_IMU_B_2_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS2 | IMU_22 | 16 | NCAUAL05 | 18 byte | HKA_AOCSNONCORE_IMU_B_2_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS2 | IMU_22 | 17 | NCAUAL06 | 4 byte | HKA_AOCSNONCORE_IMU_B_2_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS2 | IMU_22 | 18 | NCAUAL02 | 22 byte | HKA_AOCSNONCORE_IMU_B_2_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS2 | IMU_22 | 18 | NCAUAL03 | 22 byte | HKA_AOCSNONCORE_IMU_B_2_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |
| BUS2 | IMU_22 | 19 | NCANAL07 | 2 byte | HKA_AOCSNONCORE_IMU_B_2_CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS2 | IMU_23 | 16 | NCAUAM04 | 18 byte | HKA_AOCSNONCORE_IMU_B_3_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS2 | IMU_23 | 16 | NCAUAM05 | 18 byte | HKA_AOCSNONCORE_IMU_B_3_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS2 | IMU_23 | 17 | NCAUAM06 | 4 byte | HKA_AOCSNONCORE_IMU_B_3_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS2 | IMU_23 | 18 | NCAUAM02 | 22 byte | HKA_AOCSNONCORE_IMU_B_3_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS2 | IMU_23 | 18 | NCAUAM03 | 22 byte | HKA_AOCSNONCORE_IMU_B_3_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |
| BUS2 | IMU_23 | 19 | NCANAM07 | 2 byte | HKA_AOCSNONCORE_IMU_B_3_CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS2 | IMU_24 | 16 | NCAUAN04 | 18 byte | HKA_AOCSNONCORE_IMU_B_4_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL1 |
| BUS2 | IMU_24 | 16 | NCAUAN05 | 18 byte | HKA_AOCSNONCORE_IMU_B_4_CORE_IMU_HAL_IMU_ACQ_DATA_INERTIAL2 |
| BUS2 | IMU_24 | 17 | NCAUAN06 | 4 byte | HKA_AOCSNONCORE_IMU_B_4_CORE_IMU_HAL_IMU_ACQ_DATA_CONF |
| BUS2 | IMU_24 | 18 | NCAUAN02 | 22 byte | HKA_AOCSNONCORE_IMU_B_4_CORE_IMU_HAL_IMU_ACQ_DATA_TECH1 |
| BUS2 | IMU_24 | 18 | NCAUAN03 | 22 byte | HKA_AOCSNONCORE_IMU_B_4_CORE_IMU_HAL_IMU_ACQ_DATA_TECH2 |

| | | | | | |
|------|--------|----|----------|-----------|---|
| BUS2 | IMU_24 | 19 | NCANAN07 | 2 byte | HKA_AOCSNONCORE_IMU_B_4__CORE_IMU_HAL_IMU_ACQ_DATA_STIM |
| BUS1 | PCDU_A | 1 | NCFU9Y01 | 24 byte | HKF_PCDUA_TELEM__DIGITAL_LCL_MODULES |
| BUS1 | PCDU_A | 2 | NCFU9Y02 | 36 byte | HKF_PCDUA_TELEM__DIGITAL_HTR_MODULES |
| BUS1 | PCDU_A | 3 | NCFU9Y03 | 28 byte | HKF_PCDUA_TELEM__DIGITAL_DPL_MODULES |
| BUS1 | PCDU_A | 4 | NCFU9Y04 | 16 byte | HKF_PCDUA_TELEM__DIGITAL_OTHER_MODULES |
| BUS1 | PCDU_A | 11 | NCFU9Y05 | 46 byte | HKF_PCDUA_TELEM__ANALOG_CURRENTS_LCL1 |
| BUS1 | PCDU_A | 12 | NCFU9Y06 | 46 byte | HKF_PCDUA_TELEM__ANALOG_CURRENTS_LCL2 |
| BUS1 | PCDU_A | 13 | NCFU9Y07 | 46 byte | HKF_PCDUA_TELEM__ANALOG_CURRENTS_LCL3 |
| BUS1 | PCDU_A | 14 | NCFU9Y08 | 46 byte | HKF_PCDUA_TELEM__ANALOG_CURRENTS_LCL4 |
| BUS1 | PCDU_A | 15 | NCFU9Y09 | 46 byte | HKF_PCDUA_TELEM__ANALOG_CURRENTS_LCL5 |
| BUS1 | PCDU_A | 16 | NCFU9Y0A | 58 byte | HKF_PCDUA_TELEM__ANALOG_CURRENTS_LCL_HEATER |
| BUS1 | PCDU_A | 17 | NCFU9Y0B | 26 byte | HKF_PCDUA_TELEM__ANALOG_DPL |
| BUS1 | PCDU_A | 18 | NCFU9Y0C | 50 byte | HKF_PCDUA_TELEM__ANALOG_APR |
| BUS1 | PCDU_A | 19 | NCFU9Y0D | 18 byte | HKF_PCDUA_TELEM__ANALOG_BCR |
| BUS1 | PCDU_A | 20 | NCFU9Y0E | 34 byte | HKF_PCDUA_TELEM__ANALOG_BDR |
| BUS1 | PCDU_A | 21 | NCFU9Y0F | 34 byte | HKF_PCDUA_TELEM__ANALOG_BEA_MEA |
| BUS1 | PCDU_A | 22 | NCFU9Y0G | 30 byte | HKF_PCDUA_TELEM__ANALOG_DHS |
| BUS1 | PCDU_A | 23 | NCFU9Y0H | 10 byte | HKF_PCDUA_TELEM__OTHER_RECONFIG_STATUS |
| BUS1 | PCDU_A | 25 | NCFG3J50 | 4 byte | HKF_PCDUA_SSHT_STATUS |
| BUS1 | PCDU_A | 26 | NCFU9Y0J | 4 byte | HKF_PCDUA_TELEM__OTHER_RECONFIG_TEST |
| BUS1 | PCDU_A | 27 | NCFU9Y0K | 4 byte | HKF_PCDUA_TELEM__OTHER_MEMORY_REFERENCE |
| BUS1 | PCDU_A | 28 | NCFU9Y0L | 64 byte | HKF_PCDUA_TELEM__OTHER_MEMORY_READ |
| BUS2 | PCDU_B | 1 | NCFUA101 | 24 byte | HKF_PCDUB_TELEM__DIGITAL_LCL_MODULES |
| BUS2 | PCDU_B | 2 | NCFUA102 | 36 byte | HKF_PCDUB_TELEM__DIGITAL_HTR_MODULES |
| BUS2 | PCDU_B | 3 | NCFUA103 | 28 byte | HKF_PCDUB_TELEM__DIGITAL_DPL_MODULES |
| BUS2 | PCDU_B | 4 | NCFUA104 | 16 byte | HKF_PCDUB_TELEM__DIGITAL_OTHER_MODULES |
| BUS2 | PCDU_B | 11 | NCFUA105 | 46 byte | HKF_PCDUB_TELEM__ANALOG_CURRENTS_LCL1 |
| BUS2 | PCDU_B | 12 | NCFUA106 | 46 byte | HKF_PCDUB_TELEM__ANALOG_CURRENTS_LCL2 |
| BUS2 | PCDU_B | 13 | NCFUA107 | 46 byte | HKF_PCDUB_TELEM__ANALOG_CURRENTS_LCL3 |
| BUS2 | PCDU_B | 14 | NCFUA108 | 46 byte | HKF_PCDUB_TELEM__ANALOG_CURRENTS_LCL4 |
| BUS2 | PCDU_B | 15 | NCFUA109 | 46 byte | HKF_PCDUB_TELEM__ANALOG_CURRENTS_LCL5 |
| BUS2 | PCDU_B | 16 | NCFUA10A | 58 byte | HKF_PCDUB_TELEM__ANALOG_CURRENTS_LCL_HEATER |
| BUS2 | PCDU_B | 17 | NCFUA10B | 26 byte | HKF_PCDUB_TELEM__ANALOG_DPL |
| BUS2 | PCDU_B | 18 | NCFUA10C | 50 byte | HKF_PCDUB_TELEM__ANALOG_APR |
| BUS2 | PCDU_B | 19 | NCFUA10D | 18 byte | HKF_PCDUB_TELEM__ANALOG_BCR |
| BUS2 | PCDU_B | 20 | NCFUA10E | 34 byte | HKF_PCDUB_TELEM__ANALOG_BDR |
| BUS2 | PCDU_B | 21 | NCFUA10F | 34 byte | HKF_PCDUB_TELEM__ANALOG_BEA_MEA |
| BUS2 | PCDU_B | 22 | NCFUA10G | 30 byte | HKF_PCDUB_TELEM__ANALOG_DHS |
| BUS2 | PCDU_B | 23 | NCFUA10H | 10 byte | HKF_PCDUB_TELEM__OTHER_RECONFIG_STATUS |
| BUS2 | PCDU_B | 25 | NCFG3J90 | 4 byte | HKF_PCDUB_SSHT_STATUS |
| BUS2 | PCDU_B | 26 | NCFUA10J | 4 byte | HKF_PCDUB_TELEM__OTHER_RECONFIG_TEST |
| BUS2 | PCDU_B | 27 | NCFUA10K | 4 byte | HKF_PCDUB_TELEM__OTHER_MEMORY_REFERENCE |
| BUS2 | PCDU_B | 28 | NCFUA10L | 64 byte | HKF_PCDUB_TELEM__OTHER_MEMORY_READ |
| BUS1 | RIU | 1 | NCFUA201 | 16 byte | HKF_RIUA_TELEM__HK_TM_HK |
| BUS1 | RIU | 10 | NCFUA204 | 64 byte | HKF_RIUA_TELEM__FSS_HK |
| BUS1 | RIU | | NCFUA203 | 1248 byte | HKF_RIUA_TELEM__TM_HK |
| BUS2 | RIU | 1 | NCFUA501 | 16 byte | HKF_RIUB_TELEM__HK_TM_HK |
| BUS2 | RIU | 10 | NCFUA504 | 64 byte | HKF_RIUB_TELEM__FSS_HK |
| BUS2 | RIU | | NCFUA503 | 1248 byte | HKF_RIUB_TELEM__TM_HK |
| BUS1 | RW_1 | 1 | NCAT0D90 | 20 byte | HKA_AOCSNONCORE_RW_1_STATUS_WORD |
| BUS1 | RW_2 | 1 | NCAT0DB0 | 20 byte | HKA_AOCSNONCORE_RW_2_STATUS_WORD |
| BUS2 | RW_3 | 1 | NCAT0DD0 | 20 byte | HKA_AOCSNONCORE_RW_3_STATUS_WORD |
| BUS2 | RW_4 | 1 | NCAT0DF0 | 20 byte | HKA_AOCSNONCORE_RW_4_STATUS_WORD |
| BUS1 | SADE_A | 1 | NCFUBH01 | 8 byte | HKF_SADEA_HKACQD__SADE_STATUS |
| BUS1 | SADE_A | 2 | NCFUBH02 | 10 byte | HKF_SADEA_HKACQD__SADM_AMOTOR_CTRL_STATUS |
| BUS1 | SADE_A | 3 | NCFUBH03 | 8 byte | HKF_SADEA_HKACQD__SADM_APOS |
| BUS1 | SADE_A | 4 | NCFUBH04 | 10 byte | HKF_SADEA_HKACQD__SADM_BMOTOR_CTRL_STATUS |
| BUS1 | SADE_A | 5 | NCFUBH05 | 8 byte | HKF_SADEA_HKACQD__SADM_BPOS |
| BUS1 | SADE_A | 6 | NCFUBH06 | 4 byte | HKF_SADEA_HKACQD__SADM_ASTATUS |
| BUS1 | SADE_A | 7 | NCFUBH07 | 4 byte | HKF_SADEA_HKACQD__SADM_BSTATUS |
| BUS1 | SADE_A | 8 | NCFUBH08 | 10 byte | HKF_SADEA_HKACQD__HOUSEKEEPING |
| BUS1 | SADE_A | 9 | NCFUBH09 | 12 byte | HKF_SADEA_HKACQD__SADM_ACMD_READBACK |
| BUS1 | SADE_A | 10 | NCFUBH0A | 12 byte | HKF_SADEA_HKACQD__SADM_BCMD_READBACK |
| BUS2 | SADE_B | 1 | NCFUBJ01 | 8 byte | HKF_SADEB_HKACQD__SADE_STATUS |
| BUS2 | SADE_B | 2 | NCFUBJ02 | 10 byte | HKF_SADEB_HKACQD__SADM_AMOTOR_CTRL_STATUS |
| BUS2 | SADE_B | 3 | NCFUBJ03 | 8 byte | HKF_SADEB_HKACQD__SADM_APOS |
| BUS2 | SADE_B | 4 | NCFUBJ04 | 10 byte | HKF_SADEB_HKACQD__SADM_BMOTOR_CTRL_STATUS |
| BUS2 | SADE_B | 5 | NCFUBJ05 | 8 byte | HKF_SADEB_HKACQD__SADM_BPOS |
| BUS2 | SADE_B | 6 | NCFUBJ06 | 4 byte | HKF_SADEB_HKACQD__SADM_ASTATUS |
| BUS2 | SADE_B | 7 | NCFUBJ07 | 4 byte | HKF_SADEB_HKACQD__SADM_BSTATUS |
| BUS2 | SADE_B | 8 | NCFUBJ08 | 10 byte | HKF_SADEB_HKACQD__HOUSEKEEPING |
| BUS2 | SADE_B | 9 | NCFUBJ09 | 12 byte | HKF_SADEB_HKACQD__SADM_ACMD_READBACK |
| BUS2 | SADE_B | 10 | NCFUBJ0A | 12 byte | HKF_SADEB_HKACQD__SADM_BCMD_READBACK |

Configuration of CSW HK/Diag packets

TM Packets in CSW V3.0.3p1

| Name | PID | SID | PUS | Description | Bytes | Sec | Initial status |
|----------|-----|-----|------|------------------------------------|-------|------|----------------|
| YCD1Z001 | 10 | 1 | HK | DMS OBC Status Fast | 99 | 30 | ENABLED |
| YCD2Z002 | 10 | 2 | HK | DMS OBC Status Slow | 585 | 600 | disabled |
| YCD2Z003 | 10 | 3 | HK | DMS Reconfiguration Reports | 175 | 600 | disabled |
| YCD2Z004 | 10 | 4 | HK | DMS CPU Load | 839 | 600 | disabled |
| YCD2Z005 | 10 | 5 | HK | DMS MIL-STD-1553b-BUS Details | 775 | 900 | disabled |
| YCD2Z006 | 10 | 6 | HK | DMS SGM Group Status | 411 | 600 | disabled |
| YCD2Z007 | 10 | 7 | HK | DMS SGM Health | 186 | 300 | disabled |
| YCD1Z008 | 10 | 8 | HK | DMS OMM Overview | 139 | 60 | ENABLED |
| YCD2Z009 | 10 | 9 | HK | DMS OMM Packet Stores | 553 | 300 | disabled |
| YCD2Z010 | 10 | 10 | HK | DMS OBCP Details | 2635 | 300 | disabled |
| YCD1Z011 | 10 | 11 | HK | DMS Overview Fast | 488 | 30 | ENABLED |
| YCD2Z012 | 10 | 12 | HK | DMS Overview Slow | 418 | 600 | disabled |
| YCD2Z013 | 10 | 13 | HK | DMS TC Sequencer Details | 239 | 180 | disabled |
| YCD2Z014 | 10 | 14 | HK | DMS MTL Details | 1099 | 180 | disabled |
| YCD1Z016 | 10 | 16 | HK | DMS SSMM Summary | 135 | 60 | disabled |
| YCD2Z077 | 10 | 77 | HK | DMS OBC Status Fast | 99 | 30 | disabled |
| YCD1Z078 | 10 | 78 | HK | DMS OBC Status Slow | 585 | 600 | ENABLED |
| YCD1Z079 | 10 | 79 | HK | DMS Reconfiguration Reports | 175 | 600 | ENABLED |
| YCD1Z080 | 10 | 80 | HK | DMS CPU Load | 839 | 600 | ENABLED |
| YCD1Z081 | 10 | 81 | HK | DMS MIL-STD-1553b-BUS Details | 775 | 900 | ENABLED |
| YCD1Z082 | 10 | 82 | HK | DMS SGM Group Status | 411 | 600 | ENABLED |
| YCD1Z083 | 10 | 83 | HK | DMS SGM Health | 186 | 300 | ENABLED |
| YCD2Z084 | 10 | 84 | HK | DMS OMM Overview | 139 | 60 | disabled |
| YCD1Z085 | 10 | 85 | HK | DMS OMM Packet Stores | 553 | 300 | ENABLED |
| YCD1Z086 | 10 | 86 | HK | DMS OBCP Details | 2635 | 300 | ENABLED |
| YCD2Z087 | 10 | 87 | HK | DMS Overview Fast | 488 | 30 | disabled |
| YCD1Z088 | 10 | 88 | HK | DMS Overview Slow | 418 | 600 | ENABLED |
| YCD1Z089 | 10 | 89 | HK | DMS TC Sequencer Details | 239 | 180 | ENABLED |
| YCD1Z090 | 10 | 90 | HK | DMS MTL Details | 1099 | 180 | ENABLED |
| YCD2Z092 | 10 | 92 | HK | DMS SSMM Summary | 131 | 60 | disabled |
| YCD1Z153 | 10 | 153 | HK | DMS Inter-Instrument Communication | 247 | 8191 | disabled |
| YCD1Z154 | 10 | 154 | HK | DMS Safe Mode Slow | 227 | 600 | ENABLED |
| YCD2Z193 | 10 | 193 | Diag | DMS 1553 Bus Manager Investigation | 747 | 1 | disabled |
| YCD2Z194 | 10 | 194 | Diag | DMS Spare Parameters & S130 | 211 | 1 | disabled |
| YCA1Z001 | 11 | 1 | HK | AOCS Dynamics FAST | 123 | 6 | ENABLED |
| YCA2Z002 | 11 | 2 | HK | AOCS Dynamics SLOW | 562 | 300 | disabled |
| YCA2Z003 | 11 | 3 | HK | AOCS Configuration | 191 | 300 | disabled |
| YCA1Z005 | 11 | 5 | HK | AOCS Dynamics SASM/WSM | 127 | 7.5 | ENABLED |
| YCA2Z006 | 11 | 6 | HK | AOCS OCM/WOL Slow | 555 | 300 | disabled |
| YCA1Z008 | 11 | 8 | HK | AOCS Estimators Dynamics | 603 | 30 | ENABLED |
| YCA1Z009 | 11 | 9 | HK | AOCS AMU Dynamics | 100 | 30 | disabled |
| YCA1Z010 | 11 | 10 | HK | AOCS Gyro Dynamics | 285 | 30 | ENABLED |
| YCA2Z011 | 11 | 11 | HK | AOCS IMU RAW | 699 | 300 | disabled |
| YCA1Z012 | 11 | 12 | HK | AOCS FSS | 164 | 45 | ENABLED |
| YCA1Z014 | 11 | 14 | HK | AOCS Wheels | 255 | 30 | ENABLED |
| YCA1Z016 | 11 | 16 | HK | AOCS STR | 429 | 32 | ENABLED |
| YCA2Z017 | 11 | 17 | HK | AOCS FDIR Monitoring | 550 | 300 | disabled |
| YCA1Z019 | 11 | 19 | HK | AOCS SYS Summary | 422 | 30 | ENABLED |
| YCA1Z020 | 11 | 20 | HK | AOCS SYS FDIR Summary | 208 | 45 | ENABLED |
| YCA2Z077 | 11 | 77 | HK | AOCS Dynamics FAST | 123 | 6 | disabled |
| YCA1Z078 | 11 | 78 | HK | AOCS Dynamics SLOW | 562 | 300 | ENABLED |
| YCA1Z079 | 11 | 79 | HK | AOCS Configuration | 191 | 300 | ENABLED |
| YCA2Z081 | 11 | 81 | HK | AOCS Dynamics SASM/WSM | 127 | 7.5 | disabled |
| YCA1Z082 | 11 | 82 | HK | AOCS OCM/WOL Slow | 555 | 300 | ENABLED |

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|----------|----|-----|------|--|------|-------|----------|
| YCA2Z084 | 11 | 84 | HK | AOCS Estimators Dynamics | 603 | 30 | disabled |
| YCA2Z085 | 11 | 85 | HK | AOCS AMU Dynamics | 100 | 30 | disabled |
| YCA2Z086 | 11 | 86 | HK | AOCS Gyro Dynamics | 285 | 30 | disabled |
| YCA1Z087 | 11 | 87 | HK | AOCS IMU RAW | 699 | 300 | ENABLED |
| YCA2Z088 | 11 | 88 | HK | AOCS FSS | 164 | 45 | disabled |
| YCA2Z090 | 11 | 90 | HK | AOCS Wheels | 255 | 30 | disabled |
| YCA1Z091 | 11 | 91 | HK | AOCS LEOP | 355 | 2.5 | disabled |
| YCA2Z092 | 11 | 92 | HK | AOCS STR | 429 | 32 | disabled |
| YCA1Z093 | 11 | 93 | HK | AOCS FDIR Monitoring | 558 | 300 | ENABLED |
| YCA2Z095 | 11 | 95 | HK | AOCS SYS Summary | 422 | 30 | disabled |
| YCA2Z096 | 11 | 96 | HK | AOCS SYS FDIR Summary | 208 | 45 | disabled |
| YCA1Z153 | 11 | 153 | HK | AOCS Safe Fast | 235 | 60 | ENABLED |
| YCA1Z154 | 11 | 154 | HK | AOCS Safe Slow | 537 | 120 | ENABLED |
| YCA1Z155 | 11 | 155 | HK | AOCS AGP/SEE/SLVP Guidance Profiles (One-Shot) | 2127 | 8191 | disabled |
| YCA1Z156 | 11 | 156 | HK | AOCS SSEA Profile (One-Shot) | 3047 | 8191 | disabled |
| YCA1Z157 | 11 | 157 | HK | AOCS SSE Profile Segments 1 (One-Shot) | 3443 | 8191 | disabled |
| YCA1Z158 | 11 | 158 | HK | AOCS SSE Profile Segments 2 (One-Shot) | 3027 | 8191 | disabled |
| YCA1Z159 | 11 | 159 | HK | AOCS OCM 8Hz | 104 | 0.125 | disabled |
| YCA1Z191 | 11 | 191 | HK | AOCS S/C STR FDIR Snapshot | 264 | 8191 | disabled |
| YCA1Z192 | 11 | 192 | HK | AOCS Units FDIR Snapshot | 415 | 8191 | disabled |
| YCA2Z193 | 11 | 193 | Diag | AOCS Diag STR A | 191 | 1 | disabled |
| YCA2Z194 | 11 | 194 | Diag | AOCS Diag STR B | 175 | 1 | disabled |
| YCA2Z195 | 11 | 195 | Diag | AOCS Diag RW 1,2 | 173 | 1 | disabled |
| YCA2Z196 | 11 | 196 | Diag | AOCS Diag FSS A | 249 | 1 | disabled |
| YCA2Z197 | 11 | 197 | Diag | AOCS Diag FSS A,B | 174 | 1 | disabled |
| YCA2Z198 | 11 | 198 | Diag | AOCS Diag FSS B | 86 | 1 | disabled |
| YCA2Z199 | 11 | 199 | Diag | AOCS Diag RW 3,4 | 105 | 1 | disabled |
| YCA2Z200 | 11 | 200 | Diag | AOCS Diag Gyro Sample | 210 | 1 | disabled |
| YCA2Z201 | 11 | 201 | Diag | AOCS Diag Gyro Axis 1,2 A | 230 | 1 | disabled |
| YCA2Z202 | 11 | 202 | Diag | AOCS Diag ACC Monitor | 176 | 1 | disabled |
| YCA2Z203 | 11 | 203 | Diag | AOCS Diag Gyro Axis 1,2 B | 229 | 1 | disabled |
| YCA2Z204 | 11 | 204 | Diag | AOCS Diag CPS Thruster Cmd | 232 | 1 | disabled |
| YCA2Z205 | 11 | 205 | Diag | AOCS Diag Gyro Axis 3,4 A | 203 | 1 | disabled |
| YCA2Z206 | 11 | 206 | Diag | AOCS Diag Gyro Axis 3,4 B | 204 | 1 | disabled |
| YCA2Z207 | 11 | 207 | Diag | AOCS Diag ACC Axis 2,3 | 181 | 1 | disabled |
| YCA2Z208 | 11 | 208 | Diag | AOCS Diag ACC Axis 4 | 181 | 1 | disabled |
| YCA2Z209 | 11 | 209 | Diag | AOCS Diag CPS FCV,PulseTime | 185 | 1 | disabled |
| YCA2Z210 | 11 | 210 | Diag | AOCS Diag CPS Parameters | 135 | 1 | disabled |
| YCA2Z211 | 11 | 211 | Diag | AOCS Diag Attitude Ctrl.1 | 680 | 1 | disabled |
| YCA2Z212 | 11 | 212 | Diag | AOCS Diag Data Fusion.1 | 651 | 1 | disabled |
| YCA2Z213 | 11 | 213 | Diag | AOCS Diag Data Fusion.2 | 112 | 1 | disabled |
| YCA2Z214 | 11 | 214 | Diag | AOCS Diag Guidance RateCtrl,SunRef | 1090 | 1 | disabled |
| YCA2Z215 | 11 | 215 | Diag | AOCS Diag Guidance Offloading | 294 | 1 | disabled |
| YCA2Z216 | 11 | 216 | Diag | AOCS Diag Data Fusion.3 | 412 | 1 | disabled |
| YCA2Z217 | 11 | 217 | Diag | AOCS Diag Ephemeris | 1220 | 1 | disabled |
| YCA2Z218 | 11 | 218 | Diag | AOCS Diag Guidance Wheel,Inertial | 335 | 1 | disabled |
| YCA2Z219 | 11 | 219 | Diag | AOCS Diag Attitude Ctrl.2 | 208 | 1 | disabled |
| YCA2Z220 | 11 | 220 | Diag | AOCS Diag ACC Axis 1,2 | 210 | 1 | disabled |
| YCA2Z221 | 11 | 221 | Diag | AOCS Diag CPS OnOff Time | 887 | 1 | disabled |
| YCA2Z222 | 11 | 222 | Diag | AOCS Diag Supervisor | 146 | 1 | disabled |
| YCA2Z223 | 11 | 223 | Diag | AOCS Spare Parameters & S130 | 211 | 1 | disabled |
| YCA2Z228 | 11 | 228 | Diag | AOCS Other | 139 | 1800 | disabled |
| YCA2Z229 | 11 | 229 | Diag | AOCS OCM 8Hz Diag | 105 | 2 | disabled |
| YCL1Z001 | 12 | 1 | HK | PL Overview | 111 | 300 | disabled |
| YCL2Z077 | 12 | 77 | HK | PL Overview | 111 | 300 | disabled |
| YCL1Z192 | 12 | 192 | HK | PL FDIR Snapshot | 111 | 8191 | disabled |
| YCL2Z193 | 12 | 193 | Diag | PL Spare Parameters 1 | 95 | 1 | disabled |
| YCL2Z194 | 12 | 194 | Diag | PL Spare Parameters 2 | 131 | 1 | disabled |
| YCL2Z195 | 12 | 195 | Diag | PL S130 1 | 199 | 1 | disabled |
| YCL2Z196 | 12 | 196 | Diag | PL S130 2 | 135 | 1 | disabled |

| | | | | | | | |
|----------|----|-----|------|-----------------------------------|------|------|----------|
| YCL2Z197 | 12 | 197 | Diag | PL S130 3 | 131 | 1 | disabled |
| YCL2Z198 | 12 | 198 | Diag | PL S130 4 | 165 | 1 | disabled |
| YCL2Z199 | 12 | 199 | Diag | PL S130 5 | 151 | 1 | disabled |
| YCF1Z001 | 13 | 1 | HK | PLF Summary | 412 | 30 | ENABLED |
| YCF1Z002 | 13 | 2 | HK | PLF Summary Thermal | 187 | 60 | ENABLED |
| YCF2Z003 | 13 | 3 | HK | PLF RIU Thermal | 1811 | 300 | disabled |
| YCF2Z004 | 13 | 4 | HK | PLF RIU Other Acq | 299 | 300 | disabled |
| YCF2Z005 | 13 | 5 | HK | PLF RIU FSS Acq | 99 | 300 | disabled |
| YCF2Z006 | 13 | 6 | HK | PLF Deployment Acq | 319 | 1 | disabled |
| YCF2Z007 | 13 | 7 | HK | PLF RIU HK | 401 | 300 | disabled |
| YCF2Z008 | 13 | 8 | HK | PLF PCDU LCLs Acq | 755 | 300 | disabled |
| YCF2Z009 | 13 | 9 | HK | PLF PCDU EPS | 315 | 300 | disabled |
| YCF2Z010 | 13 | 10 | HK | PLF PCDU HK | 195 | 300 | disabled |
| YCF2Z011 | 13 | 11 | HK | PLF Comms Summary | 216 | 300 | disabled |
| YCF2Z012 | 13 | 12 | HK | PLF APME HK | 543 | 300 | disabled |
| YCF2Z013 | 13 | 13 | HK | PLF SADE HK | 215 | 300 | disabled |
| YCF2Z014 | 13 | 14 | HK | PLF DEU HK | 375 | 300 | disabled |
| YCF2Z015 | 13 | 15 | HK | PLF PCDU EDAC | 687 | 4096 | disabled |
| YCF2Z016 | 13 | 16 | HK | PLF RIU TM Statuses | 123 | 900 | disabled |
| YCF2Z017 | 13 | 17 | HK | PLF RIU TM Statuses | 124 | 300 | disabled |
| YCF2Z077 | 13 | 77 | HK | PLF Summary | 412 | 30 | disabled |
| YCF2Z078 | 13 | 78 | HK | PLF Summary Thermal | 187 | 60 | disabled |
| YCF1Z079 | 13 | 79 | HK | PLF RIU Thermal | 1811 | 300 | ENABLED |
| YCF1Z080 | 13 | 80 | HK | PLF RIU Other Acq | 299 | 300 | ENABLED |
| YCF1Z081 | 13 | 81 | HK | PLF RIU FSS Acq | 99 | 300 | ENABLED |
| YCF1Z082 | 13 | 82 | HK | PLF Deployment Acq | 319 | 1 | disabled |
| YCF1Z083 | 13 | 83 | HK | PLF RIU HK | 401 | 300 | ENABLED |
| YCF1Z084 | 13 | 84 | HK | PLF PCDU LCLs Acq | 755 | 300 | ENABLED |
| YCF1Z085 | 13 | 85 | HK | PLF PCDU EPS | 315 | 300 | ENABLED |
| YCF1Z086 | 13 | 86 | HK | PLF PCDU HK | 195 | 300 | ENABLED |
| YCF1Z087 | 13 | 87 | HK | PLF Comms Summary | 216 | 300 | ENABLED |
| YCF1Z088 | 13 | 88 | HK | PLF APME HK | 543 | 300 | ENABLED |
| YCF1Z089 | 13 | 89 | HK | PLF SADE HK | 215 | 300 | ENABLED |
| YCF1Z090 | 13 | 90 | HK | PLF DEU HK | 375 | 300 | ENABLED |
| YCF1Z091 | 13 | 91 | HK | PLF PCDU EDAC | 687 | 4096 | ENABLED |
| YCF1Z092 | 13 | 92 | HK | PLF RIU TM Statuses | 123 | 900 | ENABLED |
| YCF1Z093 | 13 | 93 | HK | PLF DST HK | 124 | 300 | ENABLED |
| YCF1Z153 | 13 | 153 | HK | PLF Essential AOCS | 135 | 60 | ENABLED |
| YCF1Z154 | 13 | 154 | HK | PLF Essential CPS | 125 | 60 | ENABLED |
| YCF1Z155 | 13 | 155 | HK | PLF Essential EPS COMMS | 249 | 60 | ENABLED |
| YCF1Z189 | 13 | 189 | HK | PLF Comms APME FDIR | 119 | 8191 | disabled |
| YCF1Z190 | 13 | 190 | HK | PLF Comms Generic FDIR | 268 | 8191 | disabled |
| YCF1Z191 | 13 | 191 | HK | PLF EPS PCDU SADE FDIR | 575 | 8191 | disabled |
| YCF1Z192 | 13 | 192 | HK | PLF RIU DEU FDIR | 217 | 8191 | disabled |
| YCF2Z195 | 13 | 195 | Diag | PLF RIU A Diagnostic | 331 | 1 | disabled |
| YCF2Z196 | 13 | 196 | Diag | PLF RIU B Diagnostic | 331 | 1 | disabled |
| YCF2Z197 | 13 | 197 | Diag | PLF OCM/WOL Acq | 19 | 1 | disabled |
| YCF2Z198 | 13 | 198 | Diag | PLF SADE Diagnostic | 187 | 1 | disabled |
| YCF2Z199 | 13 | 199 | Diag | PLF PCDU Snapshot A | 2063 | 1 | disabled |
| YCF2Z200 | 13 | 200 | Diag | PLF PCDU Snapshot B | 2063 | 1 | disabled |
| YCF2Z201 | 13 | 201 | Diag | PLF RIU Last Cmd Function | 78 | 1 | disabled |
| YCF2Z202 | 13 | 202 | Diag | PLF Spare Parameters & S130 | 195 | 1 | disabled |
| YCF2Z229 | 13 | 229 | Diag | AOCS Profile Temp Buffer - Part 1 | 2987 | 8191 | disabled |
| YCF2Z230 | 13 | 230 | Diag | AOCS Profile Temp Buffer - Part 2 | 2987 | 8191 | disabled |
| YCF2Z231 | 13 | 231 | Diag | SADE Steer Temp Buffer - Part 1 | 2207 | 8191 | disabled |
| YCF2Z232 | 13 | 232 | Diag | SADE Steer Temp Buffer - Part 2 | 2207 | 8191 | disabled |
| YCF2Z233 | 13 | 233 | Diag | SADE Steer INUSE - Part 1 | 2207 | 8191 | disabled |
| YCF2Z234 | 13 | 234 | Diag | SADE Steer INUSE - Part 2 | 2207 | 8191 | disabled |
| YCF2Z249 | 13 | 249 | Diag | AIT Comms low data rate | 91 | 60 | disabled |
| YCF2Z255 | 13 | 255 | Diag | PLF AIT TM Statuses | 25 | 1 | disabled |

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|----------|----|-----|------|---------------------------------------|------|------|----------|
| YCS1Z001 | 14 | 1 | HK | SYS FMON | 203 | 90 | ENABLED |
| YCS1Z002 | 14 | 2 | HK | SYS System Performance | 249 | 90 | ENABLED |
| YCS1Z003 | 14 | 3 | HK | SYS Equipment SCV Status | 120 | 30 | ENABLED |
| YCS1Z004 | 14 | 4 | HK | SYS TCS Loop SCV Status 1 | 115 | 120 | ENABLED |
| YCS1Z005 | 14 | 5 | HK | SYS TCS Loop SCV Status 2 | 115 | 120 | ENABLED |
| YCS2Z006 | 14 | 6 | HK | SYS Equipment SCV Health | 120 | 900 | disabled |
| YCS2Z007 | 14 | 7 | HK | SYS TCS Loop SCV Health 1 | 115 | 900 | disabled |
| YCS2Z008 | 14 | 8 | HK | SYS TCS Loop SCV Health 2 | 115 | 900 | disabled |
| YCS2Z009 | 14 | 9 | HK | SYS Equipment SCV Config | 120 | 7200 | disabled |
| YCS2Z010 | 14 | 10 | HK | SYS TCS Loop SCV Config 1 | 115 | 7200 | disabled |
| YCS2Z011 | 14 | 11 | HK | SYS TCS Loop SCV Config 2 | 115 | 7200 | disabled |
| YCS2Z012 | 14 | 12 | HK | SYS Heartbeat | 567 | 600 | disabled |
| YCS2Z013 | 14 | 13 | HK | SYS MIL-STD-1553b-BUS Errors | 259 | 7200 | disabled |
| YCS2Z015 | 14 | 15 | HK | SYS FDIR Monitoring | 108 | 300 | disabled |
| YCS2Z077 | 14 | 77 | HK | SYS FMON | 203 | 90 | disabled |
| YCS2Z078 | 14 | 78 | HK | SYS System Performance | 249 | 90 | disabled |
| YCS2Z079 | 14 | 79 | HK | SYS Equipment SCV Status | 120 | 30 | disabled |
| YCS2Z080 | 14 | 80 | HK | SYS TCS Loop SCV Status 1 | 115 | 120 | disabled |
| YCS2Z081 | 14 | 81 | HK | SYS TCS Loop SCV Status 2 | 115 | 120 | disabled |
| YCS1Z082 | 14 | 82 | HK | SYS Equipment SCV Health | 120 | 900 | ENABLED |
| YCS1Z083 | 14 | 83 | HK | SYS TCS Loop SCV Health 1 | 115 | 900 | ENABLED |
| YCS1Z084 | 14 | 84 | HK | SYS TCS Loop SCV Health 2 | 115 | 900 | ENABLED |
| YCS1Z085 | 14 | 85 | HK | SYS Equipment SCV Config | 120 | 7200 | ENABLED |
| YCS1Z086 | 14 | 86 | HK | SYS TCS Loop SCV Config 1 | 115 | 7200 | ENABLED |
| YCS1Z087 | 14 | 87 | HK | SYS TCS Loop SCV Config 2 | 115 | 7200 | ENABLED |
| YCS1Z088 | 14 | 88 | HK | SYS Heartbeat | 567 | 600 | ENABLED |
| YCS1Z089 | 14 | 89 | HK | SYS MIL-STD-1553b-BUS Errors | 259 | 7200 | ENABLED |
| YCS1Z090 | 14 | 90 | HK | SYS LEOP | 254 | 1 | disabled |
| YCS1Z091 | 14 | 91 | HK | SYS FDIR Monitoring | 108 | 300 | ENABLED |
| YCS1Z153 | 14 | 153 | HK | SYS Safe Mode Fast | 141 | 60 | ENABLED |
| YCS1Z154 | 14 | 154 | HK | SYS Safe Mode Slow | 313 | 180 | ENABLED |
| YCS1Z155 | 14 | 155 | HK | SYS Safe Mode Health | 91 | 900 | ENABLED |
| YCS1Z156 | 14 | 156 | HK | SYS Safe Mode ULGA | 228 | 300 | disabled |
| YCS1Z192 | 14 | 192 | HK | System FDIR, SW-OPS Alarm Snapshot | 431 | 8191 | disabled |
| YCS2Z193 | 14 | 193 | Diag | S130 Extracted Parameters - 1/2 | 100 | 1 | disabled |
| YCS2Z194 | 14 | 194 | Diag | S130 Extracted Parameters - 2/2 | 166 | 1 | disabled |
| YCS2Z195 | 14 | 195 | Diag | SYS Spare Parameters & S130 - 1/2 | 211 | 1 | disabled |
| YCS2Z196 | 14 | 196 | Diag | SYS Spare Parameters & S130 - 2/2 | 2091 | 1 | disabled |
| YCS2Z197 | 14 | 197 | Diag | Extract and Mask Operation Parameters | 211 | 1 | disabled |
| YTC2Z001 | 16 | 1 | HK | TCS Thermal Loop Data | 427 | 600 | disabled |
| YTC1Z003 | 16 | 3 | HK | TCS Thermal Overview | 45 | 60 | ENABLED |
| YTC2Z004 | 16 | 4 | HK | TCS Thermal Validity | 115 | 7200 | disabled |
| YTC1Z077 | 16 | 77 | HK | TCS Thermal Loop Data | 427 | 600 | ENABLED |
| YTC2Z079 | 16 | 79 | HK | TCS Thermal Overview | 45 | 60 | disabled |
| YTC1Z080 | 16 | 80 | HK | TCS Thermal Validity | 115 | 7200 | ENABLED |
| YTC1Z153 | 16 | 153 | HK | TCS Thermal Loop Tuning Params | 843 | 600 | disabled |
| YTC1Z154 | 16 | 154 | HK | TCS Safe Mode | 219 | 900 | ENABLED |
| YTC1Z192 | 16 | 192 | HK | TCS FDIR Snapshot | 435 | 8191 | disabled |
| YTC2Z193 | 16 | 193 | Diag | TCS Commanding Time | 20 | 7200 | disabled |
| YTC2Z194 | 16 | 194 | Diag | TCS Spare Parameters | 131 | 1 | disabled |

TC Packets

To set up an HK TM packet in the CSW, send the TC(3,1) plus, if indicated, accompanying TCs(3,138).

For Diagnostic packets there is one TC (3,2). Enable with TC (3,5) or TC (3,7).

| HK Packet | PID | SID | Service | TC Name | TC Description |
|-----------|-----|-----|---------|----------|--|
| YCD2Z002 | 10 | 2 | 3,1 | ZCD2Z077 | Define HK: DMS OBC Status Slow (1/2) |
| | | | 3,138 | ZCD2Z075 | Define HK: DMS OBC Status Slow (2/2) |
| YCD2Z003 | 10 | 3 | 3,1 | ZCD2Z078 | Define HK: DMS Reconfiguration Reports |

| | | | | | |
|----------|----|-----|--------------|----------|--|
| YCD2Z004 | 10 | 4 | 3,1 | ZCD2Z079 | Define HK: DMS CPU Load |
| YCD2Z005 | 10 | 5 | 3,1 | ZCD2Z07C | Define HK: DMS MIL-STD-1553b-BUS Details |
| YCD2Z006 | 10 | 6 | 3,1 3,138 | ZCD2Z07D | Define HK: DMS SGM Group Status (1/2) |
| YCD2Z007 | 10 | 7 | 3,1 | ZCD2Z07T | Define HK: DMS SGM Group Status (2/2) |
| YCD2Z009 | 10 | 9 | 3,1 | ZCD2Z07E | Define HK: DMS SGM Health |
| YCD2Z010 | 10 | 10 | 3,1 | ZCD2Z07F | Define HK: DMS OMM Packet Stores |
| YCD2Z012 | 10 | 12 | 3,1 | ZCD2Z07G | Define HK: DMS OBCP Details |
| YCD2Z013 | 10 | 13 | 3,1 | ZCD2Z07H | Define HK: DMS Overview Slow |
| YCD2Z014 | 10 | 14 | 3,1 | ZCD2Z07J | Define HK: DMS TC Sequencer Details |
| YCD2Z077 | 10 | 77 | 3,1 | ZCD2Z07K | Define HK: DMS MTL Details |
| YCD2Z084 | 10 | 84 | 3,1 | ZCD2Z071 | Define HK: DMS OBC Status Fast |
| YCD2Z087 | 10 | 87 | 3,1 3,138 | ZCD2Z072 | Define HK: DMS OMM Overview |
| YCD2Z092 | 10 | 92 | 3,1 | ZCD2Z07A | Define HK: DMS Overview Fast (1/2) |
| YCD2Z193 | 10 | 193 | 3,2 | ZCD2Z07B | Define HK: DMS Overview Fast (2/2) |
| YCD2Z194 | 10 | 194 | 3,2 | ZCD2Z073 | Define HK: DMS SSMM Summary |
| YCA2Z002 | 11 | 2 | 3,1 3,138 | ZCD2Z074 | Define Diag: DMS 1553 Bus Manager Invest |
| YCA2Z003 | 11 | 3 | 3,1 3,138 | ZCD2Z01U | Define Diag: DMS Spare Parameters & S130 |
| YCA2Z006 | 11 | 6 | 3,1 3,138 | ZCA2Z05L | Define HK: AOCS Dynamics SLOW (1/2) |
| YCA2Z011 | 11 | 11 | 3,1 | ZCA2Z05M | Define HK: AOCS Dynamics SLOW (2/2) |
| YCA2Z017 | 11 | 17 | 3,1 3,138 | ZCA2Z05N | Define HK: AOCS Configuration (1/2) |
| YCA2Z077 | 11 | 77 | 3,1 | ZCA2Z06T | Define HK: AOCS Configuration (2/2) |
| YCA2Z081 | 11 | 81 | 3,1 | ZCA2Z05P | Define HK: AOCS OCM/WOL Slow (1/2) |
| YCA2Z084 | 11 | 84 | 3,1 | ZCA2Z05R | Define HK: AOCS OCM/WOL Slow (2/2) |
| YCA2Z085 | 11 | 85 | 3,1 | ZCA2Z05S | Define HK: AOCS IMU RAW |
| YCA2Z086 | 11 | 86 | 3,1 3,138 | ZCA2Z05T | Define HK: AOCS FDIR Monitoring (1/2) |
| YCA2Z088 | 11 | 88 | 3,1 | ZCA2Z05U | Define HK: AOCS FDIR Monitoring (2/2) |
| YCA2Z090 | 11 | 90 | 3,1 3,138 | ZCA2Z05B | Define HK: AOCS Dynamics FAST |
| YCA2Z092 | 11 | 92 | 3,1 | ZCA2Z05C | Define HK: AOCS Dynamics SASM/WSM |
| YCA2Z095 | 11 | 95 | 3,1 3,138 | ZCA2Z05D | Define HK: AOCS Estimators Dynamics |
| YCA2Z096 | 11 | 96 | 3,1 | ZCA2Z05E | Define HK: AOCS AMU Dynamics |
| YCA2Z193 | 11 | 193 | 3,2 | ZCA2Z05F | Define HK: AOCS Gyro Dynamics (1/2) |
| YCA2Z194 | 11 | 194 | 3,2 | ZCA2Z06U | Define HK: AOCS Gyro Dynamics (2/2) |
| YCA2Z195 | 11 | 195 | 3,2 | ZCA2Z05G | Define HK: AOCS FSS |
| YCA2Z196 | 11 | 196 | 3,2 | ZCA2Z05H | Define HK: AOCS Wheels (1/2) |
| YCA2Z197 | 11 | 197 | 3,2 | ZCA2Z05J | Define HK: AOCS Wheels (2/2) |
| YCA2Z198 | 11 | 198 | 3,2 | ZCA2Z05K | Define HK: AOCS STR |
| YCA2Z199 | 11 | 199 | 3,2 | ZCA2Z05V | Define HK: AOCS SYS Summary (1/2) |
| YCA2Z200 | 11 | 200 | 3,2 | ZCA2Z05W | Define HK: AOCS SYS Summary (2/2) |
| YCA2Z201 | 11 | 201 | 3,2 | ZCA2Z05X | Define HK: AOCS SYS FDIR Summary |
| YCA2Z202 | 11 | 202 | 3,2 | ZCA2Z06W | Define Diag: AOCS Diag STR A |
| YCA2Z203 | 11 | 203 | 3,2 | ZCA2Z06X | Define Diag: AOCS Diag STR B |
| YCA2Z204 | 11 | 204 | 3,2 | ZCA2Z06Y | Define Diag: AOCS Diag RW 1,2 |
| YCA2Z205 | 11 | 205 | 3,2 | ZCA2Z06Z | Define Diag: AOCS Diag FSS A |
| YCA2Z206 | 11 | 206 | 3,2 | ZCA2Z070 | Define Diag: AOCS Diag FSS A,B |
| YCA2Z207 | 11 | 207 | 3,2 | ZCA2Z071 | Define Diag: AOCS Diag FSS B |
| YCA2Z208 | 11 | 208 | 3,2 | ZCA2Z072 | Define Diag: AOCS Diag RW 3,4 |
| | | | | ZCA2Z073 | Define Diag: AOCS Diag Gyro Sample |
| | | | | ZCA2Z074 | Define Diag: AOCS Diag Gyro Axis 1,2 A |
| | | | | ZCA2Z075 | Define Diag: AOCS Diag ACC Monitor |
| | | | | ZCA2Z076 | Define Diag: AOCS Diag Gyro Axis 1,2 B |
| | | | | ZCA2Z07M | Define Diag: AOCS Diag CPS Thruster Cmd |
| | | | | ZCA2Z07N | Define Diag: AOCS Diag Gyro Axis 3,4 A |
| | | | | ZCA2Z07P | Define Diag: AOCS Diag Gyro Axis 3,4 B |
| | | | | ZCA2Z07R | Define Diag: AOCS Diag ACC Axis 2,3 |
| | | | | ZCA2Z07S | Define Diag: AOCS Diag ACC Axis 4 |

| | | | | | |
|----------|----|-----|-------|----------|--|
| YCA2Z209 | 11 | 209 | 3,2 | ZCA2Z07T | Define Diag: AOCS Diag CPS FCV,PulseTime |
| YCA2Z210 | 11 | 210 | 3,2 | ZCA2Z07U | Define Diag: AOCS Diag CPS Parameters |
| YCA2Z211 | 11 | 211 | 3,2 | ZCA2Z07V | Define Diag: AOCS Diag Attitude Ctrl.1 |
| YCA2Z212 | 11 | 212 | 3,2 | ZCA2Z07W | Define Diag: AOCS Diag Data Fusion.1 |
| YCA2Z213 | 11 | 213 | 3,2 | ZCA2Z07X | Define Diag: AOCS Diag Data Fusion.2 |
| YCA2Z214 | 11 | 214 | 3,2 | ZCA2Z07Y | Define Diag: AOCS Diag Guidance RateCtrl |
| YCA2Z215 | 11 | 215 | 3,2 | ZCA2Z07Z | Define Diag: AOCS Diag Guidance Offloadi |
| YCA2Z216 | 11 | 216 | 3,2 | ZCA2Z080 | Define Diag: AOCS Diag Data Fusion.3 |
| YCA2Z217 | 11 | 217 | 3,2 | ZCA2Z081 | Define Diag: AOCS Diag Ephemeris |
| YCA2Z218 | 11 | 218 | 3,2 | ZCA2Z082 | Define Diag: AOCS Diag Guidance Wheel,In |
| YCA2Z219 | 11 | 219 | 3,2 | ZCA2Z083 | Define Diag: AOCS Diag Attitude Ctrl.2 |
| YCA2Z220 | 11 | 220 | 3,2 | ZCA2Z084 | Define Diag: AOCS Diag ACC Axis 1,2 |
| YCA2Z221 | 11 | 221 | 3,2 | ZCA2Z085 | Define Diag: AOCS Diag CPS OnOff Time |
| YCA2Z222 | 11 | 222 | 3,2 | ZCA2Z086 | Define Diag: AOCS Diag Supervisor |
| YCA2Z223 | 11 | 223 | 3,2 | ZCA2Z089 | Define Diag: AOCS Spare Parameters & S13 |
| YCA2Z228 | 11 | 228 | 3,2 | ZCA2Z060 | Define Diag: AOCS Other |
| YCA2Z229 | 11 | 229 | 3,2 | ZCA2Z06V | Define Diag: AOCS OCM 8Hz Diag |
| YCL2Z077 | 12 | 77 | 3,1 | ZCL2Z00B | Define HK: PL Overview |
| YCL2Z193 | 12 | 193 | 3,2 | ZCL2Z00R | Define Diag: PL Spare Parameters 1 |
| YCL2Z194 | 12 | 194 | 3,2 | ZCL2Z00S | Define Diag: PL Spare Parameters 2 |
| YCL2Z195 | 12 | 195 | 3,2 | ZCL2Z00T | Define Diag: PL S130 1 |
| YCL2Z196 | 12 | 196 | 3,2 | ZCL2Z00U | Define Diag: PL S130 2 |
| YCL2Z197 | 12 | 197 | 3,2 | ZCL2Z00V | Define Diag: PL S130 3 |
| YCL2Z198 | 12 | 198 | 3,2 | ZCL2Z00W | Define Diag: PL S130 4 |
| YCL2Z199 | 12 | 199 | 3,2 | ZCL2Z00X | Define Diag: PL S130 5 |
| YCF2Z003 | 13 | 3 | 3,1 | ZCF2Z026 | Define HK: PLF RIU Thermal (1/2) |
| | | | 3,138 | ZCF2Z027 | Define HK: PLF RIU Thermal (2/2) |
| YCF2Z004 | 13 | 4 | 3,1 | ZCF2Z028 | Define HK: PLF RIU Other Acq |
| YCF2Z005 | 13 | 5 | 3,1 | ZCF2Z029 | Define HK: PLF RIU FSS Acq |
| YCF2Z006 | 13 | 6 | 3,1 | ZCF2Z02A | Define HK: PLF Deployment Acq |
| YCF2Z007 | 13 | 7 | 3,1 | ZCF2Z02B | Define HK: PLF RIU HK |
| YCF2Z008 | 13 | 8 | 3,1 | ZCF2Z02C | Define HK: PLF PCDU LCLs Acq |
| YCF2Z009 | 13 | 9 | 3,1 | ZCF2Z02D | Define HK: PLF PCDU EPS |
| YCF2Z010 | 13 | 10 | 3,1 | ZCF2Z02E | Define HK: PLF PCDU HK |
| YCF2Z011 | 13 | 11 | 3,1 | ZCF2Z02F | Define HK: PLF Comms Summary (1/2) |
| | | | 3,138 | ZCF2Z02Y | Define HK: PLF Comms Summary (2/2) |
| YCF2Z012 | 13 | 12 | 3,1 | ZCF2Z02H | Define HK: PLF APME HK |
| YCF2Z013 | 13 | 13 | 3,1 | ZCF2Z02J | Define HK: PLF SADE HK (1/2) |
| | | | 3,138 | ZCF2Z02K | Define HK: PLF SADE HK (2/2) |
| YCF2Z014 | 13 | 14 | 3,1 | ZCF2Z02L | Define HK: PLF DEU HK (1/2) |
| | | | 3,138 | ZCF2Z0A5 | Define HK: PLF DEU HK (2/2) |
| YCF2Z015 | 13 | 15 | 3,1 | ZCF2Z02M | Define HK: PLF PCDU EDAC |
| YCF2Z016 | 13 | 16 | 3,1 | ZCF2Z035 | Define HK: PLF RIU TM Statuses |
| YCF2Z017 | 13 | 17 | 3,1 | ZCF2Z039 | Define HK: PLF RIU TM Statuses |
| YCF2Z077 | 13 | 77 | 3,1 | ZCF2Z022 | Define HK: PLF Summary (1/3) |
| | | | 3,138 | ZCF2Z023 | Define HK: PLF Summary (2/3) |
| | | | 3,138 | ZCF2Z03V | Define HK: PLF Summary (3/3) |
| YCF2Z078 | 13 | 78 | 3,1 | ZCF2Z024 | Define HK: PLF Summary Thermal (1/2) |
| | | | 3,138 | ZCF2Z025 | Define HK: PLF Summary Thermal (2/2) |
| YCF2Z195 | 13 | 195 | 3,2 | ZCF2Z020 | Define Diag: PLF RIU A Diagnostic |
| YCF2Z196 | 13 | 196 | 3,2 | ZCF2Z021 | Define Diag: PLF RIU B Diagnostic |
| YCF2Z197 | 13 | 197 | 3,2 | ZCF2Z038 | Define Diag: PLF OCM/WOL Acq |
| YCF2Z198 | 13 | 198 | 3,2 | ZCF2Z02Z | Define Diag: PLF SADE Diagnostic |
| YCF2Z199 | 13 | 199 | 3,2 | ZCF2Z031 | Define Diag: PLF PCDU Snapshot A |
| YCF2Z200 | 13 | 200 | 3,2 | ZCF2Z032 | Define Diag: PLF PCDU Snapshot B |

| | | | | | |
|----------|----|-----|-------|----------|--|
| YCF2Z201 | 13 | 201 | 3,2 | ZCF2Z037 | Define Diag: PLF RIU Last Cmd Function |
| YCF2Z202 | 13 | 202 | 3,2 | ZCF2Z03T | Define Diag: PLF Spare Parameters & S130 |
| YCF2Z229 | 13 | 229 | 3,2 | ZCF2Z0BV | Define Diag: AOCS Profile Temp Buffer - |
| YCF2Z230 | 13 | 230 | 3,2 | ZCF2Z0BW | Define Diag: AOCS Profile Temp Buffer - |
| YCF2Z231 | 13 | 231 | 3,2 | ZCF2Z0BT | Define Diag: SADE Steer Temp Buffer - Pa |
| YCF2Z232 | 13 | 232 | 3,2 | ZCF2Z0BU | Define Diag: SADE Steer Temp Buffer - Pa |
| YCF2Z233 | 13 | 233 | 3,2 | ZCF2Z033 | Define Diag: SADE Steer INUSE - Part 1 |
| YCF2Z234 | 13 | 234 | 3,2 | ZCF2Z034 | Define Diag: SADE Steer INUSE - Part 2 |
| YCF2Z249 | 13 | 249 | 3,2 | ZCF2Z03U | Define Diag: AIT Comms low data rate |
| YCF2Z255 | 13 | 255 | 3,2 | ZCF2Z036 | Define Diag: PLF AIT TM Statuses |
| YCS2Z006 | 14 | 6 | 3,1 | ZCS2Z087 | Define HK: SYS Equipment SCV Healt (1/3) |
| | | | 3,138 | ZCS2Z088 | Define HK: SYS Equipment SCV Healt (2/3) |
| | | | 3,138 | ZCS2Z0C6 | Define HK: SYS Equipment SCV Healt (3/3) |
| YCS2Z007 | 14 | 7 | 3,1 | ZCS2Z08A | Define HK: SYS TCS Loop SCV Health (1/2) |
| | | | 3,138 | ZCS2Z08B | Define HK: SYS TCS Loop SCV Health (2/2) |
| YCS2Z008 | 14 | 8 | 3,1 | ZCS2Z08C | Define HK: SYS TCS Loop SCV Health (1/2) |
| | | | 3,138 | ZCS2Z08D | Define HK: SYS TCS Loop SCV Health (2/2) |
| YCS2Z009 | 14 | 9 | 3,1 | ZCS2Z08E | Define HK: SYS Equipment SCV Confi (1/3) |
| | | | 3,138 | ZCS2Z08F | Define HK: SYS Equipment SCV Confi (2/3) |
| | | | 3,138 | ZCS2Z0C7 | Define HK: SYS Equipment SCV Confi (3/3) |
| YCS2Z010 | 14 | 10 | 3,1 | ZCS2Z08G | Define HK: SYS TCS Loop SCV Config (1/2) |
| | | | 3,138 | ZCS2Z08H | Define HK: SYS TCS Loop SCV Config (2/2) |
| YCS2Z011 | 14 | 11 | 3,1 | ZCS2Z08J | Define HK: SYS TCS Loop SCV Config (1/2) |
| | | | 3,138 | ZCS2Z08K | Define HK: SYS TCS Loop SCV Config (2/2) |
| YCS2Z012 | 14 | 12 | 3,1 | ZCS2Z089 | Define HK: SYS Heartbeat |
| YCS2Z013 | 14 | 13 | 3,1 | ZCS2Z0A8 | Define HK: SYS MIL-STD-1553b-BUS E (1/2) |
| | | | 3,138 | ZCS2Z0A9 | Define HK: SYS MIL-STD-1553b-BUS E (2/2) |
| YCS2Z015 | 14 | 15 | 3,1 | ZCS2Z0AA | Define HK: SYS FDIR Monitoring |
| YCS2Z077 | 14 | 77 | 3,1 | ZCS2Z080 | Define HK: SYS FMON |
| YCS2Z078 | 14 | 78 | 3,1 | ZCS2Z07Y | Define HK: SYS System Performance (1/2) |
| | | | 3,138 | ZCS2Z00M | Define HK: SYS System Performance (2/2) |
| YCS2Z079 | 14 | 79 | 3,1 | ZCS2Z081 | Define HK: SYS Equipment SCV Statu (1/3) |
| | | | 3,138 | ZCS2Z082 | Define HK: SYS Equipment SCV Statu (2/3) |
| | | | 3,138 | ZCS2Z0C5 | Define HK: SYS Equipment SCV Statu (3/3) |
| YCS2Z080 | 14 | 80 | 3,1 | ZCS2Z083 | Define HK: SYS TCS Loop SCV Status (1/2) |
| | | | 3,138 | ZCS2Z084 | Define HK: SYS TCS Loop SCV Status (2/2) |
| YCS2Z081 | 14 | 81 | 3,1 | ZCS2Z085 | Define HK: SYS TCS Loop SCV Status (1/2) |
| | | | 3,138 | ZCS2Z086 | Define HK: SYS TCS Loop SCV Status (2/2) |
| YCS2Z193 | 14 | 193 | 3,2 | ZCS2Z0AC | Define Diag: S130 Extracted Parameters - |
| YCS2Z194 | 14 | 194 | 3,2 | ZCS2Z0AD | Define Diag: S130 Extracted Parameters - |
| YCS2Z195 | 14 | 195 | 3,2 | ZCS2Z0CA | Define Diag: SYS Spare Parameters & S130 |
| YCS2Z196 | 14 | 196 | 3,2 | ZCS2Z0CB | Define Diag: SYS Spare Parameters & S130 |
| YCS2Z197 | 14 | 197 | 3,2 | ZCS2Z0C8 | Define Diag: Extract and Mask Operation |
| YTC2Z001 | 16 | 1 | 3,1 | ZTC2Z017 | Define HK: TCS Thermal Loop Data (1/2) |
| | | | 3,138 | ZTC2Z018 | Define HK: TCS Thermal Loop Data (2/2) |
| YTC2Z004 | 16 | 4 | 3,1 | ZTC2Z01K | Define HK: TCS Thermal Validity |
| YTC2Z079 | 16 | 79 | 3,1 | ZTC2Z01A | Define HK: TCS Thermal Overview |
| YTC2Z193 | 16 | 193 | 3,2 | ZTC2Z019 | Define Diag: TCS Commanding Time |
| YTC2Z194 | 16 | 194 | 3,2 | ZTC2Z01M | Define Diag: TCS Spare Parameters |

Thermal Control loops

CSW V3.0.3p1

TCs 131,1 to the CSW (TCS) for setting the live upper & lower temperature limits of the control loops.
TCs 132,3 for configuring the default limits in SGM.

| Loop ID | TC 131,1 | TC Description | TC 132,3 |
|-----------------|-----------------|--------------------------------|-----------------|
| 001 IMU-120 | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 002 GEU-120 | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 003 IMU-200 | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 004 -Z FSS | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 005 +X FSS | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 006 WDE 1-3 | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 007 WDE-4 | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 008 STR | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 009 WEM MY-MZ | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 010 WEM MY-PZ | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 011 WEM PY-MZ | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 012 WEM PY-PZ | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 013 RFDA | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 014 EPC1 X | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 015 EPC2 X | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 016 OBC | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 017 SADM-PY | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 018 SADM-MY | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 019 MMH_Inlet | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 020 MON_Inlet | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 021 MMH_Outlet | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 022 MON_Outlet | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 023 Thruster 3A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 024 Thruster 3B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 025 Thruster 4A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 026 Thruster 4B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 027 Thruster 1A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 028 Thruster 1B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 029 Thruster 2A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 030 Thruster 2B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 031 Thruster 7A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 032 Thruster 7B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 033 Thruster 8A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 034 Thruster 8B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 035 Thruster 5A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 036 Thruster 5B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 037 Thruster 6A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 038 Thruster 6B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 039 Thruster_9A | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 040 Thruster_9B | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 041 Press_Tank | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 042 MON_Gauging | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 043 MMH_Gauging | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 044 METIS Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 045 PHI Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 046 SPICE Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 047 EUI Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 048 MY_RS_Zone | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |

| | | | |
|------------------|----------|-------------------------------------|----------|
| 049 STIX Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 050 SWA Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 051 RPW Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 052 MAG Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 053 EPD Ebox | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 054 SWA PAS | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 056 PHI_HE | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 057 PHI_CE | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 058 STIX_CE | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 059 EUI_CE | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 060 EUI_ME | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 061 EUI_HE | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 062 METIS_HE | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 063 METIS_ME | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 064 METIS_CE | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 065 SPICE_CE | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 066 CPS_MZ_Panel | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 067 CPS_Zone_1 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 068 CPS_Zone_2 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 069 CPS_Zone_4 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 070 CPS_Zone_5 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 071 CPS_Zone_6 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 072 CPS_Zone_7 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 073 CPS_Zone_8 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 074 CPS_Zone_9 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 075 CPS_Zone_10 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 076 CPS_FD_V | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 077 Battery | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 078 Boom_Baffle | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 079 Boom_Hinge | ZTC4Z008 | TCS Set limits: ANP iBoom YSI + res | ZCD4Z008 |
| 080 HGA_Az_Motor | ZTC4Z002 | TCS Set limits: ANY PT-1000 | ZCD4Z002 |
| 081 HGA_EI_Motor | ZTC4Z002 | TCS Set limits: ANY PT-1000 | ZCD4Z002 |
| 082 MGA_EI_Motor | ZTC4Z002 | TCS Set limits: ANY PT-1000 | ZCD4Z002 |
| 086 ANT_PZ_PA | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 087 ANT_PY_PA | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 088 ANT_MY_PA | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 089 RPW SCM | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 090 SoloHI EB+OU | ZTC4Z005 | TCS Set limits: ANY UTC 0118MM | ZCD4Z005 |
| 091 HET-EPT 1 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 092 HET-EPT 2 | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 093 EPD SIS | ZTC4Z006 | TCS Set limits: ANY YSI-44907 | ZCD4Z006 |
| 094 EPD STEP | ZTC4Z001 | TCS Set limits: ANY G15K 4D489 | ZCD4Z001 |
| 095 SWA EAS | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 096 SWA HIS | ZTC4Z002 | TCS Set limits: ANY PT-1000 | ZCD4Z002 |
| 097 MAG OBS | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |
| 098 MAG IBS | ZTC4Z003 | TCS Set limits: ANP PT-1000 | ZCD4Z003 |

Model-dependent objects

Model-dependent objects in the SIS database are identified by one of the following classifications.

| Classification | Definition |
|----------------|---|
| (blank) | Model-independent |
| ETB | EM-only data |
| PFM | FM-only data |
| OB | On-board generated & consumed TM/TC, e.g. between CSW and Payloads; never used on Ground. |

Source of model-dependent designation

| Unit | Reference |
|-------|--|
| MAG | Table 2.5 of MAG Hardware configuration: Command restrictions specific to EM and/or FM |
| SPICE | Separate IDBs for EM (V5.xx) and FM (V7+) units. |
| RPW | Separate IDBs for EM & FM (same version number, different suffix). |
| DST | Provided by Comms Architect via DCRs. |
| CSW | CSW <=> Payload interaction : Derived from PUS TM/TC IRD SOL.S.ASTR.TN.00079. |

List of model-dependent objects

Objects included in the categories below have the indicated model dependency.

1) By component

This SRDB release is only valid with the units listed here when their model is EM or FM, as indicated in the Build Specification on page 1.

| Unit | Model |
|-------|-------------------------|
| SPICE | ETB or PFM – see page 1 |
| RPW | ETB or PFM – see page 1 |

2) By service

All TM/TC packets on the services listed here are generated and consumed on-board and are not part of the interface with Ground.

| Service | From | To | Description | Model |
|-----------|---------|--------------------|-----------------------------------|-------|
| TC 9,129 | CSW | Payload, SSMM, STR | Time Synchronisation | OB |
| TC 20,128 | CSW | Payload | Inter-instrument communication | OB |
| TC 22,1 | CSW | Payload | Request Payload to report context | OB |
| TM 22,2 | Payload | CSW | Payload context data | OB |
| TC 22,3 | CSW | Payload | Restore context | OB |

3) By object

| Partition | Model | Obj.type | Name | Description |
|------------------|--------------|-----------------|-------------|------------------------------------|
| MAG | PFM | ABTC | ZIM22701 | Set OBS Range (FM) |
| MAG | PFM | ABTC | ZIM22702 | Set IBS Range (FM) |
| MAG | PFM | ABTC | ZIM22705 | Enable FEE Auto Range (FM) |
| MAG | PFM | ABTC | ZIM22706 | Disable FEE Auto Range (FM) |
| MAG | PFM | ABTC | ZIM22707 | Set FEE Delay Val parameter (FM) |
| MAG | PFM | ABTC | ZIM22734 | Set Active HKADC to Redundant (FM) |
| MAG | PFM | ABTC | ZIM22737 | Set FOB Clock to Internal (FM) |
| MAG | PFM | ABTC | ZIM22910 | Enable FIB ramp (FM) |
| MAG | PFM | ABTC | ZIM22911 | Enable FOB ramp (FM) |
| ZEQT03 | PFM | ABTC | ZDSG0010 | Dst-Tx A Set RF Power (DST-A PFM) |
| ZEQT03 | PFM | ABTC | ZDSG1010 | Dst-Tx B Set RF Power (DST-B FM1) |
| ZSCO02 | ETB | ABTC | ZCS2Z07S | Dst Set Tx output power (EM) |
| ZSCO02 | PFM | ABTC | ZCS2Z07T | Dst Set Tx output power (A:PFM) |
| ZSCO02 | PFM | ABTC | ZCS2Z07U | Dst Set Tx output power (B:FM1) |
| ZSCO02 | PFM | ABTC | ZCS2Z07V | Dst Set Tx output power (FM2) |
