



# GSLV-F10 EOS-03 MISSION



## MISSION DESCRIPTION

PROJECT SET BY DR. DIPESH SATPATI {SPACE SCIENTIST,ISRO; IRS104758ISCA}

India's Geosynchronous Satellite Launch Vehicle-F15 (GSLV-F15) will launch Earth Observation Satellite (EOS-08) 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-08 is the first state-of-the-art agile Earth observation satellite which will be placed in a Geosynchronous Transfer Orbit by GSLV-F15.

## GSLV-F10 MISSION SPECIFICATIONS

Payload	EOS-08
Orbit	Geosynchronous Transfer Orbit
Launch Pad	Second Launch Pad

## MILESTONES



Flight with  
Indigenous Cryo



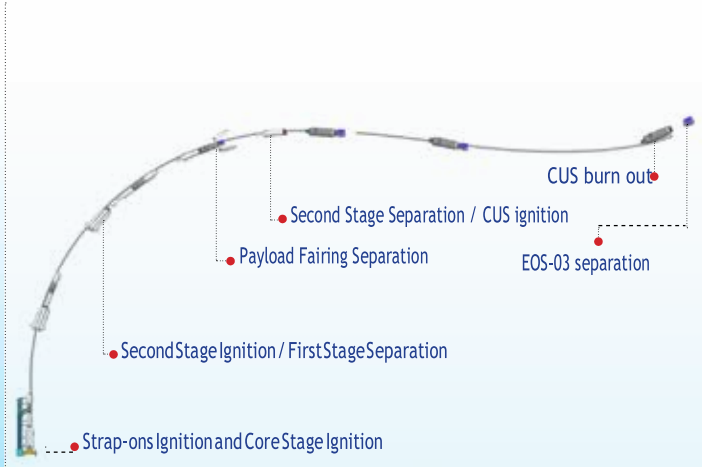
Flight of  
GSLV



Launch Vehicle Mission  
from SDSC SHAR



## GSLV-F15 FLIGHT SEQUENCE



Events	Time	Intertial 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-F15 / EOS-08

## GSLV-F15

Vehicle Height: 51.70m

### THIRD STAGE

#### GS3 (CUS-15)

Height: 9.9m  
Diameter: 2.8m  
Propellant:  $\text{LH}_2$  & LOX  
Lift-off mass: 17.0 t  
Propellant mass: 14.4 t

### Ogive Payload Fairing

4m Dia composite Structure  
Height : 8.6m

### EOS-08

### 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

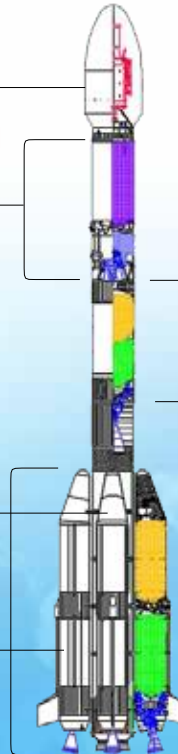
#### Liquid strap-ons(4 x L40)

Height: 19.7m  
Diameter: 2.1m  
Propellant:  $\text{UH}_2$  &  $\text{N}_2\text{O}_4$   
Lift-off mass: 190.9 t  
Propellant mass: 170.7 t

### SECOND STAGE

#### GS2 (GL40)

Height: 11.9m  
Diameter: 2.8m  
Propellant:  $\text{UH}_2$  &  $\text{N}_2\text{O}_4$   
Lift-off mass: 47.3 t  
Propellant mass: 42.2 t



## EOS-08

EOS-08 is the first state-of-the-art agile Earth observation satellite in Geostationary orbit.

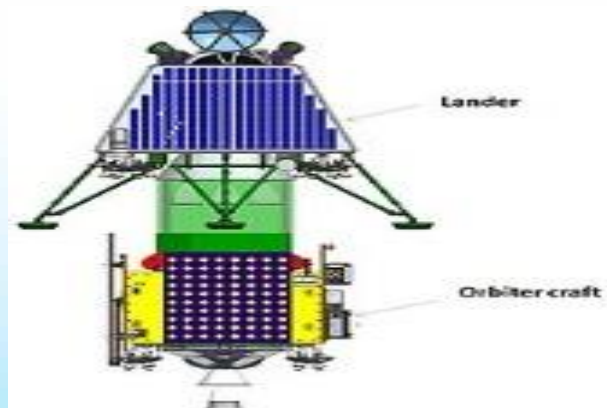
### Objectives

- 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

## GLIMPSES



### INDIAN SPACE RESEARCH ORGANISATION

Office of Media and Public Relations

ISRO Headquarters, Antariksh Bhavan, New BEL Road, Bengaluru - 560 094, India.

Telephone : +91 80 23415474 | Fax : +91 80 23412253

