ACCESS-NRI Scientific Advisory Committee

Thursday 3rd August 2023 / 2:00 PM - 3:30 PM

Contents

Welcome and Acknowledgement of Country

Attendance

Chair: Andy Hogg
Rapporteur: Heidi Nettelbeck
Attended: Rachel Law, Tilo Ziehn, Oscar Alves, Charmaine Franklin, Claire Vincent, Laurie Menviel, Ben Evans, Adele Morrison, Kelsey Druken, Victoria Allen
Apologies: Christian Jakob, Paul Spence, Martin Dix
Welcome: Victoria Allen (ACCESS-NRI business manager), Heidi Nettelbeck (ACCESS-NRI Atmosphere Team Lead)

Review of previous minutes and action items

The previous minutes of the meeting has been approved and uploaded on the [ACCESS-NRI website](#).

Action Items from last meeting:
1. *Add summary of all upcoming Working Group meetings in next Newsletter.*
2. *It was recommended to establish an ACCESS-NRI calendar on ACCESS Hive with the details of all Working Group meetings.*
   - Discussion still in progress about a shared calendar to publicise when all Working Group meetings are held.

3. *Kelsey Druken to add an item to the Merit Allocation Guidelines to allow for flexibility with unused compute.*
   - NRI is close to releasing guidelines for Working Group merit allocation for compute resources; still awaiting feedback from the outcome of 2023 NCRIS funding allocation scheme.
   - In the meantime, compute allocation for Working Groups has been rolled over from last quarter to current one.

4. *Aidan Heerdegen to circulate the document with more details to Paul Spence.*
   - Done

5. Post approved minutes of the meeting on ACCESS-NRI website.
   - Done

Confirmation of agenda

The agenda was confirmed with no additional items.

Minutes of ACCESS-NRI Scientific Advisory Committee

ACCESS-NRI Updates
UM/LFRic/Momentum Partnership

Andy Hogg gave an update of recent meetings at the MetOffice regarding ACCESS-NRI's future involvement in the UM partnership. The BoM and CSIRO are formal members in the UM partnership; due for renewal in 2024. New partnership is called "Momentum", which will have an NGMS focus (i.e. LFric, NWP and operational needs for the next 5 years). Discussion in progress how to proceed with renewing this UM partnership: BoM will continue to be a core partner, but should CSIRO and ACCESS-NRI maintain membership, and at what level? Andy proposed ACCESS-NRI could be as a research partner and not a core/ associate member (for level of engagement ACCESS-NRI requires, a research partner should be sufficient). The risk is that this may make it more difficult for Australian researchers to interact with MetOffice, but this can be overcome with direct effort and engagement from ACCESS-NRI.

Comments on future involvement in the MetOffice partnership:
- Rachel Law (CSIRO): Also supports the idea (of CSIRO) being a research partner as long as it does not have any implications on what CSIRO might use the model for in terms of funding research. The corollary of this is that CSIRO should focus their engagement with the ACCESS-NRI rather than the future Momentum partnership.

Action: Continue negotiations with Met Office regarding ACCESS-NRI joining Momentum as a Research Partner (Andy).

ACCESS-NRI Community Workshop 2023

Kelsey Druken gave an update on ACCESS-NRI Community Workshop 2023 (4th- 8th September). The main program is scheduled for Tuesday and Wednesday. Tuesday 5th focuses on 'Updates and bringing the community together', including an ACCESS-NRI update, science-based talks, invited keynote speakers, social activity and Workshop dinner. Wednesday 6th focuses on 'Gaps and Future Challenges' with breakout sessions on CMIP7 planning, MED and ACCESS model evaluation, forecasting and high-resolution modelling, paleoclimate modelling and machine learning.

A training day will be held on Monday 4th to kick off the week. Training on running ACCESS-CM, transitioning from accessdev to the long-running ARE server, rose/cylc introduction, showcasing some ACCESS-NRI developed tools from the MED team.

Thursday 7th and Friday 8th will be dedicated Working Group meeting days; each Working Group will conduct their own meetings with logistics support from ACCESS-NRI.

Workshop registration closes 15.08, with an anticipated extension until 20.08. So far, 115 registrations (86 in-person, 29 virtual), 19 abstracts (for talks) submitted. Program committee will finalise program content and list of invited speakers at this Friday 04.08.

Comments:
- Laurie Menviel asked whether style of training will be lecture/ tutorial and for beginners or

more experienced users?

Kelsey Druken replied it will mostly be aimed at beginners, but will also contain information of interest to more experienced users (e.g., transition to long-running ARE server, NRI data cataloguing tools, etc.). Style will be hands-on with information lead-in.

Andy added while some people may not be interested in ACCESS-CM2 content, in the future some people may want to use rose/cylc to run ACCESS configurations, so it is good to get this exposure and experience.

- Adele Morrison asked whether people can jump in and out of the training day to attend only aspects of interest in the program? E.g., model evaluation of interest to COSIMA community.

Kelsey Druken replied that we will attempt to make this possible.

Andy added that some COSIMA folk might be interested in the data cataloging scheduled for the afternoon session.

Adele Morrison mentioned that approx. 20 to 30 COSIMA people are so far interested in attending the Monday afternoon training session, so perhaps you could aim the content for this audience.

Question for the SAC regarding Workshop program content:

During 2-day Workshop program, is it important that Working Group co-chairs provide information about the content of Working Group meeting days (on Thurs/Fri) to give an idea what other Working Groups are doing?

- Adele Morrison suggested if other Working Groups want to know how COSIMA Working Group functions, can share how new users/students have been helped by the community to get started. Could also give an update on the progress of the new OM3 configuration.

- Andy Hogg asked whether people would prefer to hear science talks from the COSIMA community or rather how the COSIMA Working Group functions?

- Rachel Law commented that at last year's ACCESS-NRI Workshop, it was good to hear science talks from early career researchers.

- Tilo Ziehn asked about overlap/ appropriate mixture of science talks and lightning talks; if focus is only one science talk per Working Group, it might not represent the full breadth of research covered by the group. Better to give an overview of what the Working Group is focussing on.

- Laurie Menviel commented that the ESM Working Group is small and quite new, so there is not much to report. Can nonetheless give a brief overview to engage others outside the Working Group. While it is great to learn from other Working Groups, maybe not worth spending a dedicated session on this.

- Rachel Law suggests ACCESS-NRI should make the most of giving updates to the community, e.g. present proposed User support model.

- Andy Hogg commented that a couple of talks on ACCESS-NRI updates are planned for Workshop, but rest will be presented as posters. Reluctant to consume too much time in the program discussing ACCESS-NRI update.

- Kelsey Druken mentioned Workshop program will be finalised on 04.08; send any program ideas to her before then.

CMIP7 Update

Rachel Law gave an update on CMIP7. A meeting was held with DCCEEW with a concept proposal for CMIP7, which outlined the consortium governance, membership and its next steps, as well as resourcing and funding for CMIP7. For governance, need to form a leadership team and decide its members. Recent meeting held on progress and scope of model development aspects for CMIP7. Need to establish a time frame to decide which ACCESS model configurations will be used for CMIP7 at next meeting in September (i.e. when to freeze model development and have the chosen configurations available for testing). Meeting earlier today proposed using the Hive-Forum for CMIP7 organisation and visibility of developments to others.

Andy Hogg added that the consortium requires project leadership; Rachel Law has been temporarily filling this role over the past 3 months. Hope to have more updates about CMIP7 plans, evaluation tools, etc. by next SAC meeting.

Update from Working Groups

Forecasting & Prediction

Andy Hogg, on behalf of Debbie Hudson, gave an update on the Forecasting & Prediction Working Group. Currently they have 38 members, held a couple of Working Group meetings, co-chairs meet fortnightly. The Working Group plans to have a 1-day meeting day at the Workshop focused on machine learning. Some future activities: SCM, ACCESS-S, etc.

Atmospheric Modelling

Charmaine Franklin gave an update on the Atmospheric Working Group, who meet monthly. Have so far have held three Working Group meetings, which included short science presentations. Recent discussion has centered around identifying the training and documentation needs for the Working Group. A joint meeting with Forecasting & Prediction Working Group is planned to learn more about the Single Column Model.

A 1-day Atmosphere Working Group meeting day is scheduled for Thursday 7th September. This will comprise a mixture of science and lightning talks as well as discussion on future Working Group needs and how to feed these back to ACCESS-NRI. Afternoon session will be dedicated to AUS2200 training.

Atmosphere Working Group co-chairs are also chairing session on "Atmospheric Modelling in Weather and Climate Science" at AMOS2024; call for abstracts open.

Coupled and Earth System Modelling

Tilo Ziehn gave an update from the Earth System Modelling Working Group, who meet fortnightly. About 20 participants at meetings, which include short science presentations. At ACCESS-NRI Workshop, the ESM Working Group will hold a half-day meeting on Thursday 7th September.

Ocean-Sea Ice Modelling

Adele Morrison gave an update on Ocean-Sea Ice Modelling Working Group. Good progress has been made on the development of ACCESS-OM3. Ezhilsabareesh Kannadasan and Dougie Squire from ACCESS-NRI and Andrew Kiss and Micael Oliveira from COSIMA are

actively involved in this project. COSIMA will meet on Thursday 7th and Friday 8th during ACCESS-NRI Workshop week. A COSIMA-Hackathon is planned for the Monday 4th (in parallel with the training day) dedicated to discussions around OM3 developments, evaluation, etc.

Land Surface

Rachel Law gave an update on the Land Surface Working Group. Their meetings are held fortnightly and include more technical talks, (e.g., iLamb and its use in land surface modelling, BenchCab tool). Land Surface Working Group will meet 1.5 days (Thursday 7th and Friday 8th) during ACCESS-NRI Workshop week.

Cryosphere

Kelsey Druken gave an update on the Cryosphere Working Group. Meetings held every 4-6 weeks, comprise science talks and discussion around their Working Group priorities. Spinning up as a Working Group. Uncertainty about ice sheet funding from recent NCRIS funding proposal. A 1-day Working Group meeting is planned at ACCESS-NRI Workshop.

Any Other Business

Action: Look for a mechanism to list and prioritise suggestions from the Working Groups to ACCESS-NRI work plans (Andy)

Andy Hogg wants to address the community's feedback regarding lack of visibility about what ACCESS-NRI are working on in relation to the community's/ researchers needs. Need to discuss how ACCESS-NRI can respond/ react to information from Working Groups in relation to its work plans and priorities, with a view of keeping the community informed and ensure this information is tracked. Perhaps a mechanism on Hive-Forum, or issues on GitHub, could allow Working Groups to outline their needs; ACCESS-NRI could respond how it fits within their work plan and priorities. The SAC could comment on/rank importance of these needs and how well they fit within ACCESS-NRI work schedule. Should this information be shared amongst SAC, Working Groups, publicly?
Guidelines addressing this will be drafted within the next month or two.

Comments:
Adele Morrison supports the idea. Would appreciate more visibility as to what ACCESS-NRI is working on, and a channel for the community to communicate what their needs are and whether ACCESS-NRI can address them.
Rachel Law also agrees with suggestion. Not sure how best to manage it. Strategic plan is rather high-level; maybe visibility of ACCESS-NRI's priorities for the next quarter and obtain feedback/ ranking importance of these ideas.
Oscar Alves asked whether there were people that attend all Working Group meetings so that we could get some recommendations of the importance of each Working Group needs in regards to reviewing?
Andy Hogg is open to suggestions on how to get this information flow from all Working Groups. Perhaps at each SAC meeting, we could have a more detailed report from one

Working Group to give a better wholistic overview of the importance of such needs.

Next Meeting

The next SAC meeting will be held in person on at the ACCESS-NRI community Workshop on Wednesday 6th September (details TBC). If you cannot make it personally, please send a delegate!

Action List

(i) Continue negotiations with Met Office regarding ACCESS-NRI joining Momentum as a Research Partner (Andy).

(ii) Look for a mechanism to list and prioritise suggestions from the Working Groups to ACCESS-NRI work plans (Andy)