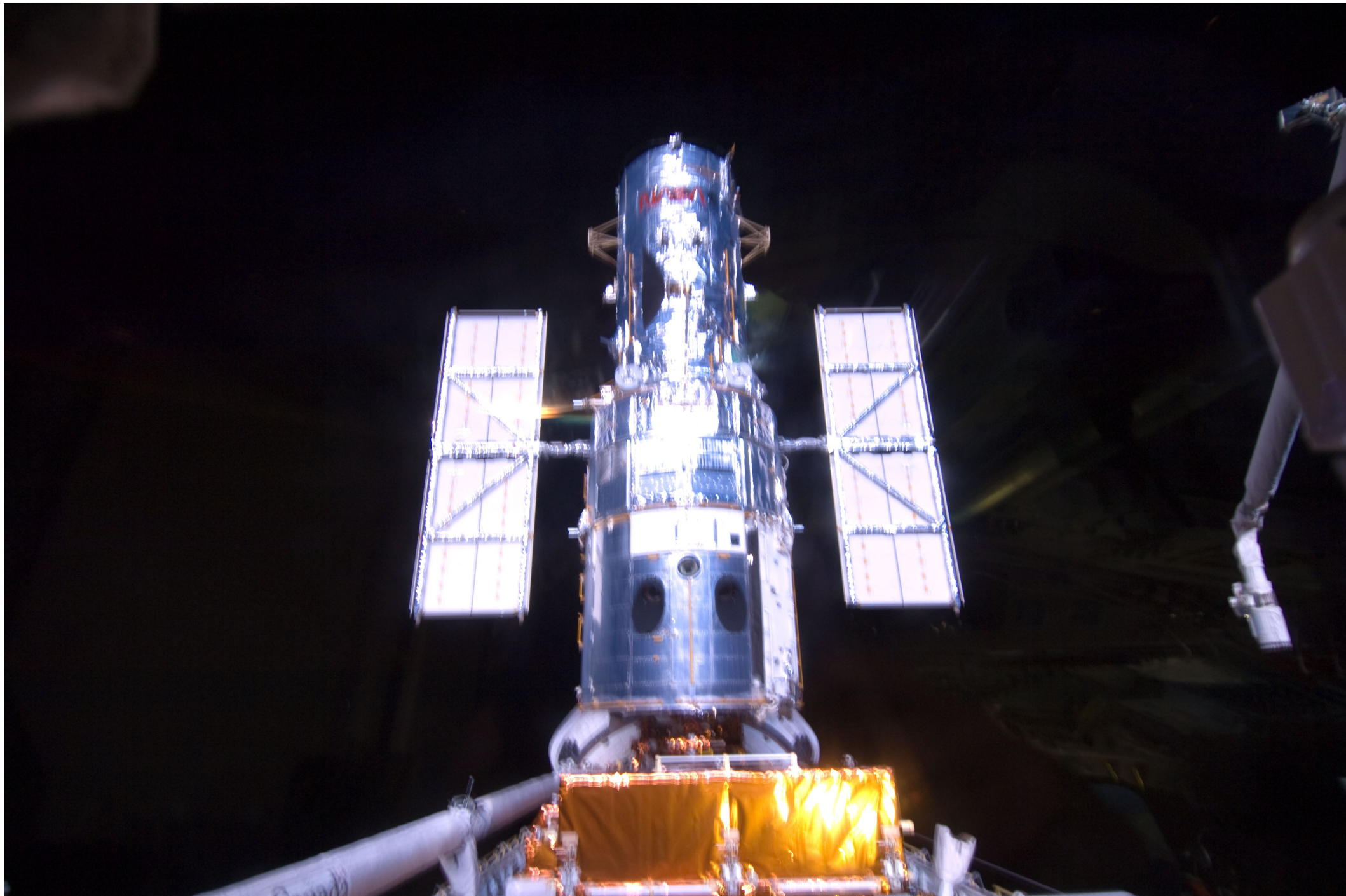


MISSION UPDATE

Jonathan McDowell



S125E010160

HST SERVICED:

STIS – Repaired

ACS Wide Channel – Repaired

ACS HR Channel – Still Broken

COS – Medium Res UV spectrometer

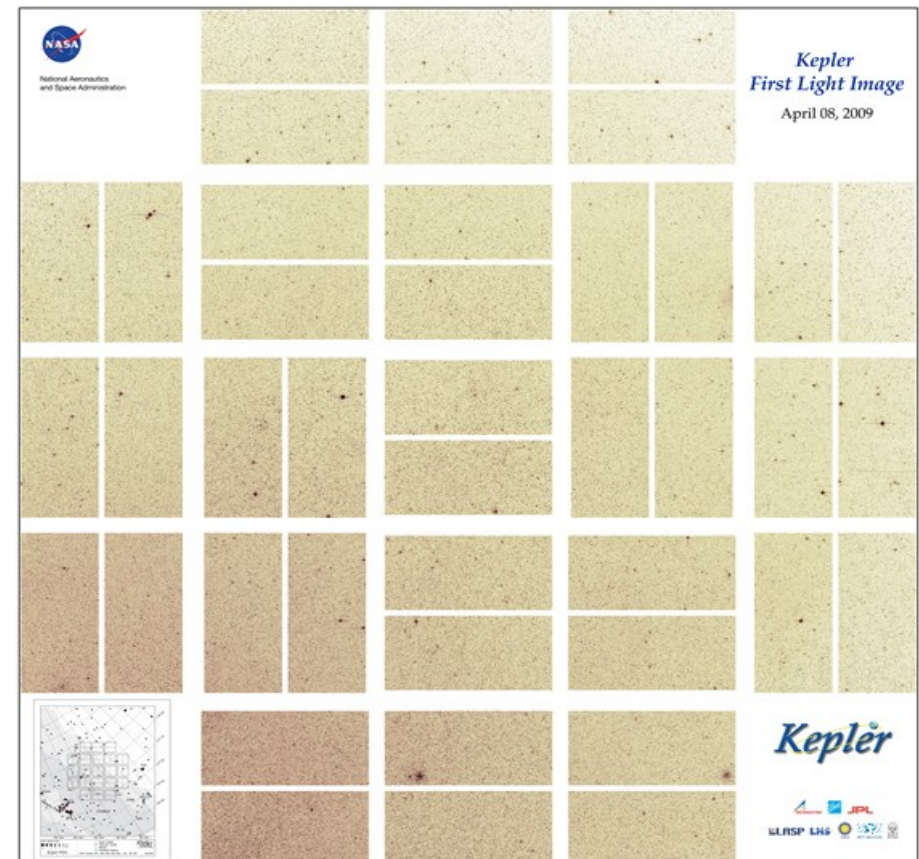
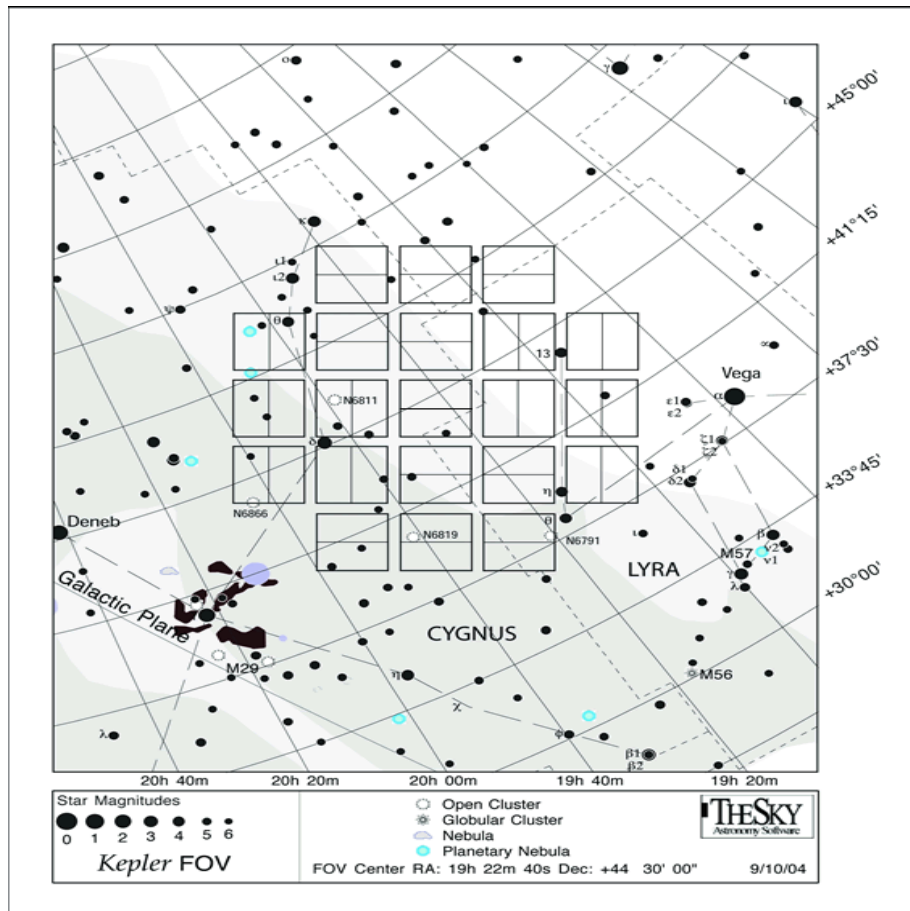
WFC3 – 16 megapixel camera replaces 2 megapixel WFPC/2

Pixel size 0.5* WFPC2 FOV a bit larger (no PC chip)



Kepler

Launched Mar 7 to Earth-trailing solar orbit
Completed checkout, began operational observing May 9
Observes Cyg field for 3 years for transiting planets





HERSCHEL EN ROUTE:

Launched 6 days ago to 270 km x 1.2Mkm transfer orbit to wide Lissajous orbit around L2

3.5-meter IR telescope with mass of 3.4t

PACS 70, 100, 160 microns camera 5-12" res
60-210 micron spectrometer

SPIRE 250-520 micron camera 18-36" res 4 x 8' FOV
Imaging FTS

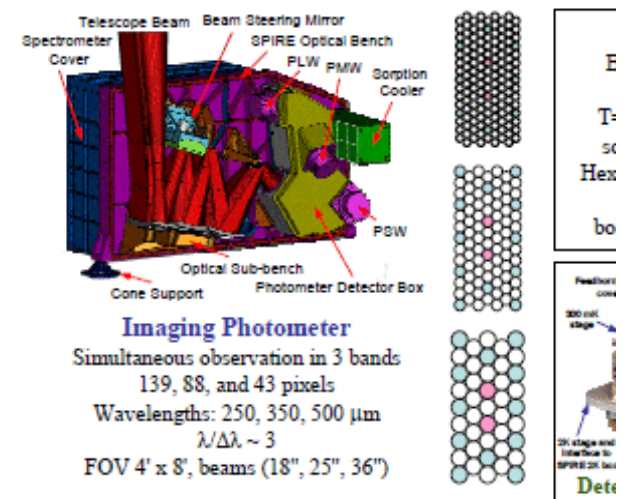
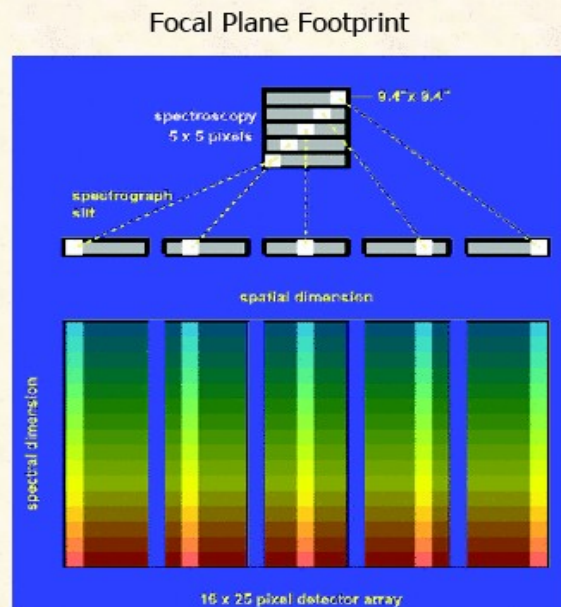
HIFI 250-600 micron (heterodyne 480-1910 GHz)

Imaging photometry

- two bands simultaneously (60-85 or 85-125 μm and 125-210 μm) with dichroic beam splitter
- two filled bolometer arrays (32x16 and 64x32 pixels, full beam sampling)
- point source detection limit ~ 4 mJy (5 σ , 1h)

Integral field line spectroscopy

- range 57 - 210 μm with 5x5 pixels, image slicer, and long-slit grating spectrograph (R ~ 1500)
- two 16x25 Ge:Ga photoconductor arrays (stressed/unstressed)
- point source detection limit $3\text{--}20 \times 10^{-18}$ W/m² (5 σ , 1h)

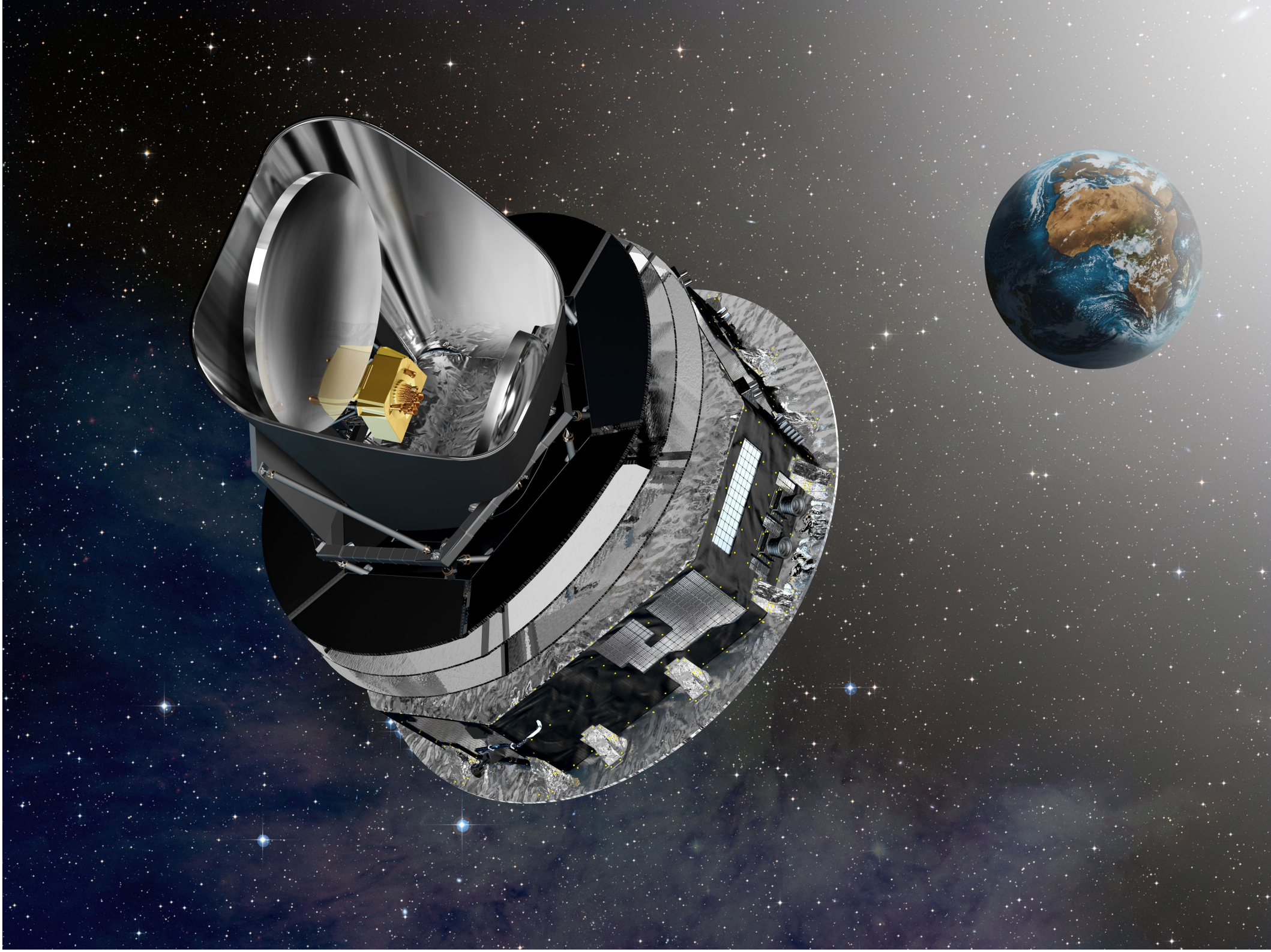


Imaging Photometer
 Simultaneous observation in 3 bands
 139, 88, and 43 pixels
 Wavelengths: 250, 350, 500 μm
 $\lambda/\Delta\lambda \sim 3$
 FOV 4' x 8', beams (18", 25", 36")

Estimated Photometer Sensitivities*

Wavelengths (μm)		250	350	500
Point Source (7-point jiggle mode, mJy, 5 σ , 1hr)		1.8	2.2	1.7
4'x4' jiggle map (mJy, 5 σ , 1h)		6.2	8.4	7.1
Large cross linked scan map	Nominal scan (mJy, 5 σ)	48	66	56
	Time (h) to map 1deg ² to 3mJy 1 σ	8.5	16	12

* For more information please refer to the Observers Manual or visit one of these sites:



PLANCK

LFI works at 20K with cal sources at 4.7K

31-125 GHz

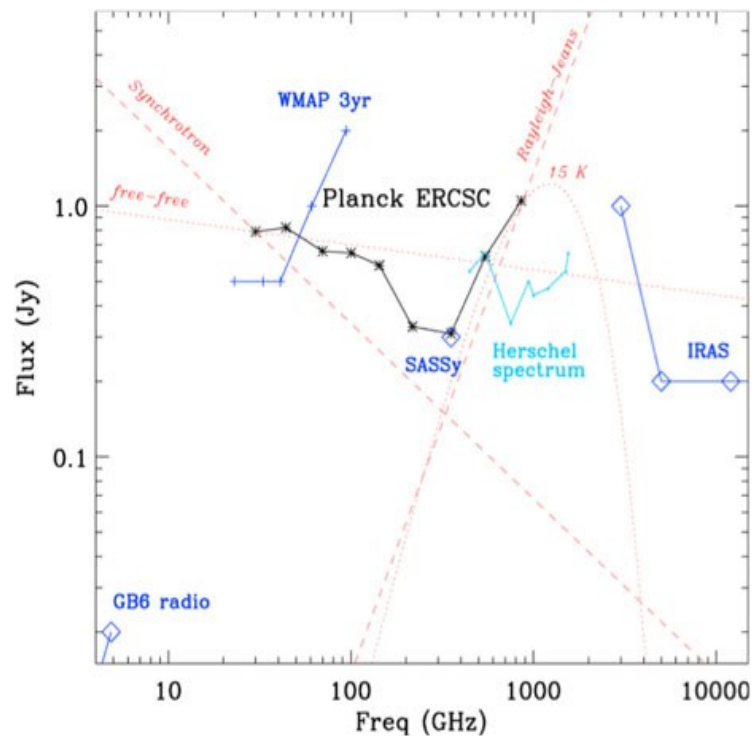
HFI works at 0.1 K, with 2 year life He3/He4 dilution cooler

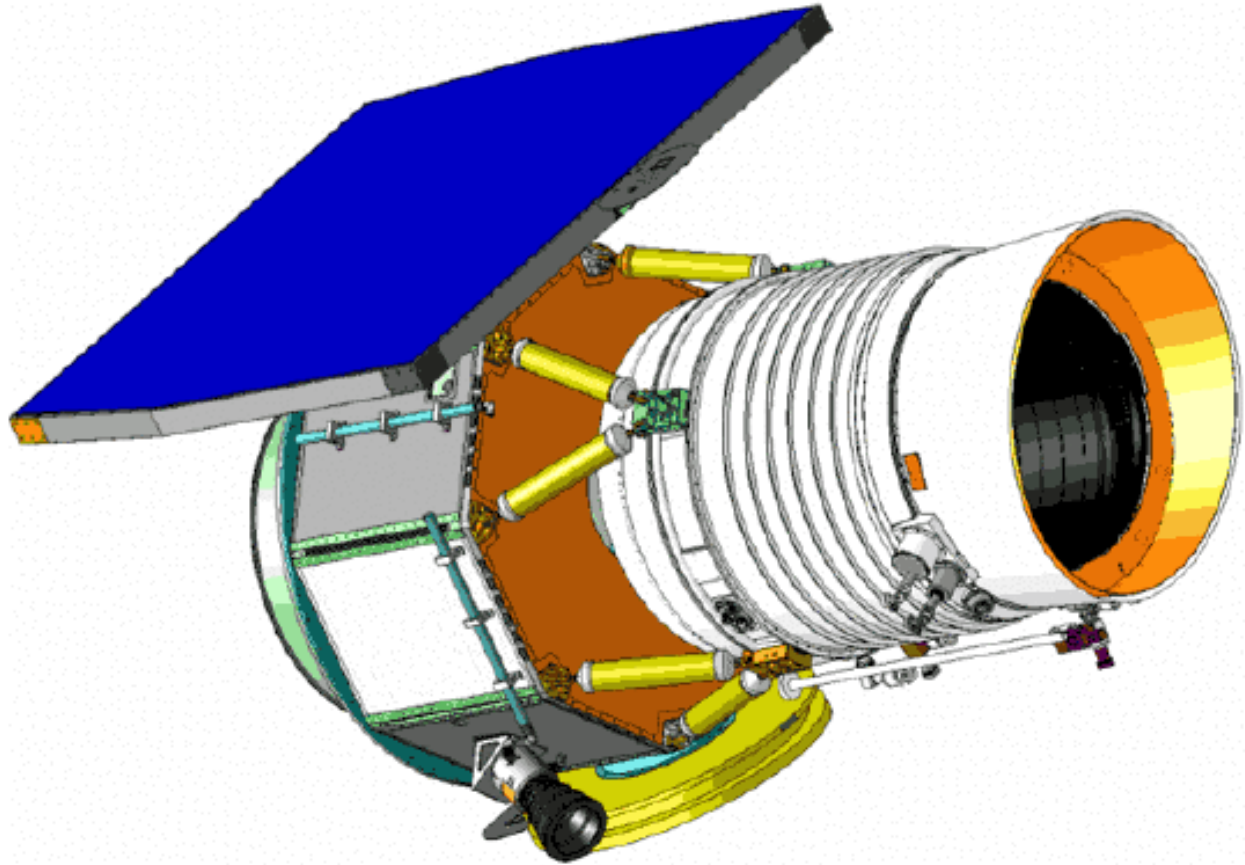
143-857 GHz

LFI and HFI share the 1.5-meter reflector, of order 10 arcmin resolution

Small halo orbit around L2

All-sky submm survey in 9 bands in 350-1000 mu range, release 2011





WISE

0.4-m IR telescope 47' FOV, 6-12" resolution in 3.3 – 23 microns

IR all sky survey in 4 bands: 3.3, 4.7, 12, 23 μ m

Launch by Delta II in November

Solid hydrogen cryostat

Payload ready to ship to Ball/Colorado for spacecraft integration

