

Conclusions from Davos pt II

**AOD measurements globally are un-coordinated !
Circa 60% AERONET 40% not AERONET
Consensus of meeting was to develop a co-ordinated federation of diverse networks under WMO/GAW umbrella**

- **seek ICSU blessing – via WCRP**
 - **Separate sub-committee of network heads as part of aerosol SAG**
 - **Development & co-ord of technical standards**
 - **Policy agreements for federation – data usage etc.**

Meeting document out by end of week => negotiations

Technical Requirements

- Single standard to which all measurements traceable – WORRC and or GSFC.
- Traceability established by network reference instruments, inter-compared with reference standard.
- Common wavelengths $500\pm 5\text{nm}$ & 5nm full width half maximum & $865\pm 5\text{ nm}$ $<10\text{nm}$ full width half maximum.
- Objective for integrated network: uncertainty of 0.02 at airmass 1
- Comparison with reference, 10 days clear sky conditions / 1000 cloud free comparisons, over multiple days (min 5) of clear sky conditions, 95% of observations differences between 0.05 – 0.2, $.005+0.02/\text{m}$. Comparison with AOD, includes algorithmic differences, therefore no need to constrain algorithm choice.
- SOP for in-situ calibration by BSRN/AOD experts

Deliverables

- Minimum of 500 and 865 nm AOD at zenith angles of $<85^\circ$ or airmass 8
- Angstrom coefficient
- Time resolution – of instrument
- Near real time delivery, <3 hours AERONET level1 & who else? Possible level 1,5 if demand & resources – Satellite transmission delay a limitation. Also near real time data biggest QA concerns, most subject to revision.

Co-ordination of archives & data evaluation

- First priority routine data exchange between data archives, main initial resource requirement requires format interchange tools and archive access.
- Central interface – one stop shop, with distributed archives behind – avoids duplication/harmonisation problems.
- Cloud screening, survey of current practices & new committee develop recommendation, multi-algorithm, with passing all, is a good starting part.