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JCOMM CAPACITY DEVELOPMENT PRINCIPLES

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Appendix: JCOMM Capacity Development Principles

RELATED DOCUMENT:

JCOMM-4/Doc.9: Capacity Development and Technology Transfer

REFERENCES:

- Abridged Final Report with Annexes of the Third Session of JCOMM (WMO-No. 1049)
- Abridged Final Report of the Sixteenth World Meteorological Congress (WMO-No.1077), paragraphs under agenda item 11.2 and Resolution 49 (Cg-XVI) – WMO Strategy for Capacity Development
- IOC Principles and Strategy for Capacity Building (IOC/INF-1211)
- JCOMM Capacity Development Web page (http://www.jcomm.info/CD)
  : Summary of JCOMM Capacity Development Activities 2010-2011

JCOMM CAPACITY DEVELOPMENT PRINCIPLES

(ADOPTED AT JCOMM-3, REVISION PROPOSED TO JCOMM-4)

1. INTRODUCTION

1.1 The purpose of this document is to lay down the guiding principles on which JCOMM capacity-development activities in marine meteorology and oceanography should be based. The document has been prepared taking into account previous documents and initiatives on capacity development undertaken by JCOMM. A member of the JCOMM Management Committee will be charged with coordinating capacity-development activities.

2. CAPACITY-DEVELOPMENT PRINCIPLES

WMO and IOC Capacity-Development Programmes

2.1 WMO and the IOC jointly sponsor JCOMM and, therefore its capacity-development activities must operate within, and draw upon the overall principles of its governing bodies. WMO and IOC should also assist with the development of partnerships with potential donor agencies and with links to other UN and relevant regional and global organizations. The activities also must be compatible and work with similar efforts in other WMO and IOC Programmes. In addition, JCOMM should seek partnerships to pursue mutual objectives in the development of capability. Finally, capacity-development requirements of the WMO Regional Associations and GOOS Regional Alliances (GRAs) must be considered.

2.2 It is generally agreed that a separate capacity-development programme for JCOMM is not required, taking into consideration the existing capacity-development strategies and programmes of WMO and IOC.

Rationale for JCOMM Capacity Development Principles

2.3 JCOMM should support capacity development elements that are not fully included in other ocean or atmosphere programmes, and draw attention specifically to other capacity-development programmes of WMO or IOC. Examples include specialized observations and resulting products, e.g., those of some satellite missions, the Argo profiling float programme, or the Data Buoy Cooperation Programme, and other applications.

2.4 The three JCOMM Programme Areas (PAs) each should include capacity-development activities for a more integrated, focused and proactive approach.

The JCOMM Capacity-Development Principles

2.5 Note that there is no priority implied by the order of these principles:

(i) The primary objective of JCOMM capacity-development is to enhance the implementation of the overall JCOMM Programme through enhancing capacity in all Members / Member States to contribute to and benefit from the programme;

(ii) The Activity Leader on Capacity-Development, as a member of the JCOMM Management Committee, should work with the PA coordinators and the Secretariats to revise the JCOMM Capacity Development Principles that builds on existing capacity-development work in both WMO and IOC, to implement a range of JCOMM focused capacity-development activities;

(iii) Specific JCOMM-focused capacity-development activities should be implemented by the respective PAs and included in their respective workplans;

(iv) JCOMM capacity-development activities should aim to fill-in gaps and avoid overlapping at national, regional and international levels. It is highly desirable that national partners from both JCOMM themes (i.e., oceanography and marine meteorology) be involved so the complementary and "symbiotic" benefits of JCOMM are clearly demonstrated;

(v) JOMMM capacity-development will make particular efforts for continuous professional development, in line with ongoing development of competency requirements;

(vi) JCOMM capacity-development will aim, where possible, for a "train the trainer" approach to help ensure continuity by countering staff turnover/brain drain problems and to promote the wide spread of knowledge and practices;

(vii) JCOMM Capacity Development activities should endeavour to utilize existing methods, courses, tools and other capacity development aids, particularly those of the WMO and IOC;

(viii) At the regional level, JCOMM capacity-development will develop programmes and projects that follow WMO and IOC;

(ix) At the regional level, JCOMM capacity-development will develop, preferably, medium to long term programmes and projects that will result in national structural and embedded capacity that can be sustained by national funding sources;

(x) Creating awareness in the minds of the public and policy makers is essential for raising national and international support;

(xi) JCOMM capacity-development activities will include assessment of feedback regarding the satisfaction and requirements of users of JCOMM observations, products and services.

(xii) Capacity Development will be based on and provide feedback to the development and update of the Guides and Manuals that are maintained by WMO and IOC,

(xiii) Capacity Development activities should respond to expressed Members /Member State priorities that are related to JCOMM programmes, and strive for relevance, local ownership, sustainability, efficiency and focus.

3. TYPES OF EDUCATION AND TRAINING ACTIVITIES AND IMPLEMENTATION

3.1 A number of aims of the JCOMM Capacity Development Principles can be achieved through education and training. Capacity-Development activities will be implemented using a wide variety of methods, tools and resources that are currently available within WMO (including its 35 Regional Training Centres (RTCs) and Components) and the IODE of IOC (including the IODE OceanTeacher and regional ODIN Structures), or those that will need to be developed by JCOMM and its parent bodies.

3.2 Particular efforts will be made for the application of developed marine meteorological and oceanographic training material, as well as the development of related training programmes in the existing centres.

Training Courses

3.3 A traditional mechanism for transfer of capacity is the training course. This will also be the case for JCOMM's capacity-development activities. Each JCOMM capacity-development activity (programme or project) should include a training component. The project document should contain a clear statement on what expertise needs to be built. Based upon this information training activities will be planned.

Training Tools

3.4 The JCOMM Management Committee, at its fifth session (Geneva, October 2006) identified OceanTeacher (http://www.oceanteacher.org), a training tool that was developed by the IODE of IOC, as one of the suitable tools for the management of JCOMM-related knowledge and training materials. Other tools also were identified and should be explored. WMO/ETR Met e-learning modules (http://www.met-elearning.org) have been used for the management of educational and training materials on meteorology, including marine meteorology. Other virtual training centres and e-learning tools, such as the Cooperative Programme for Operational Meteorology, Education and Training (COMET, http://www.meted.ucar.edu/) and the Eumetcal – EUMeTrain (http://www.eumetcal.org/), make available Modules covering many fields of interest to the marine meteorological and oceanographic communities, including atmospheric and oceanic processes as well as remote-sensing of marine and oceanographic elements.

3.5 It is important to maintain the highest possible standards for the quality of materials entered into OceanTeacher and Met e-learning, and interoperability between these tools should be ensured. It will also be desirable to establish and agree upon standard curricula for all topics. This can be achieved through close coordination between the resource persons and the Chief Editors. It may be necessary to identify multiple Chief Editors, e.g. one per Programme Area.

3.6 E-learning modules use dynamic content management technology. As such, resource persons can enter materials from their normal place of work. In principle, the number of resource persons who can enter materials is unlimited. In this regard, reference is made to the new and emerging OceanTeacher Global Classroom initiative that has started in 2012. This allows training courses to take place simultaneously in multiple locations through the use of video conferencing technology. This reduces travel cost for students and lecturers while increasing the number of students per course.

3.7 Bilko is a complete data analysis system developed primarily for learning and teaching remote sensing image analysis skills, providing a powerful application capable of handling ocean model data. Current lessons teach the application of remote sensing to oceanography and coastal management, but Bilko routines may be applied to the analysis of any image in an appropriate format, and include a wide range of standard image processing functions. Supported by UNESCO, Bilko is available to users absolutely free including a wide variety of satellite and ocean model outputs with associated self-study lessons that are ideally suited for 'off the shelf' training courses in oceanography (see http://www.bilko.org/).

3.8 In many cases material in the Digital Library and Training Curriculum materials make extensive use of hyperlinks to other content both within and outside OceanTeacher and WMO Digital Library. An important quality control task for the Secretariats is therefore, to regularly check whether links are still valid. It is noted that the use of these e-learning modules is free and open to all. Access to the Digital Library is open and does not require registration. Access to the training curriculum is free, but registration is required for full functionality.

3.9 Development and management of training tools, contents and material should be in line with, and provide input to the regular review/update of the Guides and Manuals of related subjects.

Workshops

3.10 Workshops are useful tools to promote the sharing of expertise and experience at the national, regional and global levels.

Travel and Study Grants

3.11 Travel and Study Grants allow national experts to benefit from the expertise acquired in other institutions. They are also effective in promoting long-term informal professional relations between experts. As an example, the WMO Fellowship Programme enables fellowship holders to derive from their training the knowledge and professional competence, which will increase their ability to make essential contribution to enhancing the capabilities of the National Meteorological and Hydrological Services (NMHS) and enable them to participate more actively in the economic and social development of their countries. The fellowships granted by WMO are for studies or training in meteorology, including marine meteorology and hydrology, at universities or training institutes with appropriate facilities. Fellowships are awarded only at the request of the candidate's government and endorsed by the Permanent Representative of the candidate's country with WMO (more information is available at http://www.wmo.int/pages/prog/etr/fellowship_en.html).

Projects for Capacity Development

3.12 Since its third session in 2009, JCOMM has adopted a project-oriented approach to address emerging issues with specific, defined, and time-bound manner. This way, three JCOMM Programme Areas (PAs) implement capacity development activities for a more focused and proactive approach, particularly in the regional and national projects for technology transfer.

Communication and Outreach Tools

3.13 As a way of documenting and monitoring JCOMM Capacity Development activities, the use of the IOC-IODE Alumni database to record all JCOMM capacity-development events and alumni is recommended. This will assist in tracking JCOMM training course participants and in assessing the long-term impact of the training provided.

3.14 The JCOMM Capacity Development website (http://www.jcomm.info/CD) can be used to provide Members / Member States an overview of JCOMM Capacity Development activities, particularly those initiated and directly supported by the Members / Member States.

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