Launch of SICRAL 1B satellite

20 April 2009, 10:15:55 CET

MISSION PROFILE

09:55:55	Internal powering of satellite	
10:15:55	**Liftoff from Sea Launch platform**	(launch window: 57 minutes)
10:18:24	Stage 1 separation	(height: 78 km)
10:19:25	Payload fairing jettison	(height: 129 km)
10:18:24	Stage 2 separation	(height: 232 km)
10:24:34	Block DM 1st burn ignition	
11:00:18	**First acquisition of telemetry data by Fucino space centre**	
11:11:48	Visibility from Malindi station	
11:51:02	Block DM 2nd burn ignition	
12:04:44	**Separation of satellite**	
12:04:45	**Acquisition of satellite by Fucino space centre**	
12:06:00	Initiation of flight operations for satellite configuration and orbital transfers	
	12:31:48 Partial deployment of solar wings	
	12:51:48 Initialisation of chemical propulsion subsystem	
	13:41:48 Initialisation of sun acquisition / battery charging	
20 April	16:55:51 First earth acquisition	
	18:05:51 Acquisition of inertial navigation	
	19:25:51 First apogee motor firing	
22 April	03:23:15 Second apogee motor firing	
23 April	19:40:24 Third apogee motor firing	

THE TELESPAZIO TEAM'S ACTIVITIES

The Italian defence ministry's telecommunications satellite SICRAL 1B is scheduled for launch at 08:15:55 UTC (10:15:55 CET) on 20 April 2009 from the Sea Launch platform in the Pacific Ocean.

The launcher will ascend for 6,529 seconds (1 hour, 48 minutes and 49 seconds), and the satellite will be released into an elliptical orbit with a perigee of 8,604 km and an apogee of 35,678 km. The orbital inclination will be zero, since the launch platform is positioned on the equator.

Once the satellite has been acquired, Telespazio's team of flight specialists based in the launch and early orbit phase (**LEOP**) control room of the Fucino space centre will begin the operations to configure the on-board subsystems, deploy the solar wings, initialise the chemical propulsion subsystem, and move into sun-pointing mode, in order to ensure that the correct power and heat conditions are in place for the spacecraft to survive.

Subsequently, the centre will take control of the on-board equipment for earth location and capture, with the aim of attaining an inertial orbital reference to carry out the necessary orbital transfers. The apogee motor will be fired three times in order to circularise SICRAL 1B's orbit as it reaches its geostationary position.

The LEOP phase, managed by Telespazio as prime contractor, covers the period between separation from the launcher and achievement of the planned orbital location (11.8° E), and will last for ten days. It will be followed by the satellite **commissioning** phase, during which all the backup equipment (not used in the previous phase) will be tested. This will last for five days.

Finally, the **in-orbit testing** phase will begin, during which the on-board equipment that will provide the telecommunications service will be tested. This phase will have a duration of around 15 days.

Control of the satellite will then be transferred from the Fucino space centre to the defence ministry's Vigna di Valle control centre. The Fucino space centre will continue to play a backup role.