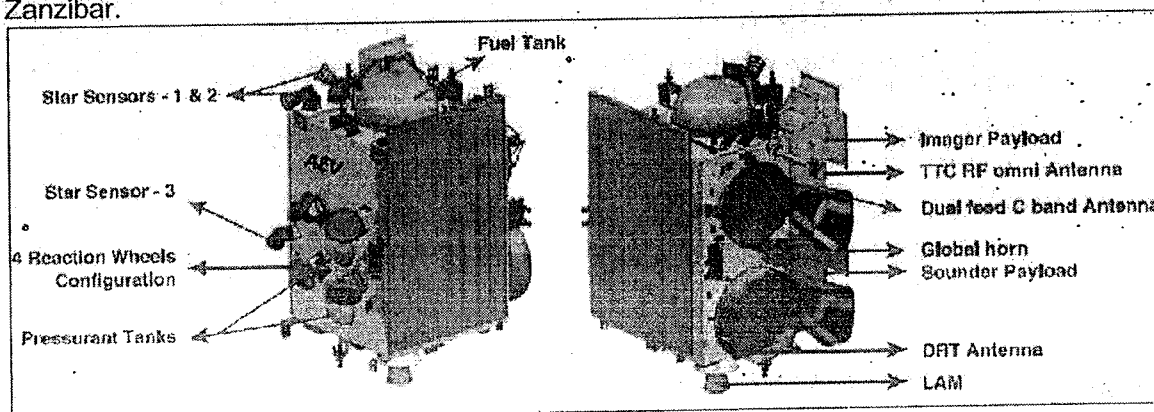


6. **Meteorology:** The meteorological payload of INSAT is designed to collect and transmit meteorological, hydrological and oceanographic data from unattended remote data collection platforms to aid in weather forecasting. One hundred meteorological data collection platforms have been installed all over the country and at the Indian base station. A unique feature of the INSAT meteorological payload is its capability to provide **advance warning through a novel Cyclone Warning Dissemination System (CWDS)**. The system operates through a network of small dish antennas and special CWDS receivers. Finally, the Satellite Aided Search and Rescue (SAS&R), Distress Alert Service provides distress alert and position location service through a lower-earth orbiting search and rescue satellite system. It provides coverage to a large part of the Indian Ocean region, rendering distress alert services to Bangalore, Bhutan, Kenya, Maldives, Nepal, Seychelles, Somalia, Sri Lanka, Tanzania and Zanzibar.



### 1.2 List of recent Communication Satellites

	Launch Date	Launch Vehicle	Application
CMS-01	Dec 17, 2020	PSLV - C50	Communication
GSAT-30	Jan, 2020	Ariane-5 VA-251	Communication
GSAT-31	Feb 05, 2019	Ariane-5 VA-247	Communication
GSAT-11	Dec 05, 2018	Ariane-5 VA-246	Communication
GSAT-7A	Dec 19, 2018	GSLV-F11	Communication
GSAT-29	Nov 18, 2018	GSLV-MKIII-D2	Communication
GSAT-6A	Mar 29, 2018	GSLV-F08	Communication

#### CMS-01

Recently, ISRO has launched a communications satellite; CMS-01, onboard its PSLV - C50 from the Satish Dhawan Space Centre, Andhra Pradesh. CMS-01 is a communications satellite envisaged for providing services in an extended C Band frequency spectrum. The C band is a designation for a portion of the electromagnetic spectrum in the microwave range of frequencies ranging from 4.0 to 8.0 gigahertz (GHz). Its coverage will include the Indian mainland, and the Andaman & Nicobar and Lakshadweep islands. The satellite is expected to have a life of more than seven years.

The satellite was injected precisely into its predefined sub- Geo-synchronous Transfer Orbit (GTO). This Satellite will be the first in a new series of communication satellites by India after the GSAT and INSAT series. CMS-01 will replace and enhance the services of GSAT-12 which is a communication satellite to provide facilities like Tele-education, Tele-medicine and Village Resource Centres (VRC).