

## **RSS Events 2004-2005**

Shading problem troubleshooting: Sept 2004

CCD offset adjustment: March 2005

Calibrated data released: June 6, 2005

<http://iop.archive.arm.gov/arm-iop/>

Shading problem troubleshooting: April-June 2005

Portable calibrator failure: May 2005

Data collection (BCR-01104) Sept-Oct 2005

Data Ingest (BCR-01143) Oct-Nov 2005

## **Current and future tasks**

Ongoing data QC

Ongoing calibration data processing

Automatic calibration data processing  
algorithm development

Langley regression algorithm development

Forgan process algorithm development

Instrument overhaul planning

## **Questions About RSS**

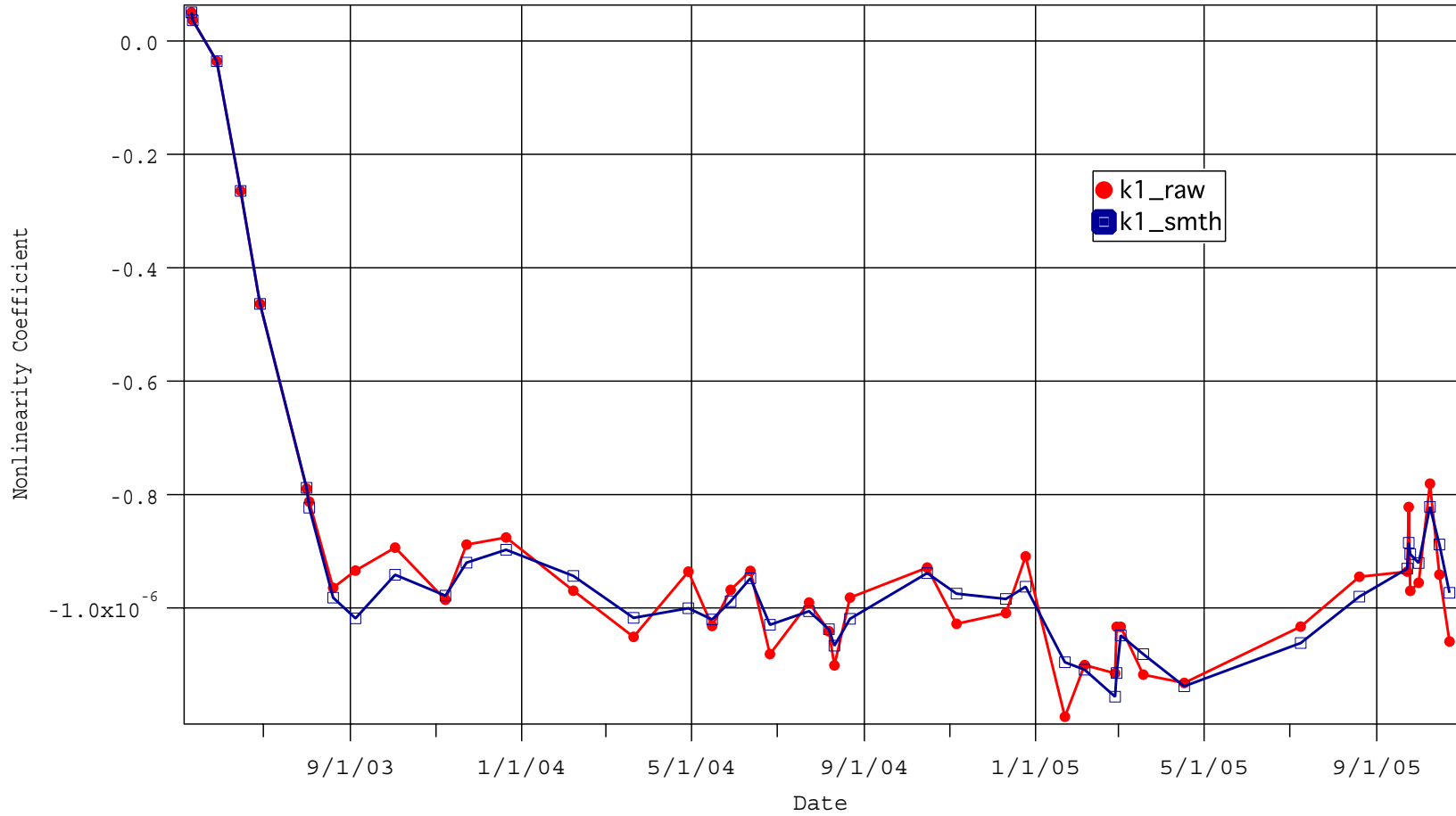
What are RSS's problems?

Does RSS meet specifications?

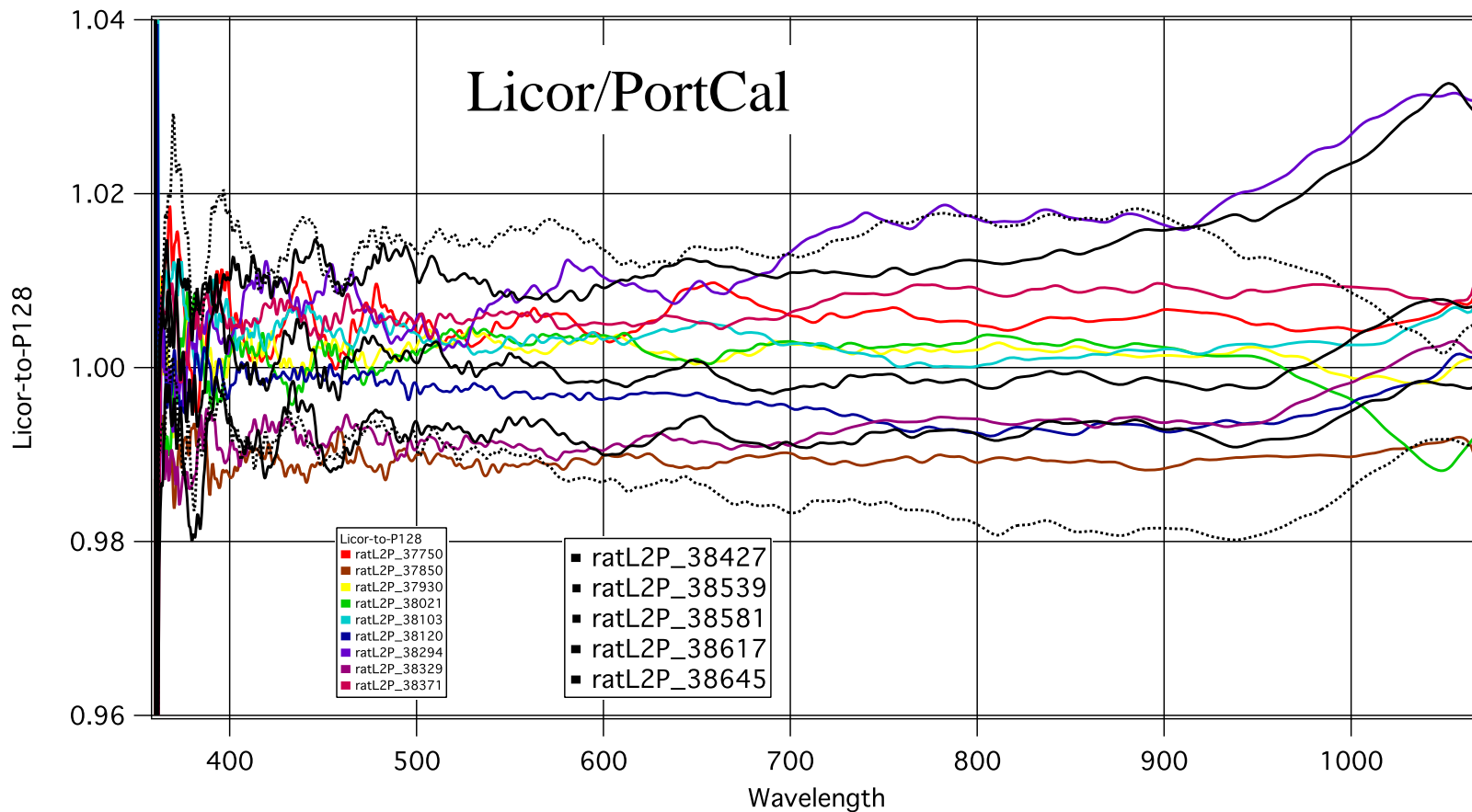
Is RSS good enough?

Can it be made better?

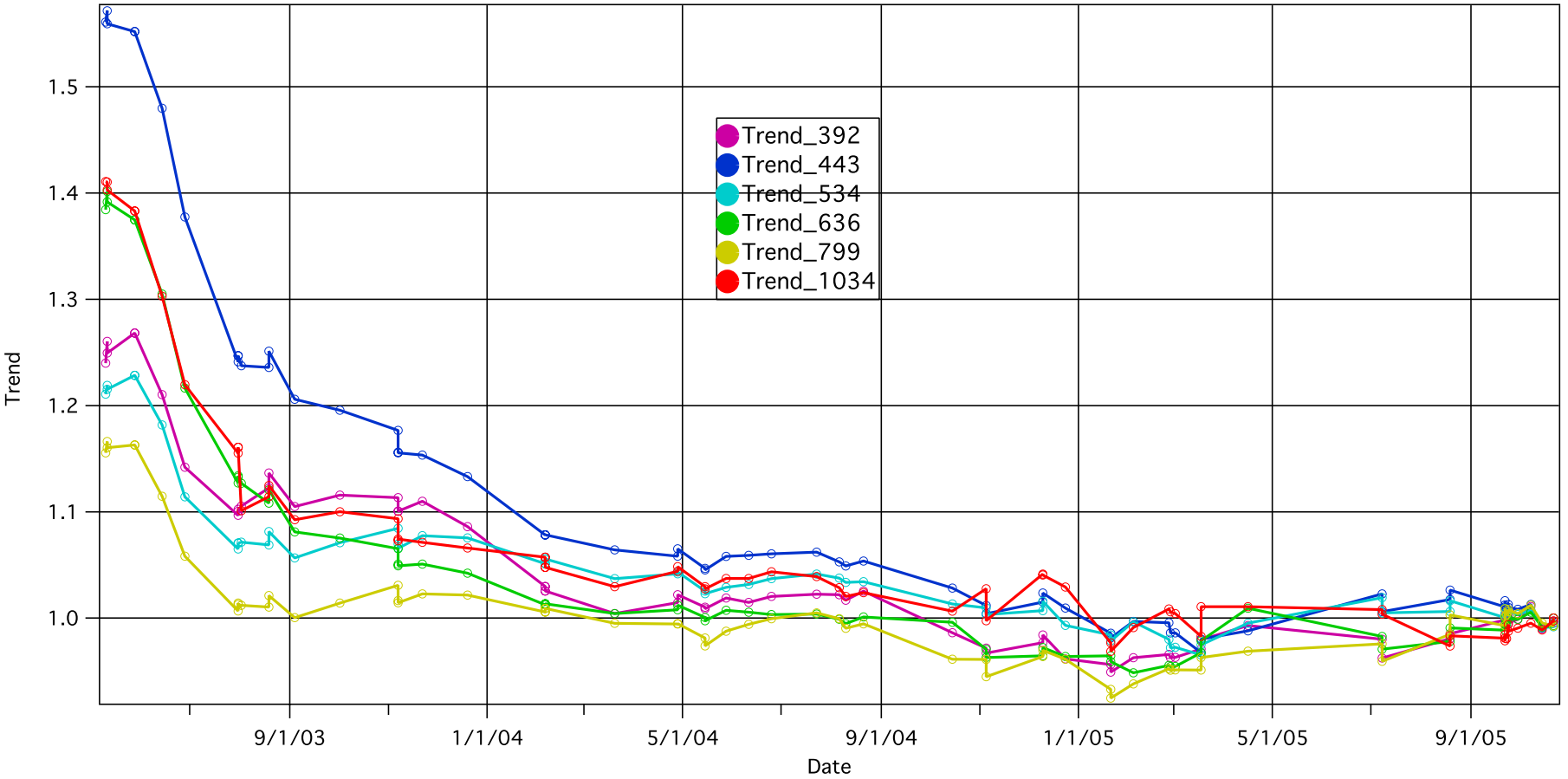
# RSS Nonlinearity



# Radiometric Stability



# Radiometric Stability





## **Tentative conclusions**

Short term (1-2 days) stability is acceptable  
is less than 2% and has no periodic component

Periodic component dominates drift

Maximal calibration frequency <2 weeks

## **Near Term Task**

Continue Stability Experiment

Analyze impact of 1/week calibration schedule on the quality of aerosol retrieval (Aerosol Group Dec 05)

Arrive at RSS overhaul criteria



## **Overhaul Questions**

What can be fixed? How radical can it be?

Who is going to do it? Is YES, Inc. fit for it?

How long will it take?

How much would it cost?

Will we have a replacement for RSS during the overhaul?