

**Short Report from the 77th meeting of the EISCAT Council  
Held 3 – 4 November, 2011 at the  
Deutsche Forschungsgemeinschaft (DFG), Bonn, Germany**

Present: Dr. A. Aikio, Finland, Dr. T. Andersson, Sweden (Chairperson), Prof. A. Brekke, Norway, Dr. B. Jacobsen, Norway, Dr. K. Kauristie, Finland, Dr. L. Lønnum, Norway, Dr. I. W. McCrea, UK, Dr. H. Miyaoka, Japan, Prof. D. Murtagh, Sweden, Dr. S. Nozawa, Japan, Prof. J. Röttger, Germany, Dr. K. Sulonen, Finland, Dr. M. Schultz, UK, and Dr. K. Zach, Germany

Invited: Prof. Cesar La Hoz, SOC Chairperson

In Attendance: Mr. H. Andersson, HQ, Head of Administration, Dr. I. Mann, HQ, Head of Projects and Dr. E. Turunen, HQ, Director

Apologies for absence: Prof. J. Wu and Prof. Q. Dong, both P. R. of China

After a short presentation of DFG, by Dr. R. P. Königs, Head of Department Scientific Affairs, the Chairperson welcomed all to the 77th meeting. The Chinese delegates did not get visas in time and had therefore to cancel the participation. The Chinese delegates had sent a letter to Council addressing the matters that they felt needed attention.

**Association and Associates**

Council agreed with the proposal from P. R. of China to appoint Prof. J. Wu as Vice-Chairperson of Council for the period 2011-2012. Council signed a new employment contract with the current Director, Dr. E. Turunen, for one year starting 1 January 2012. The recruitment procedures for a new Director to be hired for the period thereafter were agreed. The position will be advertised and interviews should commence in spring such that Council can do the selection at the spring 2012 meeting. The dialogue with the Arctic and Antarctic Research Institute (Russian Federation) had continued and the agreement rewriting group, under Dr. Mann's leadership had its first meeting the day before the meeting. The findings from the first meeting were presented to Council. The rewriting group will meet again within the coming months. Council agreed to start a letter of intent process where existing and new Associates will state an intention to be part of the Association when the new EISCAT\_3D radar is incorporated.

**Systems status**

After a long down period on Svalbard while waiting for spare parts, the systems were again in good working order. Both remote sites were still able to operate.

**New system developments**

After lengthy discussions, Council agreed with the strong recommendation from the Scientific Oversight Committee and the Director to convert the Kiruna and Sodankylä remote sites to VHF reception and to initiate the work for replacing the current VHF transmitter to a new design using 233 MHz as base frequency. The conversion and upgrade will, on present infrastructure, allow for continued tristatic operations, field-align transmissions, limited volumetric imaging and the upgraded system can be used for tests and developments relating to EISCAT\_3D technology. The remote site

conversion should commence immediately and the transmitter replacement work will start by ordering a pre-study from Thales Ltd. The pre-study output should give the design, budgetary costing and needed material for a, if so decided by Council, follow-on request for quotations from industry. The Director reported that it will probably take about two years from time of order to have the upgraded VHF system in full operation.

### **Operations**

Regular operations were reported. Germany had scheduled experiments on Svalbard when the fault occurred. Since Germany leaves the Association at the end of the year, it was agreed that if the Svalbard time allocation could not be used before then, a carry-over, into the first months of 2012 would be acceptable.

### **EISCAT Roadmap**

Council agreed to pursue a roadmap consisting of a basic route and an expanded one. The basic route, outlined as being the setup in 2017, will consist of the EISCAT Svalbard Radar including the third antenna, the upgraded VHF system with two remotes and a refurbished Heating system. The expanded route includes the basic systems and an EISCAT\_3D system consisting of at least one active array and several passive arrays. Council agreed that the routes will be assessed further and particular attention will be put on needed investments, operating budgets and time scales.

### **Proposal to build a third antenna on Svalbard**

In P. R. of China, the 3rd ESR antenna project had been formally approved for the first step, the feasibility phase, by the authority. In order to continue to the next step, the design phase, the frequency permit for the S-band radar and a build approval from the Svalbard local authorities will be needed. An initial reply from the Svalbard officials regarding the build permit was that no environmental consequence study will be needed. The build permit handling on Svalbard continues and will involve a public hearing. EISCAT submitted the application for the S-band (3.23 GHz) operating permit in July. No reply has been received yet. Discussions with the land owner regarding increasing EISCAT's land area have also commenced.

### **2011 Financial development update**

The forecast for 2011 indicated a positive outcome of up to 1.7 MSEK, resulting from vacancies and additional income. The surplus will be taken in use in the 2012 budget.

### **Budget 2012**

Council approved the budget for 2012 with one modification, concerning the proposed addition of a new senior engineering position to be located in Sodankylä. Council stated that the position should be a temporary position for two years with the possibility of subsequent extension.

### **Five-year plan and balancing**

Council noted the five-year plan work while re-affirming that the strategy would be to have a new agreement in place well before the end of the five years period. The plan can be balanced, as envisaged at the meeting and after the decision of Council to

reduce the staff complement by one, up to 2014 and possibly one more year if using own reserves.

### **EISCAT\_3D project status**

The project was summarised by the new Head of Projects. A new position as Project Engineer within EISCAT was advertised with an application deadline 7 November. The Project Engineer will be paid via the project and will work at Headquarters together with the Head of Projects and the other project staff. The project budget spend rate at 12 months was at about 60% of expected. The reasons for the underspend were lacking specifications and staff shortage. Some of the partner's work can only start after the needed requirements have been set.

### **Scientific presentation**

Prof. F-J. Luebken at the Leibniz-Institute of Atmospheric Physics e.V. at University of Rostock (IAP) in Kühlungsborn presented: "*Main results in the priority program CAWSES (Climate and Weather of the Sun-Earth System)*".

### **EISCAT thirty-year anniversary 26 August 2011**

Two activities took place relating to the thirty-year anniversary. On Svalbard, a public history presentation at UNIS in Longyearbyen and an anniversary dinner and in Qingdao, an anniversary session at the 15th International EISCAT workshop. A history book will also be published.

### **Germany leaving the Association**

Council expressed sincere appreciation for the long lasting relationship with German scientists and first the Max-Planck-Gesellschaft and thereafter the Deutsche Forschungsgemeinschaft. Prof. J. Röttger gave a personal talk on "*Reminiscence of some dominant events and developments during my early years with EISCAT 1981 – 1990*". Council hoped that the collaboration with German scientists and institutes can continue in some form.

### **Next meetings**

The 78th meeting will be held 29 – 30 May 2012, in Stockholm, Sweden.

The meeting following that, autumn 2012, will be held in P. R. of China. The exact date and venue location will be decided later together with the Chinese delegates.

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