

INSTRUMENT / PRODUCT	FORECAST PROBLEM
MODIS (Terra and Aqua)	
Imagery (visible, 3.9, 6.7, 11 μm)	Improve situational awareness
Suite of RGB products (true, false color snow, air mass, night & day-time microphysics, dust)	Cloud structure, obstructions to visibility, extent of snow cover
Fog / low cloud (11-3.9 μm)	Improve situational awareness
Land and sea surface temperature (LST, SST)	Surface forcing for clouds and convection
SST and ice mask (Great Lakes and Arctic Ocean)	Coastal processes, lake effect precipitation
NDVI / Green Vegetation (GVF)	Model initiation / improved forecasts
Total Lightning Data (ground-based)	
Source / flash density	Severe weather, lightning safety
Combined Instrument Products	
Multi-sensor SST composite	Short-term weather forecasts
Blended TPW	Moisture mapping, atmospheric rivers, precipitation
HMS/FIRMS fire/burn area	Smoke, reduced visibility, localized flooding
GOES	
Sounder air mass RGB	Storm dynamics, improved situational awareness
GOES-R Proxy Products	
Pseudo GLM product suite	Severe weather, lightning safety
GOES-MODIS hybrid imagery (visible, 3.9, 6.7, 11 μm)	Improved situational awareness
Hybrid RGB suite	Improved situational awareness
Quantitative Precipitation Estimates (QPE)	Precipitation mapping
Convective Initiation (CI) product	Convection, precipitation mapping
JPSS Proxy Products	
VIIRS imagery (visible, 3.9, 11 μm)	Improved situational awareness
Suite of VIIRS RGB products (true, air mass (w/CrIS), night & day-time microphysics, dust)	Cloud structure, obstructions to visibility, storm dynamics
VIIRS DNB (low light) – radiance, reflectance, RGB	Improved situational awareness
CrIS and OMPS ozone products	Stratospheric intrusions, “sting” jet
SEVIRI	
RGB products (air mass, dust, Saharan Air Layer)	Tropical storm forecasting, storm dynamics
Passive Microwave	
Instruments: ATMS/AMSR2/GPM/SSM(S)/TRMM	
37GHz (V/H) and RGB	Precipitation monitoring, storm dynamics
85 GHz (V/H) and RGB	Precipitation monitoring, storm dynamics
Rain Rate	Precipitation monitoring, storm dynamics
MISCELLANEOUS	
Land Information System (LIS) – soil moisture	Convective initiation, drought monitoring, flooding
WindSat – Ocean Surface Wind Vectors (OSWV)	Improved situational awareness over oceans