PSLV-C62

EOS-N1 Mission

PSLV-C62 / EOS-N1 MISSION

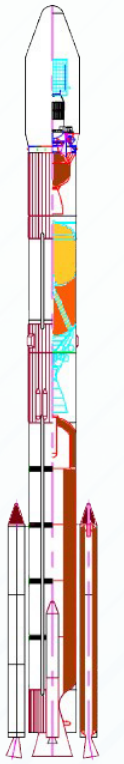
PSLV-C62 vehicle will carry EOS-N1 and 15 Co-passenger satellites. It is a Commercial mission of NewSpace India Limited (NSIL). EOS-N1 and 14 Co-passenger satellites will be injected into a Sun Synchronous Orbit and KID Capsule into a re-entry trajectory. After injection of EOS-N1 and 14 satellites, PS4 stage will be re-started to de-boost and enter a re-entry trajectory, followed by KID Capsule separation. Both PS4 stage and KID capsule will re-enter into Earth's Atmosphere and impact will be in the South Pacific Ocean. Launch is planned from First Launch Pad (FLP), Satish Dhawan Space Centre (SDSC-SHAR), Sriharikota.

64th Flight of **PSLV**

5th Mission **PSLV-DL** variant

PSLV-C62 Vehicle Characteristics

Vehicle Height	44.4 m
Lift off Mass	260 t
Stages	4
First Stage	2PSOM-XL+ S139
Second Stage	PL40(HP)
Third Stage	HPS3
Fourth Stage	L2.5(Al)



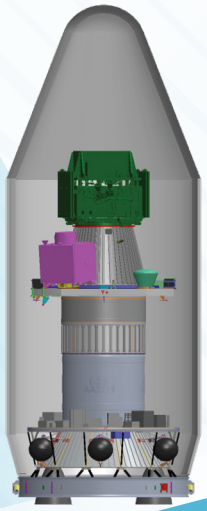
Vehicle Configuration

PSLV-C62 Stage Configuration
(2PSOM-XL+S139+PL40 (HP)+HPS3+L2.5(AI))

PSLV-C62 Stages at a Glance					
Stages	**First Stage**		**Second Stage**	**Third Stage**	**Fourth Stage**
Parameter	**PS1**	**PSOM-XL**	**PS2**	**HPS3**	**PS4**
Length (m)	20	12	12.8	3.6	2.5
Diameter (m)	2.8	1	2.8	2	1.34
Propellant	Solid (HTPB based)	Solid (HTPB based)	Liquid (UH25 + N_2O_4)	Solid (HTPB based)	Liquid (MMH+ MON3)
Propellant Mass (t)	138	2 x 12.2	41.8	7.66	2.5

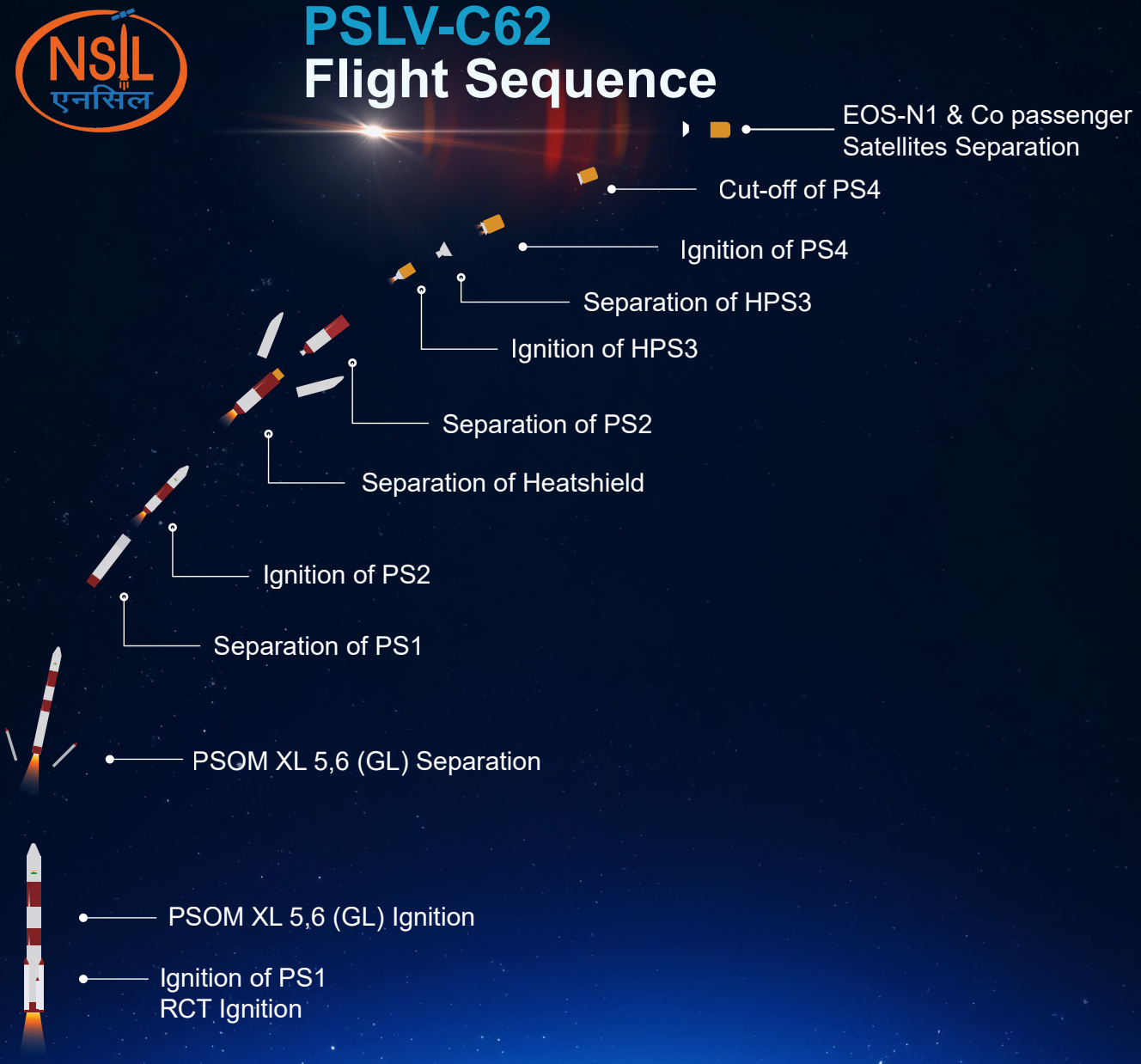
PSLV-C62 Mission Specification

Parameter	Orbit-1 (SSO)
Semi-Major Axis (km)	6883.428 ± 10
Altitude (km)	505.291
Inclination (deg)	97.5 ± 0.12
Launch Pad	FLP
Launch Azimuth (deg)	140°



PSLV-C62 Payload Accomodation

PSLV-C62
Flight Sequence



Flight Profile

Events	Time (s)	Altitude (km)	Relative velocity (m/s)
RCT Ignition	-3	0.025	451.9
PS1 Ignition	0	0.025	451.9
PSOM XL 5,6 (GL) Ignition	0.42	0.025	451.9
PSOM XL 5,6 (GL) Separation	69.9	23.247	1011.3
PS1 Separation	112.06	60.256	1799.3
PS2 Ignition	112.26	60.462	1798.4
PLF Separation	167.86	116.080	2244.3
CLG Initiation	172.86	121.022	2295.6
PS2 Separation	263.36	213.149	3801.3
PS3 Ignition	264.56	214.448	3798.2
PS3 Separation	494.72	428.021	5688.8
PS4 Ignition	505.12	434.767	5678.6
PS4 Cutoff	984.62	509.523	7604.0
EOS-N1 Separation	1074.62	511.262	7608.7
Orbit Change-1 Ignition (Re-entry Burn)	6359.52	506.310	7608.6
Orbit Change-1 Cut-off	6378.14	506.402	7444.7
KID Capsule Separation	6485.14	504.871	7438.8

Details of Co passenger Satellites

S.No	Satellite name	Purpose of the satellite	Company (Country)
1	Theos-2	Earth Observation satellite built jointly by Thailand and UK	SSTL (UK)
2	CGUSAT	Technology demonstration by university students	Dhruva Space (India)
3	DSUSAT	Technology demonstration by university students	Dhruva Space (India)
4	MOI-1	Enables customers to run large AI models directly on the satellite	Dhruva Space (India) Takeme2Space (India)
5	LACHIT	Rapid technology demonstration and constellation development for multiple users with Store-and-Forward functionality	Dhruva Space (India)
6	Thybolt-3	Rapid technology demonstration and constellation development for multiple users with Store-and-Forward functionality	Dhruva Space (India) Don Bosco University (India)
7	Munal	Technology demonstration satellite by Nepal university	Antharkshya Pratishtan (Nepal) MEA, GoI (India)

8	KID Capsule	Re-entry capsule	Orbital Paradigm (Spain) RIDE! (France)
9	Edusat	Demonstrate IoT sensors in Brazil	AlltoSpace (Brazil)
10	Uaisat	Collection of data on agriculture	AlltoSpace (Brazil)
11	Galaxy Explorer	Radiation measurement and connect to IoT sensors in Brazil	AlltoSpace (Brazil)
12	Orbital Temple	Receiving the communications emitted by the antenna on the ground, the sculpture, and storing these names perpetually in space.	AlltoSpace (Brazil)
13	Aldebaran-1	Rescuing fishing vessels in distress along the coast of Maranhao (Brazil).	AlltoSpace (Brazil)
14	Sanskarsat	Technology Demonstrator	Laxman Gyanpith (India)
15	AyulSat	Demonstrate in-orbit fuelling	OrbitAid (India)

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