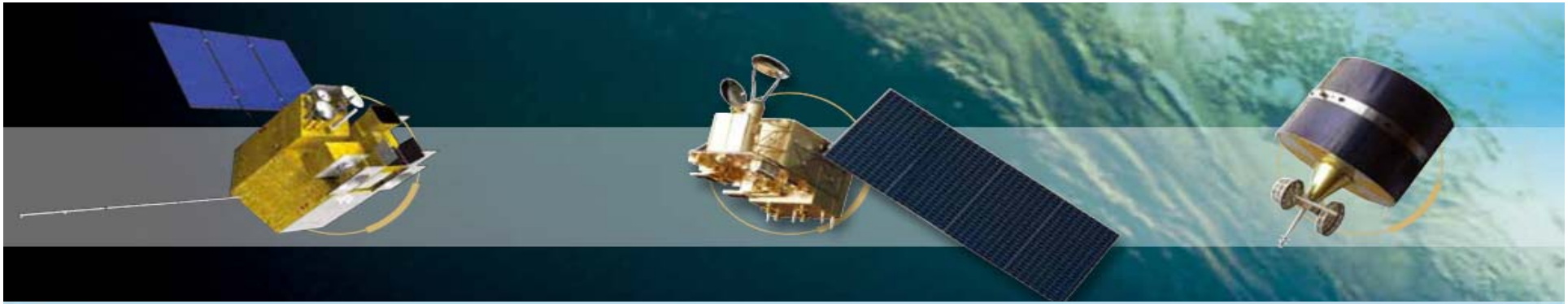
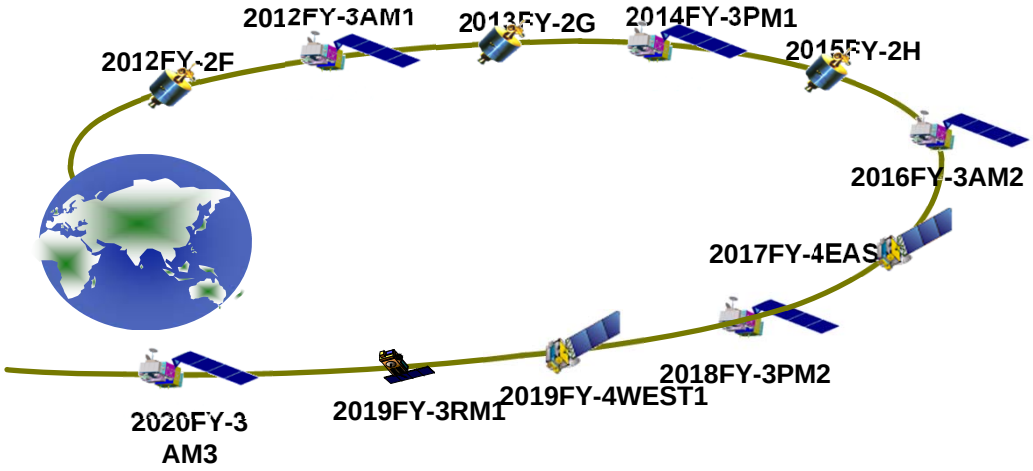


Future Fengyun Observing System

Peng ZHANG

National Satellite Meteorological Center ,CMA

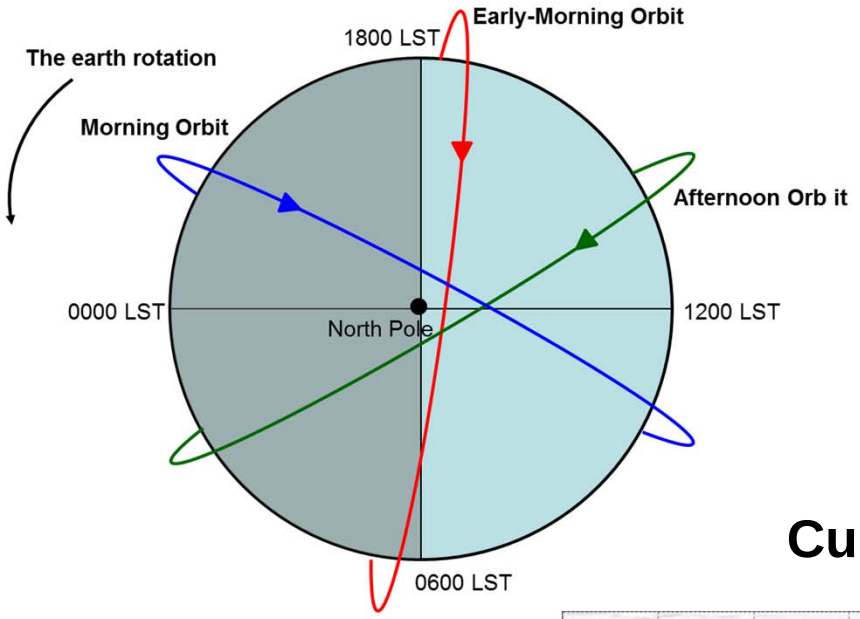
19th International TOVS Study Conference
26 March – 1 April 2014, Jeju Island, Republic of Korea



Tentative Schedule for Future FY Series

Schedule	GEO.		LEO.
	FY-2	FY-4	FY-3
2011			
2012	Operational		
2013			Operational (A.M. Orbit)
2014	Operational		Operational (P.M. Orbit)
2015	Operational		
2016			Operational (A.M. Orbit)
2017		Operational (Optical SAT)	
2018			Operational (P.M. Orbit)
2019		Operational (Optical SAT)	Operational (Rain Fall Massion)
2020			Operational (A.M. Orbit)

Early Morning Orbit Satellite

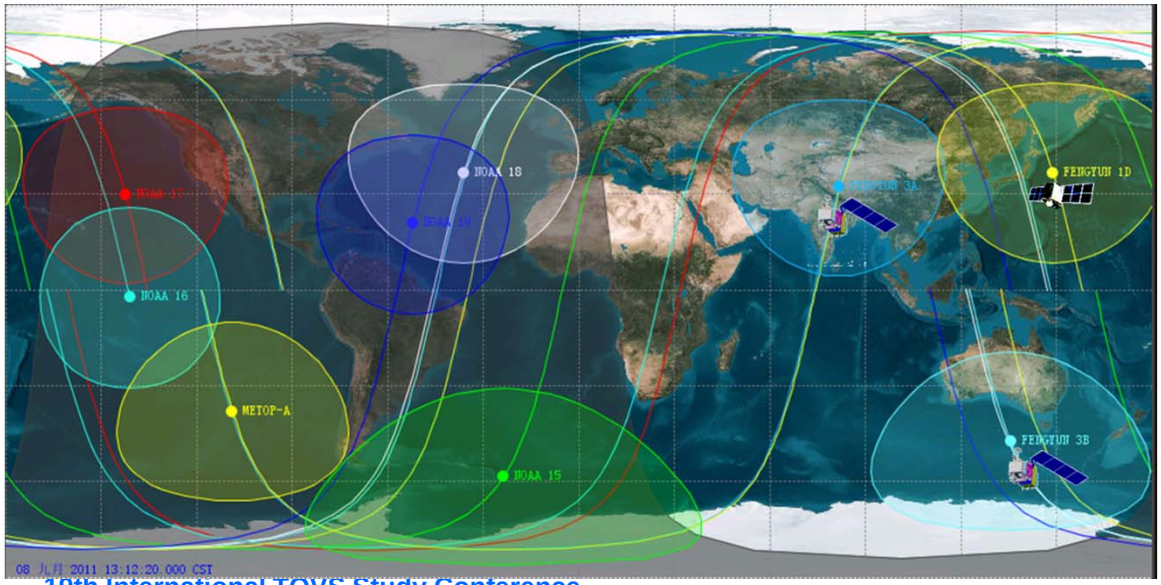


Assessment of the benefits of a satellite mission in an early morning orbit

Report from the WMO-CGMS Tiger Team

April 2013

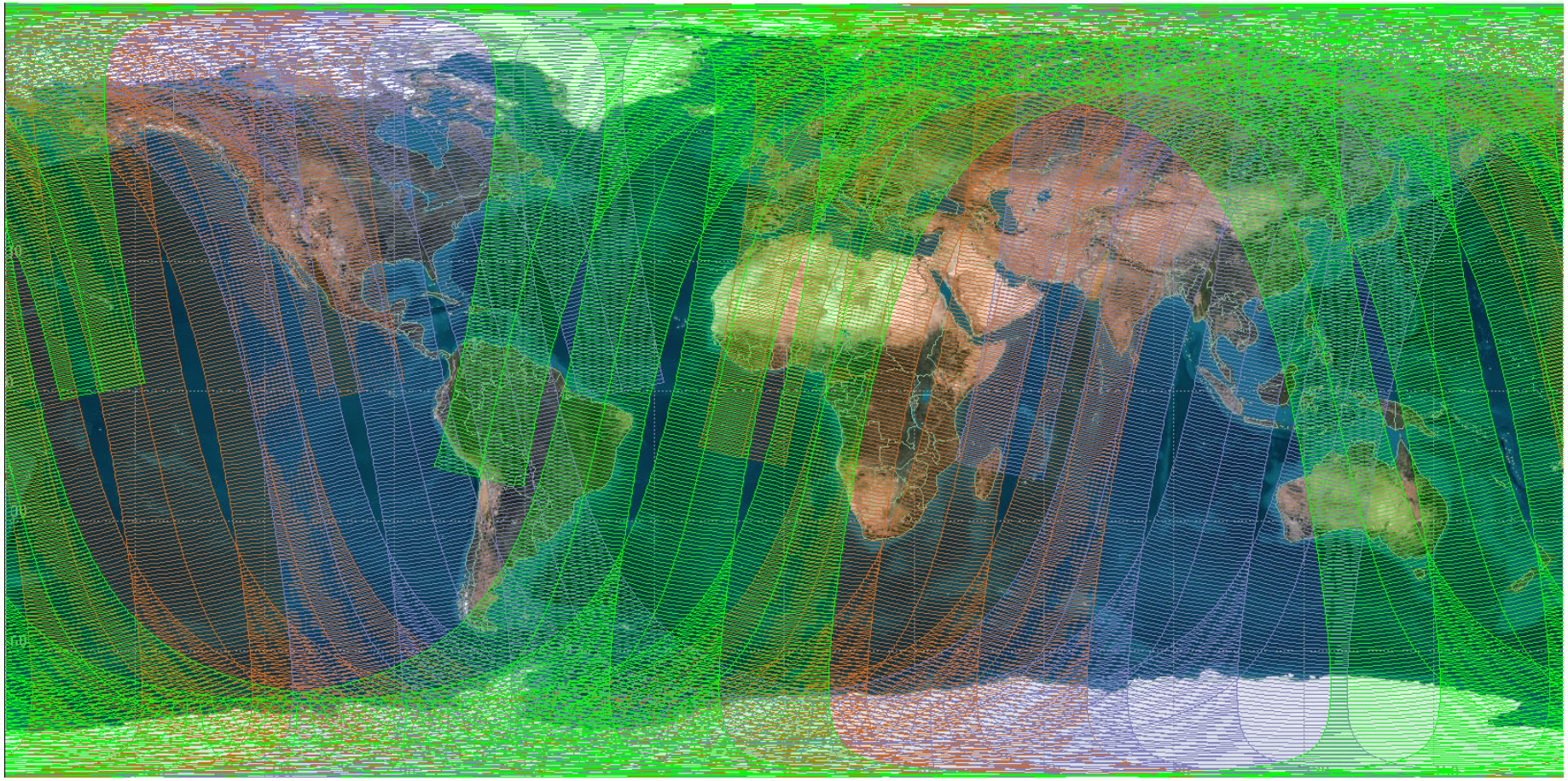
Current Polar Orbit Satellite



- Morning Orbit: 10:30 PM
- Afternoon Orbit: 13:30

Orbit Option: FY-3 Early Morning + NPP + Metop

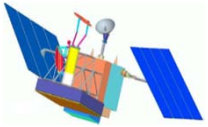
Recognizing that global even distribution of sounding data is of great significance for the 6 hour NWP assimilation window, one approach is to constitute a three orbital fleet including Metop (Mid. Morning) + NPP (Afternoon) + FY-3 (Early Morning).



FY-3 Early Morning 6:00 AM

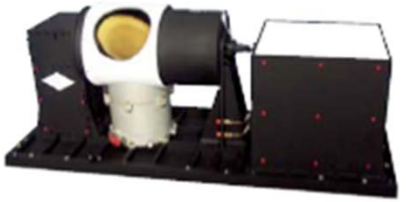
Metop-A 9:30 AM

NPP 13:30 PM

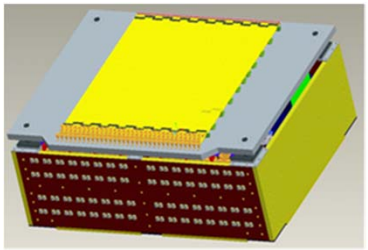


The main objectives of RM satellite

- Consist a Global observation constellation system with FY3-2 AM and PM satellites, as well as GPM satellite
- Improve the severe convective system monitoring ability in china together with GPM satellite
- Provide 3D precipitation structure over both ocean and land
- Improve the sensitivity and accuracy of precipitation measurement over china and surrounding area

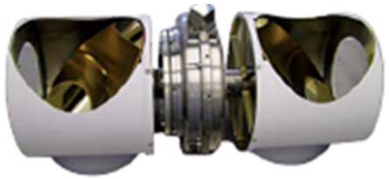


MWTS



KaPR

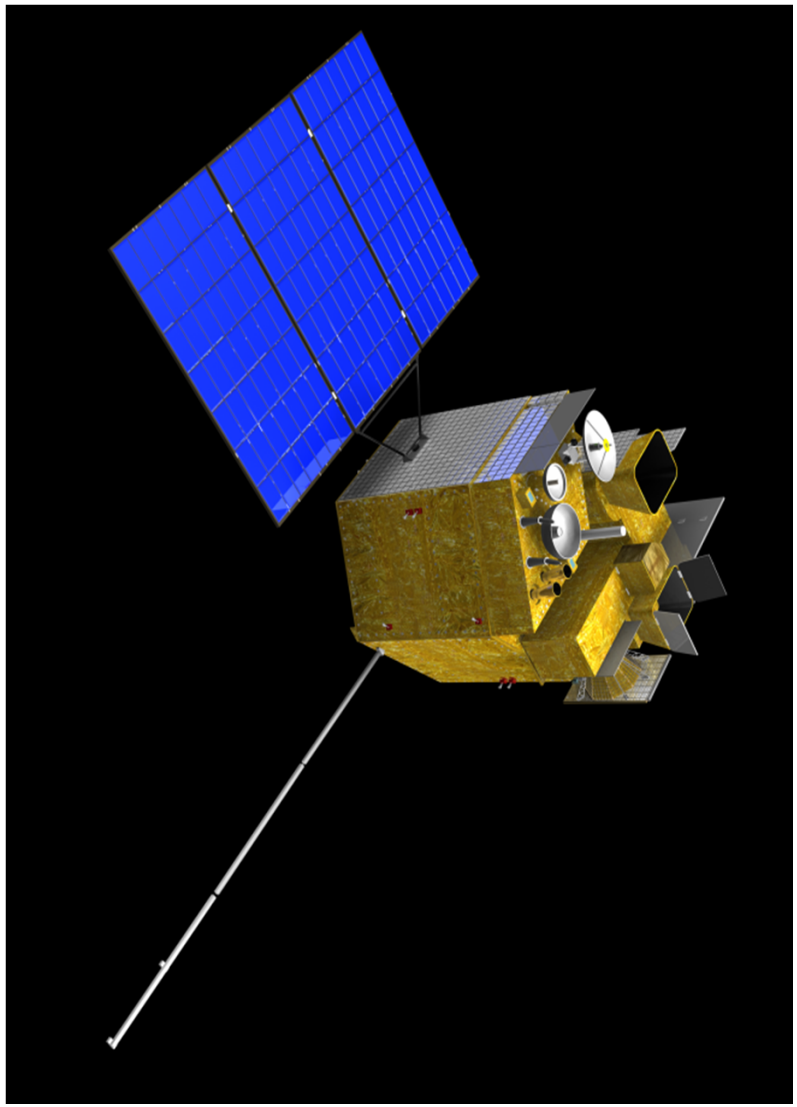
KuPR



MWHS

MWRI

FY-4A



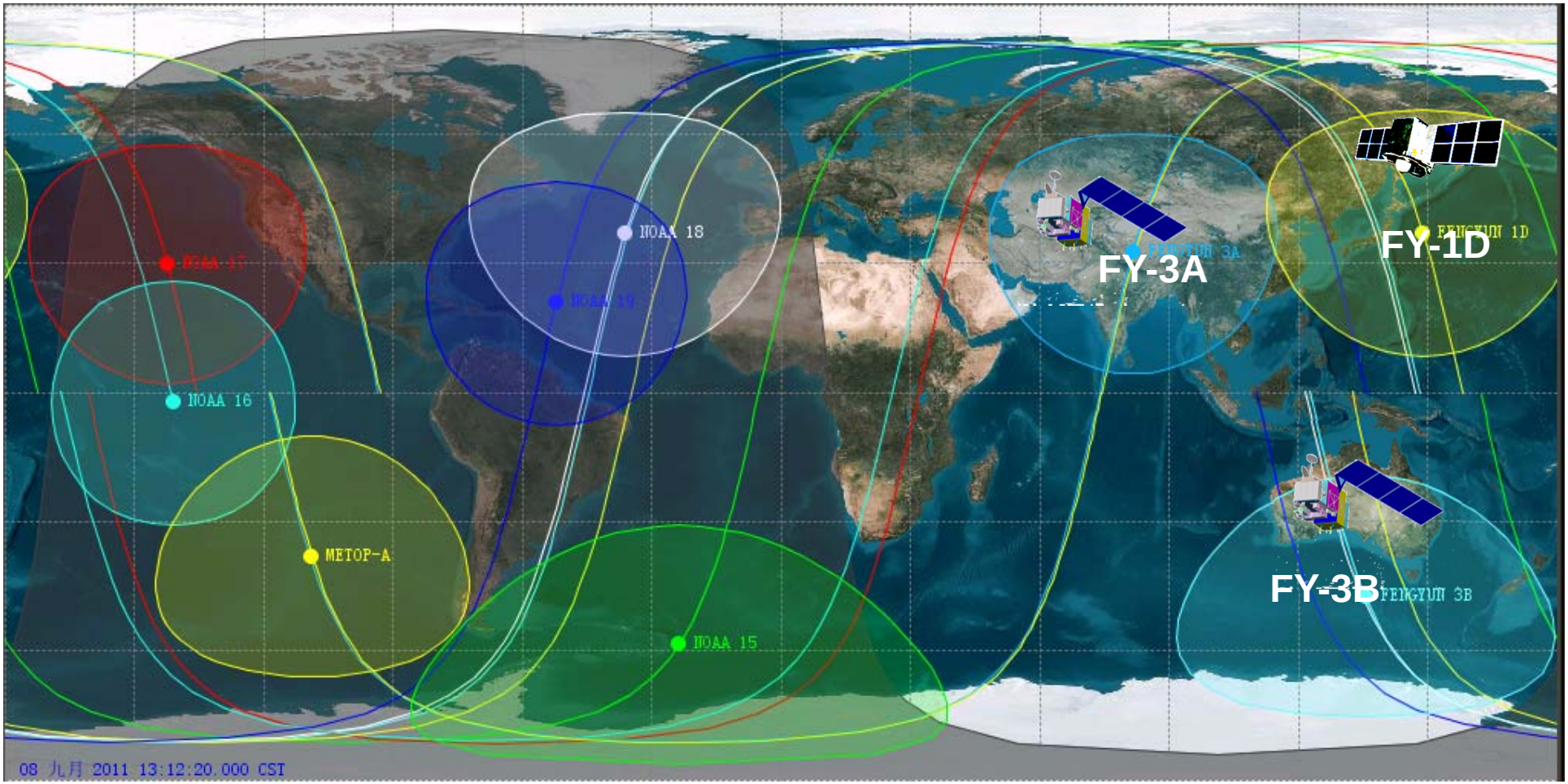
Main Instruments

1)GIIRS: Geo. Interferometric Infrared Sounder
2) AGRI: Advanced Geosynchronous Radiation Imager
3) LMI: Lightning Mapping Imager
4) SEP: Space Environment Package

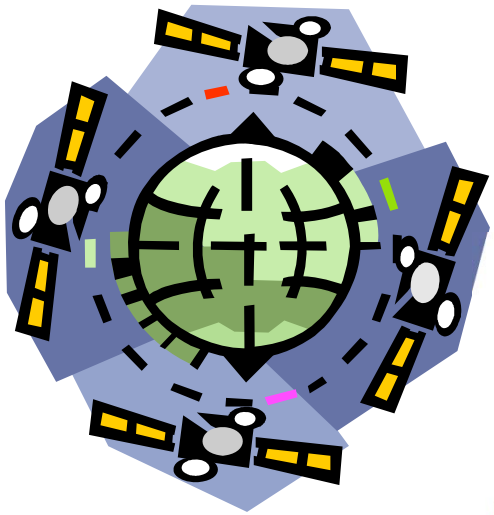
Spacecraft:

1. Launch Weight: approx 5300kg
2. Stabilization: Three-axis
3. Attitude accuracy: 3″
4. Bus: 1553B+Spacewire
5. Raw data transmission : X band
6. Output power: >= 3200W

On-orbit Polar Satellites



- **FY-3A: 40 min. behind Metop A in the similar orbit**
- **FY-3B: 20 min. ahead NOAA 18 in the similar orbit**
- **Better temporal and spatial coverage from NOAA, Metop, FY-3 virtual constellation**



…… Stop Here

Thank you!