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COMMISSION FOR INSTRUMENTS AND  
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## **UPDATE ON GEO AND GEOSS**

**(Submitted by the Secretariat)**

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### **Summary and Purpose of Document**

This paper provides summary of update on GEO and GEOSS.

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### **ACTION PROPOSED**

The meeting is invited to note the information contained in this document.

## **The Group on Earth Observation (GEO) process: status and plans**

### **The first Earth Observation Summit (EOS-I)**

1. At the invitation of the United States of America, on 31 July 2003 in Washington DC, thirty-three nations, and the European Commission, joined together at the first Earth Observation Summit (EOS-I) to adopt a Declaration that called for action in strengthening global cooperation on Earth observations. The purpose of the Summit was to:

“Promote the development of a comprehensive, coordinated, and sustained Earth observation system or systems among governments and the international community to understand and address global environmental and economic challenges; and begin a process to develop a conceptual framework and implementation plan for building this comprehensive, coordinated, and sustained Earth observation system or systems.”

2. To this end, the Summit participants launched an ad hoc Group on Earth Observations (GEO), with the goal of furthering the creation of a comprehensive, coordinated, and sustained Earth observing system or systems. The group, co-chaired by the United States, the European Commission, Japan, and South Africa, and joined by more than 21 international and intergovernmental organizations, began its work by organizing five Sub-Groups, as well as a secretariat to support its activities. In order to promote the development of the now named Global Earth Observing System of Systems (GEOSS), GEO decided that a document describing the GEOSS framework and an associated 10-Year Implementation Plan would be developed.

*[The document describing the GEOSS framework (referred to as the Framework Document) for the 10-Year Implementation Plan was presented for adoption at the second Earth Observation Summit (EOS-II) attended at the ministerial-level, in Tokyo, Japan on 25 April 2004, and the 10-Year Implementation Plan itself was presented for adoption at the third Earth Observation Summit (EOS-III) hosted by the European Commission held in 16 February 2005 in Brussels.*

*Building on those efforts, the GEO process would:*

- *Cover the full spectrum of in situ and remotely sensed (space-based and aircraft) observations;*
- *Provide an opportunity for all nations and international organizations to work together for a common cause, under a commonly agreed approach, framework, and methodology;*
- *Actively involve developing countries in making improved observations within their national territories, and access and use observations made by others;*
- *Provide a means to build on the efforts of these international efforts to assess user requirements, identify gaps in global observations, improve communication among nations and organizations with common interests in similar observation capabilities;*
- *Provide high-level (ministerial) recognition of the universal need for improved Earth observation;*
- *Promote consensus-building among participants about the highest priority observation needs, which are unmet or require significant increase in resources to provide comprehensive solutions.*

*In the long-term, implementation of the 10-Year plan should result in:*

- *Commitment of nations to make more complete long-term collection of high-priority Earth observations;*

- *Filling of the gaps in observing capabilities;*
- *Attention to capacity-building in both developing and developed countries;*
- *Greater interoperability and connectivity among individual component observing systems for improved exchange and appropriate sharing of data and information to commonly agreed standards.]*

## **EOS-II**

3. Four sessions of GEO had been held followed by the second Earth Observation Summit (EOS-II). A Communiqué stating approval of the Framework Document, pointing the way forward in the GEO effort, and encouraging broad participation in and support for the GEO effort, was approved at EOS-II on 25 April 2004. Also agreed at EOS-II was a Framework Document consisting of: a high-level synopsis of the GEO effort for senior policymakers; a description of the GEOSS purpose and expected benefits; and a broad framework for developing the 10-Year Implementation Plan.

*[GEO-2, which met in Baveno, Italy, 28-29 November 2003, had agreed with the following recommendation concerning its architecture:*

*“GEOSS should be a system of systems supplemented by new observing components as and where required. This architecture would allow existing individual observing systems, e.g., WMO’s WWW GOS, to remain within their mandates as well as providing for new observing components. The architecture would require a new interface between individual observing components as well as a new component to exchange and disseminate observational data between those components. GEO members and participating organizations would need to agree upon a global interoperability specification to which all individual observing components would adhere. GEOSS would contain the necessary network structure to make available all required observations to satisfy the Data Utilization Model.”]*

## **Future development of GEOSS**

4. The fifty-sixth session of the WMO Executive Council had adopted Resolution 9 (EC-LVI) on the Global Earth Observation System of Systems (GEOSS) in affirming its full support for the GEO process and resulting GEOSS.

5. In the GEOSS Resolution approved at EC-LVI, WMO Members should work closely with other earth observation agencies at the national level to ensure the development of well-coordinated national plans for GEOSS implementation. Also approved was the resolution 9 (EC-LVI) that requested the Secretary General to keep GEO Members fully informed of WMO’s long-term experience in operational observing and telecommunication systems and service provision and of its capacity to provide effective leadership in the implementation and operation of several key components of GEOSS as well as authorized the Secretary General to indicate WMO readiness to host the GEOSS Secretariat, if asked.

6. In responding to a request contained in a letter in September 2004 from the Director General for Research Directorate-General of the European Commission, the Secretary General provided details for the potential hosting of the GEOSS Secretariat in the WMO Building. At the GEO Special Session on Governance held in Brussels, Belgium, 27-28 September 2004 and hosted by the European Commission, the Secretary General was invited by the Director General for Research Directorate-General of the European Commission to express WMO’s willingness to host the GEOSS Secretariat as evidenced in the exchange of letters. The reaction of GEO Members and participating organizations at the Special Session was most supportive. A decision for hosting the GEOSS Secretariat was anticipated at the fifth session (GEO-5) to be hosted by the government of Canada in Ottawa, 29-30 November 2004.

7. The most recent GEO Meeting (GEO-5) was held in Ottawa, Canada 29-30 November 2004 at which a draft GEOSS Implementation Plan and enabling Resolution were negotiated. Additionally, GEO-5 reviewed a proposal by WMO to host the GEO Secretariat and reached consensus in principle to consider an Agreement describing the WMO offer at GEO-6 to be held in Brussels, 14-15 February 2005. The Implementation Plan and Resolution were submitted to the sixth session of GEO (GEO-6) hosted by the European Commission in Brussels, 14-15 February 2005 followed by the Third Earth Observation Summit (EOS III) on 16 February 2005.

8. Planning had already commenced to move a portion of the GEO Secretariat Office from Washington DC to Geneva, starting in March 2005. 2005 would be a transition year for the GEO Secretariat. There would be a core of up to 8 persons serving in the transitional GEO Secretariat in Geneva starting in April 2005. The transitional GEO Secretariat would serve until the permanent GEO Secretariat was established by the end of 2005.