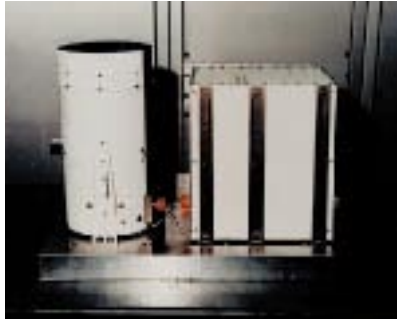
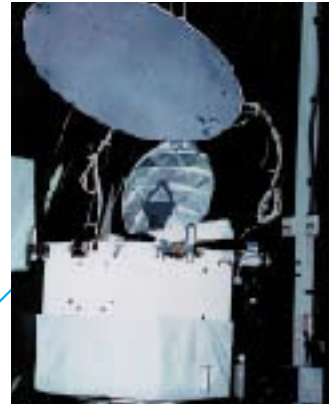


# TRMM Instruments



Lightning Imaging Sensor (LIS)



TRMM Microwave Imager (TMI)



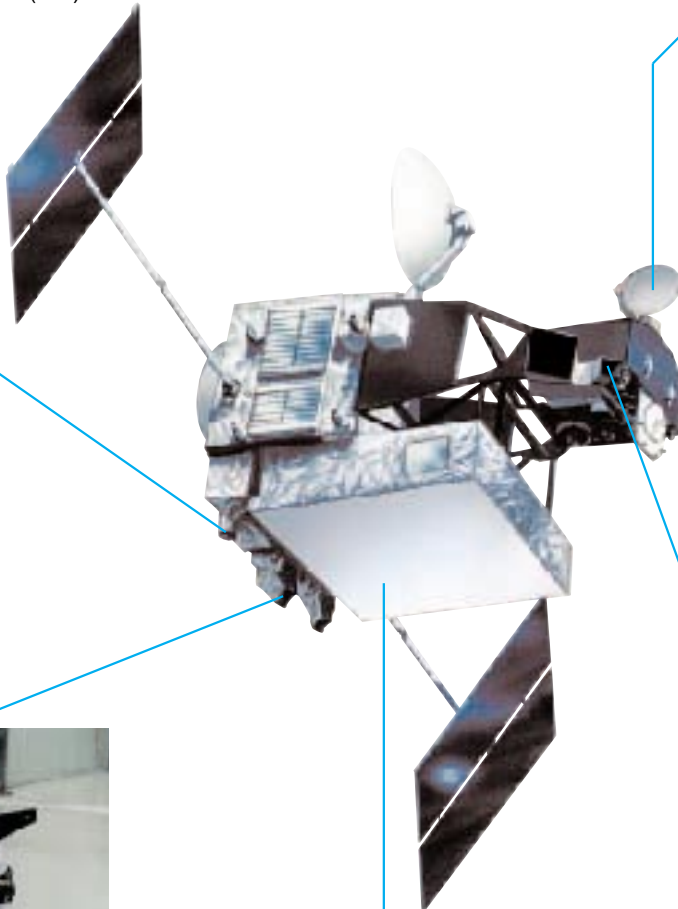
Visible Infrared Scanner (VIRS)



Clouds and the Earth's Radiation Energy System (CERES)



Precipitation Radar (PR)



TRMM Earth View



## SENSOR Main Characteristics

SENSOR	Development Organization	Objectives of Measurement	Parameter / Value
<b>PR</b> Precipitation Radar	NASDA CRL	3-D rainfall profile Quantitative rainfall measurement over ocean and land	Observation Frequency 13.796 & 13.802 GHz Swath Width 215 km Range Resolution 250 m Horizontal Resolution 4.3 km
<b>TMI</b> TRMM Microwave Imager	NASA-GSFC	Rain rate over ocean	Observation Frequency 10.7 & 19.4 & 21.3 & 37.0 & 85.5 GHz Swath Width 790 km Horizontal Resolution 38.3 & 18.4 & 16.5 & 9.7 & 4.4 km
<b>VIRS</b> Visible Infrared Scanner	NASA-GSFC	Cloud distribution	Observation Band 0.63 & 1.6 & 3.75 & 10.8 & 12.0 $\mu\text{m}$ Swath Width 720 km Horizontal Resolution 2 km
<b>CERES</b> Clouds and Earth's Radiant Energy System	NASA-LARC	Atmospheric radiation energy	Observation Band 0.3-5 & 8-12 & 0.3-50 $\mu\text{m}$ Swath Width Full Earth Horizontal Resolution 25 km
<b>LIS</b> Lightning Imaging Sensor	NASA-MSFC	Lightning distribution	Observation Band 0.7774 $\mu\text{m}$ Swath Width 600 km Horizontal Resolution 4 km