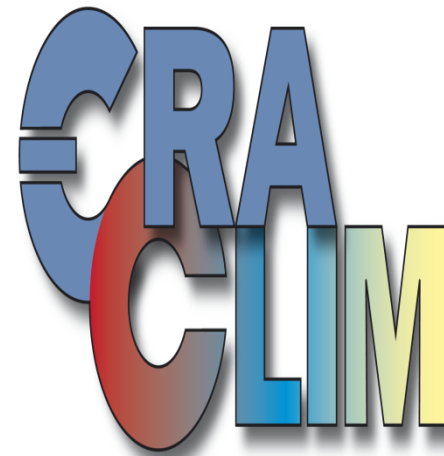
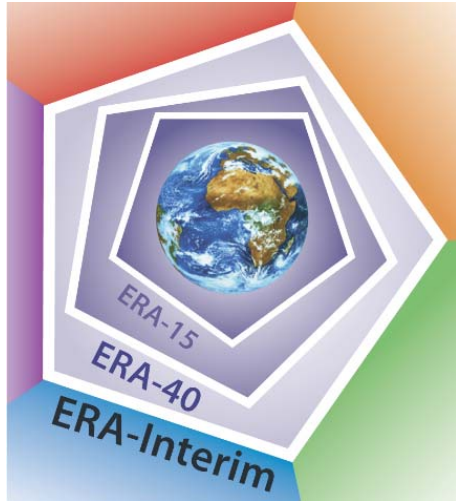


# GRUAN, Satellites & Reanalysis



David Tan

Reanalysis Section

European Centre for Medium-range Weather Forecasts

Shinfield Park, RG2 9AX, United Kingdom

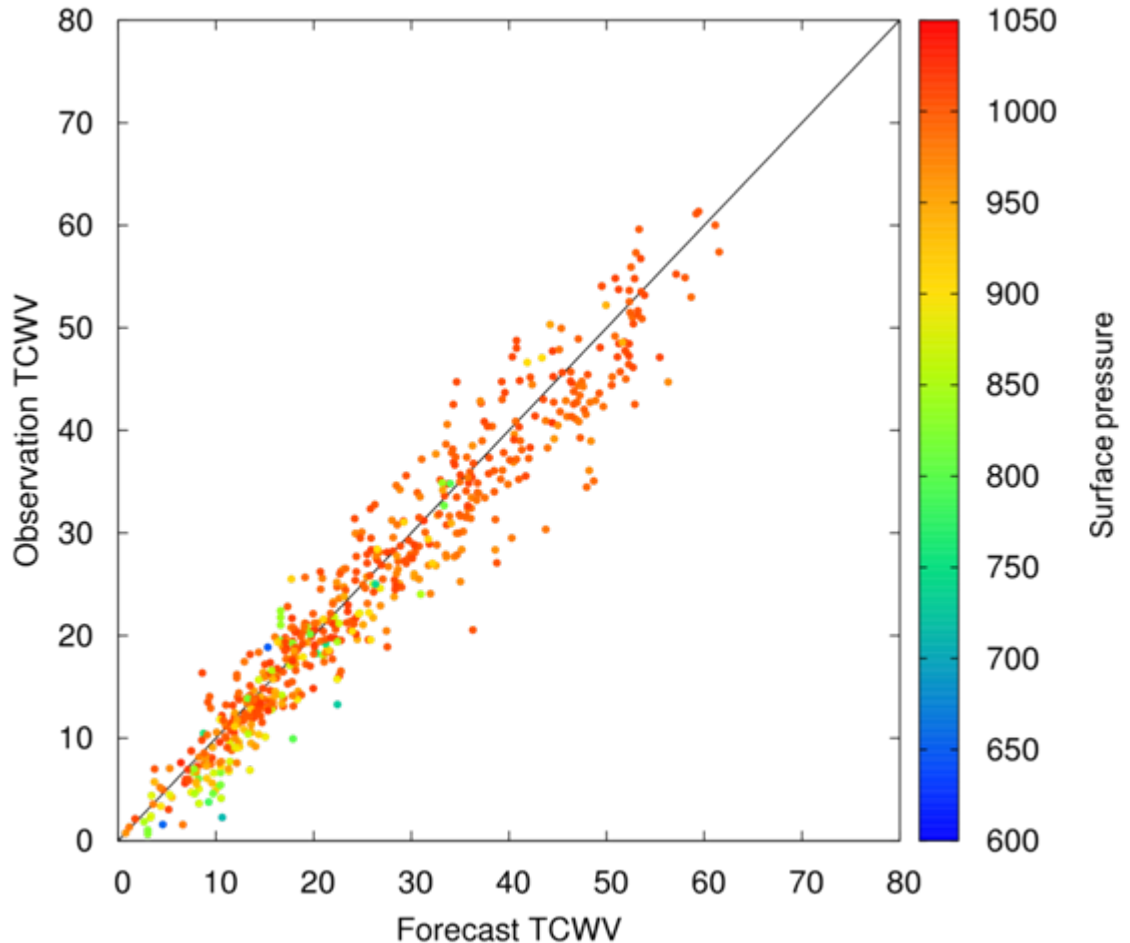
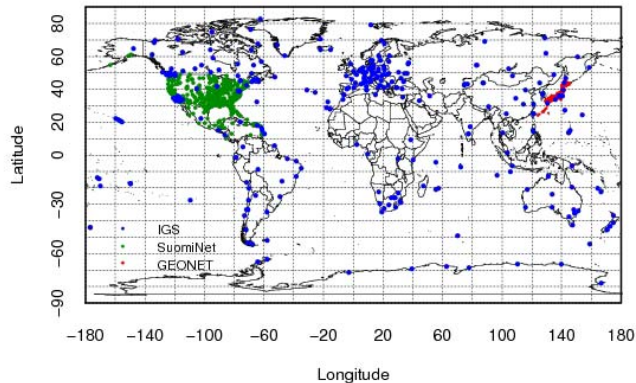
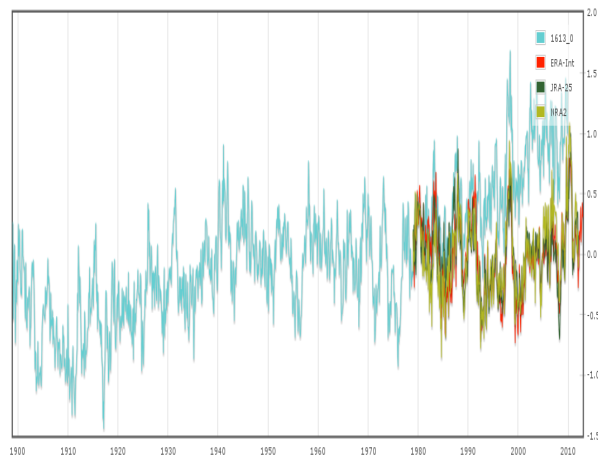
# Key points

- **GUAN data volumes useful for satellite validation and calibration, e.g. Eumetsat MTG-IRS. GRUAN can contribute in partnership by being reference-quality and propagating best-practice**
- **Use of GRUAN data to resolve differences between other datasets, e.g. model/reanalysis output and satellite data, recognized as highly desirable**
- **Process for reanalysis feedback to data providers is taking shape (my action from ICM4)**

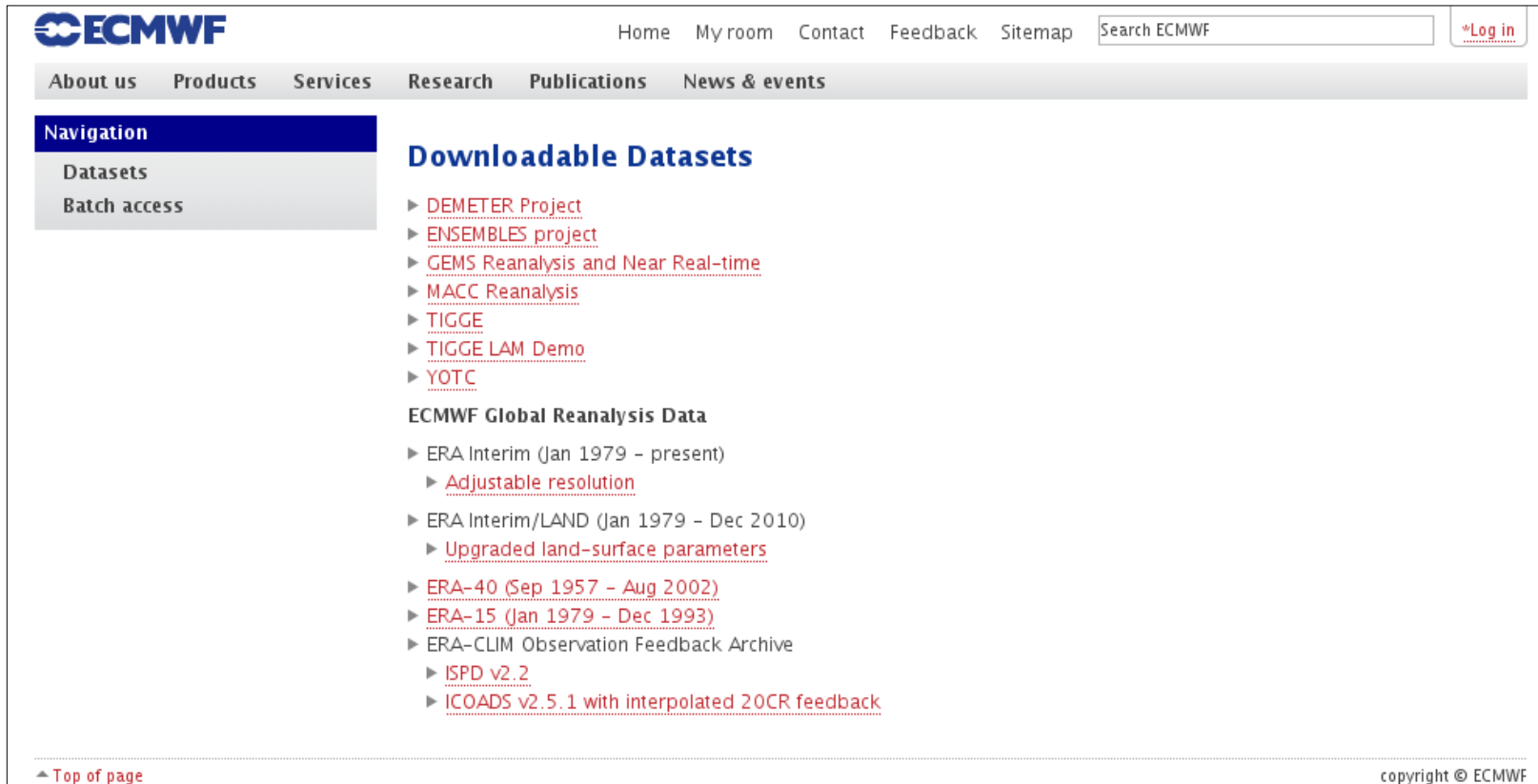
# Potential of GPS-PW (Junhong Wang et al)

- Collaboration with Takuya Komori, JMA secondment
- Preliminary comparison, work in progress

TCWV Global Vertical, undefined pgvgnomalydatum



# New Web Interface



The screenshot shows the ECMWF website interface. At the top left is the ECMWF logo. To its right are navigation links: Home, My room, Contact, Feedback, Sitemap, and a search box labeled 'Search ECMWF'. Further right is a '\*Log in' button. Below this is a horizontal menu with links: About us, Products, Services, Research, Publications, and News & events. On the left side, there is a 'Navigation' sidebar with a blue header and two items: 'Datasets' and 'Batch access'. The main content area is titled 'Downloadable Datasets' and contains a list of links: DEMETER Project, ENSEMBLES project, GEMS Reanalysis and Near Real-time, MACC Reanalysis, TIGGE, TIGGE LAM Demo, and YOTC. Below this is a section titled 'ECMWF Global Reanalysis Data' with a list of links: ERA Interim (Jan 1979 - present) with a sub-link 'Adjustable resolution', ERA Interim/LAND (Jan 1979 - Dec 2010) with a sub-link 'Upgraded land-surface parameters', ERA-40 (Sep 1957 - Aug 2002), ERA-15 (Jan 1979 - Dec 1993), ERA-CLIM Observation Feedback Archive with sub-links 'ISPD v2.2' and 'ICOADS v2.5.1 with interpolated 20CR feedback'. At the bottom left is a 'Top of page' link, and at the bottom right is the copyright notice 'copyright © ECMWF'.

➤ System for ERA-Interim Feedback on GRUAN obs +++

# Selection by Station/Observable

ECMWF Home My room Contact Feedback Sitemap Search ECMWF [\\*Log in](#)

About us Products Services Research Publications News & events

**Data**

- Conditions
- About

**Navigation**

- Datasets
- Batch access

**See also...**

- Data FAQ
- Data Servers
- Data Services
- GRIB decoder

## ICOADS v2.5.1 with interpolated 20CR feedback

**Note** Note: In order to retrieve data from this server, you first have to accept the [conditions of use](#).

Use the slider or enter dates to select an interval between 1662-10-01 and 2011-12-31

1662-10 2011-12

**Reset**

### Select observed parameter

- Characteristic of pressure tendency
- Ice code type
- Original time period of rain obs.
- Present weather
- Ship direction
- Surface pressure tendency
- Ten-metre meridional wind
- Two-metre dew point
- Type of low clouds
- Wave direction
- Cloud base height
- Ice thickness
- Past weather
- Rain liquid part
- Ship speed
- Surface wind direction
- Ten-metre zonal wind
- Two-metre temperature
- Type of middle clouds
- Wave height
- Ice
- Low cloud amount
- Past weather 2
- Sea water temperature
- Surface pressure
- Surface wind speed
- Total cloud amount
- Type of high clouds
- Visibility
- Wave period

[Select All](#) or [Clear](#)

### Select observation platform

- Autonomous Pinniped Bathythermograph APBT
- Coastal Or Island Station
- Coastal-Marine Automated Network CMAN
- DRIBU
- DRIBU-TESAC
- Expandable Bathythermograph XBT
- Fixed Ocean Platform Or Rig
- High Resolution Conductivity Temperature Depth CTD And XCTD

➤ Supports batch access – Python scripts

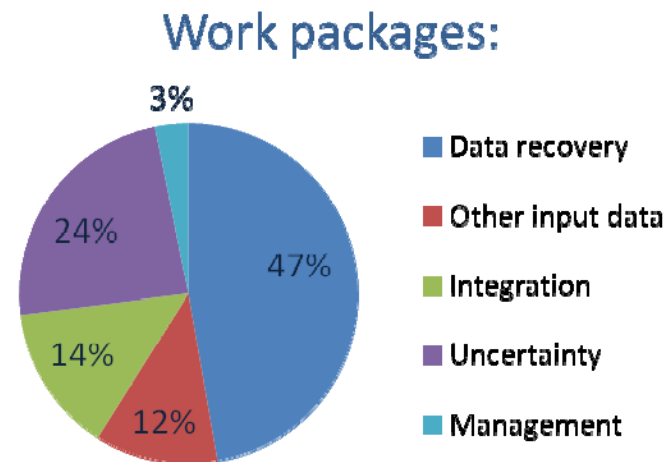
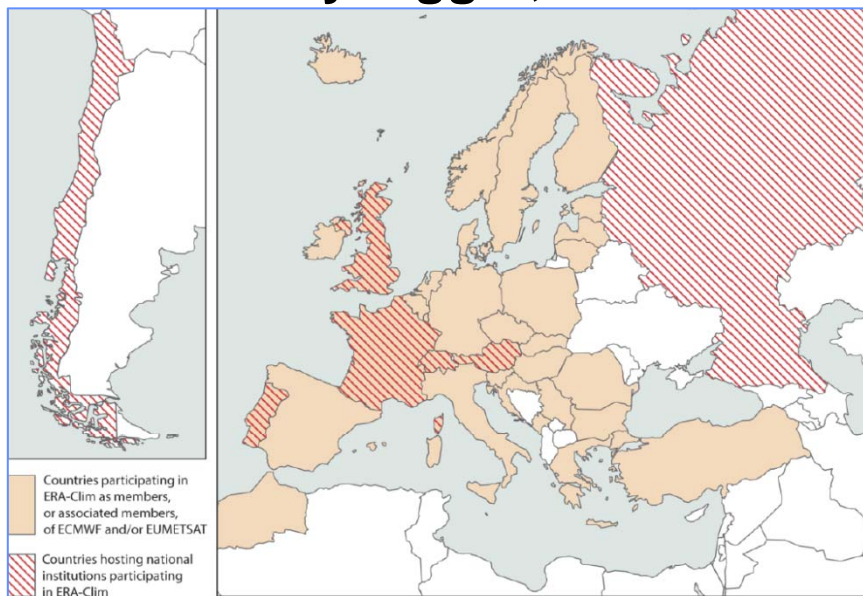
# Concluding remarks

- **Grow GRUAN's role as the "GoTo" group for ...**
  - ... reference-quality data**
  - ... best-practice in observing**
- **Be patient and persistent**
  - more examples and full recognition will take time**
- **Enjoy the journey**

# Backup Slides

# The ERA-CLIM Project

- ERA-CLIM: European Reanalysis of Global Climate Observations
- 8(9) partners, 47.5(59) person-years, 50 deliverables
- Entering final year
- Proposal for successor project under evaluation
- Considerably bigger, more coordination



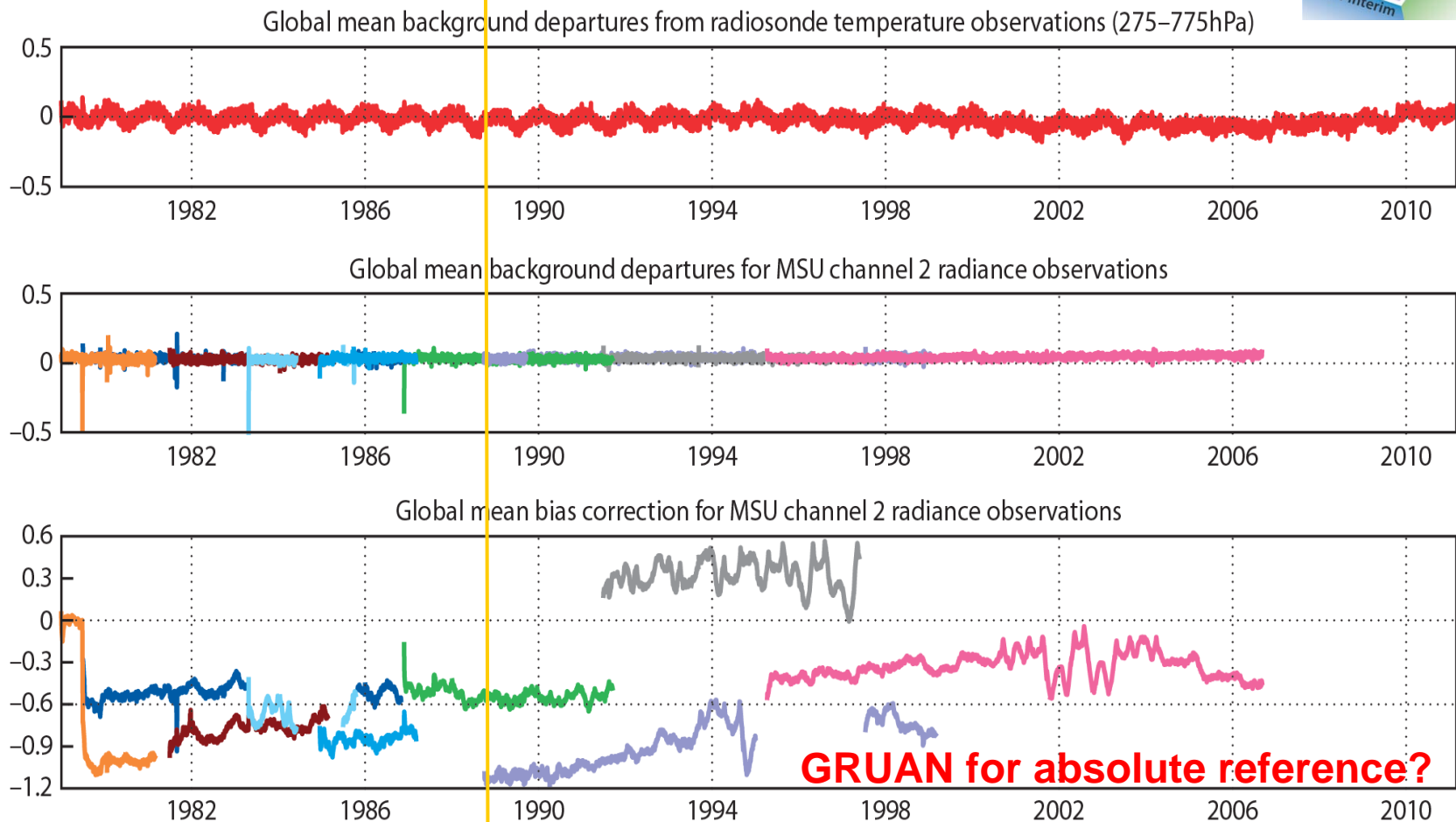
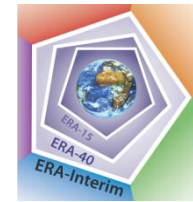


# ERA-CLIM pilot reanalyses



	What	Period	Resolution	Ens	When	Vol
ERA-Int	Interim reanalysis	1989-NRT	T255L60	1	ongoing	33 Tb
ERA-P0	AMIP ensemble	1900-2011	T159L91	10	Jun 2011 (9M)	
ERA-P1	EDA using sfc obs only	1900-2011	T159L91	10	Sep 2011 (15M)	655 Tb
ERA-S1	Land surface using ERA-P1	1900-2011	T799	1	Sep 2012 (9M)	77 Tb
ERA-P2	Reanalysis using all obs	2 early decades	T511L91	1	Sep 2012 (9M)	180 Tb
ERA-E2	As ERA-P2 but with SST/sea-ice perturbations	2 early decades	T159L91	10	Jan 2013 (9M)	180 Tb
ERA-P3	To replace ERA-Interim	1979-NRT	T511L91	1	Jan 2012 (24M+)	234 Tb
ERA-20C	20 <sup>th</sup> -century reanalysis	1900-NRT	T511L91	1	2014 (36M+)	1062 Tb

# ERA-Interim reanalysis now from 1979



***Back-extension***

***Services: access, diagnostics, ...***