

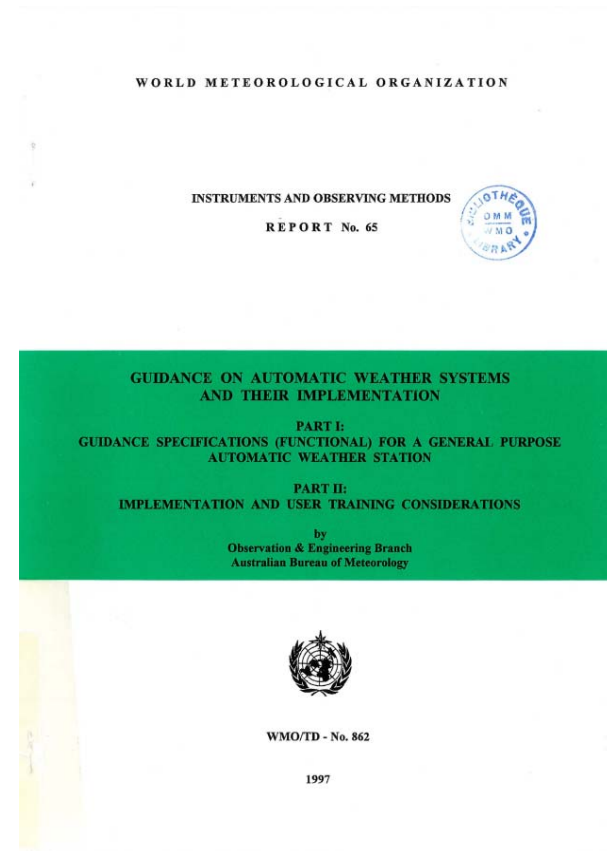


Further develop and finalize guidelines on migration from manual to automated observations

- Mike Molyneux – Science Manager Obs R&D Surface

What's coming

- 1) Describe the issue
- 2) Describe the outline proposal
- 3) Is the training proposal suitable?
- 4) Is the course detail suitable?
 - Missing items
 - unnecessary items
- 5) Anything else

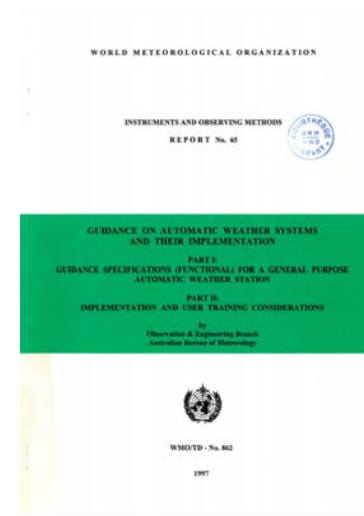


Further develop and finalize guidelines on migration from manual to automated observations

We are asked for guidance
But there is Material from CIMO.

What is the real question? Try this...

How to make successful and sustained change so that measurements of known quality and value are usable locally and internationally now and over time, and which form the basis of improved systems in future



For projects to succeed

National staff need to be trained to lead the task themselves

But to be a success there are many dimensions to the work

The answer (I propose) is training

Course material – for sustained success all these are important

- Management skills
- People and process change skills (organisational and non-technical requirements)
- Planning for the new system to be sustainable (support/maintenance, comms, theft)
- Budgeting and Procurement
- Network planning and quality (strategic advice from CBS)
- Equipment (strategic advice from CIMO)

Course One Plan the Network *For Network managers and decision makers*

At the end of this course you will understand how to create a successful transition project

Assumptions – attendees have Project management and people skills training

Outline of material

- Why do we need Procurement systems and not just buy what we like
- How to find out what procurement laws apply
- Why do we need to run a project
- Planning a good network
- How much automation is practical
- Requirements for the transition (parallel measurements, homogenization of data series)
- Monitoring, Support and maintenance - Technical staff are needed for installation, deconstruction and technical documentation with long-term management skills
- People and skills needed, Who have you got

Only at this stage should an initial outline of the type of system be drawn up. It should be used to inform the decisions for the team trained in course 2. At this stage it should be limited to an outline of the type of system to be used and that can be sustained and supported by the people available. Some guided web based investigation of HMEI equipment can be held.

Automatic measurements still require staff! CIMO and HMEI can guide users on available equipment which can be specified and tested for suitability of performance. However, to sustain these measurements, people are still needed.

Course Two Plan the equipment *For experts and technicians responsible for the installation and operation of the new network*

At the end of the course you will understand the key elements needed to specify, install and run a sustainable network.

Assumptions – attendees have basic Meteorological and/or Engineering training

It is assumed that the material in Course One above has been learned by other project team members and that an initial outline plan of the whole system is passed to Course Two

Presentation and discussion of the detailed material in WMO/TD 862

1. Introduction
2. General Requirements
3. Siting Considerations
4. Sensor Related Matters
5. Data, Formats, Message Preparation, and Coding
6. Design Features
7. Performance Versus Cost
 - A1. Quantities and Specifications for their Measurement
 - A2. Evaluating uncertainty in instrument change
 - A3. Check List For AWS Users
 - A4. Data Processing and Formats

How to avoid problems with implementation – staged approach

a Concept stage – translate the plan into technology. What is needed and what could work, consider solutions from exhibitions, web search etc., discuss with suppliers and CIMO experts. Estimate rough costs and plans.

b Feasibility study – detailed look at some of the best possible solutions, check that they will work in budget, visit suppliers or they visit you. Get indicative quotes, make more detailed plans and costings. Formal sign-off from stakeholders. Test the biggest risks or issues.

c Implement – development of detailed requirement. Competition to procure systems and services (Tender). Set up proving and test scheme. Rollout.