

Cryocooler analysis predictions (OD)



Predictions made with data until OD#klmn



- **T101/T102 with extrapolated temp increase / forced linear fit**
- OD#0844: T101: Dec half1 / Apr early
- OD#0892/8: T101: Jan half2 – T102: Feb early / Mar late
- OD#0934: T101: Jan end – T102: Feb half1 / Mar late
- OD#1000: T101: Feb early – T102: Feb half1 / Mar half2
- OD#1095: T101: Feb half2 – T102: Feb end / Mar end
- OD#1159: T101: Feb half2 – T102: Mar early / Mar half2

Remember the IOCR (July 2009) TMM prediction

- Nominal EOL (=EOHe): Feb half2 (large range: Nov mid – July half2)
 - With average stationary massflow 2.668 mg/s

Most probable prediction today

- PACS analysis: forced linear fit prediction “solid”, the extrapolated temp increase fit prediction “creeping” towards the forced linear one
- GLP expects an (almost) linear curve (driven by CVV temp)
 - “Rule of thumb”: 1 K – 1 month (for entire mission!), the “physical extrapolation” seems to “over-compensate”

Herschel survives February, EoHe 2nd half of March 2013

HERSCHEL SPACE OBSERVATORY