



Workshop Goal

Welcome to the workshop

Background

Operation approved until 2011 March

Need to prepare budget proposal in next January
for continuation of observations after 2011 March

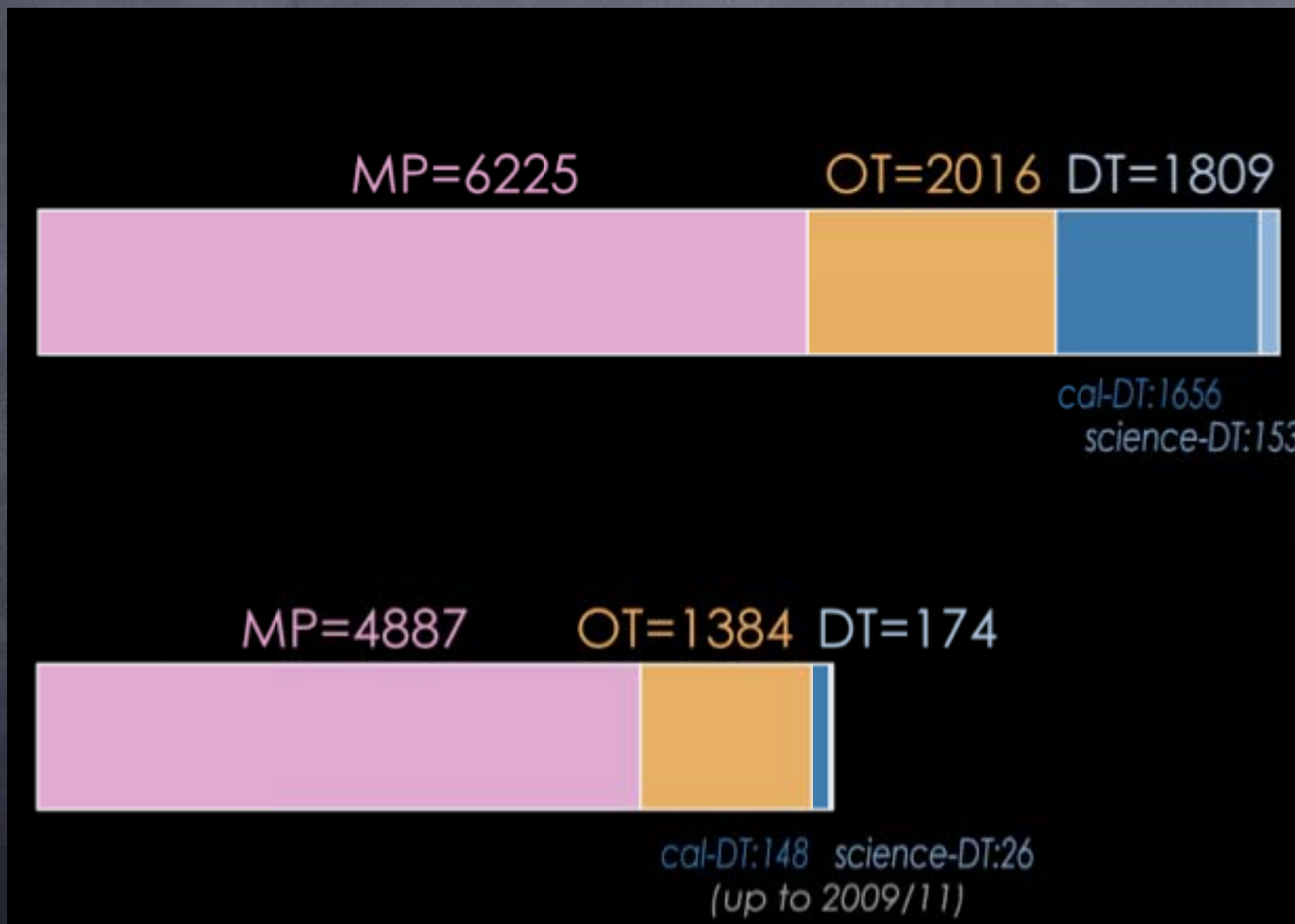
Discussion of excellence of Phase 3 data
Proposal for new observations



Phase 3 observations



(by courtesy of F. Usui)

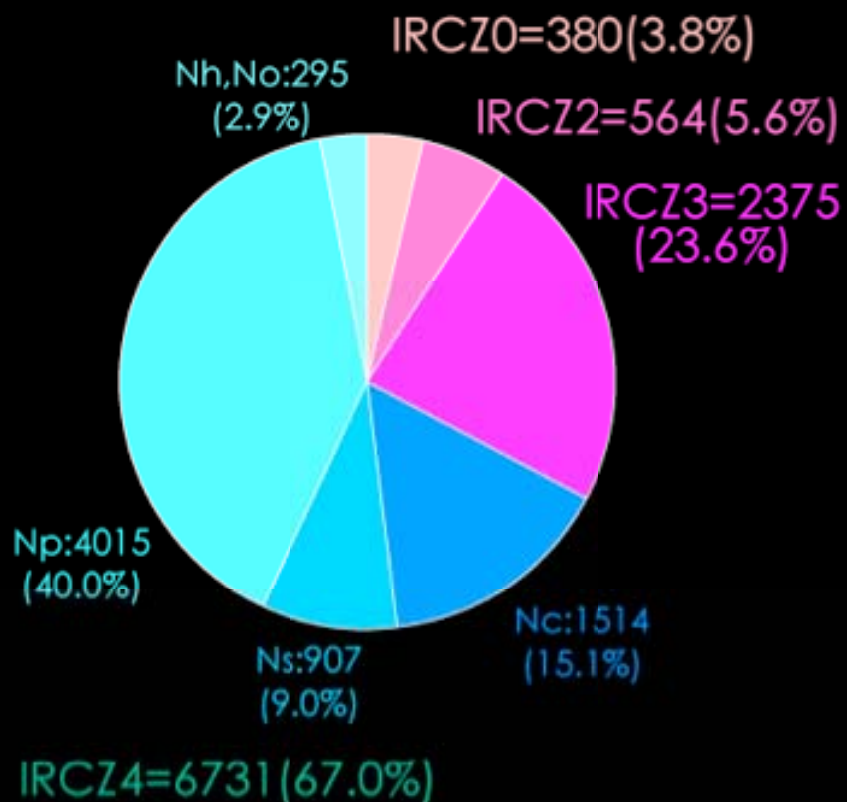




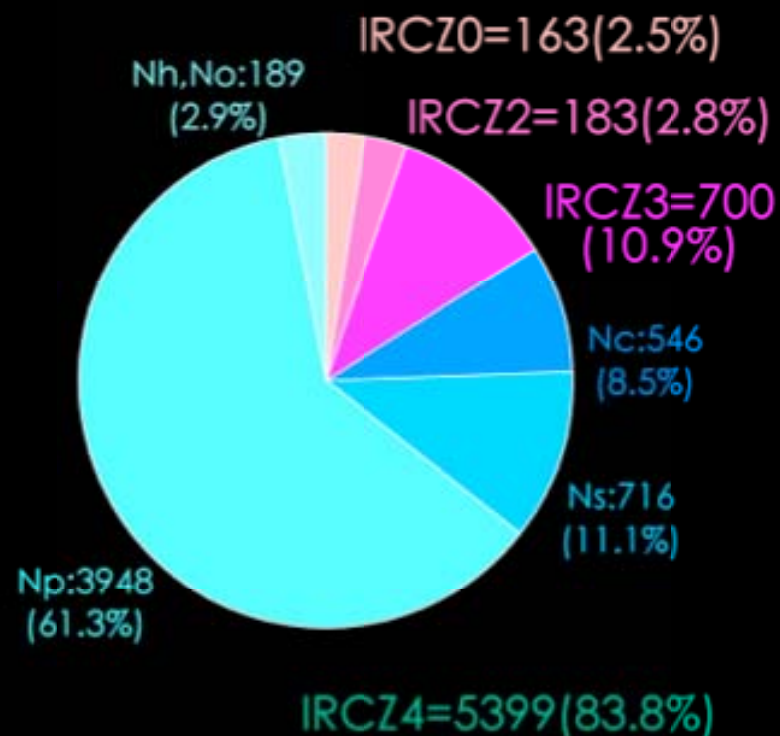
AOTs in phase 3

by courtesy of F. Usui

Phase 3-I
total:10050pointings



Phase 3-II
total:6445pointings



Current Status of IRC

When the Phase 3 will be terminated?

AKARI/IRC team and
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the IRC Warm mission

2007/08/26 08:33 UTC exhaustion of super fluid He

- Temperature of SIA goes up to 40K
- MIR-S/L channel is not usable
- NIR channel is still operational

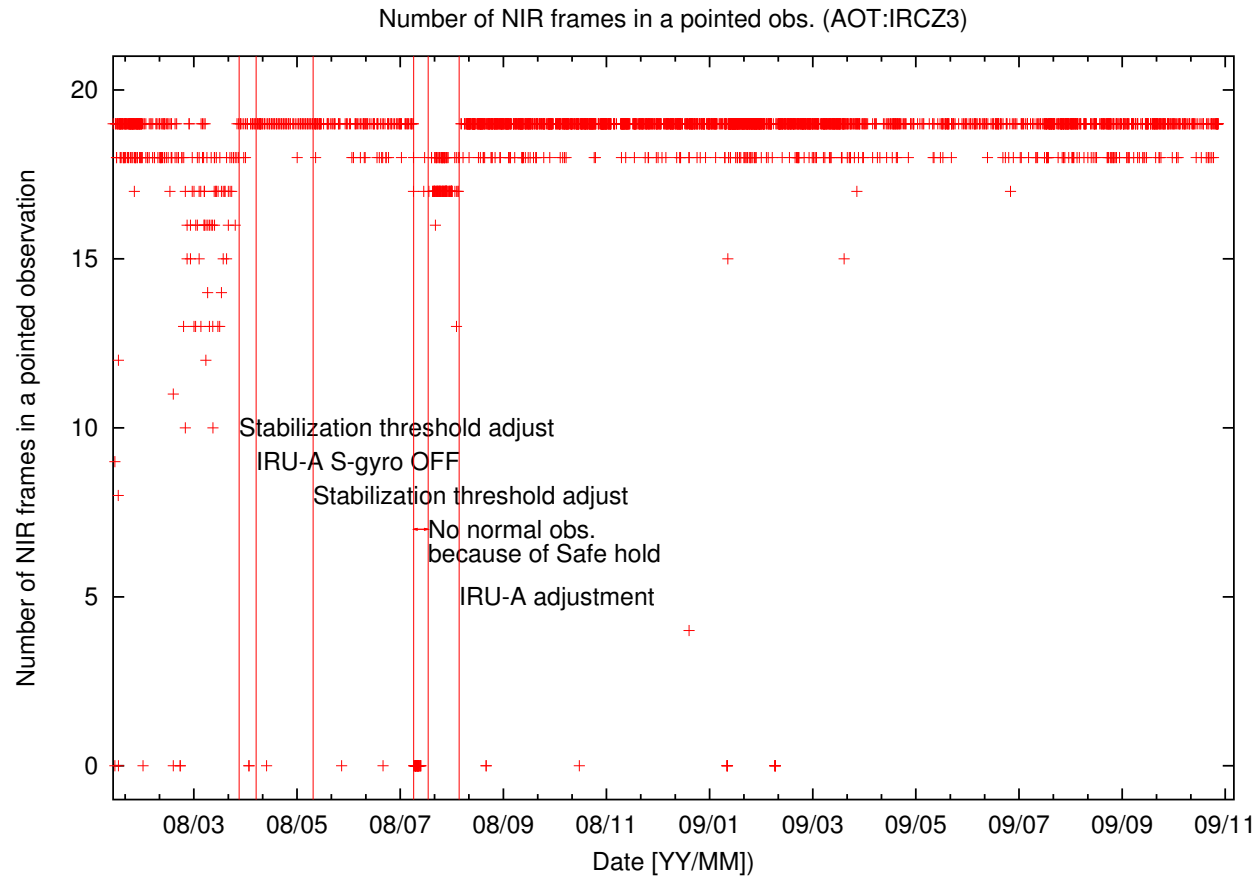
- Imaging observations in 2, 3, and 4um band
- Spectroscopy (R=30/100) in 2-5um
 - The only space spectroscopy until JWST
- 3 years is approved for the warm mission. (2008, 2009, 2010)
 - 2008/06/01- Science observation for P3-I
 - -2009/10/14 Phase-3-I ends
 - 2009/10/15- Phase-3-II starts

The status of IRC Warm mission

- most of IRC function is normal
 - no problem on FW operation
 - PSF/AOCS is stable
 - read noise is stable

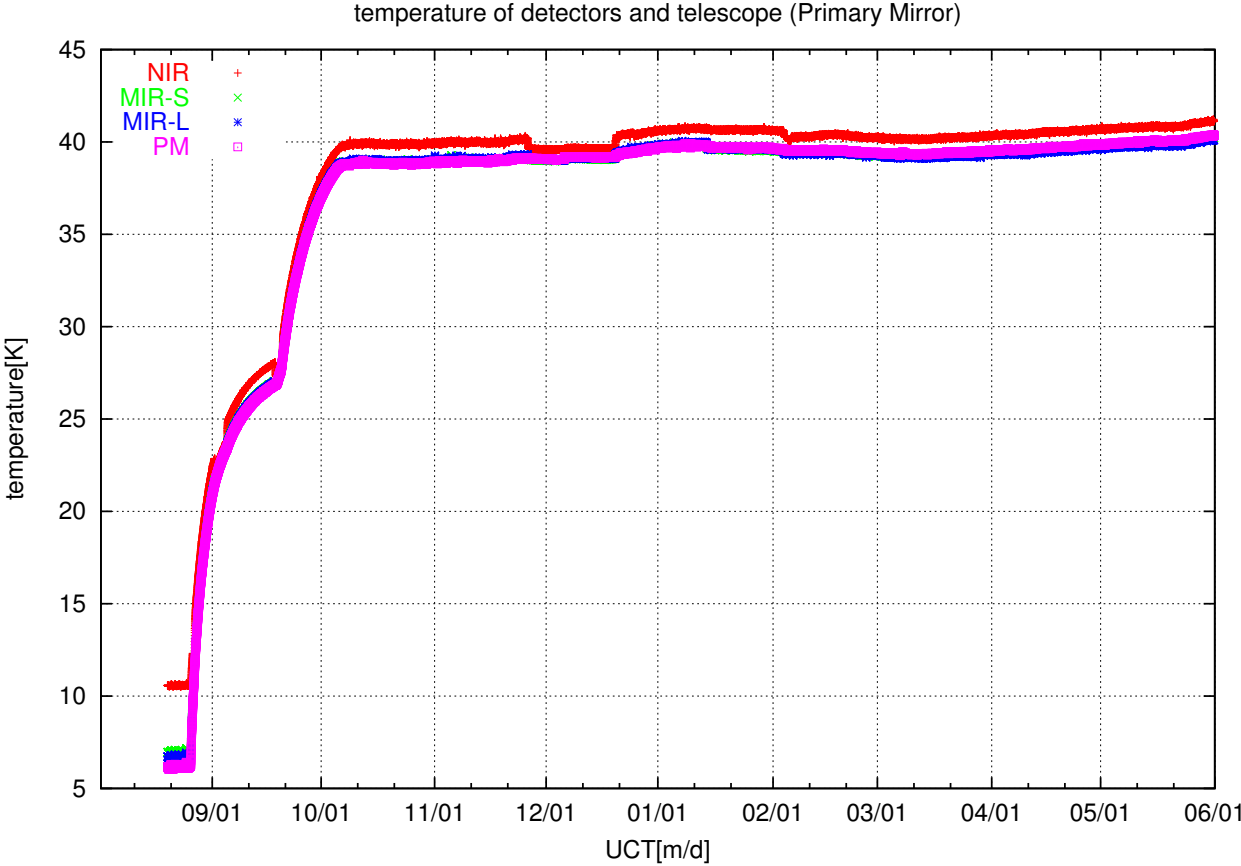
- drift of detector temperature changes
 - dark/hot pixel
 - photo response

Stabilization trends in Phase 3

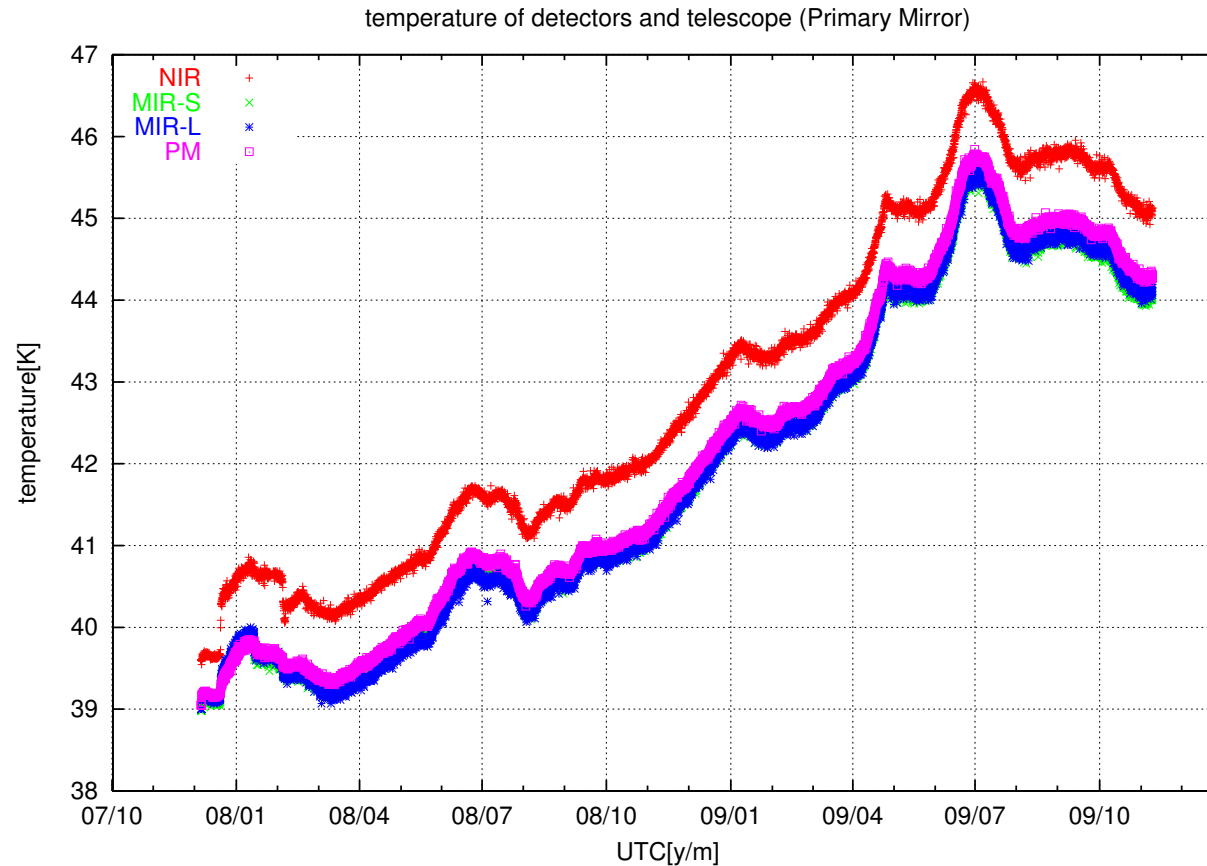


No significant problem in attitude stabilization found after Safe-hold at 2008/07.

Detector Temperature trends in Phase 3

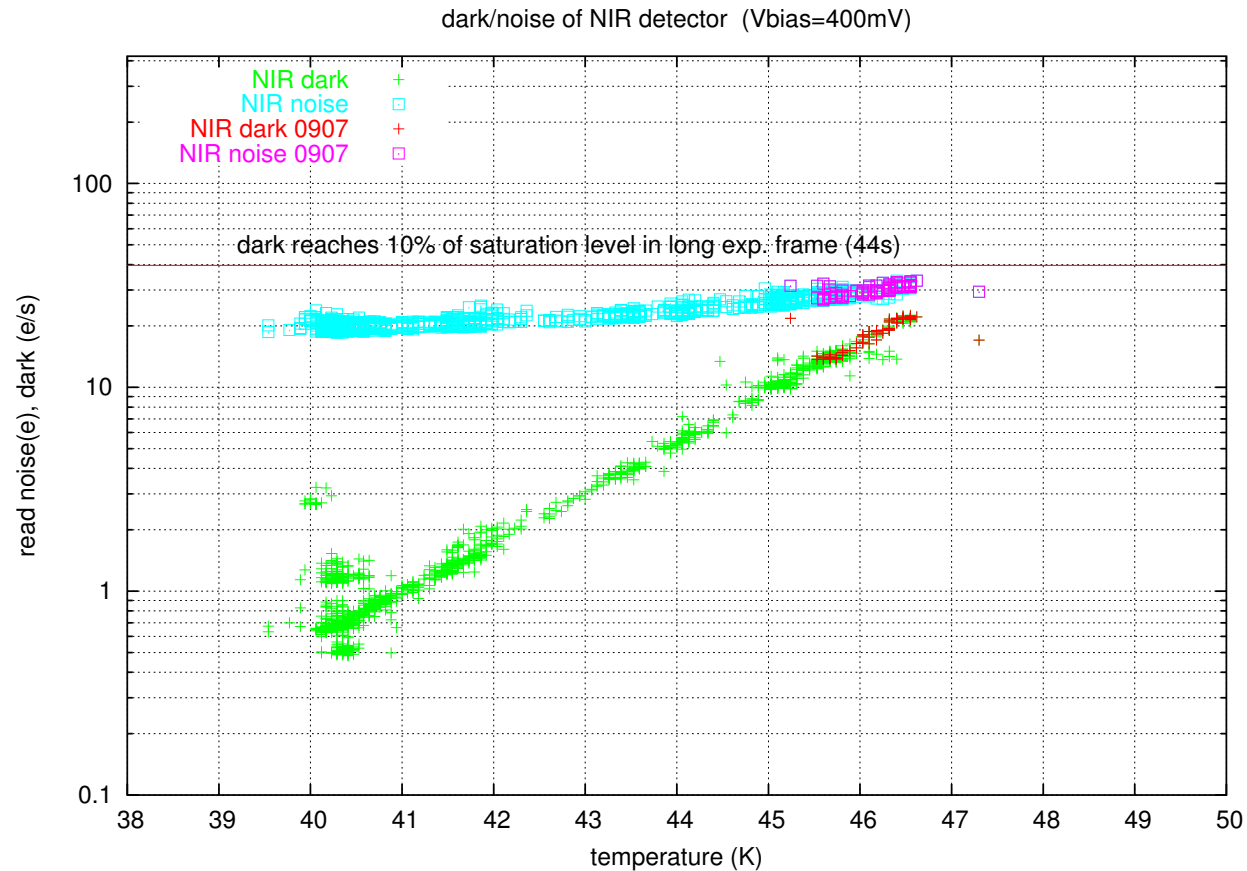


Detector Temperature trends in Phase 3



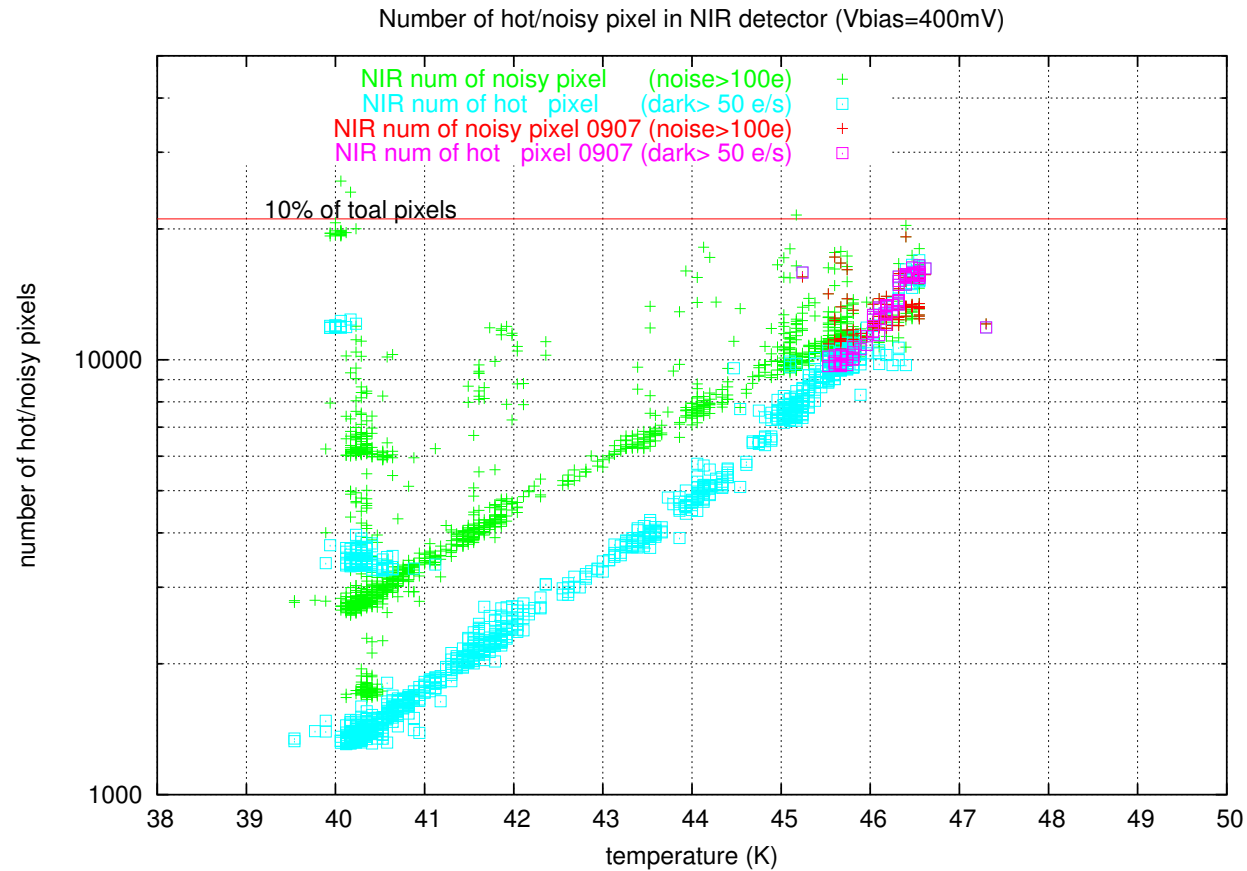
- seasonal bump at winter and summer solstice
- global rising trend probably due to degradation of the cooler
- the trend has eventually stopped recently...
- prediction of detector temperature trend is now a mystery.

temperature dependence of dark current and noise



- dark shows strong correlation with detector temperature
 - no permanent degradation was found after the peak at 2009/07
- noise shows weak correlation with detector temperature probably due to dark shot noise

temperature dependence of number of hot pixels



- number of dark/hot pixel shows strong correlation with detector temperature
- no permanent degradation was found after the peak at 2009/07

Summary

- AKARI/IRC has been finished its mission in Phase 1 and 2
- Three year mission is approved for Phase 3 (2008-2010)
- Imaging observation in 2, 3, 4 μ m
- low resolution spectroscopy in 2-5 μ m
- most of IRC function is normal
- drift of detector temperature causes change in
 - dark/hot pixel
 - dark will reach 10% of saturation level at 47K
 - photo response
 - 20% drift are seen between 40K and 47K
 - correction for response as a function of temperature are now considered.
- prediction of detector temperature trend is difficult.

No one knows when the Phase 3 ends.....