# Outcome of WIS Monitoring workshop

## Objective

1. The objectives of the workshop were:
	1. To define the aspects of WIS operation that need to be monitored in a standard way to allow the effectiveness of WIS operations to be assessed and improved (WIS network monitoring);
	2. To define what has to be monitored in a standard way to allow the effectiveness of WIS in exchanging information to be assessed and improved (WIS quantitative monitoring);
	3. To define the WIS monitoring needed to support quality reviews that form part of the procedures for ongoing certification WIS centres;
	4. To define standard approaches to allow the effectiveness of exchange of observations and products to be assessed and approved. (WIS quantitative monitoring);
	5. To identify how WIS monitoring will contribute to meeting the needs of WMO Programmes for monitoring their products, in the same way that the WWW Monitoring (operated by the GTS centres) supported the GOS and DPFS programmes, and to define clear boundaries between the monitoring undertaken by WIS and that which needs to be undertaken by application Programmes.
2. The Manual on WIS identifies under Technical Specification 15, the need for all WIS centres to participate in Monitoring. To this day, neither the Manual on WIS or Guide to WIS indicate what this monitoring encompasses. EC-65 initiated the first step to improving this situation by the following amendment to the Manual on WIS

*3.5.10.2. Monitoring of the collection and dissemination of WIS information (data and products) should include, as appropriate, WIS monitoring and monitoring related to WMO Programmes.*

EC-65 requested CBS to provide further details on monitoring by the end of 2014.

1. Although this amendment helped clarify the monitoring needs in WIS relative to the World Weather Watch (WWW) and other programmes, attempts to identify and document WIS monitoring practices and procedures in separate expert team meetings have been unsuccessful in clarifying the requirements or procedures both from a network and from a centre operations view. A major inhibitor has been the confusion between the existing WWW monitoring undertaken with the infrastructure of the GTS supporting multiple programmes which itself is undergoing change due to the implementation of TDCF. Now WIS is operational and Members are expected to commit to and implement WIS functionality, it is essential that WIS monitoring be clearly documented in the manual and guides for WIS and the future role of WWW monitoring be addressed.
2. The Manuals on the GTS and DPFS define WWW Quantitative monitoring plan. That plan concentrates on counting the number of observations received from each RBSN station, and although the Special Main Telecommunication Network Monitoring produces some information on the telecommunication packages that are used to exchange information, it concentrates on reports received from individual observing stations.
3. The workshop aimed to clearly define the monitoring components of WIS as distinct requirements to what can be done in or by WIS for other Programmes.

## Introduction

1. It was agreed at a meeting of ET-WISC (Beijing, 2013) that it was essential to bring together a group of experts and to accelerate the creation of agreed monitoring standards and practices for consideration of CBS 2014. As a result, a WIS monitoring workshop was held in Geneva from 21-24 January 2014. The workshop was facilitated by Dr Robert Husband who has extensive experience in system design and monitoring as well as the development of the WIS architecture and functional specifications. Experts were invited from WIS centres around the globe with the intention of covering all functions of WIS. Participants are listed in [Annex 1](#_Annex_1:_Participants).
2. Input and working documents, including the report of the workshop are available on the Work Shop web page [http://wis.wmo.int/page=WIS-Work-Mon-2014](http://wis.wmo.int/page%3DWIS-Work-Mon-2014). The final report of the meeting is at [http://wis.wmo.int/file=695](http://wis.wmo.int/file%3D695)

## Acton required by TT-GISC

1. The monitoring workshop identified that the GISCs will play a major role in the monitoring of WIS. This included establishing real time status reports and dash board displays that will be used to ensure the smooth functioning of the WIS. The report identified that the dashboard display will include: status information (possibly displayed in traffic-light format); graphical information (e.g. loading, performance ...) and; schematic information (e.g. network topology overlaid with status information). These dashboards should have a drill down capability that provides visibility on the status of lower level elements. Information shall also be made available to support the generation of a single, centralized, WIS dashboard addressing Network Connection Status and Centre DAR/product interface presence. It is essential that TT-GISC review the monitoring requirements and suggestions of the workshop and plan how to implement these real-time operational monitoring and reporting systems.
2. The workshop also identified that each GISC shall provide a consolidated quarterly report covering the centres and networks in its own area of responsibility, for which it is the principal GISC. This report shall be provided to the WMO Secretariat within six weeks from the end of the reporting period.
3. It stated that the quarterly report shall consist of the following main sections:
4. Service Performance;
5. Operational Infrastructure Performance;
6. Operational Anomalies and Incidents;
7. Evolutions/Upgrades Carried Out During the Reporting Period;
8. Planned Evolutions/Upgrades;
9. User Service Statistics.
10. These elements and the roles of the GISCs and of NCs and DCPCs are described in the report of the workshop. It is essential that TT-GISC review the requirements identified by the workshop and refine the performance metrics to provide measurable and realistic monitoring statistics and reports that will achieve the goals of the monitoring. The TT-GISC was asked to review the report and submit its conclusions as soon as possible to ET-WISC. As noted in the Gantt chart of the report, the deadline for reviews is the 27 March 2014.

## References

[1] Monitoring Workshop web page [http://wis.wmo.int/page=WIS-Work-Mon-2014](http://wis.wmo.int/page%3DWIS-Work-Mon-2014).

[2] Monitoring Workshop Final Report [http://wis.wmo.int/file=695](http://wis.wmo.int/file%3D695)

## Recommended Text

The meeting reviewed Doc 10 and the report from the WIS monitoring workshop. It identified some improvements for the metrics and tables in the report and updated based on discussion under the relevant components agenda items. The meeting [established a sub team led by xxx and included xxx, xxx, etc] [tasked xxx] to further review the report and to submit it back to ET-WISC by the 27 March as indicated in the implementation Gantt chart in the report. It requested that the secretariat facilitate [xxx] in preparing and providing the report to ET-WISC.

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### *Annex 1: Participants*

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| **Country** | **Representative** |
| Australia | Weiqing QU |
| China | Li Xiang |
| ECMWF | Baudouin Raoult |
| EUMETSAT | Lothar Wolf |
| France | Remy Giruad, Matteo Dell'Aqua |
| Germany | Bernd Richter |
| Japan | Kenji Tsunoda |
| Kenya | Peter Mutai |
| Russian Federation | Leonid Bezruk, Olga Petrova |
| UK | Duncan Jeffery |
| US | Robert Bunge |
| WMO | Steve Foreman, Dave Thomas |
| Facilitator | Dr Robert Husband |