

## **MINUTES OF THE ARRCU SIG EXECUTIVE AND ADVISORY BOARD MEETING**

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Date: June 25, 2020  
via videoconference

### MEMBERS OF THE EXECUTIVE AND ADVISORY BOARD:

Paul Kushner (chair), Adam Monahan (vice-chair), Pierre Gauthier (secretary-treasurer),  
Hind Al-Abadleh, Yanping Li, Paul Myers, Roland Stull, Peter Taylor, Aldona Wiacek

SPEAKER: Shawn Marshall (ECCC),

### 1. INTRODUCTION

The advisory board welcomed two new members, Profs. Yanping Li (University of Saskatchewan) and Aldona Wiacek (Dalhousie University). In turn, each participant introduced themselves and commented on their activities. Yanping Li is working and in mesoscale meteorology and hydrometeorology. She is involved in the Global Water Future project. Aldona Wiacek works in pollution transport. Both mentioned the lack of available funding in atmospheric science.

The concerns regarding funding is shared by many. Dr. Abadleh managed to obtain funding from a special COVID-19 program for a project with ECCC on the link between air pollution and COVID-19. She mentioned that the ARRCU white papers helped to give a broader perspective to the project. Dr Abadleh is now a member at large of the CMOS council and is in a position to liaise with CMOS and inform them ARRCU.

Paul Myers has been involved in the Scientific Committee on Oceanographic Research (SCOR), He mentioned that there is an initiative in oceanography to share their online courses. A similar initiative does not exist at the moment in atmosphere science but in line the ARRCU-E white paper, it would be interesting to have one. Roland Stull mentioned that at UBC, they have a well attended online course on applied meteorology for sports (e.g., skiing, sailing).

### 2. STRATEGIC DISCUSSION

Much of the meeting was devoted to discuss the current situation of atmosphere related research in universities. ARRCU is the only group representing and advocating the interests of academic research. Even though a large portion of its membership is from universities, CMOS does not have a liaison with NSERC. Our SIG should convey the importance of having such a direct link with NSERC.

It was also mentioned that the objective of Project Mauri is to send a student to attend a workshop to learn about weather forecasting. It is expensive and it would be important to question whether it is worth it as an educational initiative. More broadly, some changes should be proposed to CMOS to revisit the mandate of the UPEC and committees for example that cover education.

**ACTION 1.1** : Express the need for changes in the CMOS UPEC committee which focuses on ECCC operational needs to reflect those of other sectors This is to be brought to the attention of the UPEC committee and the CMOS council. New terms of reference for UPEC will have to be drafted

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This action was for Adam Monahan who is a member of UPEC. Other issues were raised for SPEC regarding the relevance of funding project MAURI for which very few apply. This project is expensive and it would be important to evaluate how it serves our interests

### 3. RESEARCH FOCUS FOR 2020-2021

Two initiatives are proposed to address issues of interest for ARRCU.

#### a) Collaboration between ECCC and universities on Earth System Modeling

The development of an Earth System Modeling presents several challenges that would benefit from a close collaboration between ECCC and universities. Such collaboration would require access to ECCC resources such as models, data and computing resources. It would also be important to have a program to fund projects in collaboration. ARRCU could organize a one-day workshop to probe the interest of the academic community and ECCC for such collaboration. In this workshop, the case would be presented and discussed to identify what could be done to make this possible. ECCC research managers would be invited and others from other organizations as well.

#### b) Earth observations

A lot of research is based on observations which includes the development of instruments, observation campaigns to validate models and study specific physical processes. The deployment of space-based instruments requires important resources and an effort over several years. Space agencies such as the Canadian Space Agency is involved in such projects that also require an assessment of the impact these space-based Earth observations (SBEO) will have. Studies are funded precisely to evaluate the expected impact for different scenarios and configurations so that the benefit of the mission is optimal.

As an example, a decadal survey was done by NASA who consulted scientists to inquire about which variables should be measured by its future satellites. This resulted in the Aerosol and Clouds, Convection, and Precipitation (A-CCP) mission. A partnership has been made with CSA which proposes instruments for this mission with an expected launch in ten years from now and an expected life expectancy of ten years. In parallel to the technical challenge of designing and building a space-ready instrument, several scientific studies would be needed to prepare for the use of the data when they become available.

The coordination and funding of such studies require some thinking and the existence of special programme. One could also think about the deployment and maintenance of ground-based instruments (e.g., the Polar Environment Atmospheric Research Laboratory at Eureka) or the coordination of large observation campaigns (e.g., the International Polar Year). Existing programs are not always suited to fund such projects. Workshops to discuss related issues would focus on identifying how these difficulties could be addressed.

### 4. RENEWAL OF THE ARRCU EXECUTIVE AND ADVISORY BOARD

A third of the advisory board is being renewed every year for a three-year mandate. This insures a continuity in the functioning of the AB. Peter Taylor is stepping down and a new candidate will be replacing him. This will be announced in July at the ARRCU general assembly.

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The nomination of the members of the executive proceeded otherwise and the mandates of the chair, vice-chair and secretary-treasurer will all come to an end in June 2021. The three current members have indicated that they do not intend to renew. The discussion focussed on how this problem could be solved. Members of the executive have indicated that they could stay for one more year as members of the advisory board to facilitate the transition. This will be discussed furthermore at next meetings of the executive and advisory board.

## 5. BUDGET

CMOS will grant us \$1K-\$2K to spend for the upcoming year. Depending on activities, additional support will be sought to have sponsors for workshops and other sources. Our meetings being all virtual, our expenses are minimal. We could need some funds to promote specific reports that we make with a follow-up that would help these initiatives to have more impact. An example was given of the report produced by Evidence for Democracy showing that funding the fundamental research on climate was extremely small when compared to what is done in other countries. Communicating this information requires some effort and resources to be efficient.

## 6. ARRCU STATEMENTS ON COVID19

Should ARRCU encourage CMOS to issue statements regarding the impact of COVID on ARR? There are concerns about the fact that all research activity is reoriented towards the response to the pandemic. Teaching through virtual classes impacts on teaching and education and requires more time. And this consequently impacts research productivity.

A global pandemic disrupts social activities in so many ways. A parallel can be made with the impact of climate change which would lead to similar global disruptions. As for a global pandemic, changes in the climate is intimately interconnected with human activities and this would also create permanent changes in the very fiber of societies.

It could be appropriate to ask our members what is the impact of the pandemic.

## 7. LIST OF ACTIONS

ACTION 1.1 : Express the need for changes in the CMOS UPEC committee which focuses on ECCC operational needs to reflect those of other sectors This is to be brought to the attention of the UPEC committee and the CMOS council. New terms of reference for UPEC will have to be drafted

This action was for Adam Monahan who is a member of UPEC. Other issues were raised for SPEC regarding the relevance of funding project MAURI for which very few apply. This project is expensive and it would be important to evaluate how it serves our interests

ACTION 1.2: organise and promote workshops on Earth System modeling and Earth Observations. These 1-day workshop would be more about the needs for ESM facility to foster collaboration between the ARRCU community and government research.

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ACTION 1.3: identify a representative from York University to replace Peter Taylor.

ACTION 1.4: draft an announcement to seek new members for the ARRCU Executive and advisory board in 2021.

The terms of the three members of the executive end in 2021 and those of three members of the advisory board also end in 2021. These positions could be interesting if ARRCU is more active this year and its purpose better known.

## 8. ANNEX

The ARRCU-SIG executive meets with the advisory board every two months. The meetings are open to all every four months to collect input from the community. Changes to the advisory board will take place this year to renew one third of the board every year. The nomination of new members will be announced at the next executive meeting. Table 1 and 2 gives the terms of the members of the executive and advisory board.

<b>Executive</b>	<b>Start of appointment</b>	<b>End of appointment</b>
Paul Kushner (University of Toronto, Chair)	2018-2019	2020-2021
Adam Monahan (University of Victoria, Vice-Chair)	2018-2019	2020-2021
Pierre Gauthier UQAM, Secretary/Treasurer	2018-2019	2020-2021

Table 1: Terms of the members of the executive

<b>Advisory Board</b>	<b>Start of appointment</b>	<b>End of appointment</b>
Hind Al-Abadleh (Wilfred Laurier)	2018-2019	2020-2021
Paul Myers (University of Alberta)	2018-2019	2020-2021
Peter Taylor (York university)	2018-2019	2019-2020
Roland Stull (University of British Columbia)	2018-2019	2020-2021
Yanping Li (University of Saskatchewan)	2019-2020	2021-2022
Peter Bartello (McGill University)	2019-2020	2021-2022

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Aldona Wiacek (Saint Mary's University)	2019-2020	2021-2022
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Table 2: Terms of the members of the advisory board.