



**ROHINI
Sounding
Rockets**

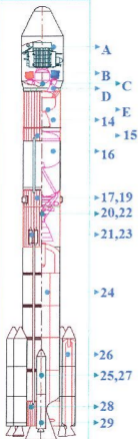


**RH-200
RH-300**
**RH-300 MK II
RH-560 MK II**



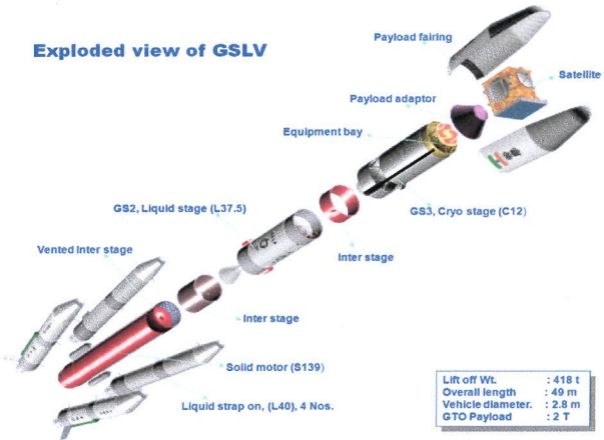
Features	RH-200	RH-300	RH-300 MK II	RH-560 MK II
No. of stages	2	1	1	2
Length (m)	3.6	4.8	4.9	7.7
Lift-off weight (kg)	108	370	510	1350
Payload Wt. (kg)	10	60	70	100
Altitude (km)	85	100	150	550
Application	Meteorology	Middle Atmosphere	Middle Atmosphere	Ionosphere

Details of PSLV

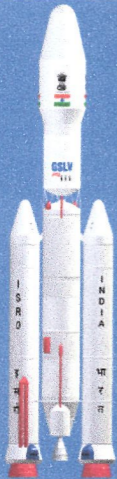


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|----------|--------------------------------|--------------------------------|
| | 1. Payload | 16. 2nd stage tank |
| | 2. Heat shield | 17. Interstage $\frac{1}{2}$ U |
| | 3. Payload adapter | 18. 2nd stage retro motors |
| A | 4. Equipment bay | 19. Ullage rocket (4) |
| | 5. Auxiliary payload | 20. Gimbal control system |
| B | 6. 4th stage tank | 21. Interstage $\frac{1}{2}$ L |
| | 7. 4th stage engine | 22. 2nd stage engine |
| C | 8. Antennae | 23. 1st stage retro rocket |
| | 9. Reaction thruster | 24. First stage motor |
| D | 10. Interstage $\frac{3}{4}$ | 25. TVC injectant tank |
| | 11. 3rd stage adapter | 26. Strap-on motor |
| E | 12. 3rd stage motor | 27. TVC system |
| | 13. Flex nozzle control | 28. Core base shroud |
| | 14. Interstage $\frac{2}{3}$ U | 29. Roll control engine |
| | 15. Interstage $\frac{2}{3}$ L | |

Exploded view of GSLV

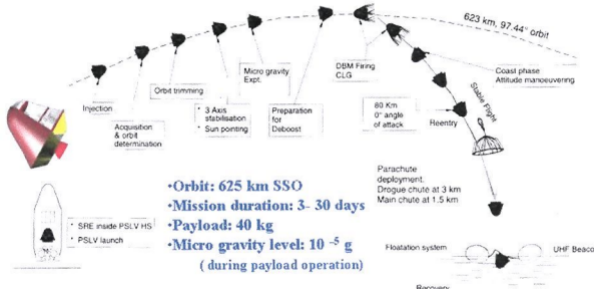


Lift off Wt.	: 418 t
Overall length	: 49 m
Vehicle diameter.	: 2.8 m
GTO Payload	: 2 T



- **Vehicle Configuration;**
2S200 + L110 + C25
- **Performance - 4.0t plus GTO**
- **Overall vehicle height - 43 m**
- **Lift-off mass - 632 t**
- **Leo payload > 10 t (400 km)**

Launch phase (20 min.) Orbit phase (3 days or more) Deboost & reentry phase (38 min.)

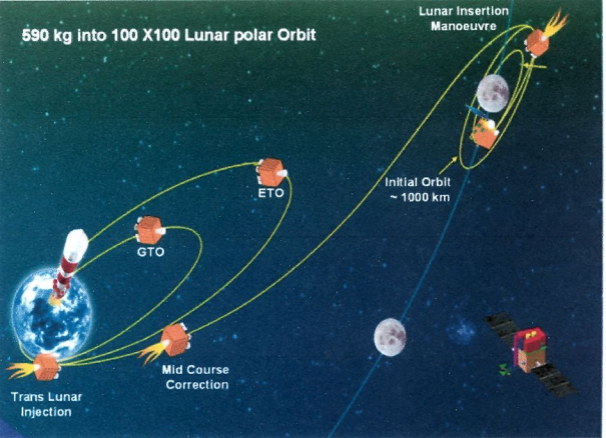


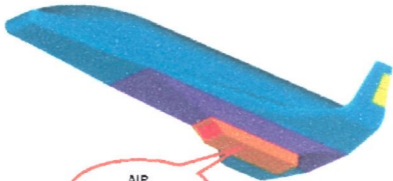
- Orbit: 625 km SSO
- Mission duration: 3- 30 days
- Payload: 40 kg
- Micro gravity level: 10^{-5} g
(during payload operation)



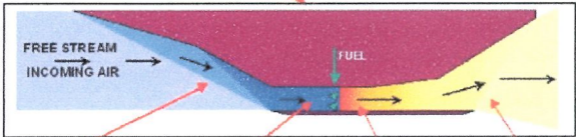
- SRE inside PSLV HS
- PSLV launch

590 kg into 100 X100 Lunar polar Orbit





AIR
BREATHING
ENGINE



AIR
COMPRESSION
BY GAS DYNAMIC
'SHOCKS'

COMPRESSED AIR
INTO COMBUSTION
CHAMBER

FUEL INJECTION,
IGNITION &
COMBUSTION

EXPANSION IN
NOZZLE TO HIGHER
VELOCITIES

