## Outcome of WIS Curriculum workshop

### Objective

1. The objective of this workshop was to identify the competences that are required for the roles involved in operating and exploiting the WMO Information System and to produce a draft curriculum for training in WIS. The curriculum will then be refined by those attending the workshop, assisted by other experts, for presentation to CBS Ext(14) after consultation with all OPAG-ISS Expert Teams.

### Introduction

1. This workshop was facilitated by Dr. Ian Bell who has extensive experience in training of professional meteorologists, developing competencies for aviation forecasters and in establishing and giving the required training programs. The workshop successfully captured the knowledge of WIS experts to identify what competencies are needed by various WIS Centre managers, support staff and users of WIS. Participants are listed in [Annex 1](#_Annex_1:_WIS).
2. In identifying skills or competencies, it is important to understand that traditional training aims to provide people with the skills they need to do their job and then typically ranks their ability by providing a graded mark in an assessment of knowledge (eg 85% or High Distinction). However, such a process does not necessarily mean a person can use those skills effectively to demonstrate the desired competency. For example, a person my get 80% in a course on how to use Microsoft Word, but their job requires them to do mail merge from a database. The person may know a lot about Word and be able to complete the course work but do they really know how to do the task at hand. On the job competency training ensures that the person can do the required tasks to maintain the contacts database and produce the output using mail merge.

## Output

1. The workshop resulted in three documents for consideration of CBS expert teams through the ET-WISC, its task teams and the ICT-ISS. These are the “WIS Competencies” available online at <http://wis.wmo.int/file=687>, the “WIS Training and Learning Guide” available online at <http://wis.wmo.int/file=689>, and an implementation strategy to be provided shortly.

### WIS Competencies

1. Seven basic WIS Competencies were identified as shown in figure 1. These were divided into four groups. Each competency then define its performance components and identified the required knowledge and skills

### Competencies

#### Infrastructure

1. Manage the physical infrastructure
2. Manage the operational applications

#### Data

1. Manage the data flow
2. Manage the data discovery

#### External interactions

1. Manage WIS centre-centre interactions
2. Manage user interactions

#### Operational service

1. Manage the operational service

Figure WIS Competencies

### WIS Training and Learning Guide

1. The WIS training and learning guide was to assist trainers in the development and running of training courses for WIS personnel and to guide learners in what is expected of them. Although it is not mandatory to precisely follow its directions, it is essential that the learning outcomes are met. This guide is not a syllabus. A syllabus is essentially a list of topics without indications of learning outcomes or how the learning is to be demonstrated. With a competency based approach, the focus is on learners acquiring and demonstrating the required competencies, rather than things that are “nice for them to know”.
2. This guide covers the whole gamut of competencies required for people working with WIS. It is important to note that these are the competencies required in a large WIS centre where they would normally be shared across a number of personnel. It only considers competencies that are specific to WIS; general ICT competencies can be assessed and developed using industry standard methods. Although different WIS Centres may have the same competencies, the components and complexity and depth of each may vary. Further, an individual competency or component may not be required at a particular centre (if that work is not performed there) or by some individuals within the centre. Thus, the training should be tailored to each individual’s needs. These learning needs will depend on what is required to perform their work and what competencies and skills they already possess (recognition of prior competence). Training should be to fill these gaps, not to cover all of the possible content.
3. The guide highlights that not all of the competencies are likely to be required in a small centre. In any case, each individual working with WIS needs to be able to show that they are competent to perform those tasks which they are required to do. Where staff already possess skills and are able to demonstrate competence against the assessment criteria (recognition of prior competence) they will be exempt from those sections of the training.
4. The guide addresses scope, what should be done for assessment, what types of training should be used and what learning resources are available.

### Implementation Strategy for the WIS Competencies Framework

1. The Implementation Strategy for the WIS Competencies Framework maps out the stages for reviewing the competencies and learning guide, including its contribution to Executive Council requirements for programmes to identify core competencies for programme activities. It is anticipated that the Regional Training Centres and GISCs will play a major role in ensuring existing and future training activities utilize the WIS competency framework.

## References

[1] WIS Competencies: <http://wis.wmo.int/file=687>

[2] WIS Training and Learning Guide: <http://wis.wmo.int/file=689>

[3] WIS Competency Framework Implementation Strategy: <http://wis.wmo.int/file=691>

## Recommended Text

The meeting noted the output from the WIS "Competencies and Curriculum" Development Workshop held in Geneva on 1 to 4 October 2013. It agreed that the core WIS competencies identified as defined in [figure 1 above] and endorsed the associated output documents on competencies [reference] and learning guide [reference]. It also endorsed the implementation strategy [reference] and encouraged all GISCs to start to utilize the competency and learning guide in their capacity development and training activities. All GISCs should aim at ensuring centres in their area of responsibility have staff equipped with appropriate competencies and thus maximize their ability to support and benefit from WIS.

# Annex 1: WIS Competency Workshop Participants

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