## Competency Requirements for Persons Engaged in the Innovation, Improvement and Delivery of Meteorological and hydrological Services and Products

These competency requirements are primarily aimed at NMHSs personnel who are engaged in the area of innovation, improvement, and delivery of meteorological and hydrological services and products. They should be read in conjunction with the competency requirements for a PWS forecaster, although it is recognized that many people engaged in these aspects of NMHSs work may not come from a forecasting background.

(a) Knowledge of meteorology and hydrology, as well as models and systems used in operational forecasting;

(b) Ability to apply existing and new technologies effectively;

(c) Knowledge of user requirements for applications of meteorological and hydrological information;

Each of these competencies is expanded below into second-level competencies that are expressed and structured in a manner that facilitates the clear application of an assessment procedure.

1. **Knowledge of meteorology and hydrology, as well as models and systems used in operational forecasting**
2. *Demonstrates knowledge of the application of meteorology and hydrology to the improvement of existing services and the creation of new products;*
3. *Demonstrates an understanding of the methods used in meteorological and hydrological modelling.*
4. **Effective application of existing and new technologies**
5. *Demonstrates the ability to optimise the systems used to produce and disseminate meteorological and hydrological services and products;*
6. *Shows a thorough knowledge of visualization and display systems used for weather information;*
7. *Keeps abreast of relevant scientific and technological advances and can specify, lead or contribute to the development of products and services relevant to his/her own NMHS to meet user needs; and*
8. *Demonstrates an ability to respond quickly to changing user needs and/or changing technologies.*
9. **Knowledge of user requirements for applications of meteorological and hydrological information**
10. *Maintains an awareness of users' current and future requirements for meteorological and hydrological services;*
11. *Demonstrates an ability to create and deliver presentations on topics related to service improvements to users, and to relevant external agencies, ;*
12. Demonstrates effective *communication skills to both internal and external stakeholders and is able to adjust key messages and content for different audiences;*
13. *As required, contributes to the development of training material relating to service innovations and improvements.*

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