AMOS LINE-UP PROCEDURE

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PREPARATIONS
1. Make all necessary station tests to ensure proper operation of the uplink and downlink chains.
2. Use a RF spectrum analyzer on the monitor point of the HPA to observe its transmit spectrum (look for spurious carriers, IM products or thermal noise above the allowed level).
3. Make an accurate alignment of the antenna and feed polarization.
4. To pick the antenna, the satellite's telemetry beacon can be used at the following frequencies (circular polarization): AMOS-2: 10,949.000MHz AMOS-3: 11,449.000MHz; 11,700.000MHz

LINE-UP PROCEDURE		
No	**Customer Uplink**	**AMOS CSC**
1	Monitor with a spectrum analyzer the allocated frequency band on the transponder to ensure the band is free from any spurious or interference.	Monitor with a spectrum analyzer the allocated frequency band on the transponder to ensure the band is free from any activated carriers or interference.
2	Contact AMOS CSC to obtain authorization to begin testing over the satellite.	Confirm the carrier's parameters with the user (Center Frequency, Bandwidth and EIRP) as per the respective transmission order.
3	If relevant, perform XPOL Check per steps 4,5,6 below.	If relevant, perform XPOL Check per steps 4,5,6 below.
4	Transmit an un-modulated carrier at the XPOL test frequency as assigned by AMOS CSC.	Allocate a test frequency at the edge of the XPOL transponder for a CW transmission.
5	Increase transmit U/L power according to AMOS CSC instructions.	Measure the C/N of the COPOL (RBW = ~1KHz) and instruct the customer to increase its U/L power until you reach C/N of ~40dB.
6	Align the polarization until best performance is achieved according to AMOS CSC.	Instruct the customer to align its polarization while looking for lowest Null. Measure the XPOL C/N and verify that the XPOL isolation is at least 30dB.
7	Under the guidance of AMOS CSC, transmit an un-modulated carrier on the assigned frequency at no more than 20 dB below the allocated transmit level.	Measure the carrier's center frequency and D/L EIRP.
8	Adjust center-frequency under the guidance of AMOS CSC.	
9	Modulate the carrier.	Measure and verify the carrier's bandwidth.
10	Adjust U/L EIRP gradually and in steps under the guidance of AMOS CSC up to 2dB below the allocated value.	Measure the carrier's D/L EIRP.
11	Adjust U/L EIRP gradually and in steps up to the allocated value.	Measure and verify that the carrier's D/L EIRP matches the allocated value.
12	Per AMOS CSC instructions, turn off/on the carrier. User may also be asked to provide a spectrum analyzer plot of the U/L HPA's output.	Monitor the full transponder's band to ensure that transponder's noise level has not changed and/or spurious carriers not observed. Register U/L Power Level and EIRP.
13	The user can measure the received C/N or Eb/N0 performance to verify the expected values. Receive Margin tests is highly recommended for DVB and SCPS digital carriers (see AEST202-Digital TV Carriers Test Procedure).	Assist the user with EIRP and C/N measurements for various receive levels.
14	Additional testing is optional and may be conducted by the user to ensure that the desired performance is achieved.	Assist the user with additional testing if required.