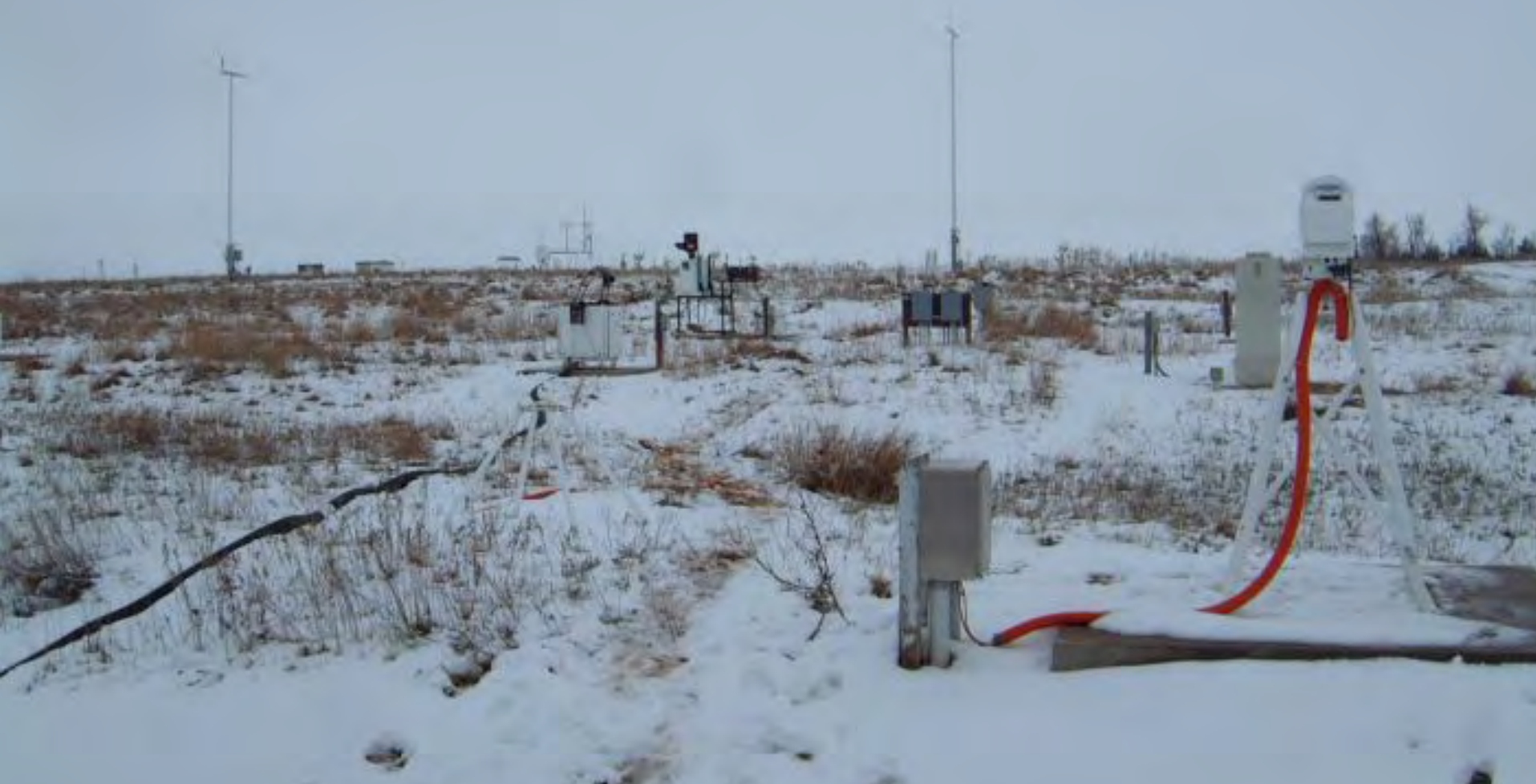
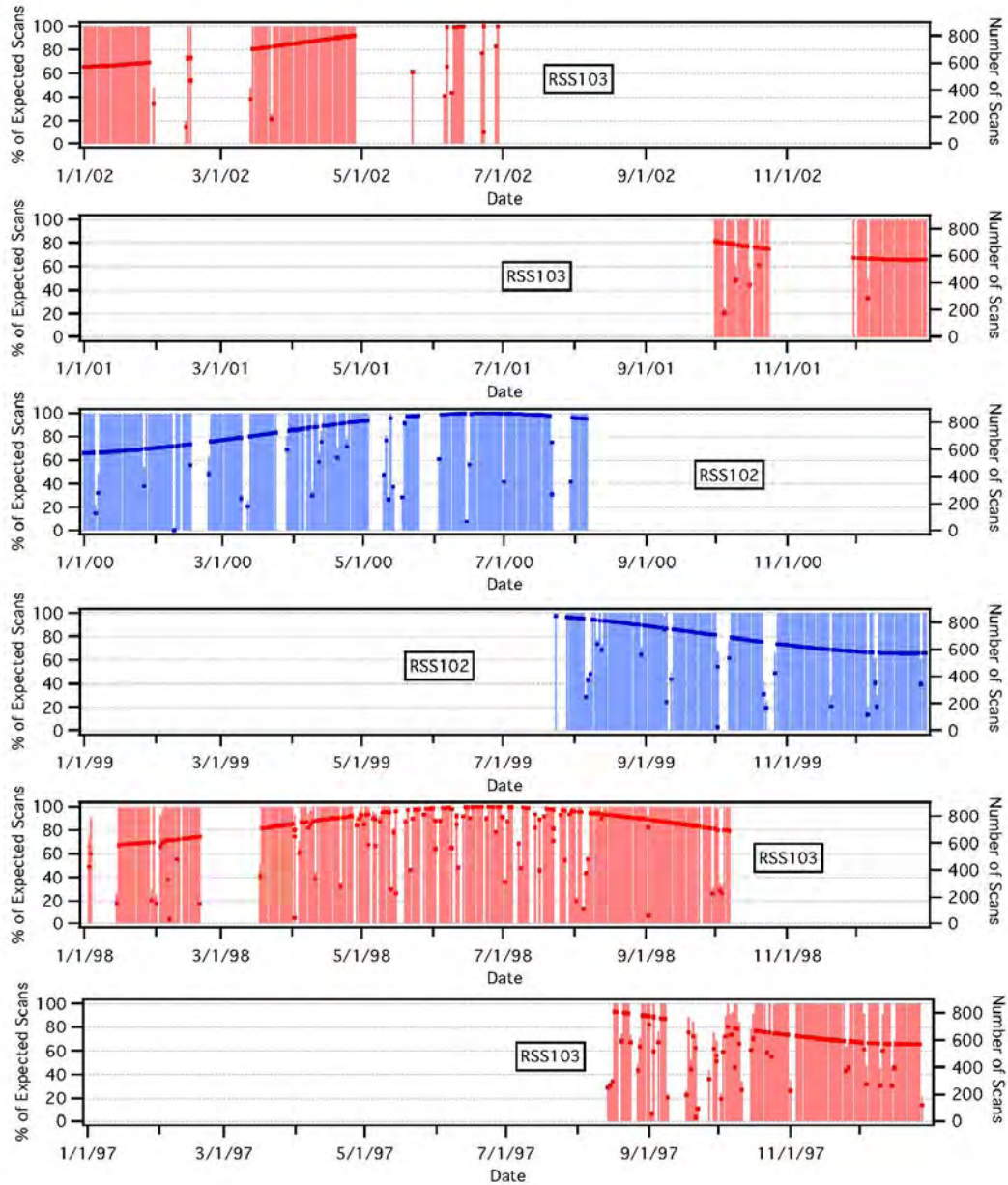


Rotating Shadowband Spectroradiometer (RSS)

Mentor: Peter Kiedron



SGP Data Sets from RSS Prototypes: RSS103 and RSS102
For details see: [sgp103.uptime.info](#) and [sgp102.uptime.info](#) files.



DATA ACCESS

Raw daily files: <ftp://oink.asrc.cestm.albany.edu/pub/RSS105/SGP/Raw/>

Calibrated daily files: <ftp://oink.asrc.cestm.albany.edu/pub/RSS105/SGP/Data/>

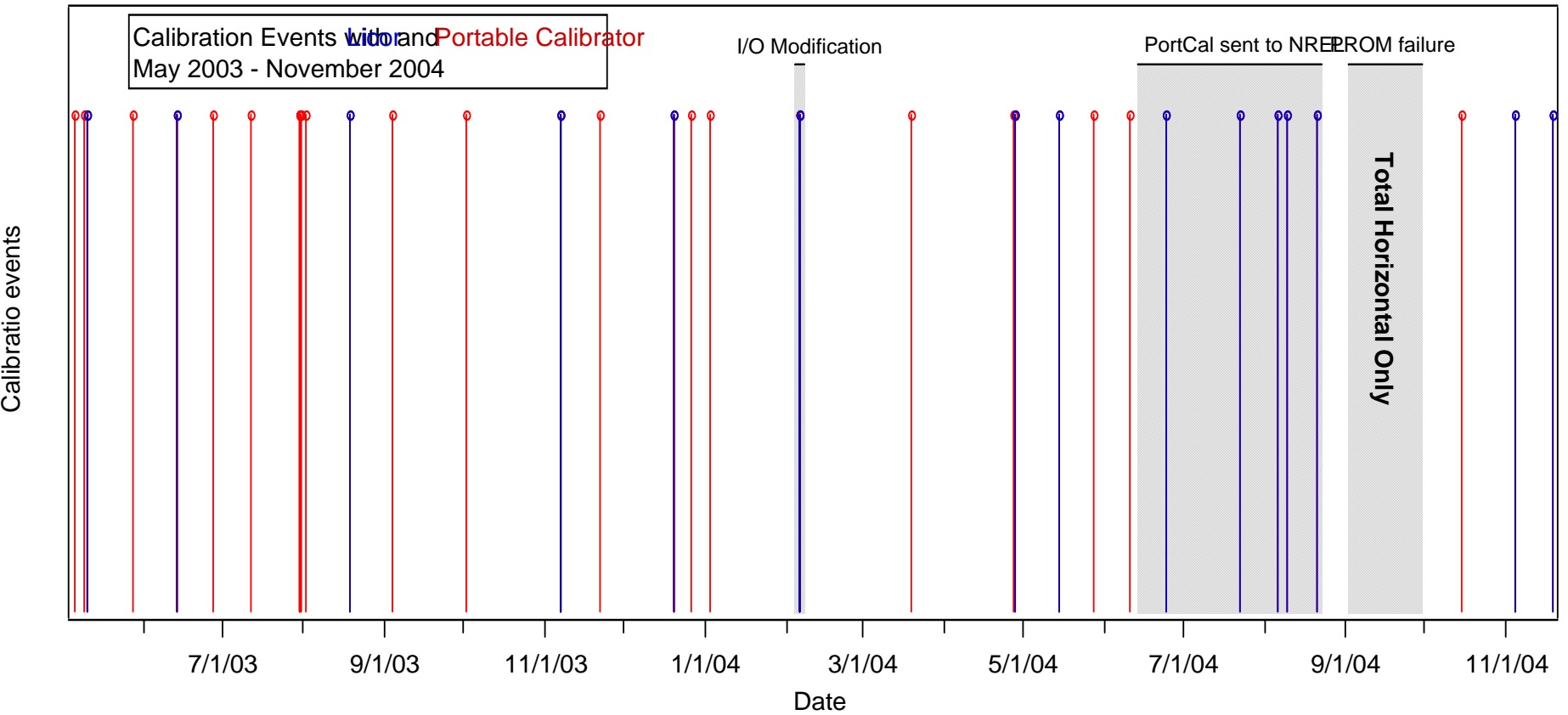
Data browser: http://oink.asrc.cestm.albany.edu/~rss/cgi-bin/browse_rss.pl?rss=105&site=sgp

Langley events: http://oink.asrc.cestm.albany.edu/~rss/cgi-bin/browse_rss.pl?rss=105&site=sgp

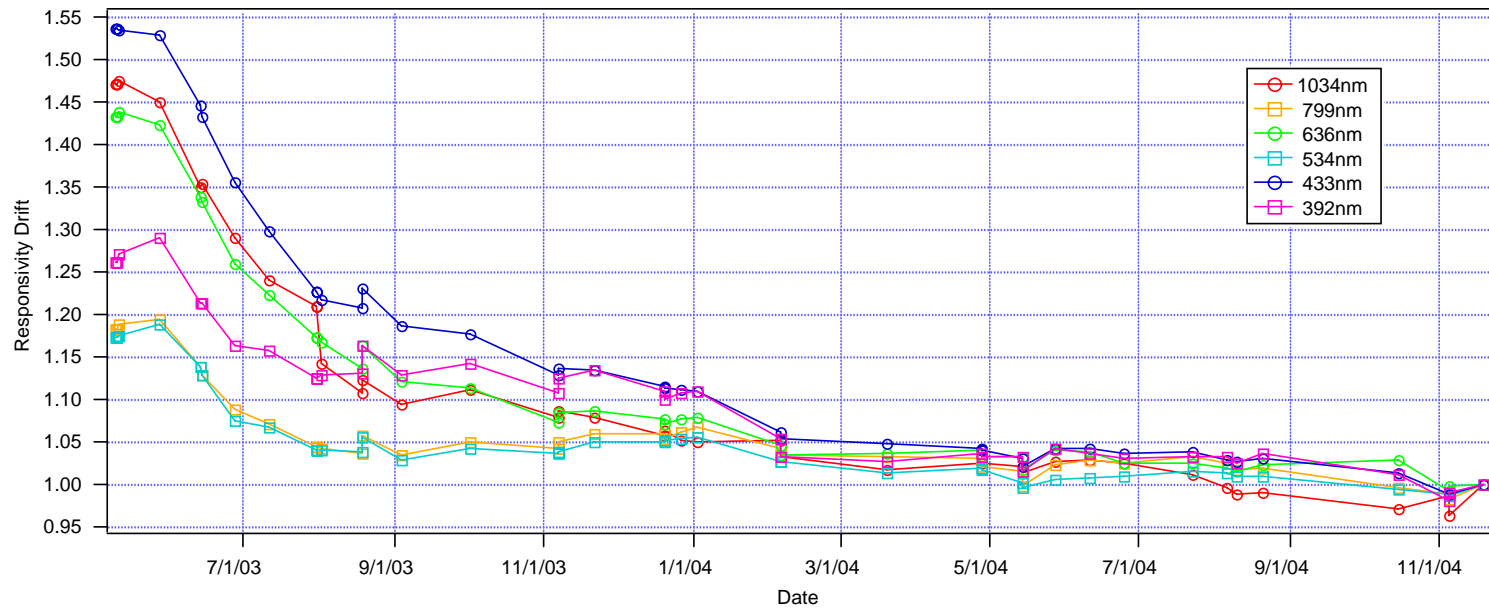
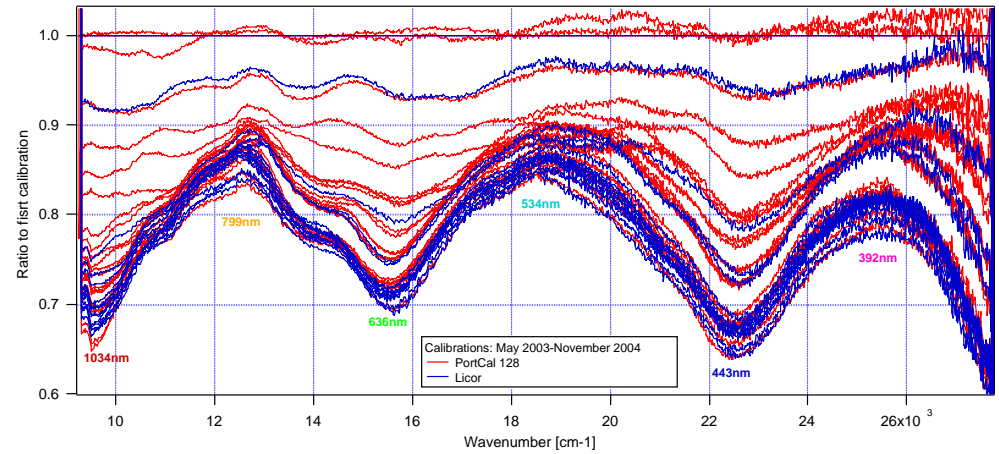
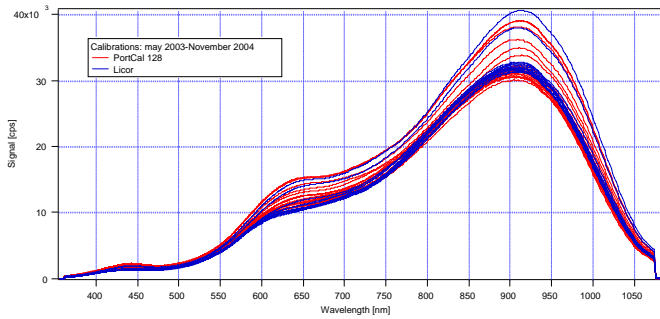
Data stats: <http://oink.asrc.cestm.albany.edu/~rss/status/>



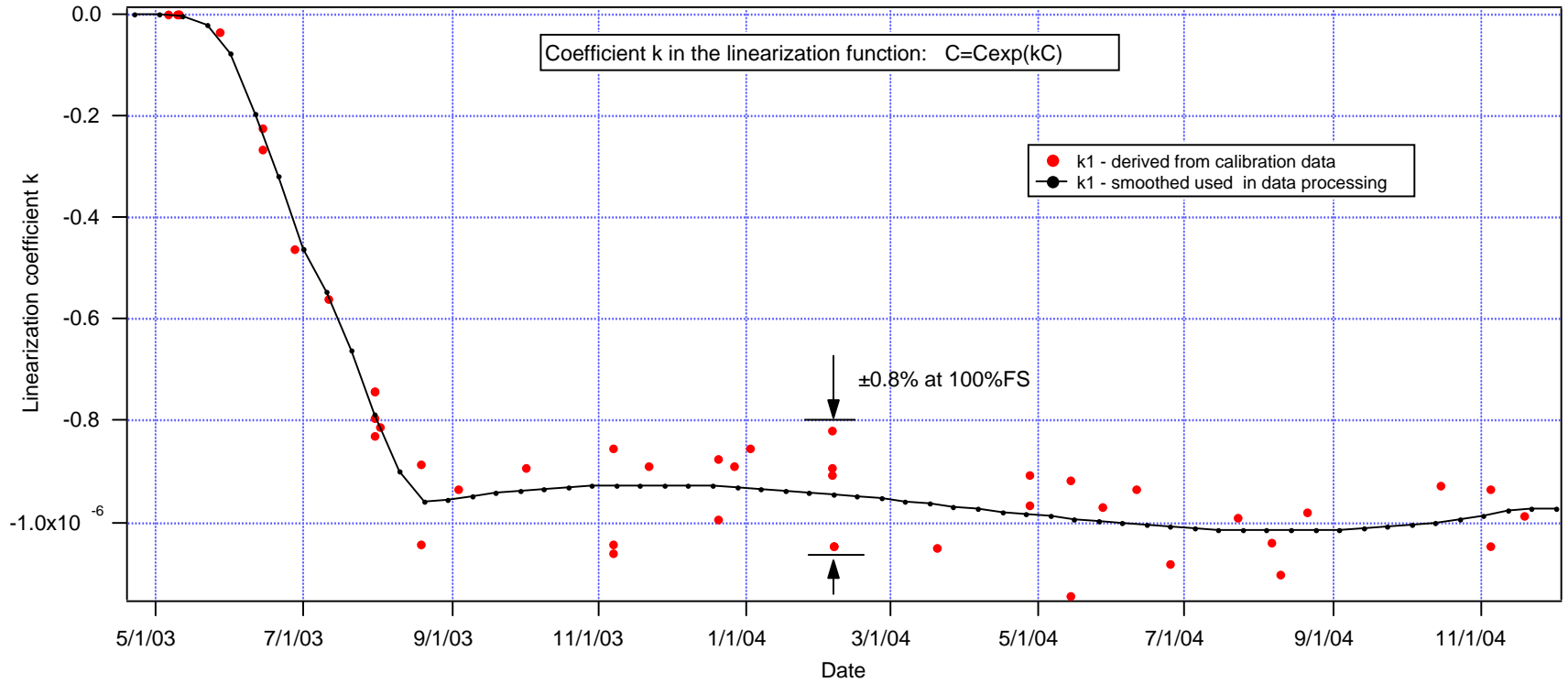
CALIBRATIONS



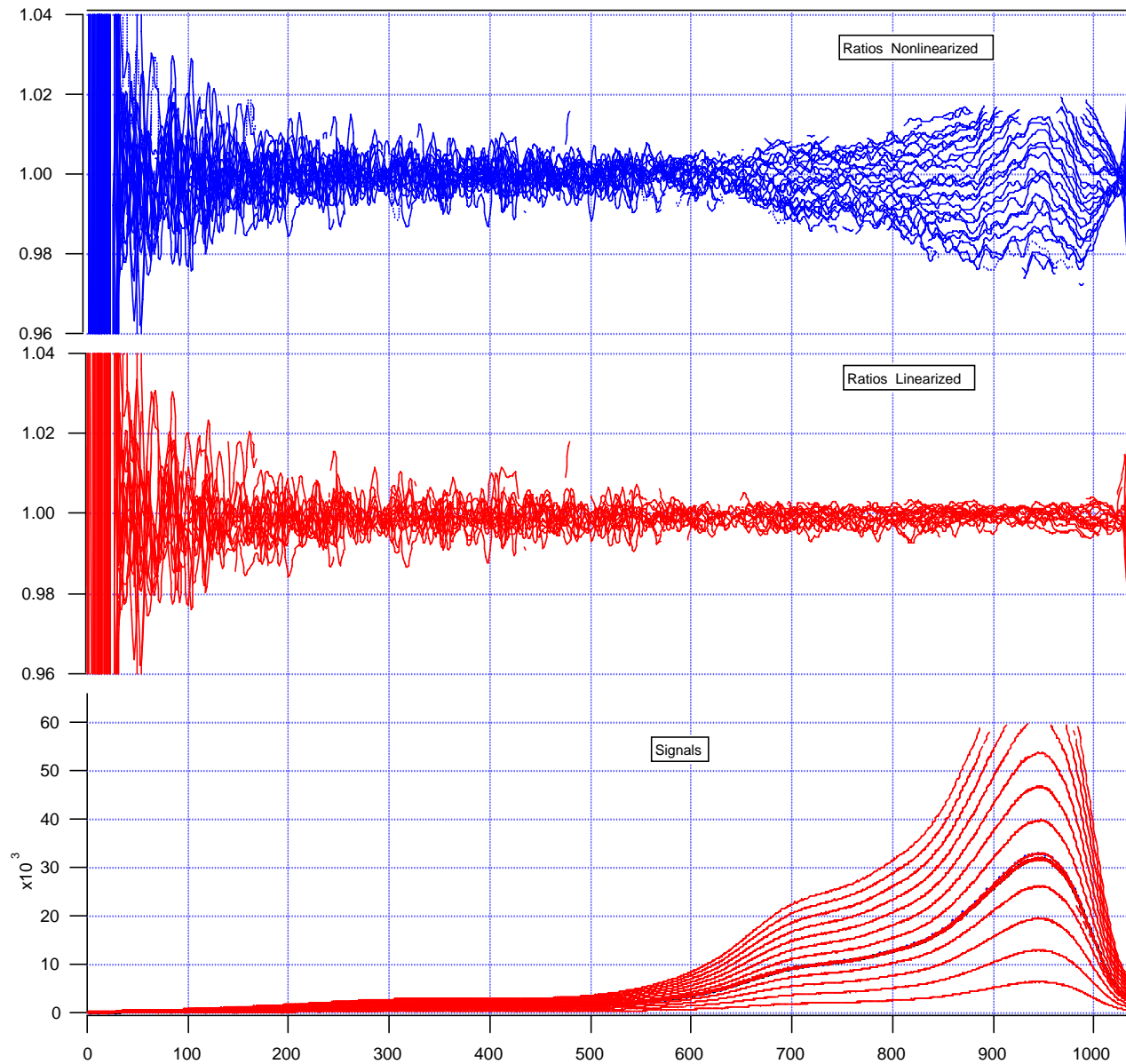
STABILITY



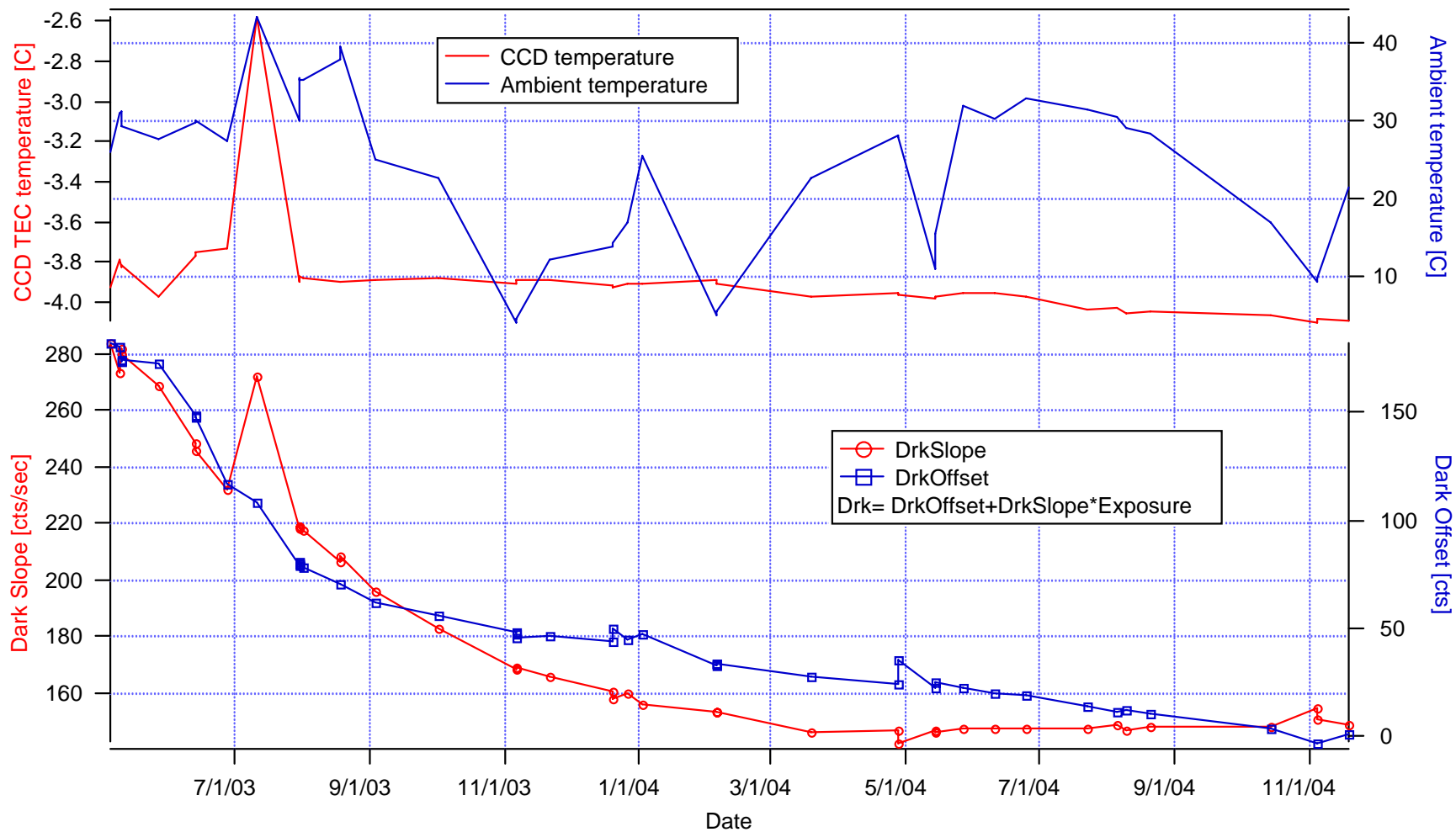
CCD Changes: Signal Nonlinearity



Linearizer: $cts * \exp(k * cts)$



CCD Changes: Dark Counts



SGP

RSS

rssmicro

FO serial

commands

4x1040x16bit/min

xtty

iop34

Hourly raw txt
Lamp cal file

Ethernet

Daily raw file

Responsivity
Cosine correction
Wavelength...

RSStk

Daily calibrated txt
Daily calibrated binary
Web data browser

oink.asrc.cestm.albany.edu

ASRC

SGP

RSS

rssmicro

commands

FO serial

4x1040x16bit/min

xtty

NewRSStk

iop34

Hourly raw txt
Lamp cal file
Hourly calibrated

Ethernet

Daily raw file

Responsivity
Cosine correction
Wavelength...

RSStk

Daily calibrated txt
Daily calibrated binary
Web data browser

oink.asrc.cestm.albany.edu

ASRC

GOALS

Algorithms

- Calibration file parser and analyzer
- Each scan wavelength correction
- Linearizer
- Langley radiometric correction

Programs

- New RSStk (Java - Jim Schlemmer)
- Algorithms implementation

Documentation

- Program and data documents
- ARM web page

RSS lab recalibration

- Cosine bench measurement
- CCD evaluation

Analysis

- Sample aerosol retrievals
- Sample water vapor retrievals
- Comparison with models
- Solar source function estimate

February 2004



Calibration



Serial connection installation
BCR 00776