



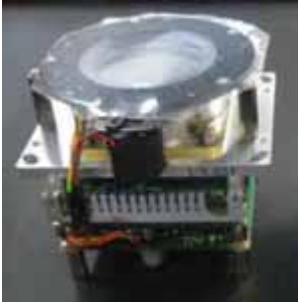
situation of operation at Tohoku University (or at home)

# Mission Hardware of RISING-2

## 1) cumulonimbus

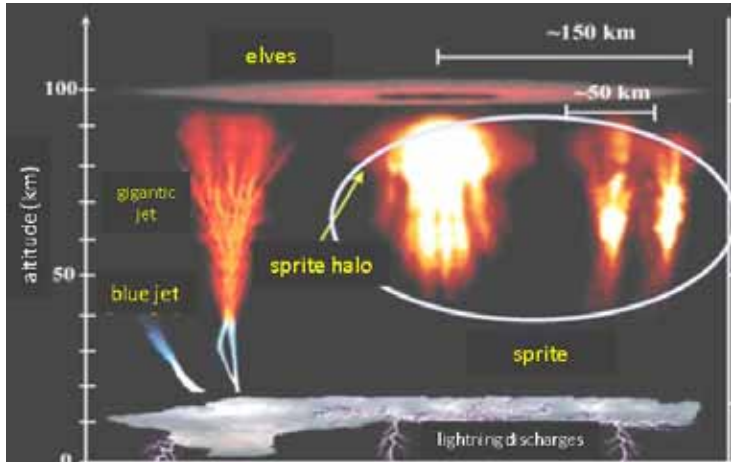


High Precision Telescope (HPT)



Bolometer Array (BOL)

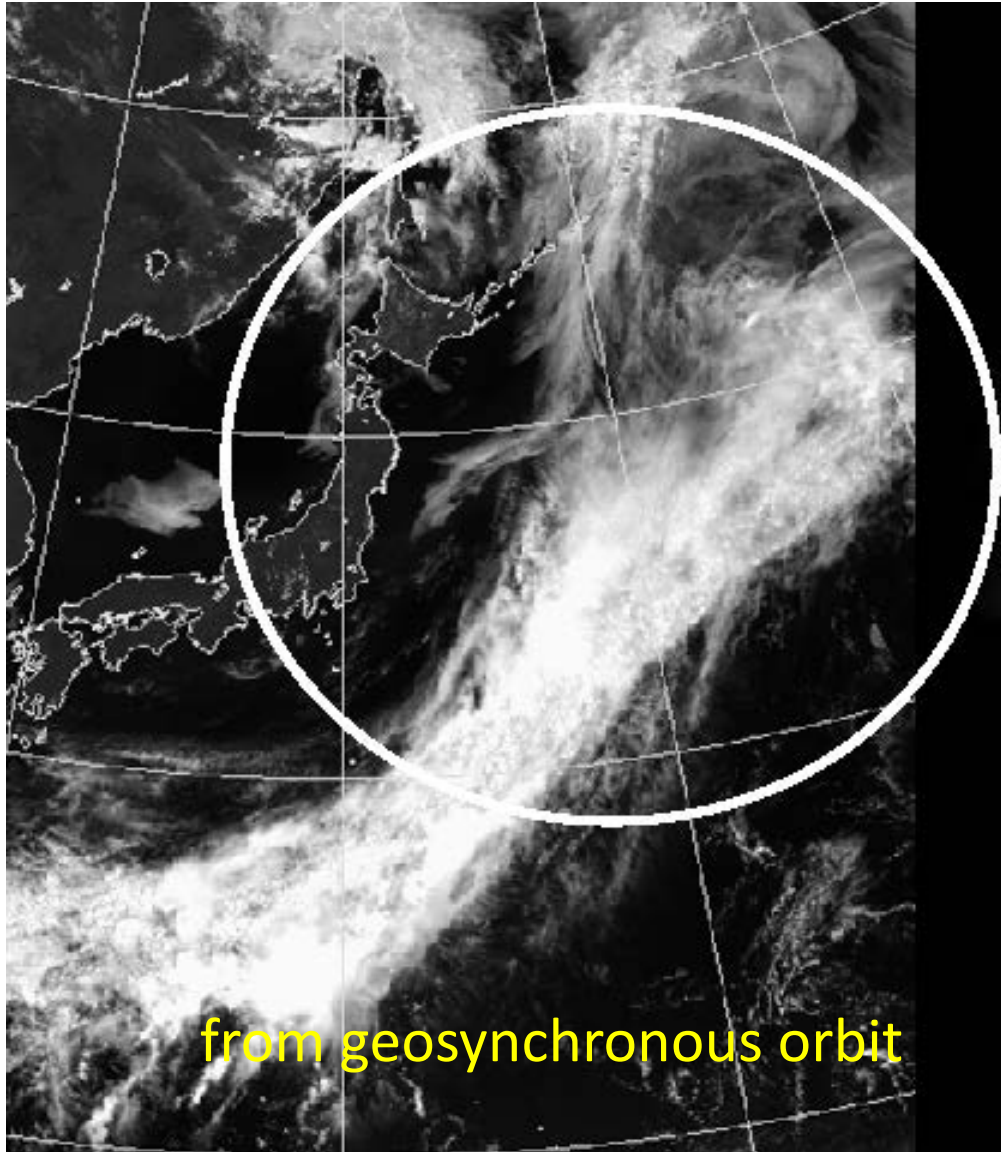
## 2) terrestrial luminous events in upper atmosphere



Wide Field CCD (WFC)

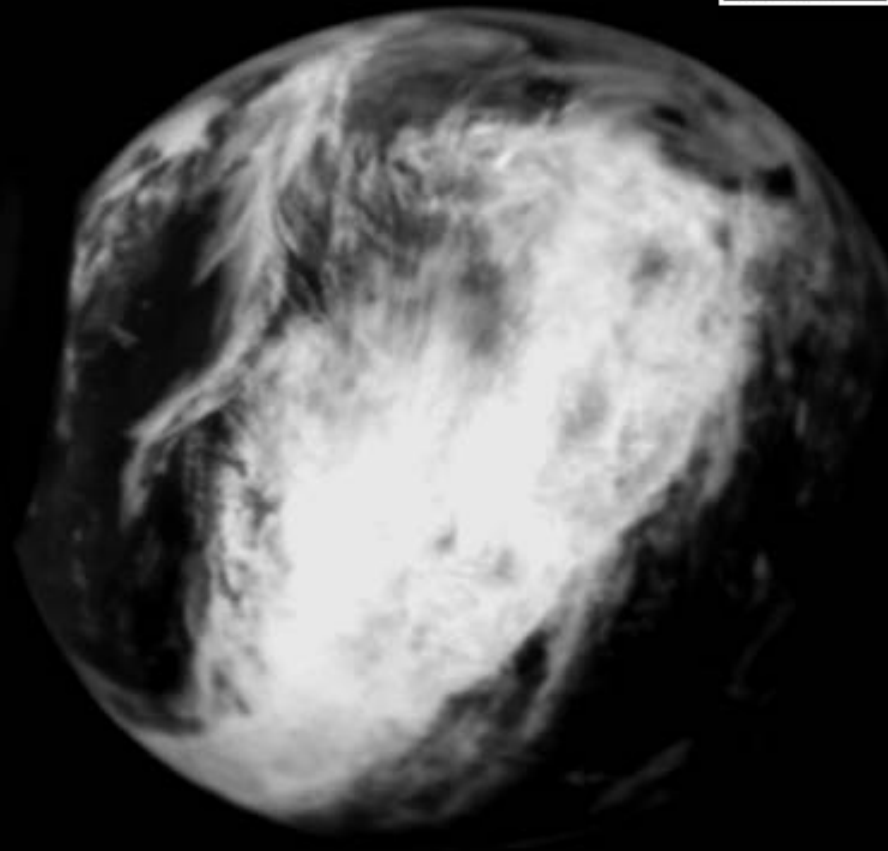


Lightning and Sprite CMOS Imager (LSI)



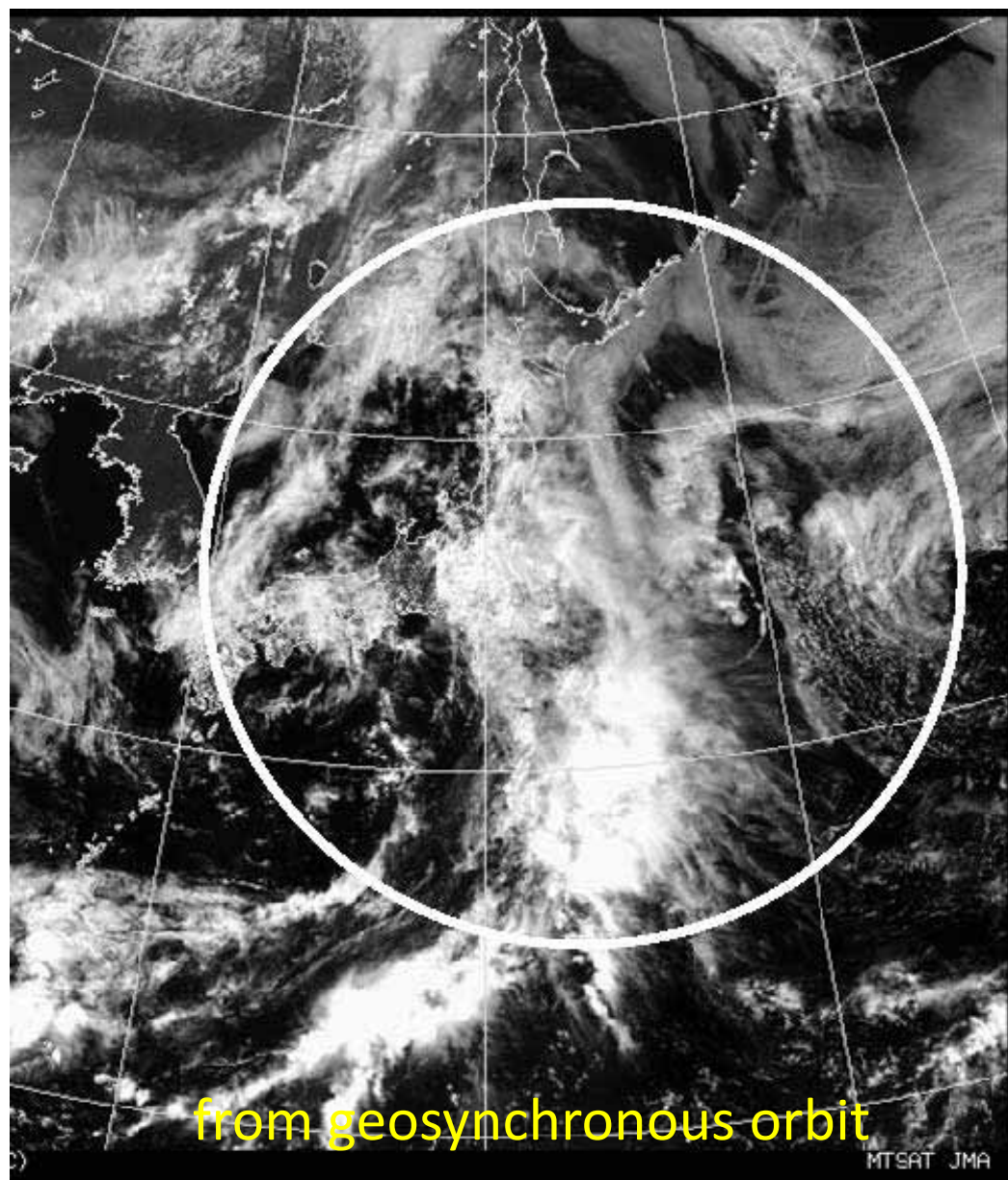
from geosynchronous orbit

気象衛星画像(可視) 2014年5月31日11:30JST  
©気象庁(目安の円を東北大にて追加)



with fish-eye camera of  
RISING-2

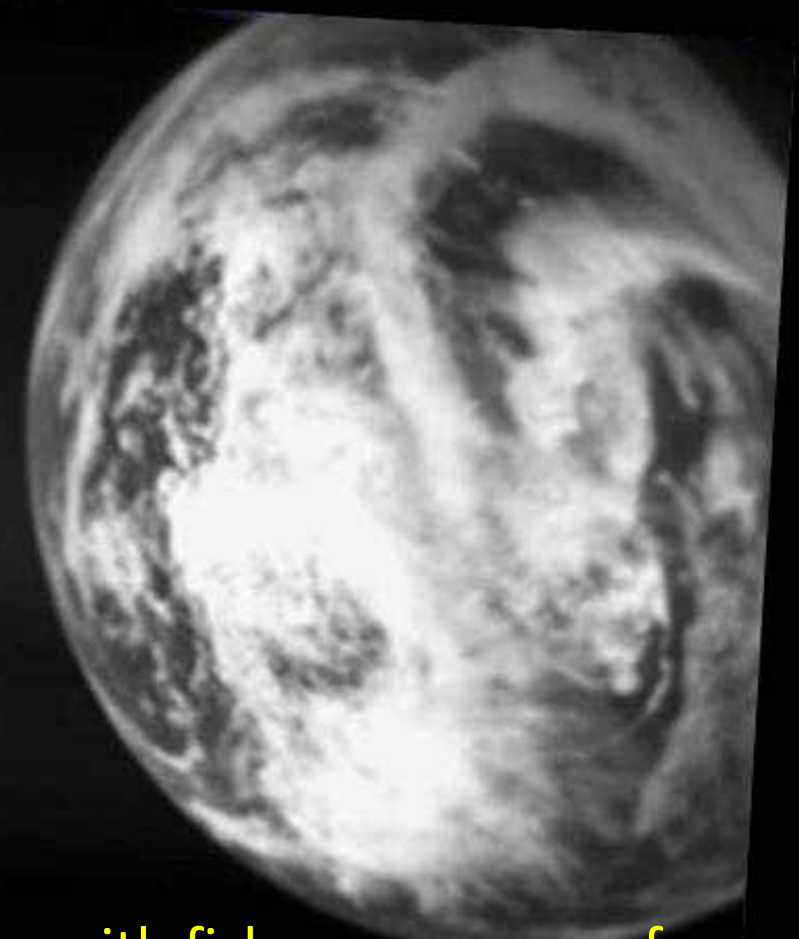
RISING-2画像(WFC)  
2014年5月31日11:17JST  
©東北大学/北海道大学



from geosynchronous orbit

METSAT JMA

気象衛星画像(可視) 2014年6月6日12:00JST  
©気象庁(目安の円を東北大にて追加)

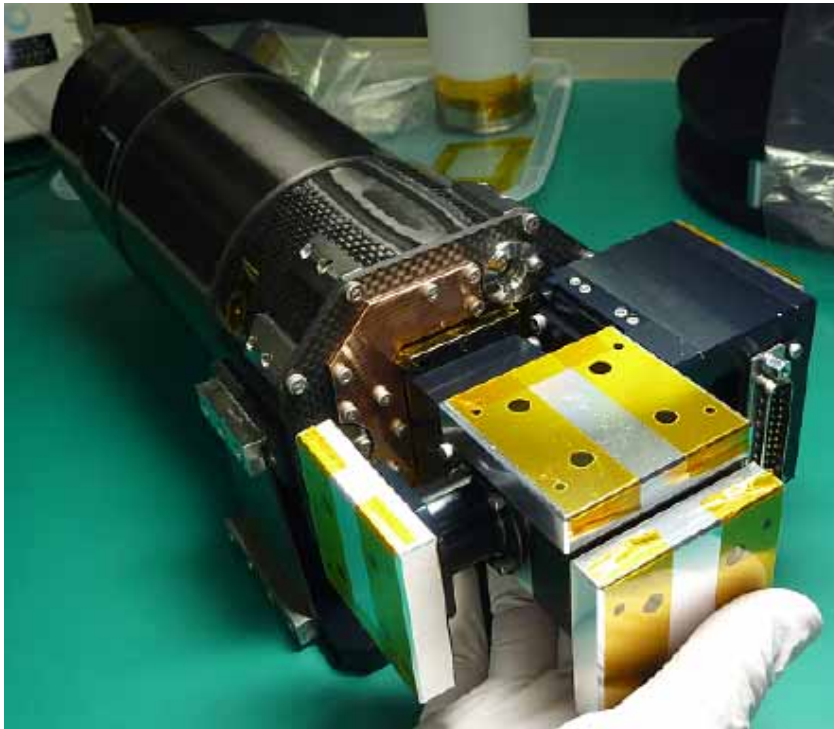


with fish-eye camera of  
RISING-2

RISING-2画像(WFC)  
2014年6月6日11:39JST  
©東北大／北海道大学

# High Precision Telescope with Liquid Tunable Filter

(HPT with LCTF)



- Size W380xD161xH124mm
- Weight 2.50 kg

- 1-m focal length, 10-cm dia. (F10), Case grain telescope
- 5-m reso. (659 x 494 pixels)
- 3-CCD (R,G,B) + Multi spectrum CCD
- Liquid Crystal Tunable Filter (LCTF)
  - range: 650 - 1050nm
  - 1-nm step selection
  - 10-msec switching time
- High sensitive (ISO8000)
- 1/4000s min. exposure time
- light and strong stiffness CFRP structure
- zero-expansion high stiffness ceramic mirror (ZPF)



50 kg-クラスの衛星としては世界最高の5m解像度を達成