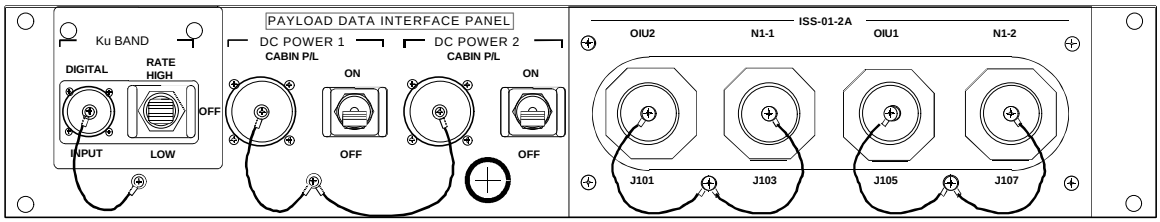
## EARLY COMM INITIAL ACTIVATION

1. **MCC** verifies that US power allocation will not be exceeded during this procedure.

2. **MCC** to verify Early Comm System RPC Close Inhibits removed.

> NOTE
> The following RPCs are used for Early Comm. Close inhibit must be removed prior to attempting to command the RPCs to close.
> N1RS1C RPC 5, 6, 12, 13
> N1RS2A RPC 5, 6, 10, 11




Payload Data Interface Panel (PDIP) L12/A3

Orbiter L12 3. Verify no PCS active on UB-ORB-N1-1(2) bus in Orb AFD.

```
*************************************************************************
*  If PCS active on either bus                                          *
*      Perform EPCS DEACTIVATION, step 1 (SODF: C&DH), then:            *
*************************************************************************
```

POWER ON RF PWR DIST BOX SWITCHES

NOD1 S4_xx 4. Configure switches located on RF PWR DIST BOX ORU

PGSC/RF → On
CTP → On
XCVR → On
SBANT → On
PTANT → On

√SPARE - Off

5. Verify mode switch is in Low Rate position on CTP.
√MODE SWITCH - LOW RATE CMD/TLM

POWER ON RF PWR DIST BOX

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6. N1RS2A RPC 11 - ITEM 15 EXEC (*)

NOD1 S4_xx 7. Verify power LEDs on RF PWR DIST BOX ORU.
√TX SW PWR - RED
√RCV SW PWR - RED

POWER ON ANTENNA HEATERS

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8. N1RS1C RPC 6 CL - ITEM 3 EXEC (*)
   N1RS1C RPC 13 CL - ITEM 7 EXEC (*)

POWER ON CTP

9. N1RS2A RPC 10 CL - ITEM 13 EXEC (*)

NOD 1 S4_xx

10. Verify LEDs on CTP
    √CTP POWER - GREEN
    √CCC STATUS - GREEN/YELLOW (alternating)
    √CTP 1553B BUS - GREEN (flashing)

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11. √CTP POST - PASS
    √DECRYPT POST - PASS
    √PORT ANT I/F - ERR
    √STBD ANT I/F - ERR
    √PORTCOM I/F - ERR

POWER ON TRANSCEIVER

12. N1RS2A RPC 5 - ITEM 9 EXEC (*)
    Wait 1 minute.
    √PORTCOM I/F - OK
    √SYS MODE LO - * (ITEM 21)
    √PTG MODE AUTO - * (ITEM 23)

NOD1 S4_xx

13. Verify power LEDs on Transceiver.
    √+5V POWER - GREEN
    √-5V POWER - GREEN
    √+12V POWER - GREEN

POWER ON ANTENNAS

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14. √XMIT OFF - * (ITEM 18 )
    N1RS1C RPC 5 CL - ITEM 1 EXEC (*)
    N1RS1C RPC 12 CL - ITEM 5 EXEC (*)

NOTE

Power to antenna electronics is thermostatically controlled to prevent applying power below operating limits. When antenna I/F telemetry is received, the antenna electronics are receiving power.

√PORT ANT I/F - OK
√STBD ANT I/F - OK
√Port Ant Temp ≥ 144 (-35 deg C)
√Stbd Ant Temp ≥ 144 (-35 deg C)

ESTABLISH LOW RATE COMMUNICATIONS LINK

15. **MCC-H** to verify ground and TDRSS network configured for comm.

**MCC-H** to shuttle, “Ready for XMIT ON.”

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16. √FRM LOCK PORTCOM - YES
√CTP FRM - YES
√SIG STR ≥ 100
XMIT ON - ITEM 17 EXEC (*)

Shuttle to **MCC-H**, “XMIT ON.”

**MCC-H** COMMANDS TO EARLY COMM

NOTE
Ground commanding through Early Comm link used to command during this portion of procedure to test command capability.

Early Comm

Early S-Band Comm Management
‘System Configuration’

17. sel Key Sel
**cmd** Decryption_Key_999 **Execute**

√Decryption_Key: 999
sel Decryption
**cmd** Decryption_On **Execute**

√Decryption - On
Ground Control configures FEP for encryption with key 999

‘Antenna Command Display’

18. sel Port Array
**cmd** Port_Array_Beam_Select_13 **Execute**

√Array - Port
√Beam Sel: 13

sel Stbd Array
**cmd** Stbd_Array_Beam_Select_0 **Execute**

√Array - Stbd
√Beam Sel: 0