



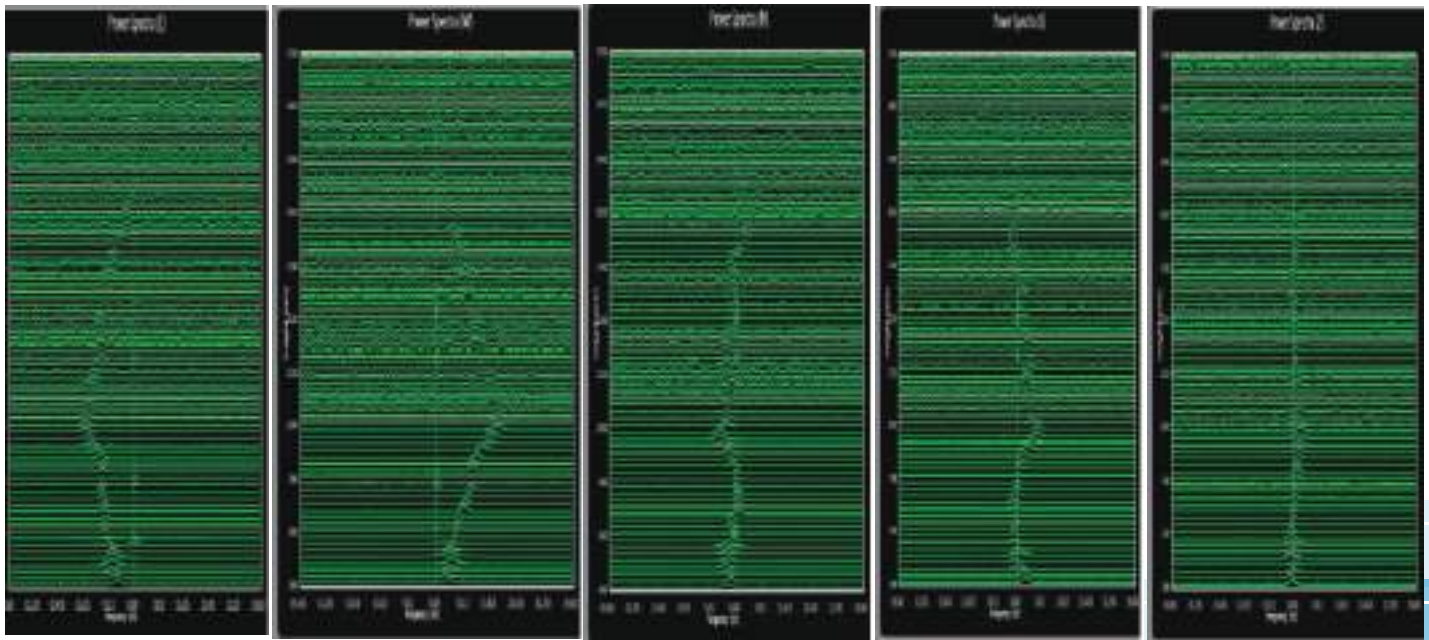
STRATOSPHERE-TROPOSPHERE RADAR

APPLICATION:

- Atmospheric Research
- Inputs for weather prediction
- Disaster management
- Civil Aviation

INSTALLATION SITE :

- Installed at Gauhati university ,
Guwahati, Assam





IONOSONDE

The Ionosonde is a 'stand-alone' system which uses radar technique to probe the Ionosphere. SAMEER has indigenously developed Digital Ionosonde, which exploits Advanced techniques for signal analysis such as pulse coding, pulse compression, coherent integration etc. with reduced transmitting power of the RF Signal and to maintaining a favorable S/N ratio.

FEATURES:

- Height Range: Up to 1020 km with Range Resolution of 5 km
- Frequency Range: From 1 to 30 MHz digitally synthesized, with step size of 100 KHz.
- Tx power: 1000 watt (Peak)
- Sky Map and Drift

APPLICATIONS:

- Physics of Ionosphere
- Characteristics, layers, and their spatio-temporal variation
- Equatorial and High latitude Electro Jet study
- Ionospheric forecasting

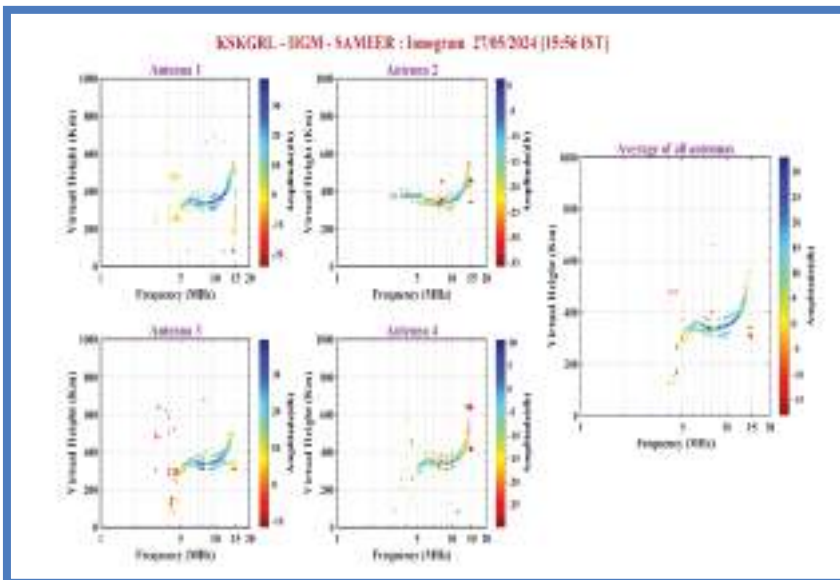


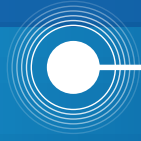


IONOSONDE

INSTALLATION SITES:

- Dibrugarh University
- Indian Institute of Geomagnetism, Prayagraj
- Future installation at VSSC
(Vikram Sarabhai Space Centre)





DOPPLER RADAR

KA-BAND POLARIMETRIC SCANNING DOPPLER RADAR FOR CLOUD PROFILING

DESCRIPTION:

- Cloud radar operates in azimuth and elevation scanning modes providing three dimensional spatial nature of clouds spanning hemi sphere of radius about 20 kms.
- Cloud radar continuously records the returned intensity, Doppler (velocity) and Doppler width at each range gates

SYSTEM SPECIFICATION:

- Frequency: 35.6 GHz ($\lambda = 8.42\text{mm}$)
- Radar Configuration: Scanning Mode and Stationary Mode
- Transmit polarization: Single H, V and Alternating H or V
- Receive polarization: Simultaneous H and V
- Receiver noise figure: ≤ 6.0 dB
- Range resolution: 37.5-75-150 meters (selectable)
- Vertical/Radial Range Coverage: 0.3 km to 15 kms / 25 Kms

APPLICATION:

- Cloud microphysical studies etc
- Assimilation of end-products into numerical weather prediction models.

END USERS:

- IMD, IITM

