

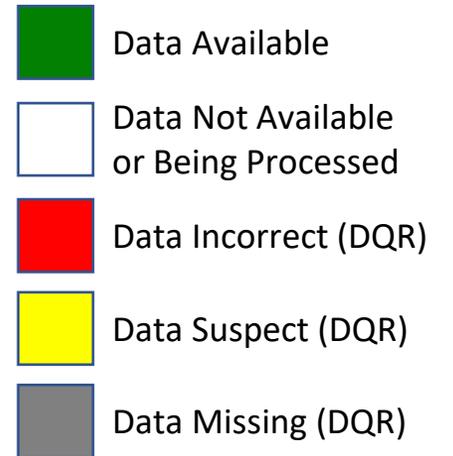
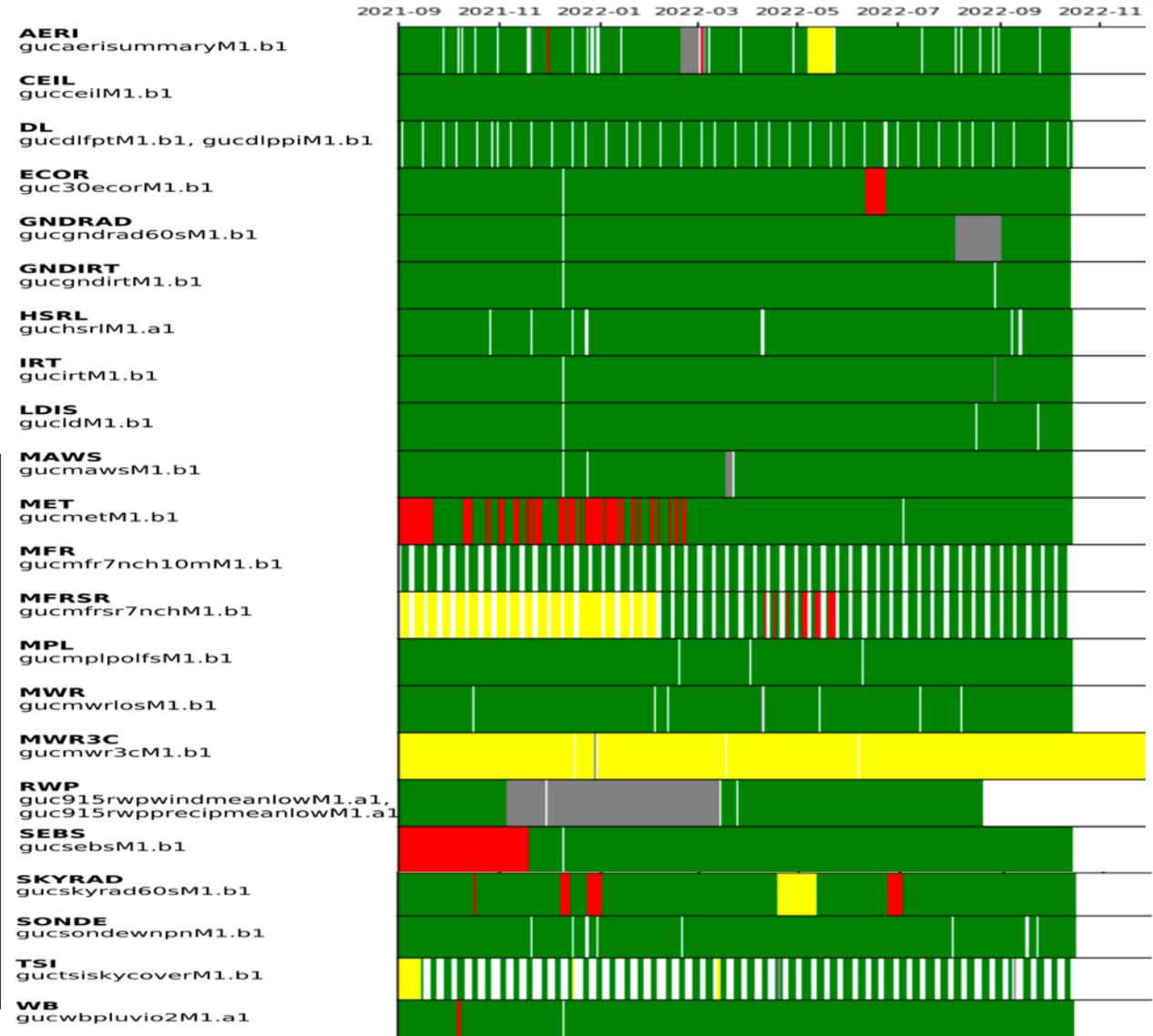
Updates on SAIL Datasets & Products

Damao Zhang

ARM Translator; Pacific Northwest National Laboratory

ARM/ASR PI Meeting 2022

Gunnison, CO; AMF2 (main site for SAIL)



AERI – Intermittent data issues (instrument off, skipping laser fringes, hatch, etc.)

MET – Sep 1-17 pressure data incorrect and Intermittent data issues (false precipitation, snow obstruction, etc.)

MFRSR – Jul 2021-Feb 2022, nighttime values over-ranging

MWR3C – Inaccurate Tip calibration

RWP – Missing data and instrument issues

SEBS – Jul 2021-Nov 2021, incorrect data

For additional questions,
Adam Theisen (ANL),
atheisen@anl.gov



Image courtesy of the ARM user facility

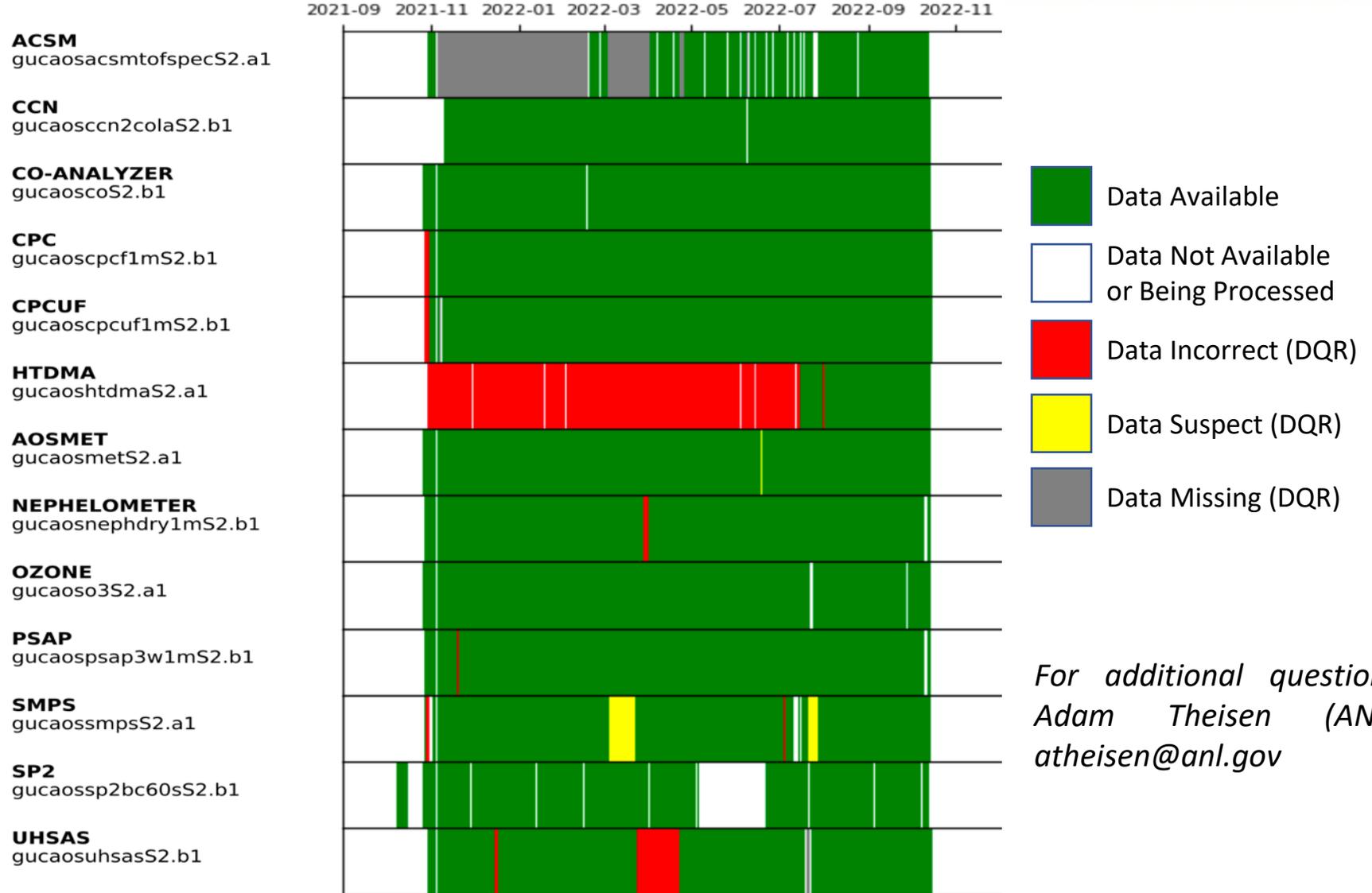
ACSM – Nov 2021-Feb 2022, and Mar 2022, data missing

HTDMA – Nov 2021-Jul 2022, uncorrected (internal flow issues, leaks in the system)

SMPS – Mar 05-23, 2022, unexplained instrument signal at last couple of size bins)

SP2 – May-Jul 2022, Data not available

UHSAS – Mar 24-Apr 22, 2022, instrument sampling ambient air



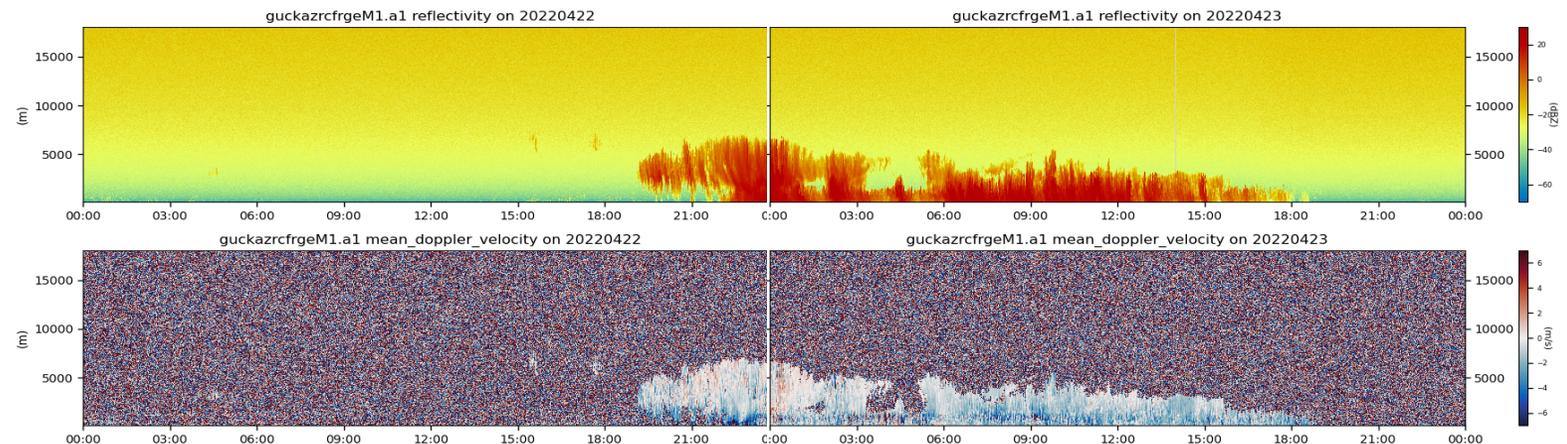
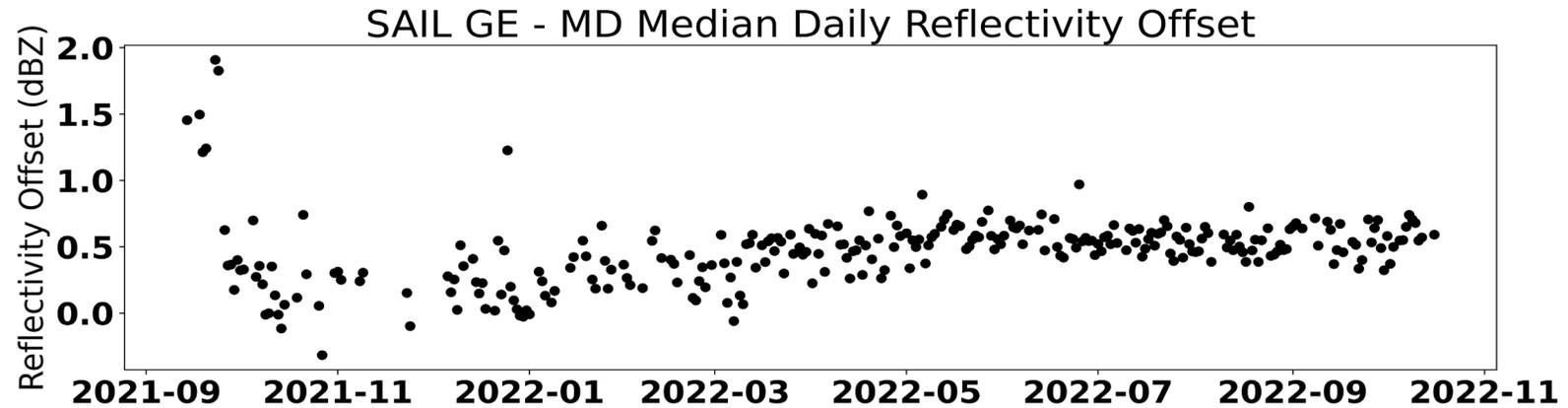
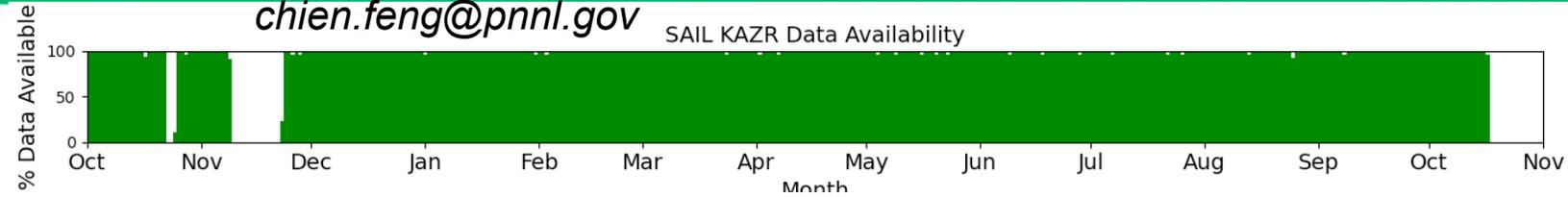
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atheisen@anl.gov

SAIL KAZR Radar



For more KAZR information, please contact Ya-Chien Feng: ya-chien.feng@pnnl.gov

- SAIL KAZR radar is nearly 98% of data availability since 2021 Dec.
- The pulse compression is reasonable of GE and MD modes in time.
- Radar data team will provide the KAZR relative reflectivity calibration with the radar wind profile (RWP) and the CSU X-band radar.



ARM Value-added Products (VAPs)



<https://www.arm.gov/capabilities/vaps>

VAPs are higher-order data products that have been analyzed and processed to ease scientists' use of ARM data in atmospheric research and global climate models

- Aerosol
- Cloud
- Precipitation
- Radiation
- Atmospheric thermodynamic environment

CAPABILITIES VAPS

Value-added products (VAPs) are higher-order data products that have been analyzed and processed to ease scientists' use of ARM data in atmospheric research and global climate models.

VAPs are created by using existing ARM datastreams as input. Scientists work as translators analyzing the data in conjunction with research community needs, and then applying algorithms or models to enhance users' scientific research and model development. VAPs provide an important translation between the instrumental measurements and the geophysical quantities needed for scientific analysis.

Priorities for VAP development needs are solicited from the research community in cooperation with the translator team.

Different types of VAPs include baseline, evaluation, and external.

- **Baseline:** A production-status VAP that has had ARM quality control and data standards applied.
- **Evaluation:** A proposed baseline VAP currently undergoing evaluation. In this stage, feedback is encouraged from the scientific community.
- **External:** A VAP produced and submitted by an external organization.

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NAME	FULL NAME	ACTIVE	TYPE	START	END
2DS-AIR	2 Dimensional Stereo Probe aboard aircraft	✓	Baseline	21 June 2017	8 December 2018
ABRFC	Arkansas-Red Basin River Forecast Center	✓	External	24 June 1994	19 February 2020
ACRED	ARM Cloud Retrieval Ensemble Data	✓	Evaluation	1 January 1997	30 June 2009

SAIL – ‘Core’ ARM Translator VAPs



SAIL Translator Point of Contact: Damao Zhang,
damao.zhang@pnnl.gov

VAP	Translator / Contact	Estimated available time
AOP	Shilling	Near real time
AERloee	Zhang	6 month after the campaign
(KAZR) ARSCL	Giangrande	1 months after the campaign
INTERPSONDE	Giangrande	Near real time
MWRRET	Zhang	3 months after the campaign
QCECOR	Xie	6 months after the campaign
PBL Height - SONDE	Zhang	Near real time
MPLCLDMASK	Zhang	Near real time
DLPROF	Zhang	Near real time
QCRAD / RADFLUX	Zhang	6 months after the campaign
ARMBE	Xie	6 months after the campaign
VARANAL	Xie	6 months after the campaign

- For additional questions on VAPs and/or VAP availability, please contact the Translators.
- Other planned VAPs: MICROBASEKaPLUS, PBLHT-Lidar, NDROP, THERMOCLDPHASE, snowfall rate retrievals, etc.
- Prioritize VAP processing according to community feedbacks and requests