



37th Meeting of the Joint Scientific Committee

25-27 April 2016, Geneva, Switzerland

June 2016

WCRP Report No. 14/2016

37th Meeting of the joint Scientific Committee of the World Climate Research Programme

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Scientific guidance for the World Climate Research Programme (WCRP) is provided by the Joint Scientific Committee (JSC), which meets annually and consists of scientists selected by mutual agreement between the three WCRP sponsoring organizations (the World Meteorological Organization (WMO), the International Council for Science (ICSU) and the Intergovernmental Oceanographic Commission (IOC) of UNESCO). The 37th meeting of the JSC took place in Geneva, Switzerland, from 25 to 27 April 2016.

The following summary report highlights the main outcomes and Actions resulting from the meeting, grouped by theme. The meeting agenda is shown in Appendix 1 and all Actions are summarised in Appendix 2. A list of attendees as well as additional documents and presentations are available from <http://www.wcrp-climate.org/jsc-37-documents>.

1. Welcome and opening messages

The 37th meeting of the WCRP JSC opened at 0900 LST and was held at the headquarters of WMO, Geneva, Switzerland. The Chair and the Director of WCRP welcomed the JSC members and all participants to Geneva. The co-sponsors of WCRP, WMO, IOC and IOC-UNESCO, reaffirmed their continued support for WCRP and wished the JSC a fruitful meeting.

F.Vladu, representative of the United Nations Framework Convention on Climate Change (UNFCCC), provided an introductory message summarizing the Paris Agreement (2015) and associated future opportunities for the climate community.

2. Reports of JSC Chair and JPS Director

G. Brasseur, chair of the JSC, recalled the 12 directions for WCRP that he introduced at the previous JSC meeting, and presented his analysis of their current status.. Reflecting on the COP 21 Paris Agreement, he emphasized the continuing need to redefine WCRP's strategic directions, and outlined some aspects that the JSC should consider :

- Work more on developing an active interface between WCRP and downstream activities, particularly in the context of regional WCRP activities
- Continue to focus on capacity building across WCRP. A background document on a set of WCRP capacity development was submitted to the session, with no sessional discussion. See <http://www.wcrp-climate.org/images/documents/jsc/JSC37/Capacity%20Development%20Principles.pdf>.
- Consider how to simplify the structure of WCRP
- Develop a new public relation approach
- Enhance role of JSC members, and

- Develop a long-term funding strategy

Both G. Brasseur and D. Carlson, Director of WCRP, reminded attendees that a review of WCRP, initiated by ICSU and endorsed by all co-sponsors, would be carried out over the next year. It was proposed that WCRP would take this opportunity to renew its strategic document over the same time period. See: <http://www.wcrp-climate.org/JSC37/Presentations/Brasseur-WCRP-JSC-2016.pdf>.

D. Carlson presented an update and overview of WCRP's 2015 budget, including realized and anticipated contributions and allocations to WCRP's core projects, grand challenges and working groups. Overall, following WMO accounting practices, the income and expenditures of the Joint Climate Research Fund (WMO trust fund operated on behalf of WCRP) ended slightly positive for 2015. National contributions, however, declined in both number and cumulative amount.

Action:

Update budget time series to cover period to 2016/17 and circulate to JSC prior to next JSC (JPS, prior to JSC38)

The WCRP Joint Planning Staff briefly reported on the status of actions decided at the previous session. See http://www.wcrp-climate.org/images/documents/jsc/JSC37/JSC36actions_2016-04-20_final_add.pdf.

3. The Next Generation of Scientists

V. Schemann, representing the Young Earth System Scientists (YESS), was invited to present at the meeting. YESS is an interdisciplinary network for Early Career Scientists (ECS) in Earth System Sciences. The presentation covered the structure of the growing YESS community, including the need for a YESS directorate and an ECS perspective on Earth System Science Frontiers. For further details see: http://www.wcrp-climate.org/JSC37/Presentations/YESS_JSC_Presentation.pdf

Decision: WCRP endorses YESS in principle

Actions:

- A. Core projects and WCRP activities to indicate how they will include ECS generally in their activities (leadership, membership, planning etc.) (Core Projects and other WCRP Activities; ASAP)**
- B. YESS to report on progress with regards to interactions with WCRP, in particular how ECS activities map to WCRP core projects and activities (YESS and WCRP JPS; ASAP)**

Lunch-time Seminar, IPCC WG I and CMIP6 reports

In cooperation with the WMO Lunchtime Forum series, WCRP invited JSC participants and interested observers from within WMO to attend a seminar presented jointly by Valerie Maisson-Delmotte (IPCC WG I co-chair) and Veronika Eyring (CMIP6 chair). An large and attentive audience heard excellent presentations on IPCC plans for the 6th Assessment Cycle and Report and on goals and progress of CMIP6.

4. WCRP Core Projects and CORDEX

The Core Projects (CPs) are a critical component of WCRP, each with its own project office and focused on a different aspect of the Earth system.

During the meeting representatives of the CPs expressed concerns about a perceived lack of communication between the JSC, chairs and project offices between JSC meetings. They also queried the role of the core projects in the new Grand Challenges and the lack of visibility in the outline of a strategic planning document. To improve these issues and enhance communications between the CPs, the chairs of the CPs proposed to conduct regular teleconferences among the CP co-chairs and Directors.

Actions:

- A. Self organise quarterly teleconferences (Core Project Chairs and Directors; ASAP)**
- B. Work with JPS for joint-outreach activities; newsletters and other media outreach of WCRP groups/activities should be highlighted and made available from the WCRP website (IPOs; ASAP and continuous)**
- C. Self organise meeting CP activity during the JSC sessions (Core Project Chairs and Directors; JSC-38 and thereafter)**

4.1 Climate and Ocean - Variability, Predictability, and Change (CLIVAR)

A. Bracco, CLIVAR SSG co-chair, gave an update on behalf of CLIVAR. She summarized the background, objectives of the project as well as highlighting various activities such as the new Science Plan that will be released at the end of this year, including a period of consultation with other WCRP core projects and activities. She reminded attendees of the CLIVAR Open Science Conference “Charting the course for climate and ocean research” being held on 18-25 September 2016, in Qingdao, China (<http://www.clivar2016.org/>). See: http://www.wcrp-climate.org/JSC37/Presentations/JSC2016_CLIVAR_FINAL.pdf

Action:

WGNE to engage with CLIVAR on Systematic Error Workshop (with respect to e.g. southern ocean biases, upwelling), in particular linking work being done between ocean and atmospheric communities (WGNE and CLIVAR co-chairs; ASAP)

4.2 Stratosphere-troposphere Processes And their Role in Climate (SPARC)

N. Harris, SPARC co-chair, summarized progress with SPARC, including the new SPARC Implementation Plan 2016-2020. The SPARC General Assembly will be held in Kyoto in October 2018. Of particular importance was the need to ensure continuation of the International Project Office for SPARC, after the current host agreement with Switzerland ends in Dec 2017.

For further details see: http://www.wcrp-climate.org/JSC37/Presentations/FINAL_SPARC_JSC37_v2copy.pdf

4.3 Global Energy and Water Cycle Exchanges Project (GEWEX)

The GEWEX update to the JSC was presented by S. Seneviratne, GEWEX co-chair. The presentation covered a review of past projects as well as a selection of new initiatives. Among the continuous progress of GEWEX Panels and initiatives, the JSC took note of an effort to reform the Global Atmospheric System Study (GASS) panel, with the aim of a more integrated systems approach in collaboration with the World Weather Research Programme (WWRP). The need for finer time/space resolution data was highlighted, to advance both process level understanding and evaluation. A few comments and suggestions were also made on the model development for prediction, taking into account the atmospheric and hydrological (regional) modelling.

See: http://www.wcrp-climate.org/JSC37/Presentations/Day2/GEWEX_at_JSC-2016_revised.pdf

Action:

- A. Organize a session during the High Resolution Modelling workshop (Sep.'16) on “modelling for prediction”, both high & low resolutions (GEWEX IPO & co-chairs; Sept. '16)**
- B. Pursue establishing/reforming GEWEX/GASS jointly with WWRP (GEWEX co-chairs, WWRP leaders; ASAP)**

4.4 Climate and Cryosphere (CliC)

G. Flato, CliC co-chair, highlighted CliC achievements since the last JSC. He pointed attendees to the detailed summary in the 2015 CliC Activity Report (<http://www.climate-cryosphere.org/media-gallery/1579-2015-clic-annual-report>). Several data and modeling related issues were highlighted, in particular:

- There is potential for targeted compilation and assessment of observational datasets that would support model evaluation and climate change impact research relevant to the cryospheric elements of the upcoming IPCC Assessment. This should be done in a way that complements Obs4MIPS.
- Some CliC activities might be coordinated with Global Cryosphere Watch (GCW), e.g. Arctic Sea Ice Working Group, ASPeCt (Antarctic Sea Ice Processes and Climate)
- Arctic CORDEX well established, but there are issues with regards to the Antarctic

See: http://www.wcrp-climate.org/JSC37/Presentations/Day2/CliC_JSC37.pdf

Actions:

- A. Obs4MIPs to consider inclusion of regional data sets, such as polar (WDAC/obs4MIPs; next monthly Obs4MIPs call)**
- B. Promote Antarctic CORDEX and clarify issues blocking progress (CORDEX co-chairs; Next CORDEX SAT)**

4.5 Regional Downscaling (CORDEX)

W. Gutowski, CORDEX co-chair, presented past achievements and plans of CORDEX (see <http://www.wcrp-climate.org/JSC37/Presentations/CORDEX-Update+Plans.160425.pdf>). Participants noted substantial changes in the International Project Office, including the new appointment of a director (Irene Lake), the development of CORDEX Coordinated Output for Regional Evaluation (CORE) associated with the IPCC requirement, and progress in building the framework for Flagship Pilot Studies (FPSs). The International Conference on Regional Climate (ICRC-CORDEX 2016: <http://www.icrc-cordex2016.org>) was in the final stage of organization, to be held from 17 to 20 May 2016 in Stockholm, Sweden. The JSC encouraged CORDEX modelling aspects to develop closer link with WCRP global modeling activities (e.g. WGCM).

5. WCRP Grand Science Challenges

D Carlson introduced the session on the Grand Challenges (GC) by reminding the JSC of what constitutes a WCRP GC (http://www.wcrp-climate.org/JSC37/Presentations/Day2/Grand_Challenge_Definition.pdf).

A. Current Grand Challenges

Presentations were made in turn by the current GCs (<http://www.wcrp-climate.org/jsc-37-documents>):

- Regional Sea Level Change and Coastal Impacts
- Understanding and Predicting Weather and Climate Extremes
- Clouds, Circulation and Climate Sensitivity
- Melting Ice and Global Consequences
- Water Availability

Highlights includes:

- A joint Sea Level conference between the WCRP Sea Level GC and IOC will be held on July 10 – 15, 2017 New York University, NY.

Action:

Explore support and relevant arrangements for EUREC4A field experiment as a WCRP/GC Clouds activity (GC Clouds leadership; ASAP)

B. Revised and Proposed Grand Challenges

One revised (Water for the Food Baskets of the World) and two new (Biogeochemical Cycles and Climate Change, and Near Term Climate Prediction) were presented to the JSC. Presentations for all three are available from: <http://www.wcrp-climate.org/jsc-37-documents>.

Water for the Food Baskets of the World

The GC on Water Availability was revised to have a stronger emphasis on food security and the impact of climate on food production. It poses the question “How will a warming world affect the available fresh water resources globally, and how does that translate specifically to the bread basket regions of the world?”. Three main regions were identified for primary foci: North American Great Plains and Central Valley, European Pannonian Basin and South East Asia and Wheat Regions. The implementation would be made in close consultation with the GEWEX Regional Hydroclimate Projects (RHPs), high-resolution modelling activities in the regions, and in partnership with regional activities.

Near-term Climate Prediction

A GC on near term (decadal) climate prediction (NTCP) was proposed to support three objectives:

- New research and development to improve multi-year to decadal climate predictions
- Collate and synthesize prediction output and tailor climate information
- Develop organizational and technical processes

The proposal includes synthesis of real time prediction information from multiple prediction systems, and assessment of the confidence the scientific community has in the information. The GC on Near-Term Climate Prediction will fill an important gap in provision of seamless climate information, between seasonal climate predictions and long-term projections, as recommended by the GFCS.

Biogeochemical Cycles and Climate Change (Climate and Carbon)

This GC aims to understand how biogeochemical cycles and feedbacks control GHG concentrations and impact the climate system. Guiding questions are:

- What are the drivers of land and ocean carbon sinks?
- What is the potential for amplification of climate change over the 21st century via climate-biogeochemical feedbacks?
- How do greenhouse gases fluxes from highly vulnerable carbon reservoirs respond to changing climate (including climate extremes and abrupt changes)?

The importance of encouraging GCs as focused activities, with clearly defined added value, that work in collaboration with other WCRP activities was noted. Progressive rotation of leadership should be used to avoid duplicated leadership between the CPs and GCs whenever possible. As with all WCRP activities it is also important to ensure both geopolitical and gender balance.

Decisions:

The Grand Challenges on Water for the Food Baskets of the World, Near Term Climate and Climate and Carbon are all endorsed.

JSC Liaisons to GCs are: M. Kimoto (Near-term Climate) and H Cleugh (Climate and Carbon).

The number of active GCs should be not more than 8 at any one time.

Actions:

- A. Near Term Climate Prediction GC should consider adding GEWEX rep. (and maybe CORDEX) to Steering Group (GC co-chairs, GEWEX and CORDEX chairs; ASAP)**
- B. Climate and Carbon GC should (GC co-chairs, JSC (H Cleugh, G. Brasseur; ASAP):**
 - Change title to clarify its focus (Climate and Carbon new provisional title)
 - Explicitly describe partnership with leading carbon community
 - Develop and elaborate a management plan to emphasize policy relevance, and the relevance and future connection/challenge with physical science
- C. Develop overall expectation, monitoring and evaluation guidelines for the Grand Challenges (JSC, JPS; JSC38)**
 - Explore labelling/branding of GCs in connection with Core Projects (communications + strategy)
 - Instigate review process of GCs with 2020 as a date to decide on future of these activities (e.g. to compile a synthesis paper).
 - Define lifetime/criteria for GCs
 - Consider developing a simple matrix to measure progress of GCs

6. WCRP Regional Activities

Recognizing urgent demand for regionally-relevant climate information, and the need to refine and revitalize WCRP regional activities, the JSC initiated a discussion through a background paper (see <http://www.wcrp-climate.org/images/documents/jsc/JSC37/WCRP%20regional%20activities.pdf>). It proposed an improved framework taking into account current capabilities and financial restrictions, by replacing the Working Group on Regional Climate (WGRC) with a WCRP Regional Advisory Council (WRAC).

After an in-depth discussion, during the open session as well as the JSC-only session, particularly around the scope and extent of WCRP regional activities, the JSC decided to form a subgroup to fully discuss these issues and provide concrete decisions on the way forward.

Actions:

A subgroup to explore a scope (what it should be), boundary (what it should not be) and plans for WCRP regional issues (Scoping team: G. Brasseur, V. Kattsov, J. Hesselbjerg Christensen, A. Lynch, YESS rep, CORDEX co-chairs, WGRC co-chairs and JPS; by October 2016)

Decision:

CORDEX to report directly to JSC (JSC38, or until further decision on the regional scope)

7. Joint initiatives on Urban Climate

A background paper was presented to the JSC (see: <http://www.wcrp-climate.org/images/documents/jsc/JSC37/Cross-cutting%20urban%20focus.pdf>) to propose a cross-cutting approach toward urban climate ensuring high-quality, science-based integrated urban services. Considering the complexity of urban issues, and in view of already well-established communities addressing urban climate and information for urban communities, the paper proposed to set WCRP's goal to encourage and support credible research leading toward reliable climate and environmental services for the urban community, in close collaboration with the established urban activities.

The JSC noted the on-going collaboration, mainly within the WMO context, providing climate aspects in the strategic process linked with the development of urban agenda in UN and UNHABITAT. It agreed that further discussion was required, linked with how WCRP handles regional climate issues. The following actions were decided to pursue this issue in parallel.

Actions:

- A. JSC members to lead / advise WCRP input to urban climate (J. Hesselbjerg Christensen, H. Cleugh; ASAP)**
- B. Further explore collaborations with ICSU & Future Earth in urban climate issues (JPS, JSC; Continuous)**

8. WCRP Data and Modelling Advisory Councils

The WCRP Data Advisory Council (WDAC) acts as a single entry point for all WCRP data, information, and observation activities with its sister programmes and ensures cooperation with relevant external partners. WDAC works with the WCRP Modeling Advisory Council (WMAC) to promote effective use of observations with models and to address issues related to the coordinated development of data assimilation, reanalysis, observing system sampling experiments etc. Full WDAC report to JSC is available from: http://www.wcrp-climate.org/JSC37/Presentations/Day2/WDAC%20Report%20-%20JSC37%20042516_final.pdf.

The JSC highlighted the importance of WDAC working with core projects and other relevant WCRP activities to ensure *ex officio* members are active connections. This should be a two-way connection ensuring relevant feedback both to and from WCRP wide activities.

WMAC commented that modelling issues are currently not very prominent in the proposed WCRP Strategy Document. It was also noted that because the WGNE, WGCM and WGSIP were moved into the WMAC agenda this year there was little time for deliberations. The suggestion was made to return to the format where WGs report directly to JSC and WMAC meets near the end of the meeting for 0.5 days and then reports back.

WMAC presentation: http://www.wcrp-climate.org/JSC37/Presentations/Day3/wmac5_to_jsc.pdf

Actions:

- A. Promote (a) Joint WCRP/WWRP model development prize (b) Model development summer schools (JPS, particularly comms.; continuous)**
- B. Ensure linkage with all Core Projects and other groups to the model development summer schools (WMAC with JPS; Continuous)**
- C. Address the presence and importance of WCRP's role in near-term prediction (through new GC for example) development, to WMO/CBS/CCI, and pursue interconnection between WGSIP and WMO operational modelling centers (e.g. GPCs and Lead Centers), for access to products for research purposes (JPS with WMO/GDPFS Secretariat)**
- D. WMAC to engage with modelling centres to solicit input on expectations from WCRP to feed into the strategy development. (WMAC; ASAP)**

9. Partners

WCRP does not work in isolation, but in mutually beneficial partnerships with organizations both with its sponsors (WMO, ICSU and IOC) and outside. Several partners were invited to make presentation during the JSC, including YESS (above), Future Earth, WWRP, GCOS, and IPCC (see lunchtime seminar, above). See <http://www.wcrp-climate.org/jsc37-agenda> for details. Several of these interactions are covered in other Actions, but specifically with regards to our sister programme, the World Weather Research Programme (WWRP) of WMO:

Actions:

- A. (SPARC, WGNE) to explore joint activities to look into short-lived forcings in modeling (WWRP, SPARC and WGNE co-chairs)**
- B. Continue & extend collaboration in GC-Extremes and HIWeather (WWRP and GC Extremes leaders; Continuous)**
- C. Consider a joint SSC-JSC meeting in 2018 (WWRP, JPS and JSC)**

10. Other Business

The JSC held several JSC only sessions to discuss topics such as WCRP finances, communications and the format of the meetings as well as to confirm leadership appointments within WCRP. There was an in depth discussion on the format and location of the JSC meetings. It was recognized that the meetings are expensive and there needs to be a balance between the costs associated with a longer meeting and enough time for the JSC to carry out the tasks it needs to. Suggestions were made to make the meeting more efficient e.g. production of an annotated agenda so that decisions required by the JSC are clearly laid out. There were a variety of opinions as to the location of future JSC meetings. The point was made that it is important to engage countries and scientists from around the world, but this had to be balanced against

the costs and associated carbon footprint. The need to redevelop the WCRP communications strategy was highlighted, especially that the JPS now included a part time communications officer.

Decision:

Appointment of JSC officers from 2017 - M. Mata, A. Cazenave and M Visbeck were appointed as JSC Officers and A. Lynch was appointed as JSC Vice Chair

Actions:

- A. Consider the optimal length of JSC meetings, for example organizing a five day meeting including a “Science Day” to allow more time for discussion (JSC, JPS; End 2016)**
- B. Consider re-locating JSC venues to different regions, liaising with/hosted by national academies and research entities and to include a dialogue session with such entities (JSC, JPS; End 2016)**
- C. WCRP activities to submit short written reports in advance to a set template (JPS, Prior to JSC38)**
- D. Prepare an annotated agenda at least a month in advance of the JSCs (JPS, Prior to JSC38)**
- E. Set a formal block of time for review/agreement for decisions during the JSC (JPS, JSC; Prior to JSC38)**
- F. Arrange at least 3 teleconference during the intersessional period (JSC; with CPs etc. TBD)**
- G. Appoint/renew 2 liaison persons within the JSC for each CP (or other groups as required), and encourage direct interactions**
- H. Develop a standard policy to recruit the CP SSG members**
- I. Invite outgoing JSC members (China, Russia) to be invited to JSC38**
- J. Re-develop WCRP communications strategy (Comms. officer, JPS and JSC; June 2016 (for 1st draft circulation) and report JSC38)**

11. Closing

G Brasseur thanked all JSC members, particularly those who finish their terms by the end of 2016 (V. Kattsov, H. Liao, P. Yanda) and participants for their dedicated service to WCRP.

The 38th JSC meeting venue and time: Paris, April 2017, Monday 3 April to Wednesday 5 April or Thursday 6 April (depends on overall schedule and ICSU review requirements).

The 37th Meeting of the WCRP Joint Steering Committee was closed at 1330 LST on 27 April 2016.

Appendix 1: JSC-37 Agenda

WCRP JSC-37 (25, 26 and 27 April 2016, Geneva, Switzerland)

1. Outline for Meeting Sessions

	Monday 25 April	Tuesday 26 April	Wednesday 27 April
09:00 – 10:30	0900 Welcomes (WMO, ICSU, IOC) 0930 Vision and setting (Chair JSC) 1000 JPS report on actions from JSC-36 (D/WCRP)	<i>Grand Challenge (GC) Reports</i> 0900 Introduction (D/WCRP) 0910 Sea Level 0930 Extremes 0950 Clouds 1010 Melting Ice	<i>Summary</i> 0900 Summary of WCRP plan on regional activities 1000 WMAC report
	(Coffee/Tea Break)		
11:00 – 12:30	1100 YESS (V. Schemann) 1130 CMIP6 Progress Report (V. Eyring) (1200 lunch break)	<i>New/Revised GCs</i> 1100 Water 1120 Near-term (decadal) prediction 1150 Carbon cycle	<i>Conclusion</i> 1100 Review draft actions/recommendations of JSC-37 1130 JSC-38, Any other business
	<i>V.Masson-Delmotte Seminar (1230 – 1330)</i>	(Lunch Break)	(1200 End of public JSC-37)
13:30 – 15:30	<i>Project/Activity Reports</i> 1330 CLIVAR 1415 SPARC 1500 CORDEX	<i>Project/Activity Reports</i> 1330 GEWEX 1415 CliC 1500 WDAC report	1330 JSC session Finance; Communication Link to groups & services Master schedule
	(Coffee/Tea Break)		
16:00 – 18:00	1600 Plans for WCRP Regional activities (D/WCRP) 1700 - 1800 JSC with JPS Regional Options ICSU review 2016-2021 Implementation Plan	(WMAC in parallel session) 1600 GCOS 1620 WWRP 1640 Joint initiatives on Urban Climate 1700 Partner programme interactions	(End of session)
	<i>Self-organized dinner</i>	<i>Self-organized dinner</i>	

Appendix 2: Summary of Actions from JSC 37

No.	Agenda item	ACTION	By/responsible	Deadline
1	YESS	<i>(Decision) WCRP endorses YESS in principle</i> <ul style="list-style-type: none"> - Core projects and WCRP activities to indicate how they will include ECS generally in their activities (leadership, membership, planning etc.) - YESS to report on progress with regards to interactions with WCRP, in particular how ECS activities map to WCRP core projects and activities 	JSC Core projects , WGs, GCs (and JPS) YESS and JPS	Done ASAP& continuous Before JSC-38
2	Core-Project Chairs discussion	<ul style="list-style-type: none"> - Organize quarterly teleconferences of Core-Project Chairs and Directors - Work with JPS for joint-outreach: newsletters and other media outreach of WCRP groups/activities should be highlighted and made available in WCRP website - Self organise meeting dinner during the JSC sessions 	IPOs IPOs CP Chairs / Directors	ASAP ASAP & continuous JSC-38 and thereafter
3	CLIVAR	WGNE to engage with CLIVAR on Systematic error workshop (wrt e.g. southern ocean biases, upwelling), in particular linking work being done between ocean and atmospheric communities	WGNE and CLIVAR co-chairs	ASAP
4	GEWEX	<ul style="list-style-type: none"> - Organize a session during the Hi Res Modelling workshop (Sep.'16) on "modelling for prediction", both high & low resolutions - Pursue establishing/reforming GEWEX/GASS jointly with WWRP 	GEWEX IPO & co-chairs GEWEX co-chairs, WWRP leaders	Sept.'16 ASAP
5	CLiC	<ul style="list-style-type: none"> - Obs4MIPs to consider inclusion of regional data sets, such as 	WDAC/obs4MIPs	Next monthly

		polar - Promote Antarctic CORDEX and clarify issues blocking progress	CORDEX co-chairs	obs4MIPs call Next CORDEX SAT
6	GC Clouds	Explore support and relevant arrangements for EUREC4A field experiment as a WCRP/GC Clouds activity	GC Clouds leadership	ASAP
7	GC Food baskets (Water)	<i>(Decision) Endorse the renewed concept</i>		Done
8	GC NTCP	- (Decision) Endorse the GC - (Decision) appoint JSC liaison to GC - Consider adding GEWEX rep. (and maybe CORDEX) to Decadal GC steering group	Masahide GC NTCP co-chairs with GEWEX (and maybe CORDEX) co-chairs	Done Done ASAP
9	GC Climate and Carbon (renamed)	<i>(Decision) Endorse the Climate and Carbon GC, with some recommended revisions:</i> - Change title to clarify its focus - Explicitly describe partnership with leading carbon community - Develop and elaborate a management plan to emphasize policy relevance, and the relevance and future connection/challenge with physical science <i>(Decision) appoint JSC liaison to GC</i>	GC BC co-chairs, with JSC members (Helen, Guy) Helen	Done ASAP Done
10	GC General	Develop overall expectation, monitoring and evaluation guidelines for the Grand Challenges - Explore labelling/branding of GCs in connection with Core Projects (communications + strategy) - Instigate review process of GCs with 2020 as a date to decide on future of these activities (e.g. to compile a synthesis paper). - Define lifetime/criteria for GCs - Consider developing a simple matrix to measure progress of GCs	JSC, JPS	JSC-38
11	JSC-JPS regional discussion	A subgroup to explore a scope (what it should be), boundary (what it should not be) and plans for WCRP regional issues	G. Brasseur, V. Kattsov, J. Hesselbjerg Christensen, A. Lynch, YESS rep, CORDEX co- chairs, WGRC co-chairs and JPS	ASAP and by Oct'16

		<i>(Decision) CORDEX to report directly to JSC</i>		
12	Urban Climate	<ul style="list-style-type: none"> - JSC members to lead / advise WCRP input to urban climate - Further explore collaborations with ICSU & Future Earth in urban climate issues 	Jens, Helen JPS with JSC members	ASAP Continuous
13	WMAC	<ul style="list-style-type: none"> - Promote: <ul style="list-style-type: none"> - Joint WCRP/WWRP model development prize - Model development summer schools - Ensure linkage with all CPs and other groups to the model development summer schools - Address the presence and importance of WCRP's role in near-term prediction (through new GC for example) development, to WMO/CBS/CCI, and pursue interconnection between WGSIP and WMO operational modelling centers (e.g. GPCLRFs), for access to products for research purposes - WMAC to engage with modelling centres to solicit input on expectations from WCRP to feed into the strategy development 	JPS (particularly comms), all WMAC with JPS JPS with WMO/GDPFS secretariat WMAC	Continuous Continuous ASAP ASAP & continuous
14	Partnership with WWRP	<ul style="list-style-type: none"> - (SPARC, WGNE) to explore joint activities to look into short-lived forcers in modelling - Continue & extend collaboration in GC-Extremes and HIWeather - Explore possibility for a joint SSC-JSC meeting in 2018 	(with WWRP leadership) SPARC, WGNE co-chairs GC-leaders JPS, JSC	ASAP& continuous Continuous Before JSC-38
15	JSC business	(Decision) Appointment of officers: Mauricio, Annie, Martin, Amanda as vice-chair <ul style="list-style-type: none"> - Consider the optimal length of JSC meetings, for example organizing a five day meeting including a "Science Day" to allow more time for discussion - Consider re-locating JSC venues to different regions, liaising with/hosted by national academies and research entities and to include a dialogue session with such entities - WCRP activities to submit short written reports in advance to a set template 	JSC, JPS JSC, JPS JPS	Done End 2016 End 2016 Prior to JSC-38

		<ul style="list-style-type: none"> - Prepare an annotated agenda at least a month in advance of the JSCs - Set a formal block of time for review/agreement for decisions during the JSC - Arrange at least 3 teleconference during the intersessional period - Appoint/renew 2 liaison persons within the JSC for each CP (or other groups as required), and encourage direct interactions - Develop a standard policy to recruit the CP SSG members - Invite outgoing JSC members (China, Russia) to be invited to JSC38 	<p>JPS</p> <p>JPS, JSC</p> <p>JSC with CPs, etc. JSC</p> <p>Vladimir, Martin JSC</p>	<p>Prior to JSC-38</p> <p>Prior to JSC-38</p> <p>TBD Done</p> <p>JSC-38 Prior to JSC-38</p>
16	Communications	Re-develop WCRP communications strategy	JPS (Comms. officer)	Jun'16 (for 1st draft circulation) Report JSC-38

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