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Task Team 3 (Scheduling) progress report 01/2011

(Submitted by Tom Gardiner and David Whiteman)

Summary and Purpose of Document

Progress report from the task team 3 (Measurement schedules and associated instrument-type requirements) covering first period till 01/2011.

Update on GRUAN Task Team 3
Measurement schedules and associated instrument-type requirements

The primary objective for the Task Team is to develop defensible, quantifiable, scientifically-sound guidance for GRUAN sites on measurement schedules and associated site requirements, in order to meet the GRUAN objectives. The main activity for the year has been the scoping of the Task Team terms of reference, and agreeing the appropriate make-up of the team membership. These have now been defined, and recruitment onto the team is on-going.

In terms of scientific outputs from the Task Team, while the activities of the team remain a voluntary one without specific funding the main information sources are from the peer-reviewed literature, GRUAN documentation, and currently unpublished studies of which the group is aware. Some limited new analyses have been undertaken by Team members using existing data sets to start to address areas where critical gaps exist that prohibit scientifically defensible choices. Two team members (Tom Gardiner and Dave Whiteman) were co-authors of Franz Immler's AMT paper on 'Reference Quality Upper-Air Measurements: guidance for developing GRUAN data products' and Dave Whiteman is currently preparing a paper on the observational requirements for detecting water vapour trends.

A particular activity that has been undertaken to address the issue of active support for the project activities involved a number of the team members, and other partners, in a collaborative bid to the NOAA Climate Program. The proposed project on 'Determining Optimal Spatial and Temporal Sampling Strategies for the Global Reference Upper Air Network' aimed to perform a number of studies to determine the effects of spatial and temporal sampling on our ability to both directly detect climate change, and to provide absolutely calibrated synthetic radiances that can be used to provide absolute calibration information for satellite sensors. Even if this proposal is not successful, this exercise has been valuable in defining the scientific rationale, approach and objectives for a structured study in this area.