



GSLV-F10 EOS-03 MISSION



GSLV-F10 / EOS-03

MISSION DESCRIPTION

India's Geosynchronous Satellite Launch Vehicle-F10 (GSLV-F10) will launch Earth Observation Satellite (EOS-03) from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota. This mission is the first flight of GSLV with 4m dia Ogive Payload fairing which can accommodate larger payloads.

EOS-03 is the first state-of-the-art agile Earth observation satellite which will be placed in a Geosynchronous Transfer Orbit by GSLV-F10.

GSLV-F10 MISSION SPECIFICATIONS

Payload	EOS-03
Orbit	Geosynchronous Transfer Orbit
Launch Pad	Second Launch Pad

MILESTONES



Flight with
Indigenous Cryo



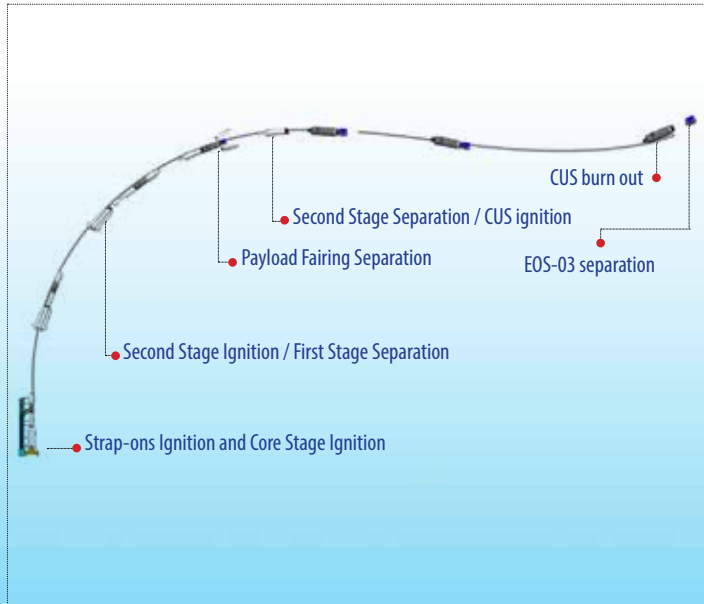
Flight of
GSLV



Launch Vehicle Mission
from SDSC SHAR



GSLV-F10 FLIGHT SEQUENCE



Events	Time	Inertial Velocity (m/s)
Strap-ons Ignition	-4.8 s	451.9
S139 Ignition	0	451.9
Strap-Ons Shut-off	2 min 29 s	2689.3
Second Stage Ignition	2 min 30 s	2689.9
First Stage Separation	2 min 31 s	2688.8
Payload Fairing Separation	3 min 55 s	3813.7
Second Stage Shut-Off	4 min 51 s	5187.6
Second Stage Separation	4 min 55 s	5206.5
Cryo Upper Stage Ignition	4 min 56 s	5206.0
Cryo Upper Stage Shut-Off	18 min 24 s	10204.9
Cryo Upper Stage Burn out	18 min 29 s	10204.6
EOS-03 Separation	18 min 39 s	10196.1



GSLV-F10 / EOS-03

GSLV-F10

Vehicle Height: 51.70m

THIRD STAGE

GS3 (CUS-15)

Height: 9.9m
 Diameter: 2.8m
 Propellant: LH₂ & LOX
 Lift-off mass: 17.0 t
 Propellant mass: 14.4 t

Ogive Payload Fairing

4m Dia composite Structure
 Height : 8.6m

EOS-03

FIRST STAGE

GS1 (S139 + 4 x L40H)

S139
 Height: 20.2m
 Diameter: 2.8m
 Propellant: HTPB
 Lift-off mass: 160.8 t
 Propellant mass: 138.1 t

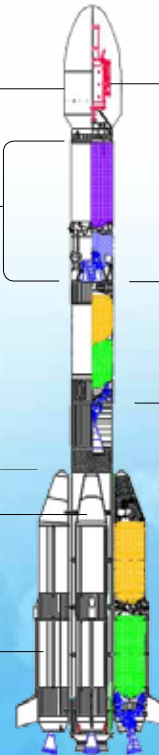
Liquid strap-ons(4 x L40)

Height: 19.7m
 Diameter: 2.1m
 Propellant: UH₂₅ & N₂O₄
 Lift-off mass: 190.9 t
 Propellant mass: 170.7 t

SECOND STAGE

GS2 (GL40)

Height: 11.9m
 Diameter: 2.8m
 Propellant: UH₂₅ & N₂O₄
 Lift-off mass: 47.3 t
 Propellant mass: 42.2 t



GSLV-F10



EOS-03

EOS-03 is the first state-of-the-art agile Earth observation satellite in Geostationary orbit.

Objectives

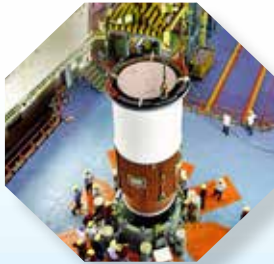
- To provide near real time imaging of large area region of interest at frequent intervals
- For quick monitoring of natural disasters, episodic events and any short term events
- To obtain spectral signatures for agriculture, forestry, water bodies as well as for disaster warning, cyclone monitoring, cloud burst / thunderstorm monitoring etc.

SALIENT FEATURES

Power	2280 W
Mission Life	10 Years

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GLIMPSES



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