National Report, Denmark (SDFE)

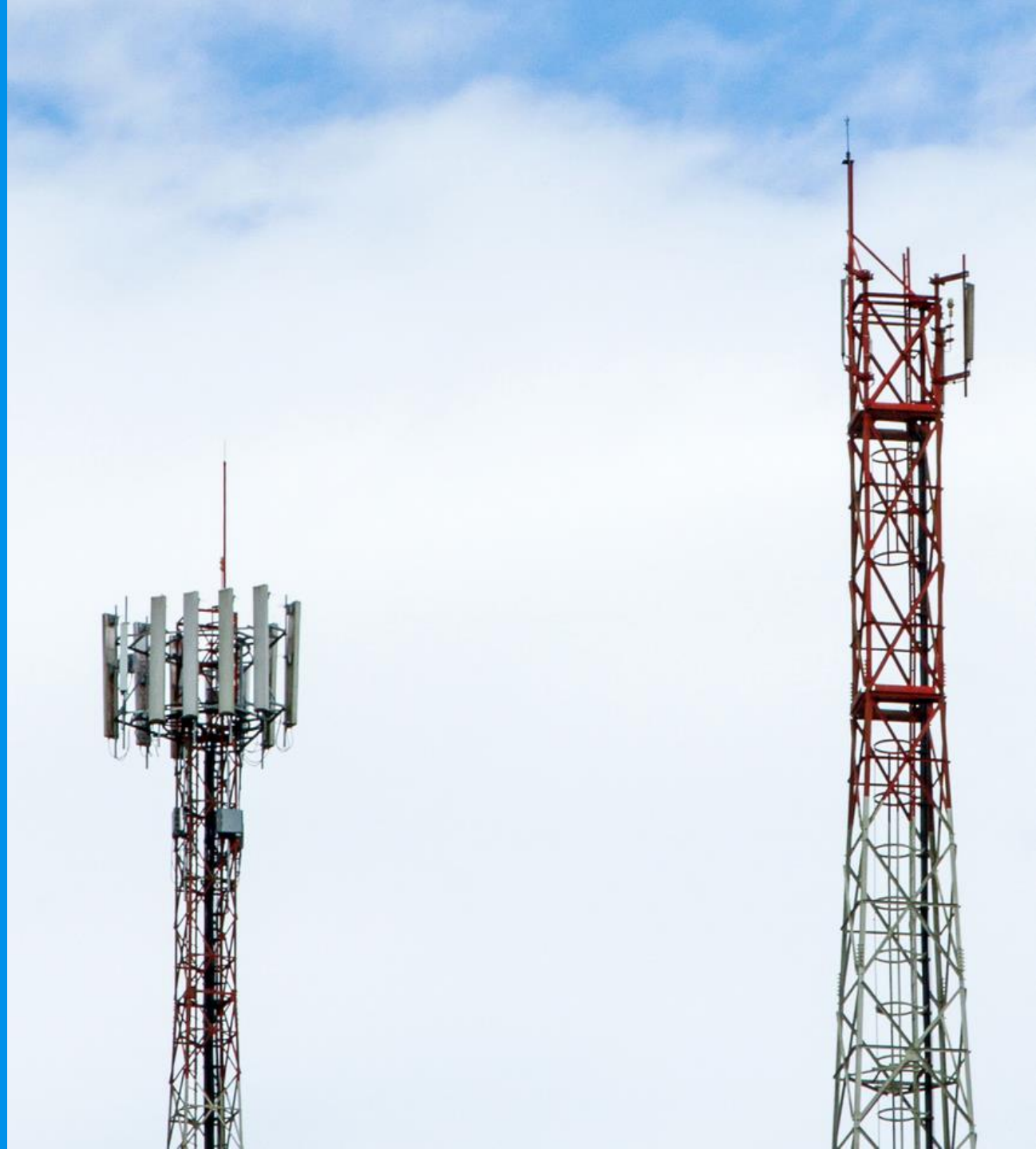
NKG WG Reference Frames

May 19 2022

Agency for Data Supply
and Efficiency

New organisation

- **The Danish Agency for Data Supply and Efficiency will change its name to The Danish Agency for Data Supply and Infrastructure (SDFI).**
- SDFI will be adding the telecommunications area from the Danish Energy to its portfolio
- Two new divisions: Broadband and wireless infrastructure



Continuously operating GNSS Stations (Class A)

FYNO: New station 05/2021

In 2022 SMID will be replaced by new station 10-15 km further north.

At the moment no further expansion of the GNSS network is planned

GREJ operational since 2022-05-18

Sumfile for GREJ00DNK 2022/138/m

Date processed: 2022-05-18 15:00:53

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# G-Nut/Anubis [2.3] compiled: Mar 24 2022 10:57:45 ($Rev: 2843 $)

#====== Summary statistics (v.2)
#TOTSUM First_Epoch________ Last_Epoch_________ Hours_ Sample MinEle #_Expt #_Have %Ratio o/slps woElev Exp>00 Hav>00 %Rt>00
=TOTSUM 2022-05-18 12:00:00 2022-05-18 12:59:30   1.00  30.00   0.04   6548   6354  97.04     63   1351   6431   6354  98.80
```

Towards an active height reference

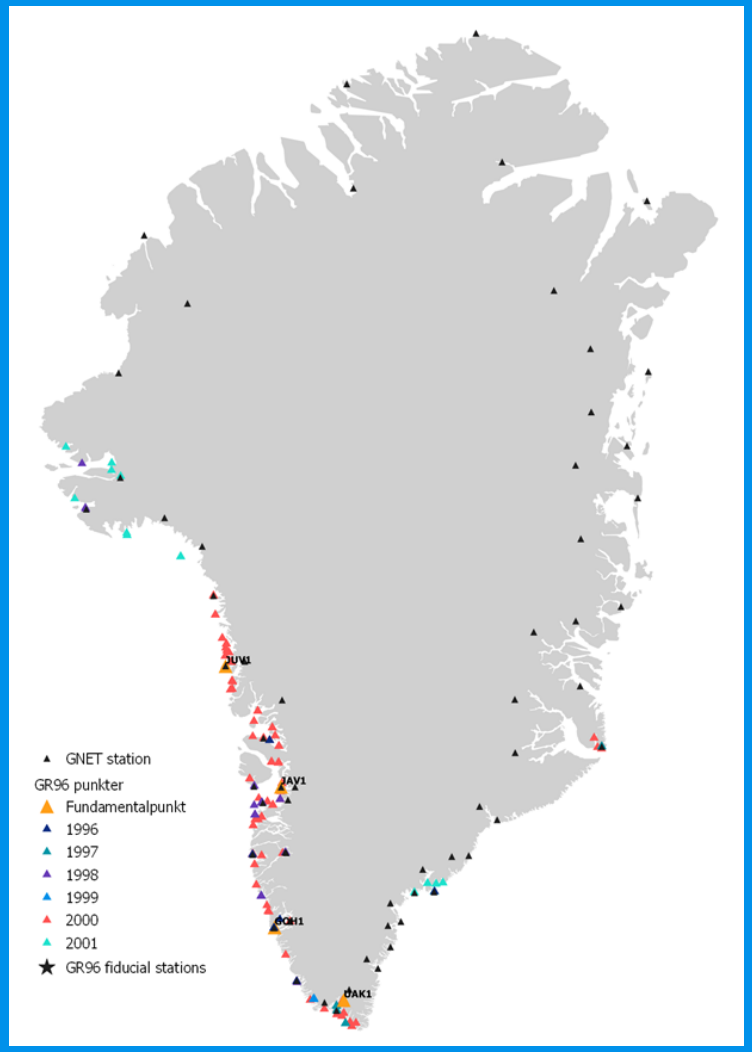
TAPAS – Testbed in Aarhus for Precision Positioning and Autonomous Systems

- New monitor station operational since 01/2022
    - High precision antenna for geodetic surveys connected to 8 identical Septentrio receivers
    - To be used for evaluation of different processing algorithms, estimation of uncertainty as a function of station distance etc.

5 mm geoid

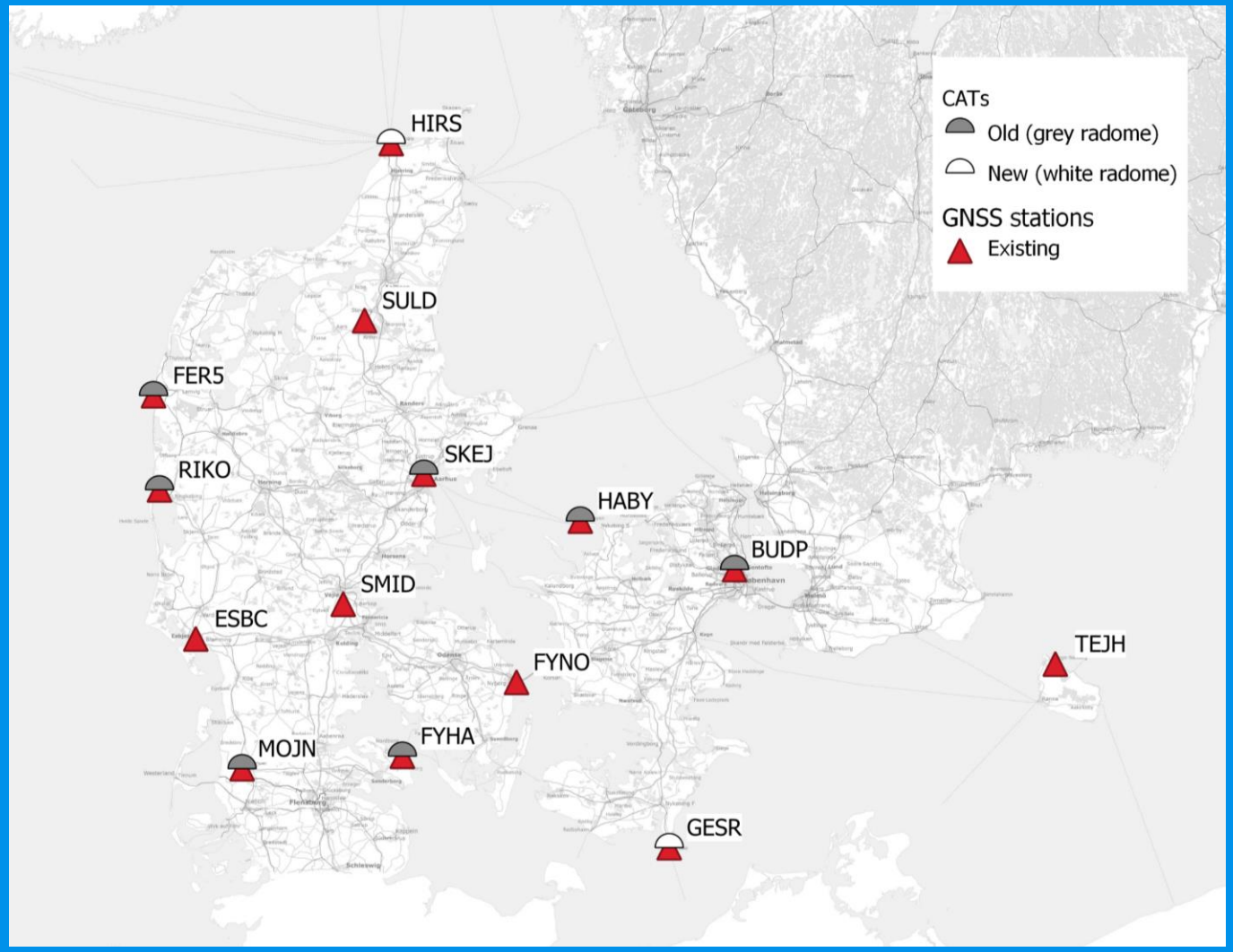
- 2021: Airborne gravity campaign south/west of Zealand etc.
- Version 1.0 to be completed ultimo 2022

Greenland REFGR/GR96 GNSS Campaign 2021



- 4 fundamental/0. order GR96 referencepoints measuered for 7-10 days (7 days overlap)
- 31 1. order GR96 referencepoints meausured for +1 hour
- Goal:
  - REFGR/GR96 realised by GNET GNSS-stations
  - Improved transformations GR96 <> ITRFYY

Installation of InSAR Compact Active Transponders



InSAR CATs from MetaSensing installed onto GNSS-stations.

Currently installed CATs in operation since:

SKEJ 02/2020
FER5 03/2020
HABY 05/2020
RIKO 06/2020
MOJN 06/2020
FYHA 12/2020
BUDP 04/2021
HIRS 01/2022 (new version)
GESR 01/2022 (new version)

Two additional CATs installed at test setup at GNSS station HABY, cf. presentation by Balasis-Levinsen et al.

Ongoing projects/focus areas (selected):

- Funding and specification of an active height reference
- Public distribution of GNSS data (RINEX and real-time)
- Further development of FIRE (geodetic data management system, levelling adjustment etc.)
- 5 mm geoid
- Installation of corner reflectors at GNSS stations (Class A)

And new projects/focus areas for 2022 (selected):

- InSAR in rural areas/ISBAS and potential applications
- Elastic uplift and hydrological loading modelling (DTU Space) and potential applications
- National Danish realisations of IHRF/EVRS and potential applications

Thank you – Questions?