



ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE

Anders' STSM at the WRDC in St. Petersburg

Presented by Jussi Kaurola
Finnish Meteorological Institute





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Voeikov Main Geophysical Observatory – Main Building





STSM Overview

- Mission: to get long-term global radiation data for many European stations
- Data that is needed for UV reconstruction in COST 726
- Duration
 - Thu 24 Jan --- Thu 7 Feb
- Host(s)
 - **World Radiation Data Centre (WRDC)**
 - **Anatoly Tsvetkov and co-workers**

Group photo at WRDC



Anatoly Grigory Anders Elena
 Svetlana



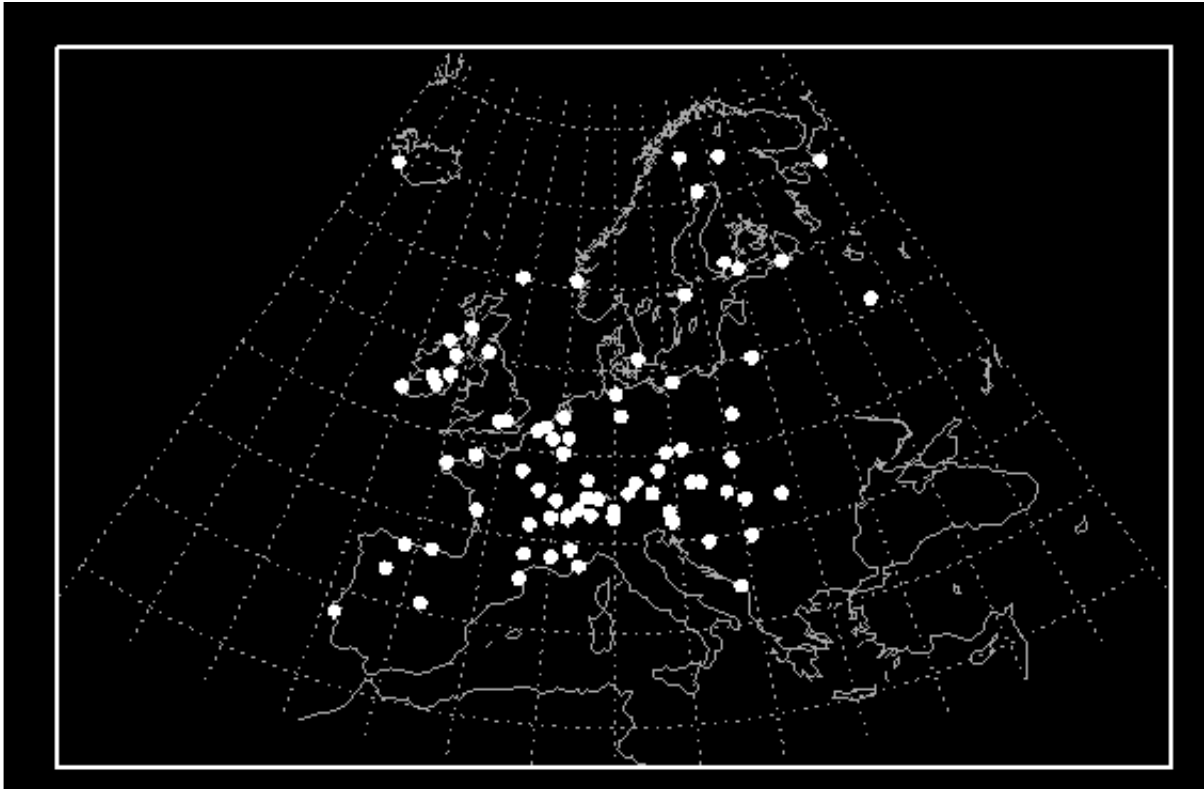
What happened?

- Learned about procedures at WRDC concerning
 - Quality checking of data
 - Communication with national Met Services
 - Data archive
 - New super computing facilities
- Gave presentation on UV Reconstruction Techniques and COST Action 726
- **Received data for 79 European stations**
- **Time series of at least 20 years**
- **Everybody became happy!**





79 European stations



- Stations of high quality were chosen
- Based on WRDC expertise
- Length of time series at least 20 years
- Some areas are still not well-covered
- Some questions concerning the WRR scale remain
- Additional quality checks are encouraged
- More details in STSM Report



World Radiometric Reference (WRR) Scale

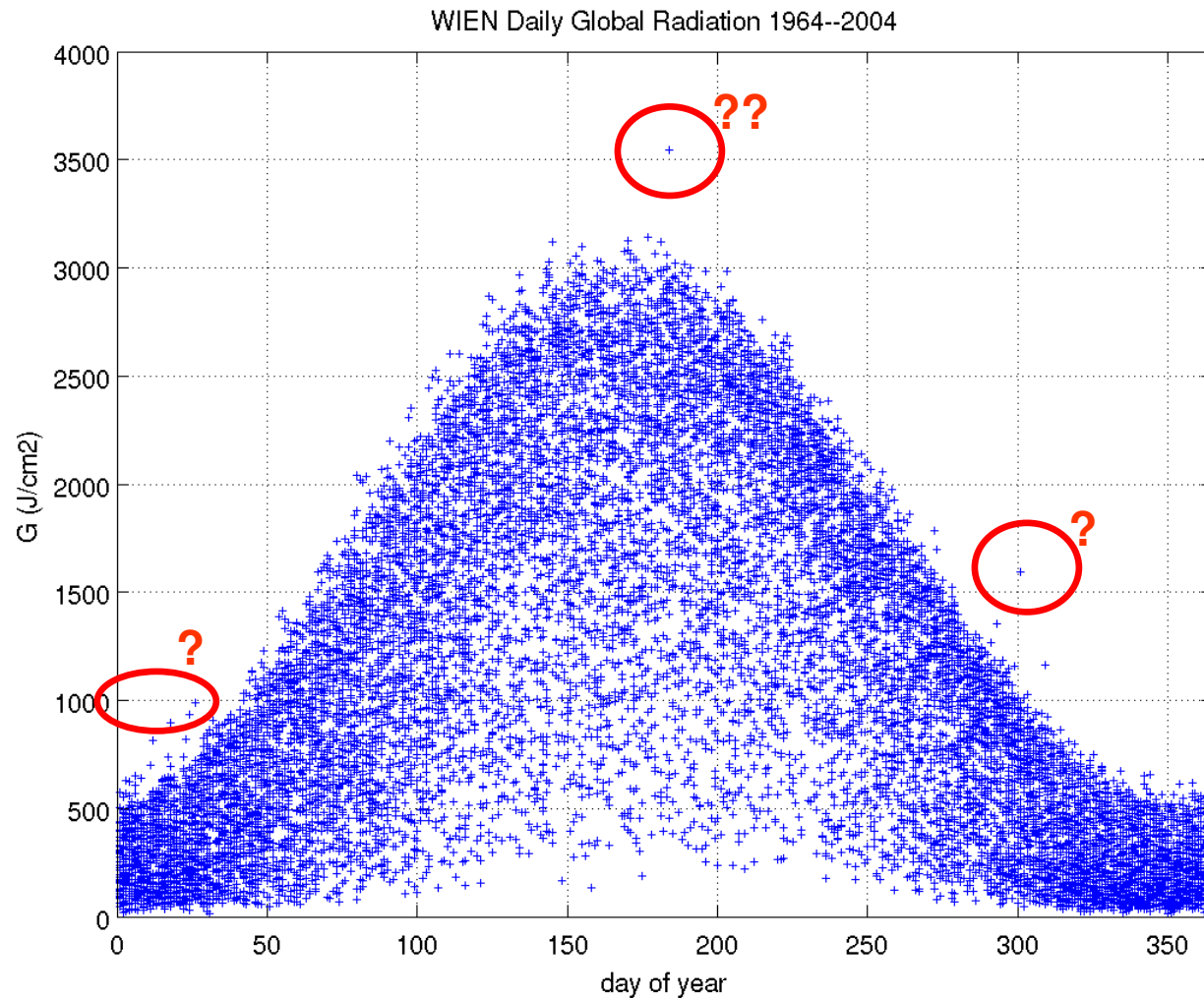
- Introduced by WMO, applied to radiation measurements in general since 1981
- However, for all stations, the WRDC has not received information on correction factor (CF) and/or start date of WRR scale
- Typically $CF=1.02$
- Some examples:

— Austria	WRR since Jan 1981	CF=?	Suggestion: Use $CF=1.02$
— Denmark	WRR since Sep 1982	CF=?	
— Romania	WRR since ???	CF=?	No correction can be made!?
— Spain	WRR since ???	CF=?	
— Switzerland	WRR since ???	$CF=1.022$	

- NOTE: Davos and Locarno WRR dates known, but not for other Swiss stations



Additional quality check would be good – example





Summary of STSM at WRDC Petersburg

- **Successful mission**
- **Data received for 79 stations**
- **Long-term: minimum length of time series is 20 years**
- **Some open questions and assumptions concerning correction to the WRR scale (~2% difference)**
- **More details are available**
 - In STSM report by Anders Lindfors (available as PDF)
 - In the headers of the data files
- **Remember to acknowledge WRDC when data is used**
- **Also: communicate with WRDC if something interesting/strange is found**