WORLD METEOROLOGICAL ORGANIZATION

EXECUTIVE COUNCIL WORKING GROUP ON

THE WMO INTEGRATED GLOBAL OBSERVING SYSTEM (WIGOS)
AND
THE WMO INFORMATION SYSTEM (WIS**)**

FIRST SESSION

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ITEM: 3.1

DEVELOPMENT OF AN OVER-ARCHING WIGOS DEVELOPMENT AND IMPLEMENTATION PLAN

Draft Top-Level WIGOS Description

(Submitted by the Secretariat)

Summary and Purpose of Document

This document provides basic definitions, objectives and composition of WMO Integrated Global Observing Systems (WIGOS) including interrelation with WMO Information System (WIS) on the top level as formulated by Cg-XV and EC-LIX.

ACTION PROPOSED

The Working Group is invited to consider the above information when elaborating a WIGOS Development and Implementation Plan.

APPENDIX: Draft Top-level Description of the WMO Integrated Global Observing Systems (WIGOS).

References:

1. Cg-XV, PINK 7.4(3), Evolution of NMHSs and WMO, Towards Enhanced Integration between the WMO Observing Systems.

2. Res. 2/4 (EC-LIX) — Executive COUNCIL WORKING GROUP on the WMO Integrated Global Observing System (WIGOS) and the WMO Information System (WIS).

3. Towards Enhanced Integration between the WMO Observation Systems (Revised EC-TT/WIGOS Doc. 3, submitted by Jim Rasmussen 15 July 2007)

DISCUSSION

1. The preparation of a WMO Integrated Global Observing Systems (WIGOS) Development and Implementation Plan requires a description of WIGOS. Such a description should be articulated at a top level for Senior Managers with a more detailed description for all users. Based on the top level and detailed descriptions, a WIGOS Development and Implementation Plan can be prepared.

Annex to this document contains a Draft Top-level Description of the WMO Integrated Global Observing Systems (WIGOS).

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Draft Top-level Description
of the WMO Integrated Global Observing Systems (WIGOS)

The WMO Integrated Global Observing Systems (WIGOS) is a comprehensive, coordinated and sustainable system of observing systems. WIGOS is based on all WMO Programmes' observational requirements. It ensures availability of required information and facilitates access by the WMO Information System (WIS) according to identified timeliness requirements, including real and quasi-real time, of all required information. Additionally, it affords high data quality standards and benefits from archiving and technological innovations.

As a system of systems, WIGOS encompasses four broad objectives: to improve management and governance of component systems; to increase interoperability between the various systems with particular attention given to complementarity between the space-based and *in-situ* components; to address atmospheric, oceanic and terrestrial including hydrological domains; and to ensure that broader governance frameworks (e.g. inter-agency co-sponsorship of systems) and relationships with other international initiatives are respected, sustained and strengthened.

The components of WIGOS (surface and space-based) include: weather observing networks (e.g. WWW/GOS, AMDAR, ASAP etc); atmospheric composition observing networks (e.g. GAW); radiation observing networks (e.g. BSRN); marine meteorological networks and arrays (e.g. VOS, drifting and moored buoy arrays etc.); hydrological observing networks (e.g. observing components of WHYCOS etc.); and the climate components of various atmospheric, oceanographic and terrestrial observing systems contributing to GCOS.

As the single coordinated global information infrastructure, the WMO Information System (WIS):

- Will be used for the collection and sharing of information for all WMO and related international programmes;
- Will provide a flexible and extensible structure that will allow the participating centres to enhance their capabilities as their national and international responsibilities grow;
- Implementation will build upon the most successful components of existing WMO information systems in an evolutionary process;
- Development will pay special attention to a smooth and coordinated transition;
- Core communication network will be based on communication links used within the World Weather Watch (WWW) for the high priority real-time data;
- Will utilise international industry standards for protocols, hardware and software.

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