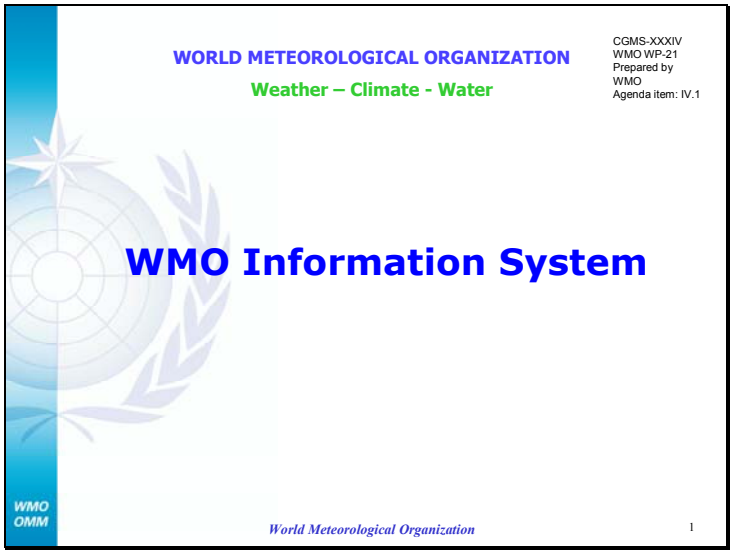
CGMS-XXXIV
WMO WP-21
Prepared by WMO
Agenda item:

WMO INFORMATION SYSTEM (WIS)

(Submitted by WMO)

Slide 1



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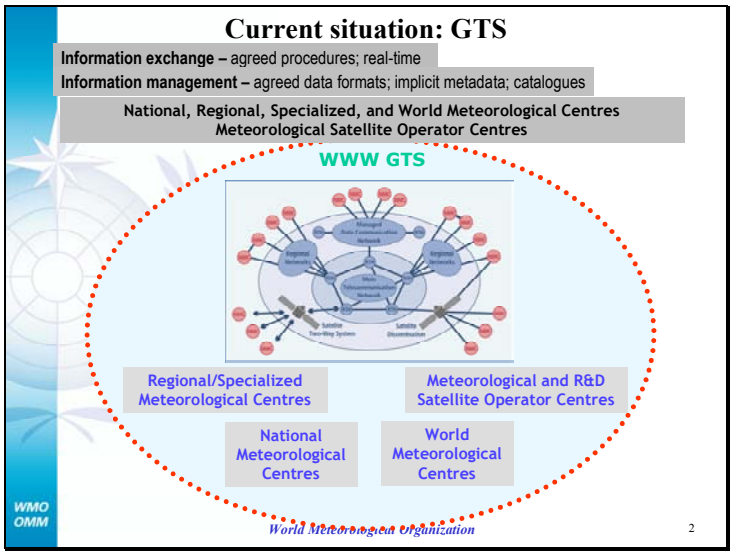

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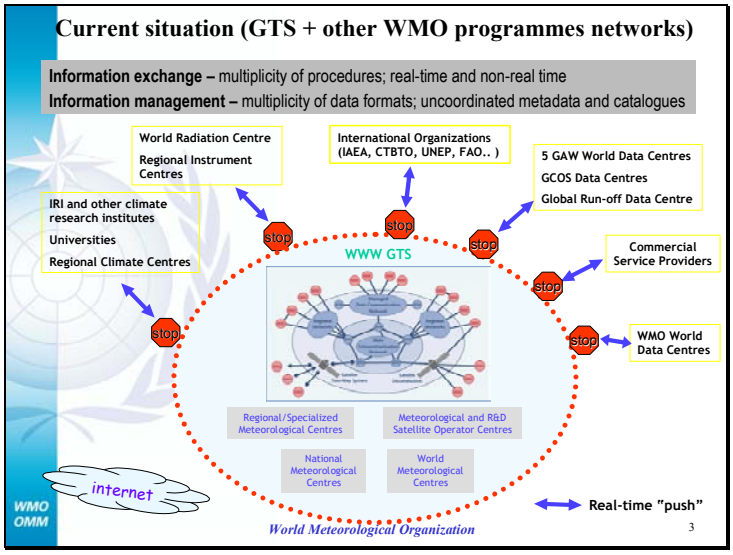
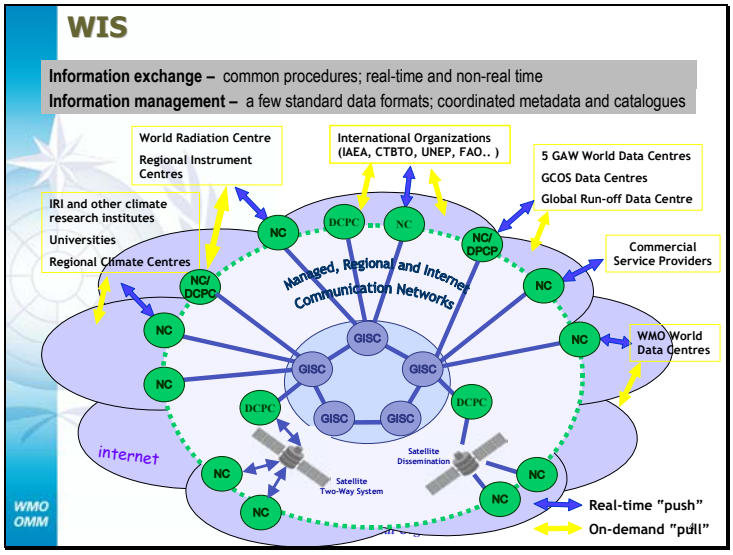


The GTS has constantly been improved to meet the ever growing data exchange requirements of the WWW centres. Regional and sub-regional systems and networks are interconnected and standardization across the networks is achieved through coordinated telecommunications procedures and protocols and the strict application of WMO code forms for data representation within a message or bulletin. Each message has its specific type of content and routing information encoded in the bulletin header. Only centres that are able to interpret and use the bulletin header information can participate in the GTS. This is a serious disadvantage for many meteorological, hydrological and environmental centres, agencies or research institutions, which cannot participate in the GTS because the do not wish to, or are not able to, invest in the rather complex data handling computers and specialized staff necessary for access to the GTS. To overcome that draw back is the strategic goal of WIS.

Slide 4



With its use of an improved GTS, WIS remove the barriers between the GTS and other WMO Programmes and will facilitate the exchange of and access to data required for all programmes and relevant centres. Common procedures for both real and non-real time data and standardization of data formats and metadata will enhance information discovery and exchange .

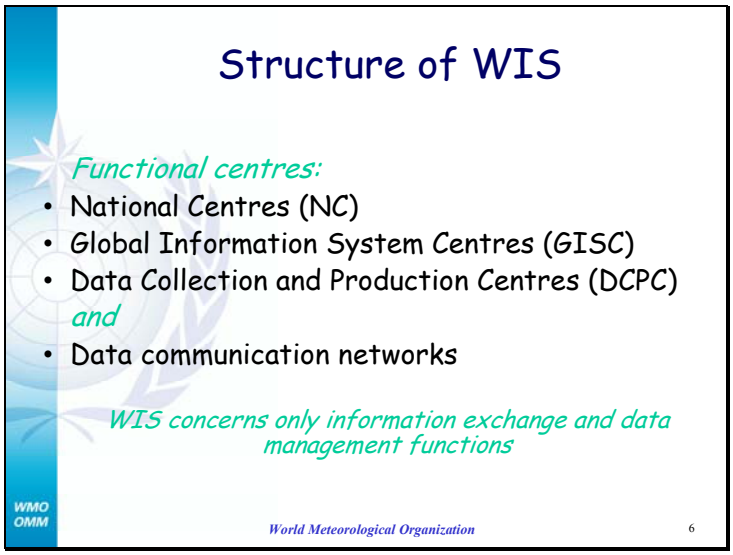
NMCs act as the network coordinator for connection and access rights to WIS for the “other” NC and DCPCs within their country (although the physical connection may be direct to a service provider).

WIS will provide the solution for the information exchange needs of NMHSs, relevant non-NMHS agencies/User, commercial providers, research facilities, and international programme centres. It will offer (“push” and “pull”) automated collection and dissemination of information (e.g., observations and forecast products); timely delivery of data and products (appropriate to requirements); and ad-hoc information discovery/access/retrieval services.

WIS will enhance the visibility and importance of the NMHS in the country. The NMHS will gain timely and cost-effective access to information, in particular new data and products, which will enhance its own operations. The NMC will also be able NMC to provide to other national agencies/users dealing in disaster mitigation, agriculture, energy and water management, and so forth, critical data that were, so far, not available to them. The NMC would “push” to them routine information, e.g., warnings, advisories, selected measurements, etc., and help discover, select and channel relevant information to the users, either ad hoc, in the “pulling” mode, or in reply to a non-real-time request.

Slide 5

Slide 6



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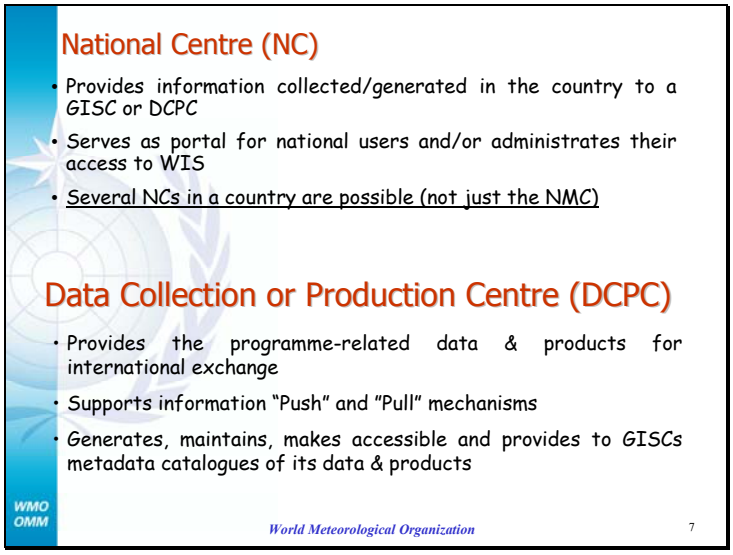

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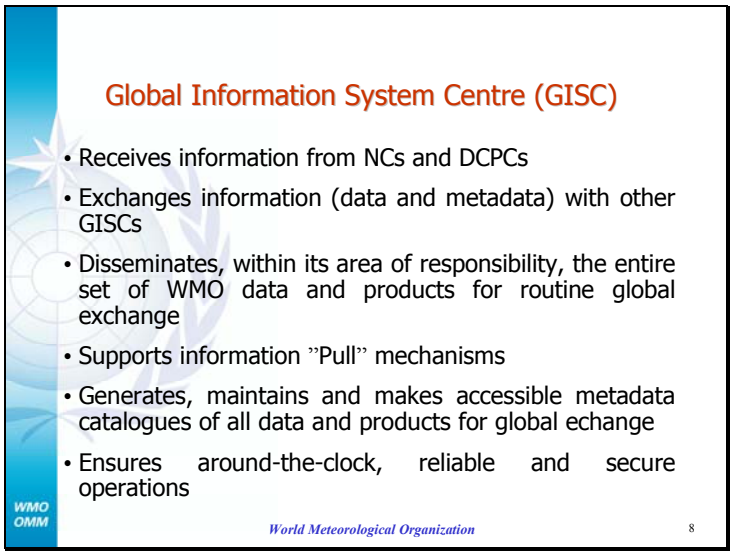

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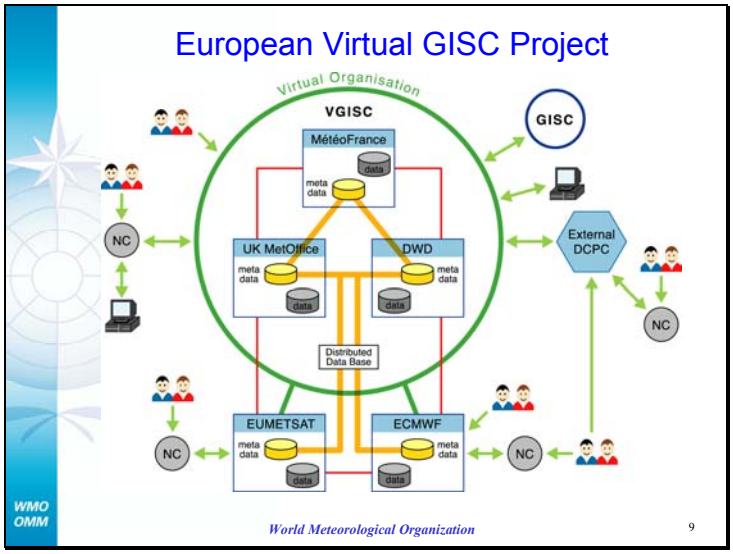
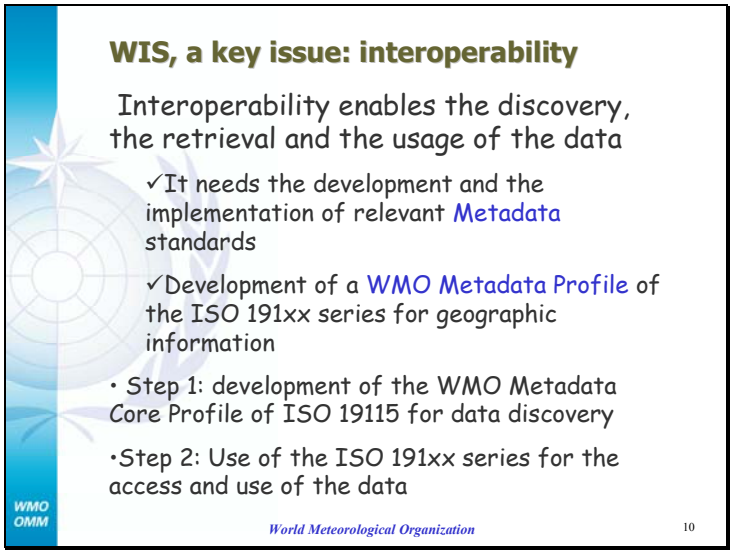

European Virtual GISC Project
Virtual Organisation
VGISC
GISC
MétéoFrance
meta data
data
NC
UK MetOffice
DWD
External DCPC
Distributed Data Base
EUMETSAT
ECMWF
WMO OMM
World Meteorological Organization
9

Slide 10



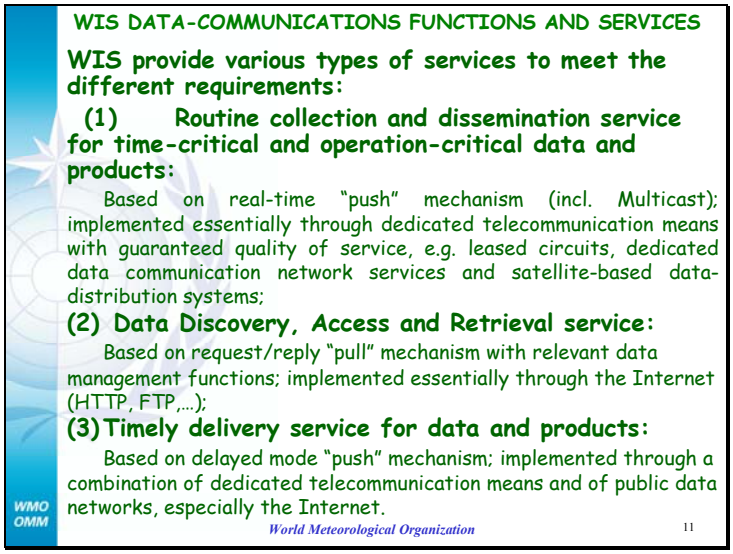
The interoperability of information systems refers to the ability to share information in distributed computing environments, in particular:

- To find and get information, when they are needed, independent of physical location.
- To understand the discovered information, no matter what platform supports them, whether local or remote.

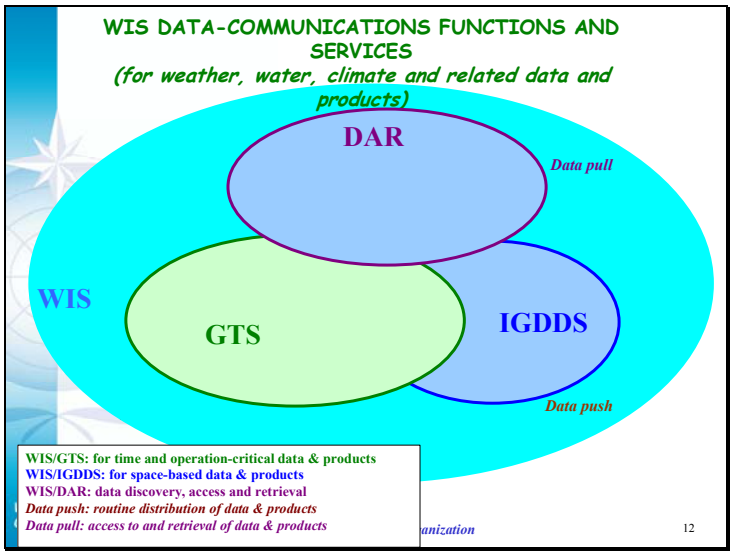
The interoperability of information systems within the WMO Programmes and outside the WMO Community calls for the development and the implementation of standards, based on international standards such as ISO standards.

The ISO 191xx series of geographic information standards contain a structured set of standards for information concerning objects or phenomena that are directly or indirectly associated with a location relative to the Earth. These standards specify methods, tools and services for management of geographic information, including the definition, acquisition, analysis, access, presentation, and transfer of such data in digital/electronic form between different users, systems and locations. The ISO 191xx series of geographic information standards provide a solid foundation for the development of the WIS.
A CBS team with the participation of experts of other Commissions developed a draft version of WMO Core Profile of the ISO 19115 Metadata standard. The team is working on the further use of the ISO 191xx series of standards for the access and use of the data, including the development of operational information catalogues.

Slide 11



Slide 12



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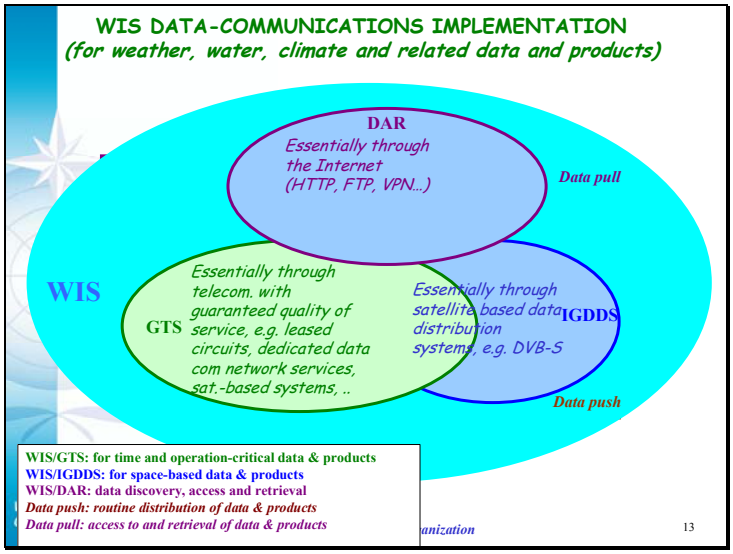

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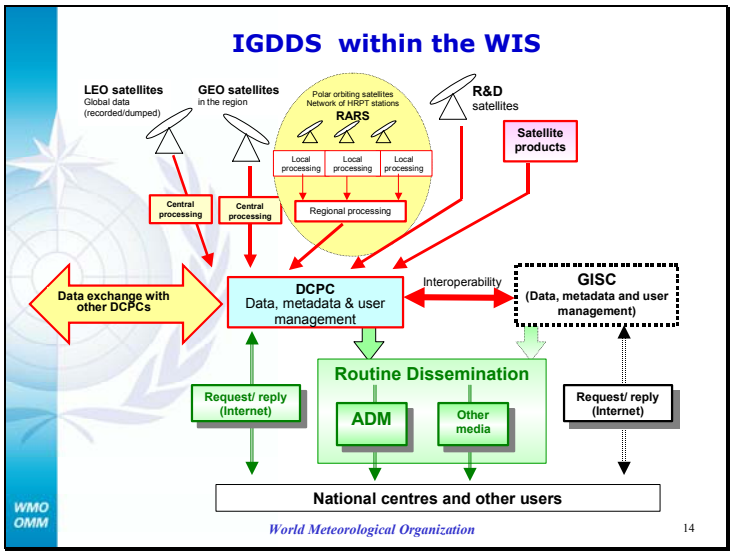

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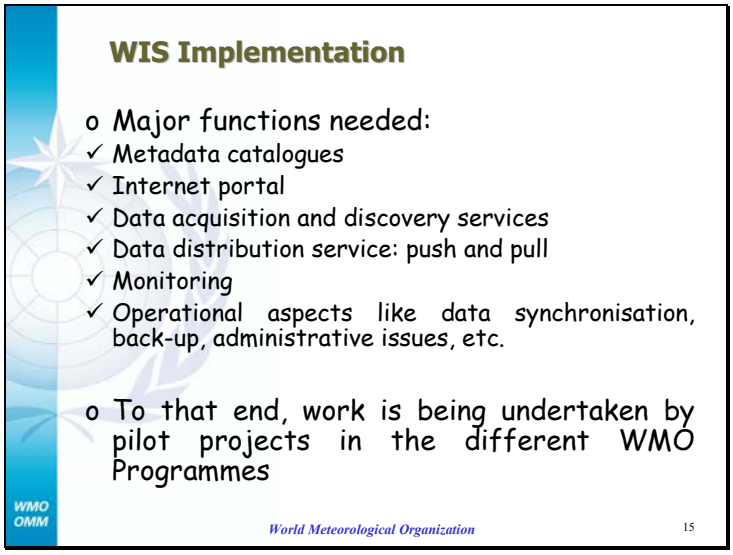

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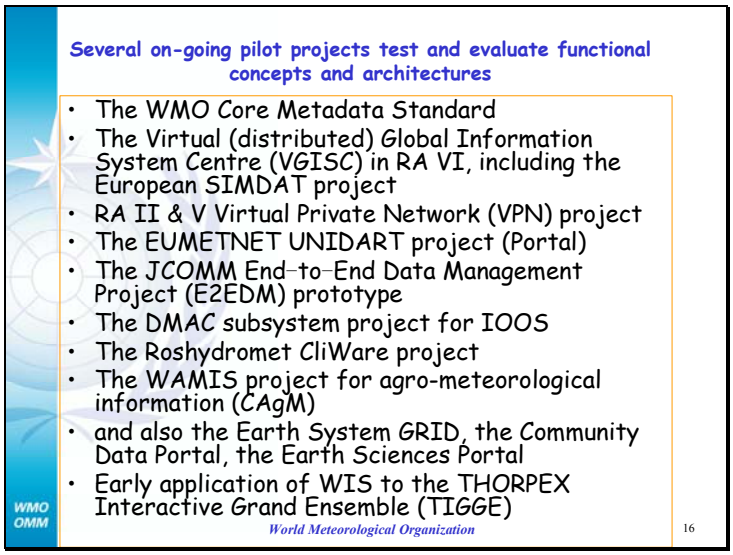
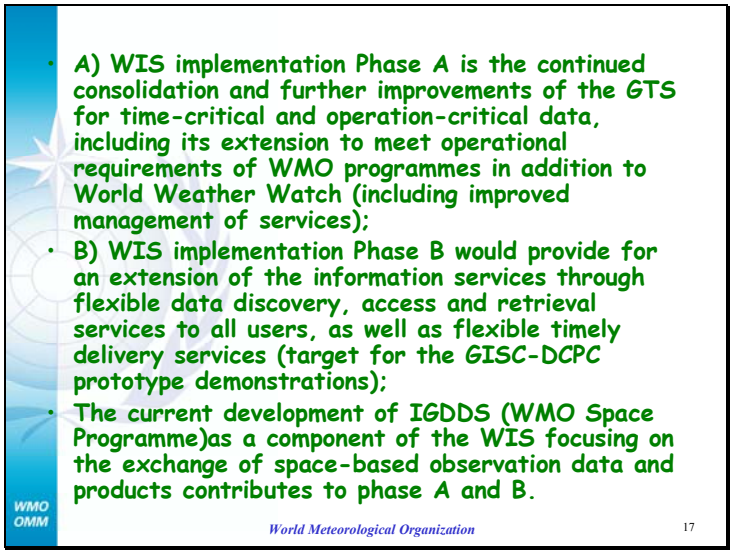


Slide 17



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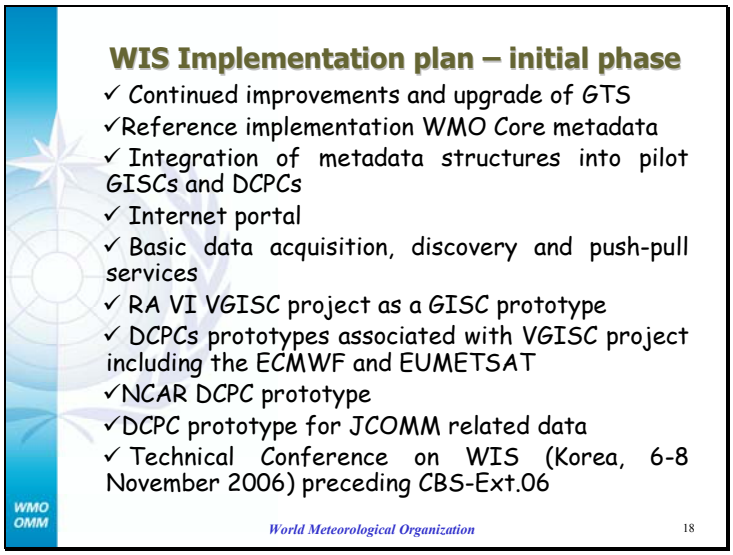

Slide 19