LVM3-M6
BLUEBIRD BLOCK-2
Mission

LVM3-M6 / Bluebird Block-2 Mission

LVM3 is the operational heavy lift Launch Vehicle of ISRO and has a spectacular pedigree of completing eight consecutive successful missions. LVM3-M6 is the Sixth Operational Flight of LVM3 and third dedicated commercial mission to launch the BlueBird Block-2 spacecraft, which is the heaviest payload (~6100 kgs.) into Low Earth Orbit (LEO) in the LVM3 launch history. It will be launched from the Second Launch Pad (SLP), SDSC, SHAR. This mission is being undertaken as part of the commercial agreement between M/s. NSIL and M/s. AST & Science, LLC an US based company.

BlueBird block-2 mission is part of a global LEO constellation to provide direct-to-mobile connectivity through satellite . This constellation will enable 4G and 5G voice and video calls, texts, streaming, and data for everyone, everywhere, at all times. It features a 223m² phased array, making it the largest commercial communications satellite ever deployed into low Earth orbit.

LVM3-M6 Vehicle Configuration

(2S200+L110 (HTVE)+C25+5m OPLF)

LVM3-M6 Stages at a Glance			
Stages	**Strap-Ons (2 x S200)**	**Core Stage (L110)**	**Upper Stage (C25)**
Length (m)	26.22	21.4	13.5
Diameter (m)	3.2	4.0	4.0
Propellant	Solid (HTPB)	Liquid ($UH25 + N_2O_4$)	Cryo (LH_2 & LOX)
Propellant Mass (t)	204.2 (each)	115.9	28.5

3rd Dedicated Commercial **Mission**

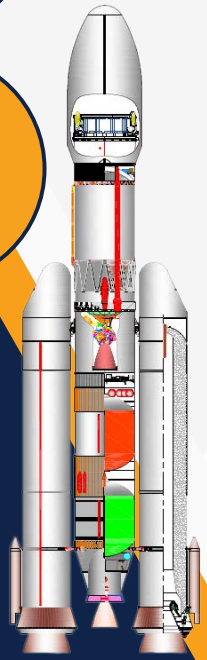
6th Operational Flight of **LVM3**

LVM3-M6 Vehicle Characteristics

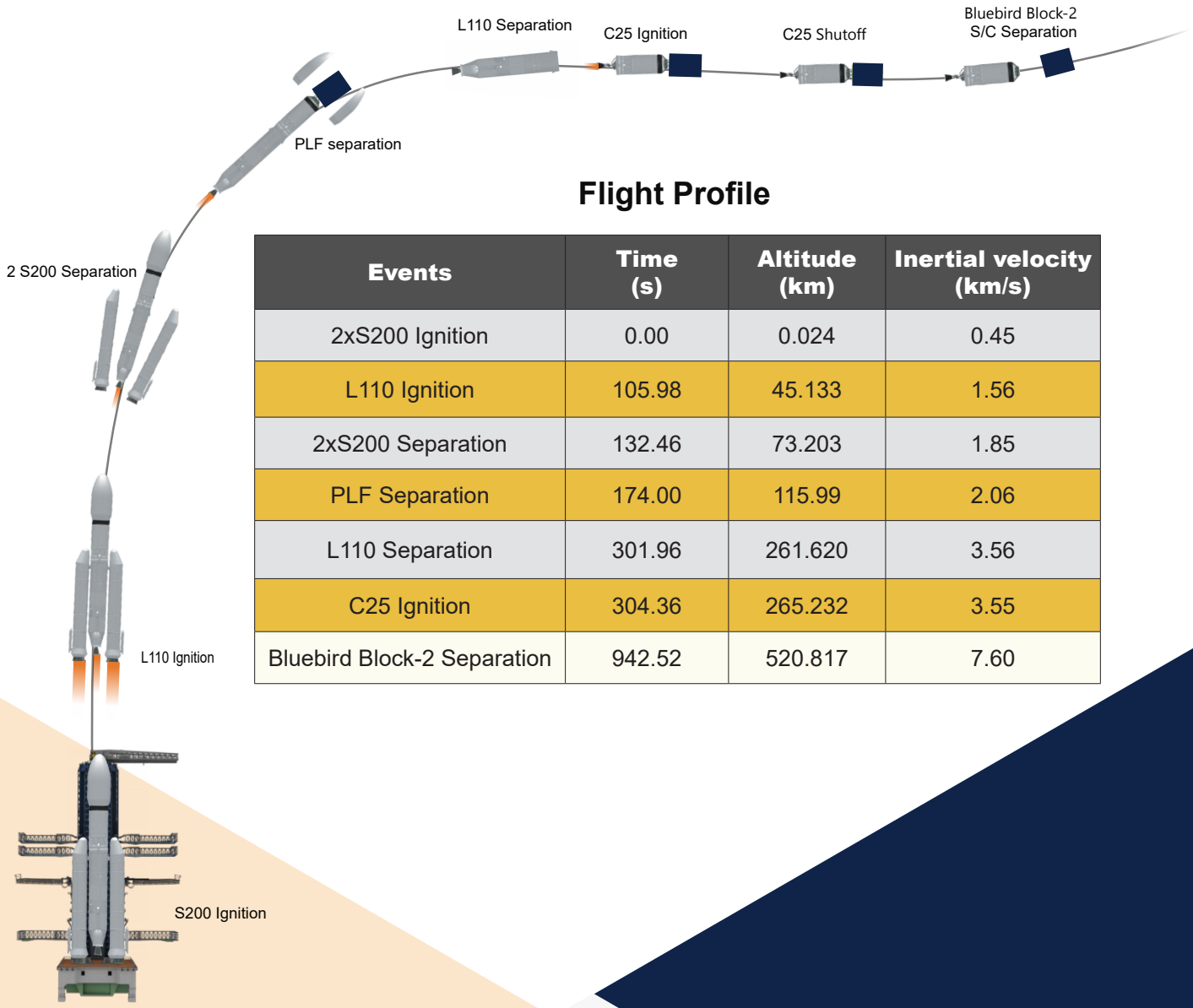
Vehicle Height	43.5 m
Lift off Mass	640 t

LVM3-M6 Mission Specification

Semi Major Axis (km)	6898.137 ± 15
Altitude (km)	520 (Circular)
Inclination (deg)	53 ± 0.1°



LVM3-M6
Flight Sequence



Flight Profile

Events	Time (s)	Altitude (km)	Inertial velocity (km/s)
2xS200 Ignition	0.00	0.024	0.45
L110 Ignition	105.98	45.133	1.56
2xS200 Separation	132.46	73.203	1.85
PLF Separation	174.00	115.99	2.06
L110 Separation	301.96	261.620	3.56
C25 Ignition	304.36	265.232	3.55
Bluebird Block-2 Separation	942.52	520.817	7.60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