

TDS update

Jan Souček, David Píša & the TDS team

Institute of Atmospheric Physics, Prague, Czech Republic

TDS calibration scheme

- TDS Calba software converts **L1** files to **L1R** and **L2**
- **L1 → L1R**
 - ➔ NORMAL/BURST/SBMx/LFM Waveform snapshots B-field
(L1R → L2 provided by SCM software)
 - ➔ LFM Waveform snapshots E-field
(L1R → L2 provided by BIAS software)
 - ➔ LFM continuous waveform E/B-field
(L1R → L2 provided by BIAS/SCM software)
- **L1 → L2** (fully under TDS team responsibility):
 - ➔ NORMAL/BURST/SBMx waveform snapshots E-field
 - ➔ LFM spectral matrices
 - ➔ Histograms, statistical products, maximum amplitude (MAMP)

TDS calibration status

- Calibration functions for ROC software prepared
 - ➔ TDS HF and LF transfer functions for SCM & BIAS data now available in CDF
 - ➔ HF mode electric field snapshots: TDS team will be in charge of producing calibrated L2 data
- Calibration of TDS HF snapshots: 3 transfer functions need to be applied to get L2 data:
 - ➔ TDS transfer function
 - ➔ HF preamp transfer function (received from LESIA)
 - ➔ Antenna effective length and direction (constant matrix)
- A combined TDS+preamp transfer function created. Unit matrix currently used for effective length.
 - ➔ This is implemented in CALBA software
 - ➔ Conversion to RTN not implemented (needs additional input)

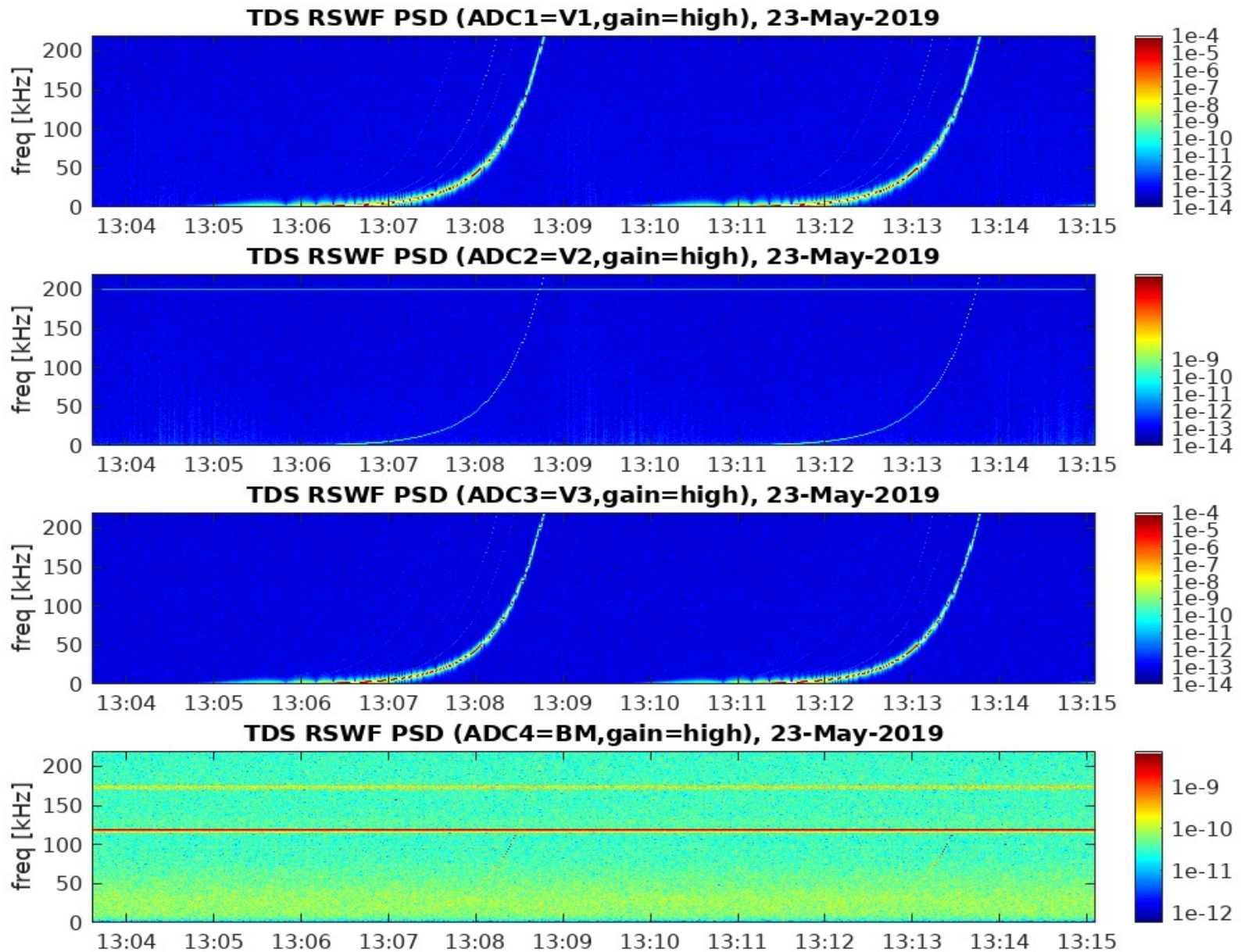
TDS calibration software

- **TDS_CALBA software v0.8.4 committed in ROC-Git**
 - ➔ Written in IDL/bash
 - ➔ Designed to be RTGS/RODP pipeline compliant
 - ➔ Compatible with the latest ROC-SGSE Skeleton format V04
 - ➔ Full parsing of TDS metadata
- Recent updates:
 - ➔ L2 products now implemented (including new skeletons for L2)
 - ➔ Work on pipeline integration
- Work on debugging, integration etc remains, but most features are now in place.
 - ➔ Coordinate systems. Conversion to RTN.

TDS funding status

- Current PRODEX contract until October 2018
 - ➔ Zero cost extension to end of 2019
 - ➔ Enough travel budget remains for 2019. Not much else.
 - ➔ Will be closed next month.
- New contract
 - ➔ Czech Grant Agency proposal submitted in April. Outcome should be known in November.
 - ➔ We will attempt submit a proposal to PRODEX to gain some technical support for operations, result uncertain.
- Either way, work will continue.
 - ➔ Other funding sources currently available if needed.

FF test May 23 – TDS sweep



FF test May 23 – TDS sweep

