

Minutes of GAW World Data Centre Managers Meeting  
5th May 2006, WMO Geneva

*WMO Meeting Room 6<sup>th</sup> Floor Lake End*

| Agenda Item  | Action Item | Due Date                 |
|--|-------------|--------------------------|
| Meeting opened by Len Barrie, and passed to Jörg Klausen (Chair) and Julian Wilson (Rapporteur). Apologies for absence of Ed Hare (who joined the second half of the meeting via telephone conference call), Slobodan Nickovic and Tim Coleman. The group expressed condolences to Slobodan. The group regrets that meeting could not take place in St. Petersburg place and thanks Anatoly for offering to host next meeting. |             |                          |
| <i>1. Agenda presented by JK &amp; amended/expanded by group.</i>  |             |                          |
| <i>2. Review of Minutes of previous meeting (WDCMM2005)</i>  |             |                          |
| AI2005.1 – Closed  |             |                          |
| AI2005.2 – <b>Open</b>   | <b>1</b>    | 2006-05-31               |
| AI2005.3 – Closed  |             |                          |
| It was felt that Journals could not enforce this. However, proper acknowledgment remains an important issue and an alternative solution was sought.  | <b>2</b>    | 2006-05-31<br>2006-12-31 |
| AI2005.4 – <b>Open</b>   | <b>3</b>    | 2006-05-31               |
| AI2005.5 – Closed  |             |                          |
| WRDC latest update to web site to be approved in June 2006 St. Petersburg meeting which will be held following a request by the WMO Executive Council 57.  |             |                          |
| AI2005.6 – Closed  |             |                          |
| AI2005.7 – Closed  |             |                          |
| AI2005.8 – Closed.   |             |                          |
| Such relevant ancillary data should be made available and easily discoverable, but flagged as being of unknown quality. WDCGG is in the process of separating ancillary data.  | <b>4</b>    | 2006-05-31<br>2007-03-31 |
| AI2005.9 – Closed for WOUDC; WDCGG well underway; <b>Open</b> for WDCA, WDCPC, WRDC.   |             |                          |
| The approach using automatic flat file generation and ingestion by GAWSIS should be realized for all WDCs.   | <b>5</b>    | 2006-06-30<br>2006-12-31 |
| AREP should formulate the questions that this will answer and GAWSIS should implement flexible queries accordingly.  | <b>6</b>    | 2006-07-31               |

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|---|-------------|--------------------------|
| <p>AI2005.10 – <b>Open</b></p> <p>The value of easy access to audit histories was emphasized. For a start, a clickable figure with timelines indicating dates of audits should be publicized in GAWSIS (for all variables) and at WDCs (for the respective variables). Use Brewer as an example.</p>                    | <b>7</b>    | 2006-12-31               |
| <p>AI2005.11 – Closed</p>   |             |                          |
| <p>AI2005.12 – <b>Postponed</b></p> <p>Revisit in ongoing harmonization of web presences. Explore the possibility to incorporate Google Earth in GAWSIS to navigate to a particular station. A concern is raised that Google Earth may be too 'heavy' for many users of GAWSIS considering their limited bandwidth.</p> | <b>8</b>    | 2006-06-31<br>2006-12-31 |
| <p>AI2005.13 – Closed</p>   |             |                          |
| <p>AT attends BSRN meeting and will report back to WDCM at next meeting</p>   |             |                          |
| <p>AI2005.14 – Closed</p>   |             |                          |
| <p>Will be continued in Action Item 4</p>   | <b>4</b>    | 2007-03-31               |
| <p>AI2005.15 – Closed</p> <p>Aerosol SAG doesn't accept Brewer as UV AOD measurement, pending general acceptance of measurement. UV aerosol backscatter data from ozone lidar will stay at WOUDC pending Aerosol SAG lidar workshop in September 2006.</p>  |             |                          |
| <p>AI2005.16 – Closed</p>   |             |                          |
| <p>Data is ready to go.</p>   |             |                          |
| <p>AI2005.17 – <b>Open</b></p>  |             |                          |
| <p>AI2005.18 – Closed</p>   |             |                          |
| <p>AI2005.19 – Closed</p>   |             |                          |
| <p>AT offers to host next meeting in St. Petersburg.</p>  |             |                          |

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| <p>3. <i>WMO GTS/WIS and GAW (near) real time data exchange</i><br/> <b>(Presentation: Joël Martellet, WMO)</b></p> <p>WIS streamlines and updates GTS and expands it to other types of data and wider participants: network of national centres, global information centres, data collection and production centres and data communication networks. NMCs and very few special centres (not even ECMWF) are GTS entry points. Data transmitted as 'bulletin' (with header), or 'file' (with file naming convention). Chemistry data can be included but must be added to definition table. 'Code-driven formats' such as BUFR (highly compressed binary format), CREX (the character version of BUFR) or GRIB are much more flexible. BUFR is suitable for general data transfer, GRIB for gridded data, while CREX is only useful for small amounts of data. CREX is much more human-readable and -writeable than BUFR, but bulkier. XML and NetCDF are just 'envelopes' requiring agreement on contents. Data described by pointers to WMO tables – internationally agreed codes, units etc. with annual updates. To add new parameters, just add new codes to the tables, no need to re-write entire programs. All files contain reference to table edition, thus readability is guaranteed forever. Fortran based BUFR coding systems are freely available, but more widely spread in UNIX &amp; LINUX rather than Windows environments.</p> <p>Document and .ppt presentation are available on the WMO/WWW web site and will be distributed.</p> <p>J. Martellet is commended for an excellent and very informative presentation.</p> |             |                   |
| <p>4. <i>Progress reports of WDCs, GAWSIS</i></p> <p>WDCGG. WDCGG will move to new computer this year, plans to distinguish reporting, terminated and non-reporting stations on the map they show. Revision of the new WDCGG guide is delaying because of staff shift in April. WDCGG wanted to go to .csv data format but met some resistance from major client (NOAA), so this plan will likely be abandoned. Data format and WDCGG ID will be discussed and revised hereafter. The draft of the guide will be circulated among WDC managers for review. WDCGG is planning to publish this new guide in this year. Old versions of archive data (based on WDCGG CD-ROM) will be provided on the WDCGG home page, addressing a request by the GG research community. WDCGG is developing a method for a minimum check of received data and will use it after some approval is obtained from SAG GG. If unusual data is detected, WDCGG will ask the station or consult with SAG GG. Some new ship measurements were added to the data centre.</p> <p>At some point in the future, mobile platforms will have to be added to GAWSIS.</p> <p>WRDC. New web site and new user access software. Future activity of WRDC to be discussed at meeting of experts in St.</p>   | <p>9</p>    | <p>2007-05-31</p> |

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| <p>Petersburg 7-8 June 2006. WRDC included Swiss sites as GAW sites in 2006. It was noted that funds from World Bank and Roshydromet for modernization of computer system are expected to further increase of capacity of WRDC. The WRDC distinction between 'conventional' and 'GAW' sites is questioned and it will be discussed during the St. Petersburg meeting.</p> <p>WOUDC. Interlinking datasets to the calibration histories. Plans to provide an indication of the usefulness of the datasets to the users by highlighting instruments with information on the website. A template is complete, awaiting further information from SAGs and community. NRT data delivery is a concern.</p> <p>WDCA. WDCA new web site address: <a href="http://wdca.jrc.it/">http://wdca.jrc.it/</a>. Still have problems to ingest CREATE files in NARSTO from NILU, to be resolved before summer. Provide online access to Aerosol data from Ispra site.</p> <p>GAWSIS. Progress has been made with WDCGG in defining and producing the flat file. Some inconsistencies remain in station identification at WDCGG, but this is currently being addressed. GAWSIS is adding additional intermediate group variables such as VOCs. Adding BSRN, SHADOZ, EANET and NADP station IDs to 'master table' . Ingesting EMEP data is not straightforward, as their matrix definitions are rather complex. Guidance needed from secretariat on relationships of the latter with GAW, and the implications for registration in GAWSIS.</p> <p>GAW and EMEP – concern that the new EMEP station policy and GAW are not fitting together. EMEP and NDSC were always highlighted as contributing networks – the exact nature of the EMEP relationship with GAW needs to be clarified and agreed between both partners.</p> | <p>10</p> <p>11</p> <p>12</p> | <p>Monthly</p> <p>2006-07-31</p> <p>2006-07-31</p> |
| <p>5. <i>CAS-14 and GAW Strategic Implementation Plan (Convenor: L. Barrie, WMO)</i></p> <p>The group briefly reviewed the outcome of the meeting that they attended 3-4 May. The WDCMs re-iterated that their primary mission was to archive and disseminate quality-assured data of the highest possible quality. They expressed a strong interest in getting involved in the development of GAW and to take advantage of new ways of receiving data as they are emerging with the implementation of IGACO.</p> <p>As part of the new Strategic Plan, Terms of References for all GAW Central Facilities are needed.</p>   | <p>13</p>                     | <p>2006-05-15</p>                                  |
| <p>6. <i>Discussion of GSP planning meeting actions: GTS/WIS &amp; NRT, and DLR Satellite WDC proposal.</i></p> <p>DLR has become an ICSU World Data Centre for satellite remote sensing, and has offered to join GAW, either endorsing them as end users, or by GAW accepting them as a joint WMO/ICSU satellite data integration facility.</p> <p>Meanwhile WDCGG intends to collect and make available</p>  | <p>14</p>                     | <p>2006-05-15</p> <p>2007-05-31</p>                |



| Agenda Item  | Action Item | Due Date |
|--|-------------|----------|
| meeting in St. Petersburg, tentatively 2 <sup>nd</sup> half of June 2007 (after WMO Congress). |             |          |

## Action Items

|   | Action Item   | Responsible      | Due Date                 |
|---|---|------------------|--------------------------|
| 1 | <p>All WDCMs to confirm to JK by e-mail that the station naming/identification issues below are resolved!</p> <ol style="list-style-type: none"> <li>1. Brazzaville, Leopoldville: no change,</li> <li>2. Reunion: <b>Ed &amp; Julian</b>,</li> <li>3. Hong Kong: <b>Ed, Tsatsumi &amp; Tim</b> to decide,</li> <li>4. Varanasi/Benares: <b>Ed</b>,</li> <li>5. Gonghe/Waliguan: no change,</li> <li>6. Ushuaia/Ushuaiall: no change,</li> <li>7. Tudor Hill/St David's Head are two sites. Tudor Hill will now be called Tudor Hill / Southampton: <b>Julian &amp; Toshifumi</b>,</li> <li>8. Georgia Strn/ Griffin: Same site <b>Ed &amp; Tim</b>,</li> <li>9. Sterling Hill / Washington: <b>Ed</b>,</li> <li>10. Egbert 1&amp;2, Harcourt 1&amp;2, Caribou1&amp;2, Goose Bay1&amp;2: <b>Tim</b> to choose final number,</li> <li>11. Midway &amp; Sand Islands: <b>Julian/Tsatsumi</b></li> <li>12. Cape Matatula: <b>Julian</b> to update names,</li> <li>13. Melbourne, Melbourne-Laverton &amp; Broadmeadows, 3 sites drop Melbourne from 2<sup>nd</sup>, <b>Ed/Jörg</b></li> <li>14. Dwerja Point &amp; Giordan Lighthouse: no change,</li> <li>15. Tibilisi: <b>Jörg /Ed</b>,</li> <li>16. Jungfrauoch: <b>Julian</b> (all WDCA ids are the last 7 characters),</li> <li>17. Strathvaich: <b>Julian</b> Name to Ed,</li> <li>18. Skreaadalen: <b>Julian</b> Name</li> <li>19. Ny Alesund /Zeppelin bottom and top of mountain – two sites new name and sond m altitude: <b>Jörg &amp; All</b>,</li> <li>20. McMurdo = McMurdo/Arrival Height: <b>Jörg</b>,</li> <li>21. Wilkes: <b>Ed</b></li> <li>22. Vansquo, Asquith &amp; Saskatoon separate stations: <b>Jörg &amp; Ed</b></li> </ol> | All WDCMs        | 2006-05-31               |
| 2 | WDC standard acknowledgement to be displayed prominently at WDCs (best would be to include it in each data file). Statement will also be included in Strategic Plan.  | All & JK         | 2006-05-31<br>2006-12-31 |
| 3 | Phrase on submission policy of QA'd data ("as soon as possible and within 1 year, with the possibility to submit new versions after further scrutiny") to go in Strategic Plan.   | GB to draft & JK | 2006-05-31               |
| 4 | Include a recommendation on this in the strategic plan  | JK<br>YT, AT, JW | 2006-05-31<br>2007-03-31 |
| 5 | WDCA, WDCPC and WRDC are to submit first complete versions of flat file by 2006-6-30; and to implement automatic flat file generation by end of 2006. GAWSIS is to work with WDCs and to implement ingestion routines.  | AT, JW, TC, & JK | 2006-06-30<br>2006-12-31 |
| 6 | AREP to provide to GAWSIS a list of queries and questions that AREP needs GAWSIS to answer.   | LB, GB, SN       | 2006-07-31               |
| 7 | Produce a draft proposal/implementation in GAWSIS based on Ken Lamb's Brewer example (www.ios.com) for review by the group.   | JK               | 2006-12-31               |
| 8 | Explore the possibility to incorporate Google Earth in GAWSIS. Len to talk to Shane from Cape Grim  | LB<br>JK         | 2006-06-31<br>2006-12-31 |

|           | <b>Action Item</b>  | <b>Responsible</b>                 | <b>Due Date</b>                          |
|-----------|---|------------------------------------|--|
|           | to contact JK about this.   |                                    |  |
| <b>9</b>  | Prepare a draft proposal regarding the representation of mobile GAW stations for the next meeting   | <b>JK, YT</b>                      | <b>2007-05-31</b>                        |
| <b>10</b> | JW to provide AREP (GB) with monthly updates on progress with CREATE data.  | <b>JW, GB</b>                      | <b>Monthly until issues are resolved</b> |
| <b>11</b> | LB to provide guidance to JK regarding the status of EMEP, NAPD, etc. vis-à-vis GAW and the implications regarding registration in GAWSIS.  | <b>LB</b>                          | <b>2006-07-31</b>                        |
| <b>12</b> | LB to find the MoU with EMEP, and together with JK to begin to resolve issues with EMEP.  | <b>LB, JK</b>                      | <b>2006-07-31</b>                        |
| <b>13</b> | Data managers to critically review GAW Report 142 Chapter 6, GAW Report 156 Chapter 6, as well as LBs 'What is a world data centre' working document and provide feedback to JK. Also, any input for the new Strategic Plan Chapter 8 (Integration and Application of Observations) should be directed to JK. | <b>LB, All WDCMs</b>               | <b>2006-05-15</b>                        |
| <b>14</b> | Vitali Fioletov to join the GSP brainstorming (O. Hov, R. Hoff, H. Kelder) to represent the data centres, in particular JMA and their GOSAT plans, and report back to them.   | <b>LB</b>                          | <b>2006-05-15<br/>2007-05-31</b>         |
| <b>15</b> | Two members of WDCMM to join the JSSC ET-NRT to represent the data centres and report back to them. They will be identified after the mandate of the ET is established – ideally at least one of the two should be from WDCGG (surface ozone) and WDCA (PM).  | <b>LB</b>                          | <b>2006-12-31</b>                        |
| <b>16</b> | Iterate on the 3 letter coding scheme and agree a final naming convention.  | <b>JK, JW, YT &amp; K. Masarie</b> | <b>2006-12-31</b>                        |



## Appendix 1. List of Participants

| Name  | GAW Function                              | Affiliation  | Email Address  |
|---|---|--|--|
| Barrie, Leonard ( <b>LB</b> )                   | GAW Secretariat,<br>Chief of ENV Division | GAW WMO<br>Geneva, Switzerland                         | <a href="mailto:Lbarrie@wmo.int">Lbarrie@wmo.int</a>                         |
| Braathen, Geir ( <b>GB</b> )                    | GAW Secretariat                           | GAW WMO<br>Geneva, Switzerland                         | <a href="mailto:gbraathen@wmo.int">gbraathen@wmo.int</a>                     |
| Hare, Edward (by conference call) ( <b>EH</b> ) | GAWWDC Manager                            | World Ozone & UV Data Centre<br>Toronto, Canada        | <a href="mailto:ed.hare@ec.gc.ca">ed.hare@ec.gc.ca</a>                       |
| Klausen, Jörg (Chair) ( <b>JK</b> )             | GAWSIS Manager,<br>QA/SAC Switzerland     | Empa Dübendorf<br>Dübendorf, Switzerland               | <a href="mailto:joerg.klausen@empa.ch">joerg.klausen@empa.ch</a>             |
| Martellet, Joël                                 | WWW Secretariat                           | WWW WMO<br>Geneva, Switzerland                         | <a href="mailto:jmartellet@wmo.int">jmartellet@wmo.int</a>                   |
| Tsutsumi, Yukitomo ( <b>YT</b> )                | GAWWDC Manager,<br>QA/SAC Japan           | JMA<br>Tokyo, Japan                                    | <a href="mailto:y-tsutsumi@met.kishou.go.jp">y-tsutsumi@met.kishou.go.jp</a> |
| Tsvetkov, Anatoli ( <b>AT</b> )                 | GAWWDC Manager                            | World Radiation Data Centre,<br>St. Petersburg, Russia | <a href="mailto:tsvetkov@main.mgo.rssi.ru">tsvetkov@main.mgo.rssi.ru</a>     |
| Wilson, Julian (Rapporteur) ( <b>JW</b> )       | GAW WDC Manager                           | JRC<br>Ispra, Italy                                    | <a href="mailto:julian.wilson@jrc.it">julian.wilson@jrc.it</a>               |

## Appendix 1. Agenda

WORLD METEOROLOGICAL ORGANIZATION

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Version 1.2

05.05.4.2006

MEETING OF THE  
WMO GAWSIS AND WORLD DATA CENTRE  
MANAGERS  
(GENEVA, 5 May 2006)

### AGENDA

Friday 5 May 2006

**Chair: Jörg Klausen**  
**Rapporteur: Julian Wilson**

#### 09:00 Meeting opening

1. Approval of the Agenda  
*Doc 1.1 - Agenda*  
*Doc 1.2 – Participants Table*
2. Progress on tasks recommended by the 2005 meeting  
*Doc 2.1 - Minutes of the WDCMM2005*  
*Doc 2.2 - Minutes of the WDCMM2003*  
*Doc 2.3 – Progress on WDCMM2003 Action Item 10.c*
3. WMO GTS/WIS and GAW (near) real time data exchange (**Presentation: J. Martellet, WMO**)  
*Doc 4.1 - Communication on Weather Information System*  
*Doc 4.2 - New BUFR code descriptors for atmospheric chemistry parameters (draft proposal)*

#### 12:15 – 13:15 Lunch

4. Progress reports of WOUDC, WDCPC, WDCA, WRDC, WDCGG, GAWSIS
5. CAS-14 and GAW Strategic Implementation Plan (**Convenor: L. Barrie, WMO**)
6. GSP Meeting actions – GTS/WIS & NRT, and DLR Satellite WDC.
7. Other Business  
*Doc 6.1 – GAWSIS extension proposal (J. Klausen)*  
*Doc 6.2 – GAWID proposal (J. Klausen)*

#### 17:00 Meeting closure