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| **WORLD METEOROLOGICAL ORGANIZATION****\_\_\_\_\_\_\_\_\_\_\_\_\_\_****COMMISSION FOR BASIC SYSTEMS****ET-WISC Task Team on Centre Audit - Certification (TT-CAC)****Melbourne, Australia. 25-27 March 2014** |  | **CBS/TT-CAC 2014-Report** **\_\_\_\_\_\_\_****Ver: 02 (06 July 2014)****ENGLISH only** |

FINAL REPORT

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TT-CAC 2014 Meeting Report



[Annex 1](#_Annex_1_–) : Agenda

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[Annex 7](#_Annex_7_-): DCPCs endorsed by TT-CAC

[Annex 8](#_Annex_8_-): DCPCs still to complete demonstrating WIS compliance

# 1. Opening

A meeting of the CBS Expert Team on WMO Information System Centres’ Task Team on WIS Centre Audit and Certification (ET-WISC/TT-CAC) took place in Melbourne, Australia from 25 to 27 March 2014 The meeting was chaired by the team leader of TT-CAC, Mr Baudouin RAOULT (ECMWF) and hosted at the Australian Bureau of Meteorology.

Dr Sue BARRELL (Vice President of CBS, Acting Deputy Director (Information Systems and Services) and Chief Information Officer of the Bureau of Meteorology) opened the meeting, welcoming all to Melbourne on behalf of Dr Robert Vertessy, Permanent Representative of Australia to WMO. Dr BARREL noted that getting WIS working has been a challenge over the last 10 years and that the challenge now is to ensure WIS performs. In particular, WIS must deliver what Members want WIS to deliver. The centre identification and certification process, that has been difficult but successful activity, will continue to be a vital component in ensuring Members’ confidence WIS.

Dr BARRELL noted what the Bureau as the sole GISC in RA V had to go through in order to enable it to meet its role in WIS. It is now reviewing its internal processes and establishing the required components in order to be able to cost and scale their operations to meet future needs and commitments. She highlighted that the work of the TT-CAC was important to assist centres in understanding the benefits of WIS and in how to establish and scale their operations and that she looked forward to reviewing the recommendations of this group at CBS Extraordinary 2014.

### Working Arrangements

The meeting reviewed the annotated draft agenda ([Doc01](http://wis.wmo.int/doc%3D2979)), reproduced in [Annex 1](#_Annex_1_–), the document allocation plan ([Info03](http://www.wmo.int/pages/prog/www/WIS/wiswiki/tiki-index.php?page=TT-CAC2014-DocPln)), reproduced as [Annex 2](#_Annex_2_–), and agreed on working arrangements. The list of participants is provided in [Annex 3](#_Annex_3_–).

### Review of TT-CAC membership, terms of reference and work plan.

The meeting reviewed its membership[[1]](#footnote-1) reproduced in [Annex 5](#_Annex_5_–). It noted that of the 11 members, six represented GISCs. To this end, it noted that the group was over represented by GISCs and lacked regional representation as well as experts from NCs. In particular, it lacked representation from developing countries. Recalling that the TT-CAC evolved from the ET-GDDP which was established based on experts with recognized knowledge of being able to operate an advanced ICT infrastructure with experience in ICT audit processes, the meeting recommended that it was time to loosen the requirements and to allow participation of experts from smaller centres. It agreed that encouraging wider membership would provide a more sustainable TT-CAC membership. It further noted that such an arrangement would need to be supported by appropriate induction of new members involving mentoring from existing members.

The meeting reviewed its terms of reference[[2]](#footnote-2) reproduced in [Annex 4](#_Annex_4_–) and its work plan noting that the work of the group, although demanding, was well understood. It also reviewed its basic work practices and guidance material, which is covered under the relevant agenda items below.

# 2. Lessons learned from the first round of audits, what went well, what problems were faced, what can be improved, etc.

The chair conducted a “tour de table” to share auditors’ experiences and lessons learned. Participants reported mostly positive experiences when auditing GISCs and DCPCs. Many GISCs and DCPCs showed strong participation and engagement by the centres, with strong preparation and organizational goals to succeed in certification and provision of the GISC. Unfortunately, GISC audit times were too short for the amount of work to be done resulting in very difficult timeline pressure on the auditors, especially when combined with jet lag, time zones and language issues. However, in some cases the GISCs were working in isolation from other centres and were perhaps a little too inward looking. In particular, some GISCs did not seem to have allowed financially for the outreach commitments expected of being a GISC. Concern was also noted about how some centres appeared over-reliant on contractors.

The noted that some missing elements for DCPCs related to infrastructure, security and use of the Internet. It recommended that GISCs should have their own external security audit and should look for evidence of good security practices in centres in their area. It agreed to raise this issue to TT-GISC and ICT-ISS. The meeting recommended that now most GISCs have been audited, it would be a good idea if Principal GISCs undertake the compliance tests for DCPCs in their area.

The meeting noted that auditors had developed some useful guidance material and communication templates for explaining to centres what is expected of them, either in their onsite audit for a GISC or remote testing for a DCPC. In particular it agreed on the template for using to advise centres of their audit process (to be supplied and added to TT-CAC Wiki work area). These include:

* Draft review of Guide to DCPCs on certification process and filling in forms
* GISC AUDIT Template
* GISC AUDIT Checklist
* DCPC Template - WIS Demonstration Test Report
* Template Fax to PR of:
	+ GISC advising of audit date
	+ GISC advising of audit requirement
	+ Auditor requesting participation
	+ WIS Centre telling them of what to expect from an audit.

The meeting reviewed the above documentation, the reporting process and the state of test cases.

## Current practices

The secretariat described the process in place, including the role of the online forms for centres to work with, the private ET-GDDP wiki pages, the ET-GDDP Trello and what happens to the audit summaries. It clarified that the process is still based on the WIS Centre Audit and Certification Guide where a PR announces to the Secretary General of its intent to register a centre as a DCPC or NC. The secretariat (C/ITS) consults with an ET-WISC established group consisting of Al KELLIE, Markus HEENE and Sunghoi HUH who then decide if the proposed centre can be added to the WIS centre database and authorize subsequent review by TT-CAC once the centre is ready. This decision process includes ensuring that there is a letter of commitment from the PR, agreement of the President of the relevant Technical Commission, Regional Association or appropriate governance body. The secretariat works with the centre to guide them on registering in and using the online ET-GDDP centre registration and demonstration form. Once a centre changes the status of the online form to “request a review” or “completed”, the secretariat advises the chair of TT-CAC that the centre is ready for TT-CAC to have a look at their progress. The secretariat prepares a task card on the ET-GDDP Trello for the centre using the appropriate template for a GISC or DCPC shown in the following tables Checklist (DCPC) and Checklist (GISC).

Table 1 DCPC Trello check list

| **Checklist (DCPC)*** Notification to TT-CAC of request for review from Centre (Sec)
* Allocation of TT-CAC person to case (Chair)
* Review Online Form (Coordinator)
* Identify GISC to test with (Coordinator & chair)
* Identify review team (Chair)
* Identify dates of review (Coordinator)
* Process online form and conduct remote testing (Coordinator)
* Undertake pre-review work and conduct review (Reviewer and DCPC contact point)
* Submit report to Chair, DWIS and P-CBS (Coordinator)
* Update DCPC wiki page with review report and status (Sec)
 |
| --- |

Table 2 GISC Trello check list

| **Checklist (GISC)*** Notification to TT-CAC of request for review from Centre (Sec)
* Allocation of TT-CAC person to case (Chair)
* Review Online Form (Coordinator)
* Identify GISC to test with (Coordinator)
* Identify audit team (Chair)
* Identify internal and external DCPCs to be included in audit process (Coordinator and GISC contact)
* Identify dates of audit (Coordinator)
* Request Secretariat to prepare standard letters to PRs of Centre and auditors advising of audit
* Process online form and pre visit testing to level comfortable that audit is viable then advise secretariat (Coordinator)
* Confirm dates and sending of letters (Coordinator and Sec)
* Receive approval from all parties PRs to proceed including approval of funding arrangements from GISC PR (GISC PR, Auditors' PRs and Sec)
* Arrange travel and per diem (Audit team and Sec)
* Undertake pre audit work and conduct audit (Auditors and GISC contact point)
* Consult with TT-CAC as needed during preparation process, audit and in post processing of report (Coordinator and chair)
* Brief GISC on status of Audit visit (Audit team - if possible)
* Submit full and mini report to Chair, DWIS and P-CBS (Coordinator)
* Update GISC wiki page with audit report and status (Sec)
 |
| --- |

The TT-CAC lead allocates an auditor to oversee the process which includes reviewing the online form and working with the centre to demonstrate their compliance with the Manual on WIS. He also updates the Trello to allocate the work card relevant to the centre to the selected auditor.

Once the auditor/coordinator has completed the certification process they pass their report to the TT-CAC lead and secretariat (C/ITS). The next step requires the TT-CAC lead to confirm to the C/ITS and auditor that the TT-CAC accepts the audit recommendation, at which point C/ITS sends the report to the President of CBS and to DWIS. C/ITS updates the ET-GDDP work area “audit schedule” to include a copy of the short report and marks it as endorsed and changes the WIS Centre database to “ET-GDDP endorsed”. If the President of CBS approves, C/ITS will update the online WIS centre database to “CBS Endorsed” otherwise the status stays as ET-GDDP Endorsed until CBS approves the recommendation.

The meeting noted that the ET-GDDP wiki work area also includes a copy of the extracts of the centres’ “Centre demonstration online form database” but that this is no longer being maintained. The secretariat explained that this process had been added to assist the previous chair who could not work directly on the database or read the RTF reports. As such, it became redundant once all TT-CAC members were able to work directly on the Centre demonstration online form database. Participants commented that a similar argument could be applied to the audit schedule being maintained in the work area as the same information is available on the Trello. The meeting requested that the wiki audit schedule also be phased out once all current DCPCs endorsements are approved by CBS. The secretariat proposed to keeping the audit schedule going for the time being as it is the only link to the reports from GISCs and DCPCs. Participants agreed to review this issue again at a later date.

The meeting noted that several centres have partially completed forms. Under the current process, TT-CAC does not allocate a coordinator until the form requests their involvement. It agreed to change the process so that TT-CAC appoints an coordinator as soon as a centre is approved for consideration by ET-WISC. In this way the coordinator can work with the centre to progress its completion of the form and demonstration process.

## TT-CAC databases

In reviewing the status, process and paper trail of WIS centre certification, the meeting explored further the issue of the three different database systems being used to facilitate and record these activities.

The primary database is the WIS GISC/DCPC Demonstration Database (<http://www-db.wmo.int/WIS/centres/candidates.asp>). This is based on a Microsoft access sitting on the WMO DB server and is managed through a web based front end using ASP.

The second database is the WIS Wiki ([http://wis.wmo.int/ page=TT-CAC](http://wis.wmo.int/%20page%3DTT-CAC)) which is a PHP application based on a MySQL server. The wiki has many roles in CBS activity serving as a collaborative work area for expert teams, as well as a document management system allowing access to be restricted to relevant expert team members. This latter has been an essential element of ensuring the TT-CAC can work on confidential information provided by members without it being accessed by people outside of the TT-CAC.

The third important database is the WIS centre database which is used to record and report on the status of WIS centres in the designation and demonstration process.

In addition, TT-CAC workflow is facilitated by a card based task management system application known as Trello (<https://trello.com/b/RZd4hwfA/et-gddp-certification>) which has effectively replaced the audit tracking that was done on the Wiki and improved functionality.

The meeting noted that this combination of database tools provided the essential facilities for TT-CAC to interact with each other, to interact with Members on centre certification and audit preparation and as a tracking and reporting tool that allows Members to see the status of WIS centres along the path of the WIS centre designation and demonstration process. It also noted that these databases operate independently and therefore are vulnerable to becoming out of synchronization as the data must be entered into each database independently. The duplication is also confusing to new members of the team not familiar with the history and relevant use of each.

The secretariat described that it is planned for the WIS Demonstration DB, WIS centre DB and associated wiki functions to be moved to the Country Profile Database ([www.wmo.int/cpdb](http://www.wmo.int/cpdb)). A sample screen shot of the Country Profile Database report on WIS centres is in [Annex 9](#_Annex_9_–). The secretariat also reported the Windows server supporting the Microsoft Access database is to be shut down, but is waiting on the migration of the WIS Demonstration Process database to be completed.

Participants expressed concern that the current independent databases relied extensively on the WIS project office and now effectively is only supported by the Chief of Information and Telecommunication System Division (C/ITS) and in the long term would be unsustainable. Furthermore, even noting that the Chief of Data Management, Metadata and Monitoring (C/DRMM) works closely with C/ITS and also shares in the support and maintenance of these databases and content, the system was too dependent on the availability of C/ITS. It strongly supported the need to migrate these to the Corporate CPDB as soon as possible.

Rémy GIRAUD reported that the ET-CTS is also dependent on a WIS centre database for the registration of links and circuits, along with relevant parameters such as link access bandwidths, connecting WIS centres. The meeting noted that ET-CTS in Brasilia the previous week had agreed to update the current centre database to include a series of additional parameters for improving on and replacing the information currently residing the Manual on GTS Vol II, including GTS spaghetti diagrams. It too was depending on the migration to the CPDB to enable Members to be able to update their details with an aim to creating a more timely and accurate record of WIS links and circuits.

The meeting agreed that it is essential that the WIS certification and demonstration database be maintained however, given the concerns on duplication and unsustainability, it is only logical to integrate this with the WIS centres database. In addition, it noted that other key WIS project office activities were supported by a contacts database which have already been extended to other technical commissions and, like the WIS centres database, is providing certain information to the CPDB. It agreed that under WMO activities to develop further the CPDB as a corporate database with access to members to review and update their details, that it would be beneficial to move the relevant functionality into the CPDB as planned. It noted that current staffing at the WIS branch is not able to make the time to undertake this activity and suggested that a secondment should be considered of a relevant expert from the members of TT-CAC. It requested the secretariat to investigate this possibility, suggesting it could be facilitated if WMO provides some financial support such as per diem and travel costs. The meeting suggested the following tasks:

1. Study the CPDB project to understand the capabilities, architecture and roadmap in order to confirm the potential to provide the functionality required by current WIS project office databases and applications.
2. Review current WIS Certification and Demonstration application, WIS Wiki components and web page reporting for functionality and content with an aim to migrating the functionality and content to the CPDB and portal.
3. Review the current WIS centres/GTS links database, WIS Wiki components and web page reporting for functionality and content with an aim to migrating the functionality and content to the CPDB and portal.
4. Review current status of the migration of the WIS contacts database and application, WIS Wiki components and web page reporting in the CPDB, with an aim to completing the migration and facilitating migration of the databases supporting TT-CAC, ET-WISC and ET-CTS.
5. Design a solution for the above functionalities within the CPDB, prepare a roadmap for implementation, then work with CPDB developers to implement the migration.
6. Document practices and procedures necessary for WIS Branch to manage and maintain the migrated functionality.
7. Prepare relevant help material and usage guidance for Members and database contributors

It is estimated that tasks 1 to 4 will take at least one month, task 5 would take two months. These would need to be carried out at WMO, necessitating a 3 month secondment working with WIS and DRA (the latter being responsible for the CPDB).

The meeting agreed to pass on these recommendations for consideration of ET-WISC and ICT-ISS. It requested that the secretariat investigate the potential to support a secondment and for members to identify a suitable candidate

## Certifying compliance of WIS centres

The meeting reviewed TT-CAC TORs ([Annex 4](#_Annex_4_–)). It formulated a description of its role relative to certification of WIS compliance for GISCs, DCPCs and NCs incorporating operational GISCs support in the certification process and taking into consideration the role of the Permanent Representative in ensuring WIS compliance of NCs. The agreed text is in [Annex 6](#_Annex_6_-) paragraph 1a.

The meeting reviewed the test cases in the WIS Centre Demonstration Guidance document for GISCs and DCPCs and for NCs in the Regional WIS Implementation Plans[[3]](#footnote-3). It recommended that these test cases should be entered in the WIS Guide. It further noted that the WIS Compliance Specifications should be recorded in the WIS Manual or Guide rather than relying on the current document ([WIS Compliance Specifications GISC, DCPC,NC ( v1.2)](http://www.wmo.int/pages/prog/www/WIS/documents/TechnicalSpecification1-2.doc)). It highlighted that it is important not to change the specifications in the process of adding to the manual or guide.

## Agreed working practices

The meeting reviewed current practices and procedures and adopted the working practices as defined in [Annex 6](#_Annex_6_-) paragraph 2, 3 and 4.

# 3. Workshop - Review and finalise DCPC certifications audit trails

### GISCs

The meeting reviewed the audit schedule and availability of reports. Updated to take into consideration that GISC Pretoria was successfully audited between the meeting and the preparation of the report, fourteen of the fifteen GISCs have been completed. Timelines and audit teams for each GISC are shown in Table 3. All have been approved through the president of CBS.

Table 3 Status of GISC Audits

|  |  |  |  |
| --- | --- | --- | --- |
| Date of Review | Centre | Team | Result |
| 23-24 Aug 2010 | GISC Tokyo | Matteo & Baudouin | Endorsed |
| 26-27 Aug 2010 | GISC Beijing | Matteo & Baudouin | Endorsed |
| 17 & 20 Sep 2010 | GISC Offenbach | Hiroyuki & Li Xiang | Endorsed |
| 12 & 13 May 2011 | GISC Toulouse | Hiroyuki & Weiqing | Endorsed |
| 12 & 13 May 2011 | GISC Exeter | Hiroyuki & Weiqing | Endorsed |
| 27 & 28 May 2012 | GISC Seoul | Matteo & Lothar | Endorsed |
| 1 & 4 Jun 2012 | GISC Melbourne | Matteo & Lothar | Endorsed |
| 26-27 Mar 2013 | GISC Moscow | Lothar & Sunghoi | Endorsed |
| 8-9 Apr 2013 | GISC Brazil | Lothar & Kevin | Endorsed |
| 16-17 April 2013 | GISC Washington | Kevin & Sunghoi | Endorsed |
| 21-22 May 2013 | GISC Jeddah | Lothar & Markus | Endorsed |
| 29-31 May 2013 | GISC Tehran | Markus & Li Xiang | Endorsed |
| 10-12 Sept 2013 | GISC New Delhi | Lothar & Markus | Endorsed |
| 14-15 April 2014 | GISC Pretoria | Kevin & Weiqing | Endorsed |
| No date yet | GISC Casablanca | Sunghoi & Kevin | TBD |

### DCPCs

The workshop reviewed the results and recommendations from ET-GDDP and TT-CAC on DCPCs demonstrated WIS compliance.

Table 4 in [Annex 7](#_Annex_7_-) lists those DCPCs that have demonstrated to TT-CAC their compliance with the Manual on WIS as required by their conditional designation as DCPCs under Resolution 51 (Cg-XVI) recorded in the Manual on WIS (WMO No 1060). Noting that the conditional designation of WIS centres is due to expire, TT-CAC recommended that CBS “certify” these centres as WIS compliant.

Table 5 in [Annex 7](#_Annex_7_-) lists the equivalent details as Table 4 for those DCPCs already designated in the Manual on WIS as WIS compliant.

Table 6 in [Annex 8](#_Annex_8_-) lists the equivalent details as Tables 4 and 5 of Annex 7 showing the current status of centres still to demonstrate their compliance with the Manual on WIS. TT-CAC highlighted its concern that so many centres have still to demonstrate their compliance.

# 4. Review of relevant meeting reports

## 4.1. ET-WISC (Beijing 2013)

The meeting noted the report of the ET-WISC, Beijing, 2013 ([Info06](http://wis.wmo.int/doc%3D2799)). The report provided the background material to many of the discussions and decisions during this meeting of the TT-CAC. It defined the membership and TORs of the TT-CAC as well as the basic work plan of the task team. These and other items were addressed under the relevant agenda items.

## 4.2. WIS competencies Workshop (Geneva 2013)

The meeting reviewed the outcome of the WIS curriculum workshop ([Info04](http://wis.wmo.int/doc%3D2841)). It noted that the workshop had resulted in two documents for consideration of CBS expert teams through the ET-WISC, its task teams and the ICT-ISS. These are the “WIS Competencies” available online at [http://wis.wmo.int/file=687](http://wis.wmo.int/file%3D687) and the “WIS Training and Learning Guide” available online at [http://wis.wmo.int/file=689](http://wis.wmo.int/file%3D689).

## 4.3. WIS monitoring Workshop (Geneva 2014)

The meeting reviewed the outcome of the WIS monitoring workshop ([Info05](http://wis.wmo.int/doc%3D2853)) and the final report of the workshop ([http://wis.wmo.int/file=695](http://wis.wmo.int/file%3D695)). It noted the importance of this work towards the monitoring of WIS centres and its potential contribution to the rolling review of the compliance of WIS centres to the technical specifications described in the Manual on WIS (WMO No 1060)[[4]](#footnote-4) as discussed under agenda item 5 of this TT-CAC meeting.

## 4.2. TT-GISC (Toulouse 2014)

The meeting reviewed the report of the TT-GISC ([Info07](http://wis.wmo.int/file%3D759)) that met in February 2014. It noted that TT-GISC was working to establish standard practices. Although agreed standard practices may not be regulatory like the technical specifications used as the basis for certifying GISCs, appropriate application of the agreed practices will be important element to consider in the rolling review of GISCs.

# 5. Rolling review (or “Control Audit”)

**Review of technical regulations and guides**

The meeting noted that although the initial audits and certifications for GISCs and DCPCs were well underway, there will be a need to implement a rolling review of centres compliance with the manuals and guides. Taking into account the decisions of ET-WISC under Section 5.9 of the ET-WISC 2014 report ([Info06](http://wis.wmo.int/doc%3D2799)) and the report of TT-GISC ([Info07](http://wis.wmo.int/file%3D759)) the meeting recommended procedures and guidelines as described in the decision summary [Annex 6](#_Annex_6_-) , paragraphs 2 to 12.

It recommended that the procedures described in paragraphs 3 to 12 of [Annex 6](#_Annex_6_-) should be added to the Guide to WIS ([WMO No 1061](http://wis.wmo.int/wis-guide))[[5]](#footnote-5).

# 6. Establishment of work plan for the group

The meeting reviewed the TT-CAC work plan from the ET-WISC July 2013 meeting decisions. The updated work plan is provided in [Annex 10](#_Annex_10_–).

# 7. Any other business

Nil.

# 8. Meeting close

The chair thanked the Bureau of Meteorology for their hosting of this meeting and for their support during and in the lead up to the meeting. He wished all participants a good journey home.

# Annex 1 – Agenda

1. Opening
	1. Working arrangements
	2. Review of TT-CAC membership[[6]](#footnote-6) and terms of reference[[7]](#footnote-7).
	3. Introduction of TT-CAC Work Plan[[8]](#footnote-8)
2. Lessons learned from the first round of audits, what went well, what problems were faced, what can be improved, etc (we need input from the auditors)
	1. State of the documentation (the one describing the audit)
		1. Review Benchmarks and Templates ([http://wis.wmo.int/page=ET-GDDP](http://wis.wmo.int/page%3DET-GDDP) )[[9]](#footnote-9)\*\*
		2. Is it sufficient, what is missing
		3. Do we need more clarification, (in particular regarding the for DCPCs and NCs)
	2. Reporting process
		1. Is it efficient, do we need a better paper trail? (This current system is clearly inefficient when it comes to DCPCs and NCs, we need a more formal process for reporting audit results to WMO)
	3. State of current tests
		1. Are they sufficient? What about NCs?
3. Workshop - Review and finalise DCPC certifications audit trails
	1. Update audit tracking page ([http://wis.wmo.int/page=et-gddp-audits](http://wis.wmo.int/page%3Det-gddp-audits)\*\*)
		1. Complete missing fields and provide completion report (Auditors should provide missing short statements/copy of email confirming completion and recommendations made prior to the meeting)
		2. Identify timelines and responsibilities for centres still to be certified
4. Review of relevant meeting reports
	1. ET-WISC (Beijing 2013) [http://wis.wmo.int/page=ET-WISC-2013](http://wis.wmo.int/page%3DET-WISC-2013)
	2. WIS competencies Workshop (Geneva 2013) [http://wis.wmo.int/page=WIS-Work-Train-2013](http://wis.wmo.int/page%3DWIS-Work-Train-2013)
	3. WIS monitoring Workshop (Geneva 2014) [http://wis.wmo.int/page=WIS-Work-Mon-2014](http://wis.wmo.int/page%3DWIS-Work-Mon-2014)
	4. TT-GISC (Toulouse 2014) [http://wis.wmo.int/page=TT-GISC-2014](http://wis.wmo.int/page%3DTT-GISC-2014)
5. Rolling review (or “Control Audit”)
	1. Agree on Frequency
		1. Successful sites
		2. Sites with qualification
		3. Do we deliver a “licence to run a WIS centre”, that is limited in time and can be revoked
	2. Delegation of audits?
		1. Is there a need for formal training of future auditors
	3. When are visit needed?
	4. List of things tests (establish a new checklist for auditors)
		1. We need input from other TT (e.g. monitoring)
			1. Monitoring
			2. Quality of metadata
			3. Usability of portal
		2. How to communicate to that to the centres
		3. Need to update documentation accordingly
	5. How to deal with centre that fail
		1. What constitute a failure
		2. Appeal? Grace period?
		3. Process to revoke a “WIS licence”
		4. Do we need a process to capture concerns from other site about a WIS centre?
		5. What is the role of TT-CAC, who do we report to?
6. Establishment of work plan for the group

Roadmap, deliverables, activities

# Annex 2 – Document list

### *Document Allocation Plan*

|  |  |  |
| --- | --- | --- |
| Agenda Item | Topic | Docs |
| 1. | Opening | [Doc 01](http://wis.wmo.int/doc%3D2979) (external link), [Info02](http://www.wmo.int/pages/prog/www/WIS/wiswiki/tiki-index.php?page=TT-CAC-14-Participants), [Info03](http://www.wmo.int/pages/prog/www/WIS/wiswiki/tiki-index.php?page=TT-CAC2014-DocPln) |
| 2. | Lessons learned from the first round of audits |  |
| 3. | Workshop - Review and finalise DCPC certifications audit trails | [Doc 02](http://wis.wmo.int/doc%3D2999) (external link), [Audit Schedule](http://www.wmo.int/pages/prog/www/WIS/wiswiki/tiki-index.php?page=et-gddp-audits)\*\* |
| 4. | Review of relevant meeting reports |  |
| - 4a. | ET-WISC (Beijing 2013) | [Info06](http://wis.wmo.int/doc%3D2799) (external link) |
| - 4b. | WIS competencies Workshop (Geneva 2013) | [Info04](http://wis.wmo.int/doc%3D2841) (external link) |
| - 4c. | WIS monitoring Workshop (Geneva 2014) | [Info05](http://wis.wmo.int/doc%3D2853) (external link) |
| - 4d. | TT-GISC (Toulouse 2014) | [Info07](http://wis.wmo.int/file%3D759) (external link) |
| 5. | Rolling review (or “Control Audit”) |  |
| 6. | Establishment of work plan for the group | [ET-WISC Work Plan](http://www.wmo.int/pages/prog/www/CBS/Experts/plans/ET-WISC-ActionPlans.pdf#page=6) |

### *Reference Information*

* [TT-CAC TOR](http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc-tt-cac/tors)
* [Membership](http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc-tt-cac/members)
* [Work Plan](http://www.wmo.int/pages/prog/www/CBS/Experts/plans/ET-WISC-ActionPlans.pdf#page=6) (From ET-WISC July 2013 meeting decisions)

### *Information Documents*

* [Info01](http://wis.wmo.int/doc%3D3007) - Information for participants
* [Info02](http://www.wmo.int/pages/prog/www/WIS/wiswiki/tiki-index.php?page=TT-CAC-14-Participants) - List of Participants
* [Info03](http://www.wmo.int/pages/prog/www/WIS/wiswiki/tiki-index.php?page=TT-CAC2014-DocPln) - **Document Allocation Plan**
* [Info04](http://wis.wmo.int/doc%3D2841) - Outcome of WIS Curriculum workshop (TT-GISC Doc 5)
* [Info05](http://wis.wmo.int/doc%3D2853) - Outcome of WIS Monitoring workshop (TT-GISC Doc 6)
* [Info06](http://wis.wmo.int/doc%3D2799) - Final Report ET-WISC sixth Session
* [Info07](http://wis.wmo.int/file%3D759) - Final Report TT-GISC 2014
* [Info08](http://wis.wmo.int/wis-manual) - Manual on WIS (latest) WMO No 1060)
* [Info07](http://wis.wmo.int/wis-guide) - Guide to WIS (latest) WMO No 1061)
* [Info09](http://wis.wmo.int/gts-manual) - Manual on GTS (latest) WMO No 386)

### *Documents*

[Doc 01](http://wis.wmo.int/doc%3D2979) - Agenda (Draft)
[Doc 02](http://wis.wmo.int/doc%3D2999) - WIS Demonstration Guidance Doc

### *Working docs*

[Working Doc - certification basics](http://wis.wmo.int/doc%3D3127)
[Working Doc - GISC Audit report template v5](http://wis.wmo.int/doc%3D3129)
[Working Doc - WIS Demonstration DB discussion](http://wis.wmo.int/doc%3D3131)
[Working Doc - Review of process rev1](http://wis.wmo.int/doc%3D3137)
[Working Doc - TT-CAC work plan](http://wis.wmo.int/doc%3D3139)
[Working Doc - Fax to Auditors' PRs rev1](http://wis.wmo.int/doc%3D3141)
[Working Doc - Fax to GISC's PR rev1](http://wis.wmo.int/doc%3D3143)

# Annex 3 – List of participants

***Participants***

|  |  |  |
| --- | --- | --- |
| Country | Representative | Status |
| Australia | Weiqing QU (Host) | Attended |
| ECMWF | Baudouin RAOULT (Lead) | Attended |
| China | LI Xiang | Unable to attend |
| EUMETSAT | Lothar WOLF | Attended |
| France | Remy GIRAUD | Attended |
| France | Matteo DELL'AQUA (Chair OPAG ISS) | Attended |
| Germany | Markus HEENE | Attended |
| Japan | Kenji TSUNODA | Attended |
| NZ | Kevin ALDER | Attended |
| Korea | Sunghoi Huh | Unable to attend |
| UK | Colin MATHISON | Unable to attend |
| USA | Don MIDDLETON | Unable to attend |
| WMO | David THOMAS | Attended |

# Annex 4 – TT-CAC TORs

**Terms of Reference for ET WISC Task Team on Centre Audit-Certification (née ET-GDDP) (ET-WISC/TT-CAC)**

|  |
| --- |
| Based in ET-WISC meeting of July 2013, TT-CAC contributes to the following areas: |
| (a) | Operate the procedures for technical endorsement of WIS Centres and advise CBS on centres’ level of technical compliance with standards and procedures; |
| (i) | Validate and monitor the conformance of WIS Centres’ interfaces to the agreed specifications and practices; |
| (ii) | Maintain guidance and management procedures for the CBS demonstration and assessment capabilities of candidate GISC and DCPC centres in the framework of the GISC/DCPC demonstration procedure described in the Manual on WIS; |
| (iii) | Organize demonstrations of capabilities of candidate WIS centres as required, including onsite audits of GISCs; |
| (b) | Review and develop the relevant aspects of the Manual on WIS (WMO-No 1060), the Guide to WIS and associated informal guidance to better meet the needs of Members; |
| (c) | Identify implementation and operational issues requiring the urgent consideration of the OPAG on ISS; |
| (d) | Propose procedures for periodic assessment of the WIS Centres, especially GISCs. |

# Annex 5 – ET-WISC/TT-CAC membership

**ET WISC Task Team on Centre Audit-Certification (née ET-GDDP) (ET-WISC/TT-CAC)**

|  |  |
| --- | --- |
| **RAOULT, Baudouin   (Lead)****Proposed by: ECMWF** | **ECMWF Shinfield ParkREADING, RG2 9AX United Kingdom of Great Britain and Northern IrelandTel: +44 118 949 9404Fax: +44 118 986 9450Email:****baudouin.raoult@ecmwf.int** |
| **QU, Weiqing   (member)****Proposed by: Australia** | **Bureau of Meteorology G.P.O. Box 1289MELBOURNE 3001 VIC AustraliaTel: +61 3 9669 4236Fax: +61 3 9669 4128Email:****w.qu@bom.gov.au** |
| **LI, Xiang   (member)****Proposed by: China** | **China Meteorological Administration 46 Zhongguancun NandajieBEIJING 100081 ChinaTel: +86 10 6840 6275Fax: +86 10 6218 6241Email:****lixiang@cma.gov.cn** |
| **WOLF, Lothar   (member)****Proposed by: EUMETSAT** | **EUMETSAT Eumetsat Allee 1D-64295 DARMSTADT GermanyTel: +49-6151-8074050Email:****Lothar.Wolf@eumetsat.int; DCPC@eumetsat.int** |
| **GIRAUD, Remy   (member)****Proposed by: France** | **Météo-France 42, avenue Gaspard Coriolis31057 TOULOUSE CEDEX FranceTel: +33561078173Mobile: +33779827985Email:****remy.giraud@meteo.fr** |
| **HEENE, Markus   (member)****Proposed by: Germany** | **Deutscher Wetterdienst Frankfurter Strasse 135D-63067 OFFENBACH AM MAIN GermanyTel: +49 69 8062 2648Fax: +49 69 8062 4162Email:****markus.heene@dwd.de** |
| **OHNO, Yoritsugi   (member)****Proposed by: Japan** | **Japan Meteorological Agency Otemachi 1-3-4, Chiyoda-kuTOKYO 100-8122 JapanTel: +81 3 3218 3825Fax: +81 3 3211 8404Email:****yoritsugi.oono-a@met.kishou.go.jp** |
| **HUH, Sunghoi   (member)****Proposed by: Korea, Rep** | **Civil Aviation Authority P.O. Box 3000DOHA QatarTel: +974 4455 7064Fax: +974 4467 1459Mobile: +974 3399 9016Email:****Sunghoi.Huh@caa.gov.qa** |
| **ALDER, Kevin   (member)****Proposed by: New Zealand** | **Meteorological Service of New Zealand 30 Salamanca Road P.O. Box 722WELLINGTON 6140 New ZealandTel: +64 4 4700 720Fax: +64 4 4735 231Email:****kevin.alder@metservice.com** |
| **MATHISON, Colin   (member)****Proposed by: United Kingdom** | **Met Office FitzRoy RoadEXETER EX1 3PB Devon United Kingdom of Great Britain and Northern IrelandTel: +44 139 288 69 50Fax: +44 139 288 56 81Email:****colin.mathison@metoffice.gov.uk** |
| **MIDDLETON, Don   (member)****Proposed by: United States** | **National Center for Atmospheric Research 1850 Table Mesa Drive P.O Box 3000BOULDER 80307 CO United States of AmericaTel: 1-303-718-2291Email:****don@ucar.edu** |

# Annex 6 - Decision summary

Recommendations on practices

1. Requirement: WIS Centres must comply with Manual on WIS
	1. CBS is responsible for certification of WIS Centres’ compliance
		1. GISCs
			1. TT-CAC, on behalf of CBS, is responsible for audit and certification of GISCs
		2. DCPCs
			1. DCPCs are to be certified by the TT-CAC
			2. Where a DCPC is not using the GISC infrastructure, and its principal GISC is operational, then it can be certified by TT CAC once the principal GISC has performed the tests ; however, if the principal GISC is not operational, TT-CAC will arrange a suitable GISC;
			3. If a DCPC uses the GISC infrastructure then it is certified as a part of the GISC audit certification.
		3. NCs
			1. Compliance of NCs is the responsibility of the PR
			2. Testing of compliance of NCs should be done by its principal GISC.
			3. TT-CAC will monitor the NC compliance process in consultation with NCs and GISCs
	2. TT-CAC noted that the Manual on WIS refers to the Technical Specification Document[[10]](#footnote-10). It suggested that the fifteen technical specifications would be better included in the Manual, and associated test and use cases in the Guide to WIS.
2. Audits and certification
	1. Auditors and certifiers shall be members of TT-CAC
		1. New members must have relevant technical or audit experience ([nomination form](http://wis.wmo.int/doc%3D2155)[[11]](#footnote-11))
		2. Must be a member (core or associate) of ET-WISC
	2. Note that regional diversity should also be maintained (Ra I, III and IV are missing)
	3. Maintain that GISC auditors should continue to be from a different region to the GISC
	4. Maintain that GISC should be audited by two experts.
		1. One of the two experts must have been involved in previous GISC audit
	5. DCPCs require only one TT-CAC coordinator
		1. New members will be mentored
		2. Coordinator will ask a GISC to undertake tests with the DCPC
		3. It is expected that the centre’s principal GISC to undertake the tests
	6. TT-CAC workspace and online databases are restricted to access only by TT-CAC (and secretariat)
3. GISC audits
	1. In a similar way as an ISO 9001:2008 audit process, the audit will follow the principle of alternating full and intermediate audits aligned with CBS/EC cycle of four years.
	2. CBS endorsement is based on continued successful audit outcomes
		1. Validity, intermediate audit (interim four years)
			1. A mid-cycle review of performance and compliance to provide, if necessary, opportunities to introduce corrective actions well in advance of a full audit.
			2. Full audit (every second audit – i.e. every eight years)
				1. Will result in recommendation for affirmation or cancellation of endorsement
	3. Recurring audit will check that WIS Centres have implemented any new requirements or agreed practices due and corresponding tests will be identified and undertaken.
		1. These changes to audit procedure will be included in the guidelines on centre audit and demonstration process.
	4. Travel and per diem should be at GISCs expense and arranged through WMO.
4. Public notification of type of CBS endorsement
	1. Centre endorsements are published only as “CBS endorsed” with no public declaration of whether endorsement was with “qualifications”.
	2. Details of centres review audits are therefore also confidential
	3. Auditors will have access to the centre’s previous reports in order to perform their role.
5. Review of audits with qualification.
	1. GISCs that have received an “endorsed with qualifications” have two years from the day of the audit to demonstrate that they have taken remedial action on the points of qualification.
	2. GISCs that have received an “endorsed with qualifications” and have not demonstrated that they have taken remedial action on the points of qualification within 2 years from the day of audit, TT-CAC will investigate the situation and report to CBS on the progress in addressing the aspects that incurred the “Qualification”. TT-CAC can recommend to CBS that it revoke its endorsement.
6. Recurring audits.
	1. It agreed that GISC should be audited at least once every four years. It recommends that this frequency can be reviewed for its appropriateness in the future.
	2. Propose review cycle should start from date of “CBS endorsement**”**, or for centres endorsed before 1 Jan 2012 (WIS operational date) the date will be based on 1 Jan 2012.
		1. Audit timings will need to be coordinated with availability of experts to undertake the audit, but within the calendar year of the anniversary
		2. Should add date of CBS endorsement to the WIS Centre db
		3. Also date of operational if known .
7. DCPCs reviews
	1. DCPCs review cycle will be eight years.
	2. Reviews will cover all aspects of WIS compliance.
8. NCs reviews
	1. Review of NCs compliance is the responsibility of the Permanent Representative in liaison with the NC and its Principal GISC
9. Ad hoc audits or reviews
	1. An ad hoc audit or review can be requested by the president of CBS
		1. For example due to non-conformance causing problems with WIS operations.
10. Full audits of GISCs
	1. Shall include site visit in line with ISO type practices
11. Audit process for GISCs
	1. Scope of audits
		1. “Full” audits will cover all aspects of WIS compliance
		2. “Interim” audits will focus on a particular subset of topics
			1. Actual elements to be focused on will be determined by ET-WISC in coordination with ICT-ISS members
			2. Centres will be told in advance of which subset of topics
			3. Possible focus areas for reviews in interim audits include:
				1. GISC to GISC back up
				2. Security
				3. Monitoring
				4. Quality of service provided by the WIS
				5. WIS core network (ie RMDCN in 2014)

connectivity and management

Cache “Globally distributed data” content

* + - * 1. Management of area of responsibility

Capacity development

AMDCN (connects GISC to NC and DCPCs in its area

Cache “Area of responsibility” content

Participation in WIS coordination and planning mechanisms (eg CBS IPETs, ETs and TTs)

1. Audit or review outcome
	1. Format of report
		1. The current template will continue to be used, although content will reflect topics audited.
	2. Will be categorised into Endorsed, Endorsed with Qualification or Not Endorsed
		1. [Remove above line if adding DCPC and GISC template to the guide]
	3. Audit or review recommendation will be provided to President of CBS and Director of WIS

\_\_\_\_\_\_\_\_\_\_\_\_

# Annex 7 - DCPCs endorsed by TT-CAC

Table 4 DCPCs recommended by TT-CAC for CBS endorsement as WIS compliant

| **Date of Review** | **Member State or Org** | **Centre** | **ID no.** | **Team** | **TT-CAC Result** | **Comments** | **GISC** | **WIS Manual** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| # Jun 2012 | Croatia | Croatia MMC | 9 | Li Xiang | Endorsed | ET-GDDP endorsed June 2012 | Offenbach | Conditional pending CBS endorsement |
| # May 2012 | Czech Republic | RTH Prague | 125 | Kevin | Endorsed | ET-GDDP reviewed May 2012 | Offenbach | Conditional pending CBS endorsement |
| # May 2013 | Italy | RTH Rome | 97 | Markus | Endorsed | Report signed 7 May 2013 | Offenbach | Conditional pending CBS endorsement |
| # April 2013 | Saudi Arabia | RTH Jeddah | 13 | Lothar & Markus | Endorsed | Internal DCPC | Jeddah | Conditional pending CBS endorsement |
| # June 2012 | Serbia | RCC Belgrade | 147 | Don | Endorsed | Complete and locked | Offenbach | Conditional pending CBS endorsement |
| # Jun 2012 | Sweden | RTH Norrkoping | 11 | Hiroyuki | Endorsed | 22-Jun-12 | Offenbach | Conditional pending CBS endorsement |
| # April 2013 | USA | WMC Washington (RTH) | G7 | Kevin & Sunghoi | Endorsed | Integrated with GISC | Washington | Conditional pending CBS endorsement |

Where the “ID No.” in the tables is the identification number from the WIS Demonstration Database. No prefix indicates the record was in the DCPC database, and G prefix (eg G7) indicates the record is from the GISC database.

Table 5 - Record of DCPCs already endorsed by CBS as WIS compliant

| **Date of Review** | **Member State or Org** | **Centre** | **ID no.** | **Team** | **TT-CAC Result** | **Comments** | **GISC** | **WIS Manual** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| # May 2012 | Australia | IPS Australia | 40 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | Joint Australian Tsunami Warning Centre (JATWC)  | 38 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | NCC Australia | 37 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | RSMC Darwin | 39 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | WMC Melbourne (RTH) | G11 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # TBD | Bulgaria | RTH Sofia | 75 | TBD | Endorsed |  | Offenbach | OK |
| # Mar 2013 | Canada | Canada RSMC-ATM | 17 | Weiqing | Endorsed | Mar-13 | Offenbach | OK |
| # Jun 2012 | China | China - Beijing National Climate Centre | 150 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - National Satellite Meteorological Centre | 151 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - RSMC-ATM (NMC) | 149 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - RSMC-Beijing (NMC) | 149 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China – RTH Beijing | G1 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| #Nov 2010 | ECMWF | ECMWF | 1 | Hiroyuki & Weiqing | Endorsed | Demo done Oct 2010 | GEONetwork server | OK |
| # Oct 2010 | EUMETSAT | EUMETSAT | 51 | Hiroyuki & Li Xiang | Endorsed | Demo done Oct 2010 | Signed off Nov 2010 | OK |
| # May 2011 | France | GPC/LRFMME Toulouse | 69 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | NWP Toulouse | 71 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | RCC (Toulouse, Lead RA VI on LRF) | 70 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | RSMC (EER) Toulouse | 72 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # Jun 2011 | France | RSMC (TC) | 73 | Matteo | Endorsed | Done by GISC Toulouse  | Toulouse | OK |
| # May 2011 | France | RTH Toulouse | 68 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | VAAC Toulouse | 74 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # Sep 2010 | Germany | Global Collecting Centre (GCC) for observations from VOS under the MCSS (Marine Climatological Summaries Scheme) Offenbach | 45 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | Global Precipitation Climatology Centre (GPCC) Offenbach | 43 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | GRUAN Lead Centre DWD | 49 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | ICSU World Data Centre for Climate (WDCC) | 48 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Sep 2010 | Germany | Regional Climate Centre on Climate Monitoring (RCC-CM) for Europe | 50 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | RSMC-Geographical Offenbach | 42 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | World Data Center for Remote Sensing of the Atmosphere (WDC-RSAT) | 46 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Sep 2010 | Germany | World Radiation Monitoring Center (WRMC) | 44 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Apr 2011 | Hong Kong, China | WWIS - Hong Kong | 118 | Siegfried | Endorsed | April, 26 2011 | Offenbach | OK |
| # Aug 2010 | Japan | Global Producing Centre for Long-Range Forecast (GPC/LRF) | 59 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | Meteorological Satellite Centre (Tokyo) | 55 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | National Climate Centre Toyko | 60 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC – TC (Tokyo) | 56 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC on Data Processing and Forecasting System | 57 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC-ATM Products for EER and Backtracking | 58 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | WDC-GHG | 61 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # May 2012 | Republic of Korea | (GPC/LRFMME)–Seoul | 53 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2012 | Republic of Korea | NMSC (National Meteorological Satellite Centre (Tokyo) | 54 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2012 | Republic of Korea | WAMIS | 52 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2011 | UK | Marine Observations Centre | 65 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC - EER | 63 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC (Global and Regional Climate Centre) | 67 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC (NWP) | 66 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RTH Exeter | 62 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | Specialised Ocean & Wave forecasting | 64 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2012 | Australia | IPS Australia | 40 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | Joint Australian Tsunami Warning Centre (JATWC)  | 38 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | NCC Australia | 37 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | RSMC Darwin | 39 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | WMC Melbourne (RTH) | G11 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # TBD | Bulgaria | RTH Sofia | 75 | TBD | Endorsed |  | Offenbach | OK |
| # Mar 2013 | Canada | Canada RSMC-ATM | 17 | Weiqing | Endorsed | Mar-13 | Offenbach | OK |
| # Jun 2012 | China | China - Beijing National Climate Centre | 150 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - National Satellite Meteorological Centre | 151 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - RSMC-ATM (NMC) | 149 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - RSMC-Beijing (NMC) | 149 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China – RTH Beijing | G1 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| #Nov 2010 | ECMWF | ECMWF | 1 | Hiroyuki & Weiqing | Endorsed | Demo done Oct 2010 | GEONetwork server | OK |
| # Oct 2010 | EUMETSAT | EUMETSAT | 51 | Hiroyuki & Li Xiang | Endorsed | Demo done Oct 2010 | Signed off Nov 2010 | OK |
| # May 2011 | France | GPC/LRFMME Toulouse | 69 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | NWP Toulouse | 71 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | RCC (Toulouse, Lead RA VI on LRF) | 70 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | RSMC (EER) Toulouse | 72 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # Jun 2011 | France | RSMC (TC) | 73 | Matteo | Endorsed | Done by GISC Toulouse  | Toulouse | OK |
| # May 2011 | France | RTH Toulouse | 68 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | VAAC Toulouse | 74 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # Sep 2010 | Germany | Global Collecting Centre (GCC) for observations from VOS under the MCSS (Marine Climatological Summaries Scheme) Offenbach | 45 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | Global Precipitation Climatology Centre (GPCC) Offenbach | 43 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | GRUAN Lead Centre DWD | 49 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | ICSU World Data Centre for Climate (WDCC) | 48 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Sep 2010 | Germany | Regional Climate Centre on Climate Monitoring (RCC-CM) for Europe | 50 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | RSMC-Geographical Offenbach | 42 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | World Data Center for Remote Sensing of the Atmosphere (WDC-RSAT) | 46 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Sep 2010 | Germany | World Radiation Monitoring Center (WRMC) | 44 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Apr 2011 | Hong Kong, China | WWIS - Hong Kong | 118 | Siegfried | Endorsed | April, 26 2011 | Offenbach | OK |
| # Aug 2010 | Japan | Global Producing Centre for Long-Range Forecast (GPC/LRF) | 59 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | Meteorological Satellite Centre (Tokyo) | 55 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | National Climate Centre Toyko | 60 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC – TC (Tokyo) | 56 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC on Data Processing and Forecasting System | 57 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC-ATM Products for EER and Backtracking | 58 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | WDC-GHG | 61 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # May 2012 | Republic of Korea | (GPC/LRFMME)–Seoul | 53 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2012 | Republic of Korea | NMSC (National Meteorological Satellite Centre (Tokyo) | 54 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2012 | Republic of Korea | WAMIS | 52 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2011 | UK | Marine Observations Centre | 65 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC - EER | 63 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC (Global and Regional Climate Centre) | 67 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC (NWP) | 66 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RTH Exeter | 62 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | Specialised Ocean & Wave forecasting | 64 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2012 | Australia | IPS Australia | 40 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | Joint Australian Tsunami Warning Centre (JATWC)  | 38 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | NCC Australia | 37 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | RSMC Darwin | 39 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # May 2012 | Australia | WMC Melbourne (RTH) | G11 | Matteo & Lothar | Endorsed | Done with GISC | Melbourne | OK |
| # TBD | Bulgaria | RTH Sofia | 75 | TBD | Endorsed |  | Offenbach | OK |
| # Mar 2013 | Canada | Canada RSMC-ATM | 17 | Weiqing | Endorsed | Mar-13 | Offenbach | OK |
| # Jun 2012 | China | China - Beijing National Climate Centre | 150 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - National Satellite Meteorological Centre | 151 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - RSMC-ATM (NMC) | 149 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China - RSMC-Beijing (NMC) | 149 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| # Jun 2012 | China | China – RTH Beijing | G1 | Li Xiang | Endorsed | Internal DCPC - 21 june 2012 | Beijing | OK |
| #Nov 2010 | ECMWF | ECMWF | 1 | Hiroyuki & Weiqing | Endorsed | Demo done Oct 2010 | GEONetwork server | OK |
| # Oct 2010 | EUMETSAT | EUMETSAT | 51 | Hiroyuki & Li Xiang | Endorsed | Demo done Oct 2010 | Signed off Nov 2010 | OK |
| # May 2011 | France | GPC/LRFMME Toulouse | 69 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | NWP Toulouse | 71 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | RCC (Toulouse, Lead RA VI on LRF) | 70 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | RSMC (EER) Toulouse | 72 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # Jun 2011 | France | RSMC (TC) | 73 | Matteo | Endorsed | Done by GISC Toulouse  | Toulouse | OK |
| # May 2011 | France | RTH Toulouse | 68 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # May 2011 | France | VAAC Toulouse | 74 | Hiroyuki / Weiqing | Endorsed | Done with GISC | Toulouse | OK |
| # Sep 2010 | Germany | Global Collecting Centre (GCC) for observations from VOS under the MCSS (Marine Climatological Summaries Scheme) Offenbach | 45 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | Global Precipitation Climatology Centre (GPCC) Offenbach | 43 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | GRUAN Lead Centre DWD | 49 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | ICSU World Data Centre for Climate (WDCC) | 48 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Sep 2010 | Germany | Regional Climate Centre on Climate Monitoring (RCC-CM) for Europe | 50 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | RSMC-Geographical Offenbach | 42 | Hiroyuki & Li Xiang | Endorsed | Done with GISC Offenbach | Offenbach | OK |
| # Sep 2010 | Germany | World Data Center for Remote Sensing of the Atmosphere (WDC-RSAT) | 46 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Sep 2010 | Germany | World Radiation Monitoring Center (WRMC) | 44 | Markus | Endorsed | Done by GISC Offenbach  | Offenbach | OK |
| # Apr 2011 | Hong Kong, China | WWIS - Hong Kong | 118 | Siegfried | Endorsed | April, 26 2011 | Offenbach | OK |
| # Aug 2010 | Japan | Global Producing Centre for Long-Range Forecast (GPC/LRF) | 59 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | Meteorological Satellite Centre (Tokyo) | 55 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | National Climate Centre Toyko | 60 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC – TC (Tokyo) | 56 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC on Data Processing and Forecasting System | 57 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | RSMC-ATM Products for EER and Backtracking | 58 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # Aug 2010 | Japan | WDC-GHG | 61 | Matteo & Baudouin | Endorsed | Internal DCPC | Tokyo | OK |
| # May 2012 | Republic of Korea | (GPC/LRFMME)–Seoul | 53 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2012 | Republic of Korea | NMSC (National Meteorological Satellite Centre (Tokyo) | 54 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2012 | Republic of Korea | WAMIS | 52 | Sunghoi | Endorsed | Internal DCPC | Seoul | OK |
| # May 2011 | UK | Marine Observations Centre | 65 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC - EER | 63 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |
| # May 2011 | UK | RSMC (Global and Regional Climate Centre) | 67 | Hiroyuki & Weiqing | Endorsed | Internal DCPC to Exeter | Exeter | OK |

# Annex 8 - DCPCs still to complete demonstrating wis compliance

| **Date of Review** | **Member State or Org** | **Centre** | **ID no.** | **Team** | **TT-CAC Result** | **Comments** | **GISC** | **WIS Manual** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| # TBD | ACMAD | RSMC | 134 | TBD | Awaiting information |   | TBD | Not in Manual |
| # Apr/May 2012 | Finland | FMI-ARC | 16 | Markus | Awaiting information |   |   | Possibly, should still be conditional pending CBS endorsement |
| # TBD | ACMAD | RCC | 135 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Germany | Global Runoff Data Centre (GRDC) | 47 | Markus | Awaiting internal endorsement |  | Offenbach | Should be conditional pending CBS endorsement |
| # TBD | Algeria | RTH Algiers | 20 | TBD | Awaiting information |   | TBD | Not in Manual |
| # 1st Qtr 2015 | Italy | RSMC Rome | 98 | Markus | Not ready for final review | ET-GDDP reviewed Dec 2011 | Offenbach | Conditional but not ready |
| # TBD | Algeria | RSMC Algiers | 159 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Argentina | RTH Buenos Aires | 107 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Argentina | RSMC Buenos Aires | 108 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Argentina | VAAC Buenos Aires | 109 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Argentina | Regional Ozone Centre | 110 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Argentina | RIC Buenos Aires | 111 | TBD | Awaiting information | CIMO not accepting RICs as DCPCs without special justification to CIMO | TBD | Not in Manual |
| # TBD | Brazil | Marine Meteorological Center | 117 | TBD | Awaiting information | TBD | Brasilia | Not in Manual |
| # TBD | Egypt | RTH Cairo | 2 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Egypt | RSMC Cairo | 101 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Egypt | RIC Cairo | 102 | TBD | Awaiting information | CIMO not accepting RICs as DCPCs without special justification to CIMO | TBD | Not in Manual |
| # TBD | Egypt | Regional Ozone Centre | 103 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Egypt | Regional Training Centre (RTC) | 104 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Egypt | Regional Radiation Centre (RRC) | 105 | TBD | Awaiting information |   | TBD | Not in Manual |
| # TBD | Fiji | RSMC - TC | 106 | TBD | Awaiting information |   | TBD | Not in Manual |
| # | France | ODC Toulouse | 124 | Matteo | Awaiting information | Partnership with UKMO | Toulouse | Understood that Toulouse node operational and endorsed. Need to confirm |
| # TBD | India | RSMC-TC | 100 | TBD | Awaiting information |   | TBD | Not in Manual |
| # | IODE | IODE Ocean Data Portal | 119 | Kenji | Awaiting information | ET-GDDP reviewed Dec 2011 (Check Country) | TBD | Not in Manual |
| # Before CBS Ext 2014 | Japan | NICT (Space Weather) | 160 | Markus | Awaiting information | External DCPC | Tokyo | Not in Manual |
| # end 2014 | Kenya | RIC Nairobi | 96 | Markus | Awaiting information | CIMO not accepting RICs as DCPCs without special justification to CIMO | TBD | Not in Manual |
| # end 2014 | Kenya | RSMC Nairobi | 95 | Markus | Awaiting information |   | TBD | Not in Manual |
| # end 2014 | Kenya | RTH Nairobi | 6 | Markus | Awaiting information |   | TBD | Not in Manual |
| # TBD | Morocco | RSMC | 130 | TBD | Awaiting information | Internal to GISC | Casablanca | Not in Manual |
| # TBD | Morocco | RIC/RMIC | 131 | TBD | Awaiting information | CIMO not accepting RICs as DCPCs without special justification to CIMO | Casablanca | Not in Manual |
| # TBD | Morocco | RCC | 132 | TBD | Awaiting information | Internal to GISC | Casablanca | Not in Manual |
| TBA | UK | European Radar (ODC Exeter) | 123 | Chris Little | Awaiting information | Partnership with MF | Exeter | Not clear if operational. Not in manual,  |
| # TBD | Morocco | AMDAR Centre | 133 | TBD | Awaiting information | Internal to GISC | Casablanca | Not in Manual |
| # TBD | Netherlands | RCC De Bilt | 21 | Li Xiang | Awaiting information |   |   | Conditional pending CBS endorsement |
| # TBD | Netherlands | Satellite Centre De Bilt | 78 | Li Xiang | Awaiting information |   |   | Conditional pending CBS endorsement |
| # Before CBS Ext 2014 | New Zealand | RSMC Wellington | 13 | Weiqing | Awaiting information |   | Melbourne | Not in Manual |
| # Before CBS Ext 2014 | New Zealand | RTH Wellington | 79 | Weiqing | Awaiting information |   | Melbourne | Not in Manual |
| # Before | New Zealand | VAAC Wellington | 140 | Weiqing | Awaiting information |   | Melbourne | Not in Manual |
| # TBD | Niger | AGRHYMET Niamey | 27 |   | Awaiting information |   | TBD | Not in Manual |
| # TBD | Niger | RTH Niamey | 26 |   | Awaiting information |   | TBD | Not in Manual |
| # TBD | Norway | Norwegian Institute for Air Research (NILU) | 115 | Kenji | Awaiting information | ET-GDDP reviewed Dec 2011 |   | Conditional but not ready |
| # Before CBS Ext 2014 | Qatar | Gulf Marine Center | 146 | Remy | Awaiting information | See email from Sunghoi | Jeddah | Not in Manual |
| # TBD | Russian Federation | RSMC (EER) | 84 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | NODC & GDC - Obninsk | 85 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | RSMC (EER) | 86 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | RTH/RSMC Novosibirsk | 87 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | WDC (ICE) - St Petersburg | 88 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | RCC Moscow | 90 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | GDC (Solar Radiation) | 91 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | RTH/RSMC Khabarovsk | 92 | TBD | Awaiting information | To be done by Moscow | Moscow | OK |
| # TBD | Russian Federation | Ocean Data Portal - Obninsk node | 130 | TBD | Awaiting information | Internal to GISC | TBD | Not in Manual |
| # TBD | Saudi Arabia | RDMEC (Drought) | 81 | TBA | Awaiting information | Internal DCPC | Jeddah | Not in Manual |
| # TBD | Saudi Arabia | RSMC Jeddah | 80 | TBA | Awaiting information | Internal DCPC | Jeddah | Not in Manual |
| # Expected 2015 | Senegal | Dakar aviation centre | 93 | Sunghoi | Awaiting information | ASECNA | TBD | Not in Manual |
| # Expected 2015 | Senegal | RSMC Dakar | 94 | Sunghoi | Awaiting information | ASECNA | TBD | Not in Manual |
| # Expected 2015 | Senegal | RTH Dakar | 4 | Sunghoi | Awaiting information | ASECNA | TBD | Not in Manual |
| # Before CBS Ext 2014 | Spain | MEDARE | 139 | Kevin | Awaiting information | Under review Jan 2013 | TBD | Not in Manual |
| # TBD | Sweden | Baltrad  | 83 | Don | Awaiting information | TBD | Offenbach | Conditional pending CBS endorsement |
| # TBD | Sweden | IPY data repository | 82 | Don | Awaiting information | TBD | Offenbach | Conditional pending CBS endorsement |
| #TBD | Switzerland | GAWSIS (Switzerland) | 145 | Don | Awaiting information | TBD | Offenbach | Conditional pending CBS endorsement |
| # ready for review | Thialand | RTH Bangkok | 5 | Kenji | Awaiting information | Kenji to follow up | TBD | Not in Manual |
| # Requested asap | Turkey | [RCC Turkey (EEMC) http://dcpc.mgm.gov.tr](http://dcpc.mgm.gov.tr/) | 162 | Markus | Awaiting information |   | Offenbach | Not in Manual |
| TBA | UK | BAS Cambridge | 142 | Chris Little / Steve Colwell | Awaiting information | External DCPC to Exeter | Exeter | Not in Manual |
| # TBD | UK | VAAC London | 137 | Chris Little / Nigel Gait | Awaiting information | Internal DCPC to Exeter | Exeter | Not in Manual |
| # TBD | UK | WAFC London | 136 | Chris Little / Nigel Gait | Awaiting information | Internal DCPC to Exeter | Exeter | Conditional pending CBS endorsement |
| # TBD | USA | COMET | 144 | Lothar | Awaiting information | Comments requested | Washington | Not in Manual |
| # TBD | USA | NCAR | 3 | Lothar | Awaiting information | Waiting on GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | WAFC Washington | 28 | TBD | Awaiting information | Internal to GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | RSMC Miami  | 29 | TBD | Awaiting information | Internal to GISC | Washington | Not in Manual |
| # TBD | USA | RSMC Honolulu | 30 | TBD | Awaiting information | Internal to GISC | Washington | Not in Manual |
| # TBD | USA | NCEP | 31 | TBD | Awaiting information | Internal to GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | ARL | 31 | TBD | Awaiting information | Internal to GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | NCEP | 32 | TBD | Awaiting information | Internal to GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | GOSIC | 33 | TBD | Awaiting information | Waiting on GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | NODC | 34 | TBD | Awaiting information | Waiting on GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | NGDC | 35 | TBD | Awaiting information | Waiting on GISC | Washington | Conditional pending CBS endorsement |
| # TBD | USA | NESDIS | 36 | TBD | Awaiting information | Waiting on GISC | Washington | Conditional pending CBS endorsement |
| # TBD | Uzbekistan | RTH Tashkent | 18 | Sunghoi | Awaiting information |   | TBD | Not in Manual |

# Annex 9 – Country Profile Database view of WIS



# Annex 10 – TT-CAC Work plan

|  |  |  |
| --- | --- | --- |
| **TT-CAC Action Plan Reference**  | **Action**  | **Person (if identified) and status** |
| TT- CAC/01  | Complete audits and reviews of existing DCPCs and GISCs  | Immediately after meetingChair to contact Li XiangDave to provide progress report to telco. (June) |
| TT- CAC/02  | Update the document WIS DEMONSTRATION PROCESS PROCEDURES AND GUIDELINES (http://www-db.wmo.int/WIS/centres/guidance.doc) based on past experience  | Target JulyAudit letter, template report, Kevin’s process Review process diagram - BaudouinGeneral review of text. – Kevin & MatteoReview the following in light of the process: Remy- Background –- Demonstration procedures – - Questionnaire guidelines -Demo test cases – Markus & Leon (Annex A)Telecon – Mid June to review the workReview Remy and Kevin’s work.Aim to complete task by end of July for inclusion in CBS |
| TT- CAC/03  | Draft document on the procedure on rolling review of WIS centres  | Done, to be finalized by Kevin. For inclusion. Provide comments in 2 weeksKevin to review feedback Telco mid June to discuss. Add to guide |
| Guidance for TT members  | See report to ET-WISC 2013 (http://wis.wmo.int/doc=2587 )  | Based on TT/CAC / 03, to be ready for next audit round |
| TT/CAC/04 | Update WIS centres and demonstration databases , included sample answers (remove) | Seek secondment (see doc/report) |
| TT-CAC/05 | Update check lists and tests | Based on CBS output.  |

1. TT-CAC Membership - <http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc-tt-cac/members> [↑](#footnote-ref-1)
2. TT-CAC TOR - <http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc-tt-cac/tors> [↑](#footnote-ref-2)
3. Regional WIS IPs - <http://www.wmo.int/pages/prog/www/WIS/wiswiki/tiki-list_file_gallery.php?galleryId=75> [↑](#footnote-ref-3)
4. Manual on WIS (WMO No. 1060) - <http://wis.wmo.int/wis-manual> [↑](#footnote-ref-4)
5. Guide to WIS (WMO No. 1061) - <http://wis.wmo.int/wis-guide> [↑](#footnote-ref-5)
6. TT-CAC Membership - <http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc-tt-cac/members> [↑](#footnote-ref-6)
7. TT-CAC TOR - <http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc-tt-cac/tors> [↑](#footnote-ref-7)
8. TT-CAC Work Plan - <http://www.wmo.int/pages/prog/www/CBS/Experts/plans/ET-WISC-ActionPlans.pdf#page=6> [↑](#footnote-ref-8)
9. \*\* Document is on TT-CAC internal working page (Must be approved member of TT-CAC to access) [↑](#footnote-ref-9)
10. WIS Compliance Specifications GISC, DCPC,NC ( v1.2)
 - <http://www.wmo.int/pages/prog/www/WIS/documents/TechnicalSpecification1-2.doc> [↑](#footnote-ref-10)
11. Nomination form for CBS experts, including TT-CAC - [http://wis.wmo.int/doc=2155](http://wis.wmo.int/doc%3D2155) [↑](#footnote-ref-11)