

# PSLV-C48/RISAT-2BR1 MISSION

Launch Kit



Indian Space Research Organisation

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## MISSION DESCRIPTION

- ▶ India's Polar Satellite Launch Vehicle (PSLV), in its 50th mission (PSLV-C48), will launch RISAT-2BR1, the primary satellite along with 9 customer satellites of Israel (1), Italy (1), Japan (1) and USA (6) from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota
- ▶ RISAT-2BR1 is a Radar imaging earth observation satellite

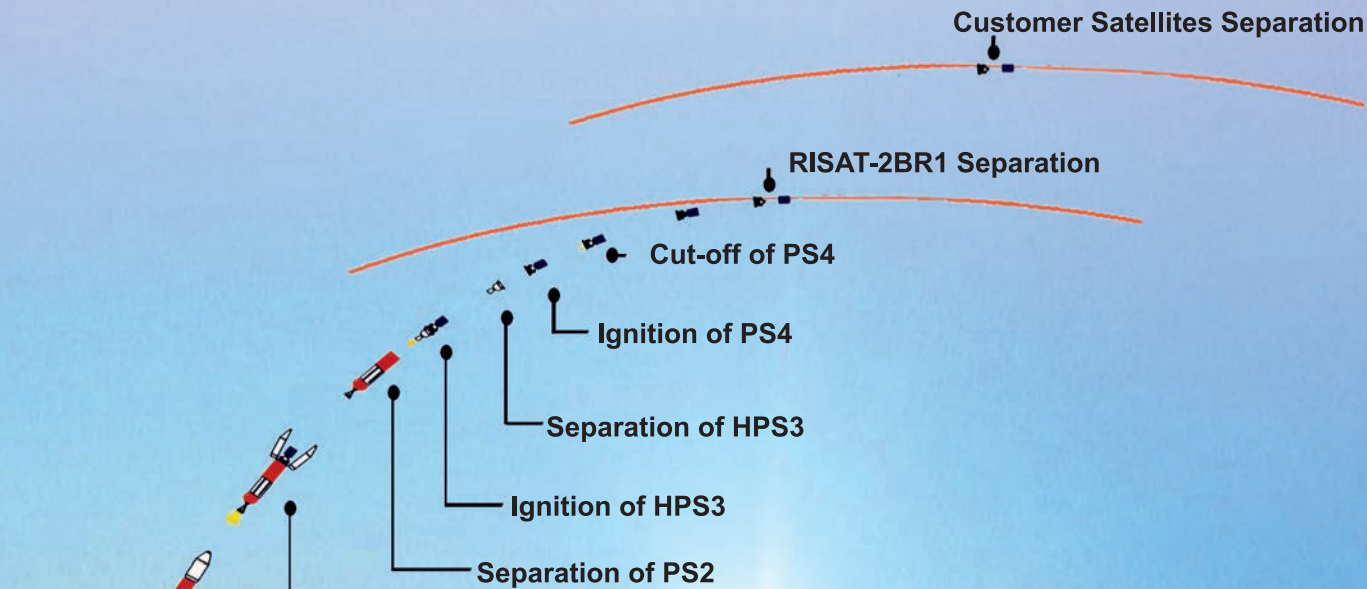
## PSLV-C48 MISSION SPECIFICATIONS

Payload	RISAT-2BR1
Orbit height	576 km
Inclination (deg)	37
Launch Pad	First Launch Pad (FLP)
Launch Azimuth (deg)	140

## MILESTONES

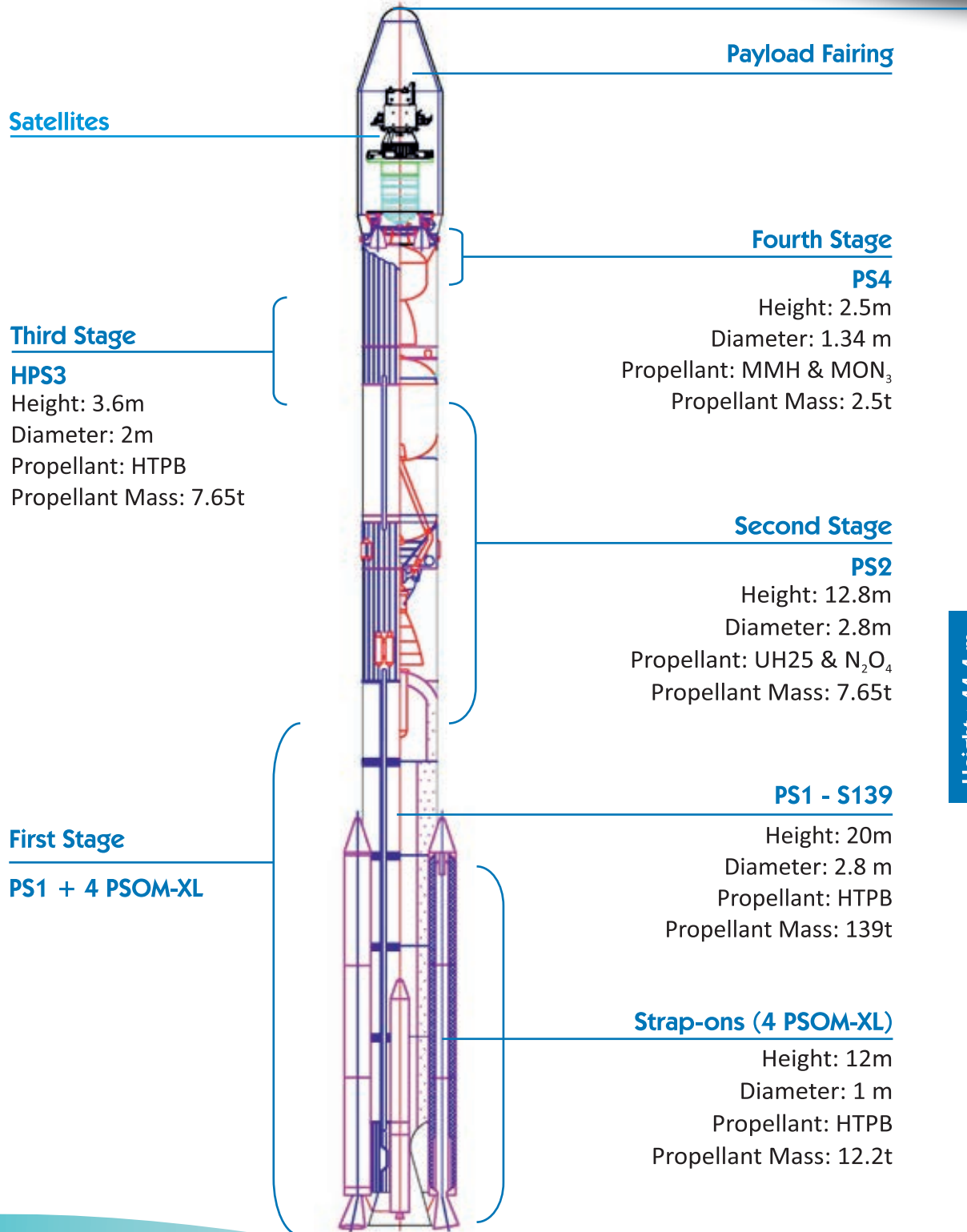


# PSLV-C48 FLIGHT SEQUENCE



Flight Events	Time	Local Altitude (km)	Inertial Velocity (m/s)
PS1 Ignition	0	0.024	451.9
PSOM XL 1, 2 (GL) Ignition	0.42 s	0.024	451.9
PSOM XL 3, 4 (GL) Ignition	0.62 s	0.024	451.9
PSOM XL 1, 2 Separation	1 min 9.9 s	27.577	1216.4
PSOM XL 3, 4 Separation	1 min 10.1 s	27.720	1219.7
PS1 Separation	2 min 51.18 s	66.042	2057.7
PS2 Ignition	2 min 51.38 s	66.254	2056.9
Heat Shield Separation	2 min 40.08 s	115.218	2527.2
PS2 Separation	4 min 23.12 s	217.437	4857.5
PS3 Ignition	4 min 24.32 s	218.673	4855.2
PS3 Separation	9 min 59.22 s	463.479	7338.0
PS4 Ignition	10 min 9.62 s	469.952	7330.5
PS4 Cut-off	15 min 24.50 s	577.916	7569.0
RISAT-2BR1 separation	16 min 26.50 s	578.363	7570.0
First customer Satellite Separation	17 min 26.50 s	578.788	7570.5
Last customer satellite separation	21 min 19.50 s	580.266	7570.1

PSLV-C48



## RISAT – 2BR1

- ▶ RISAT-2BR1 is a radar imaging earth observation satellite developed by ISRO

## SALIENT FEATURES OF RISAT-2BR1

Lift-off weight	628 kg
Altitude	576 km
Payload	X-Band Radar
Inclination	37 deg
Mission Life	5 years

## APPLICATIONS

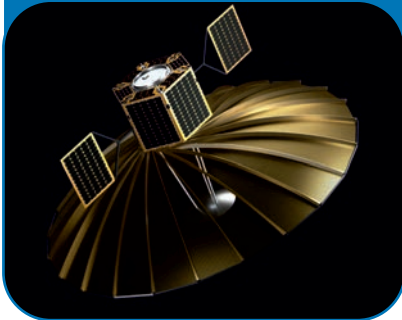
- ▶ Agriculture
- ▶ Forestry
- ▶ Disaster Management Support

## INTERNATIONAL CUSTOMER SATELLITES

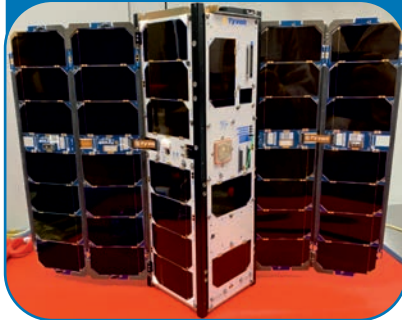
- ▶ The customer satellites are being launched under a commercial arrangement with NewSpace India Limited (NSIL)

Satellite Name	Number of Satellite	Country	Mission Objective of the satellite
QPS-SAR	1	Japan	Radar Imaging Earth Observation
Tyvak-0092	1	Italy	Search and Rescue
Tyvak-0129	1	USA	Technology demonstration
Duchifat-3	1	Israel	Remote sensing
Lemur	4	USA	Multi-mission remote sensing platform
1HOPSAT	1	USA	Earth imaging

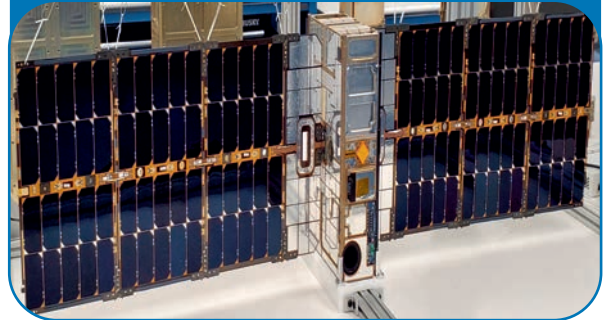
QPS- SAR (1 No)



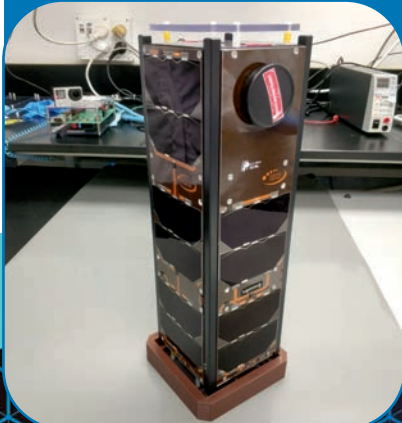
Tyvak-0092 (1 No)



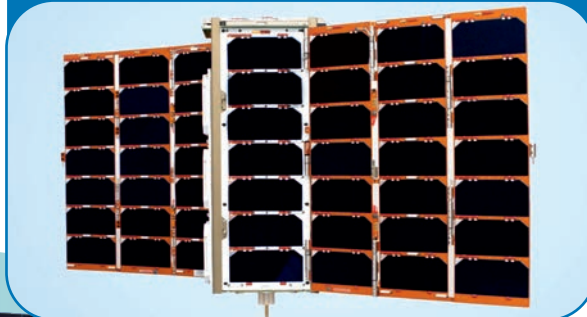
Tyvak-0129 (1 No)



DUCHIFAT-3 (1 No)



LEMUR (4 Nos)



1HOPSAT (1 No)



# PSLV-C48/RISAT-2BR1 MISSION

## GLIMPSES



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