ARISS Education Outreach/School Selection Committee Report

ARISS International Delegates Meeting

ESA ESTEC, Noordwijk, The Netherlands

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**Committee Members**

Frank Bauer, KA3HDO ARISS-US

Chair and Secretary

Maurice-André Vigneault, VE3VIG ARISS-Canada

Francesco De Paolis, IK0WGF ARISS-EU

Valery Agabekov, UA6HZ/N2WW ARISS-Russia

Keigo Komuro, JA1KAB ARISS-Japan

Marilyn.Steinberg CSA (observer)

Note: Marilyn Steinberg is no longer with CSA. Is this observer role needed? If so, we will need to select someone to be added to the team

# Roles and Responsibilities

The roles and responsibilities of the School Selection Committee are described in the 2002 Terms of Reference (TOR), which is attached to this report. The following excerpt outlines the primary role of the committee:

“A major aspect of this service is to organize, to implement and to control school contacts. Space time is a limited and most precious commodity. Careful planning, feasibility checking, selection and follow up are a must. In order to assure the service, ARISS has set up an Educational Outreach/School Selection Committee. The present Terms of Reference describe the duties and the operational processes of the Educational Outreach/School Selection Committee (hereinafter referred to as the “Committee”)”.

This committee is responsible for advertising the ARISS program to the education community, receiving and evaluating applications/proposals, and notifying selected organizations, most notably the operations team.

# Status

The US team implemented a new selection process for schools/education groups in May 2011. This process starts with a formal request from NASA for proposals, and it collects proposals submitted by the schools and groups. A proposal evaluation team then uses formal criteria to select US schools/groups for the ARISS operations queue.

The School Selection Committee, therefore, is using two processes to select schools: 1) the USA process, led by NASA, and 2) a less complex process used by the rest of the world. This second process is constantly evaluating new applications that are submitted by schools/education groups and use school selection criteria in-line with the TOR, but is decided by each ARISS region. This second process is not led or overseen by the region’s space agency. Note that the current selection process (or processes, as there are two) is different than what is described in the 2002 TOR.

We currently have 73 groups in the queue. The number and region of schools in the queue are as follows: Canada—5, Europe—51 , Japan—6, Russia—0 and

USA—12. The data illustrates a significant European backlog shows the great reputation that had the ARISS project in Europe, but will need to be addressed.

At the March 19, 2013 ARISS-I teleconference, the ARISS delegates agreed to set a limit on the number of ARISS contacts per year to a maximum of 100 per year. Each contact is a 10-minute pass. If a region decides to include more than one school per contact, they may do so. ARISS-EU does this a great deal. In an effort to share equably there has been an agreement in place that the regions will not exceed the number of contacts performed by the US team, as NASA is responsible for contact scheduling. For Fiscal Year 2014, which ends on September 30, 2014, ARISS expects to complete 64 school events, significantly lower than the 100 per year maximum. This is the result of many factors, including a few weeks where no contacts are to be conducted, and a slowdown in operations that was requested this year due to crew workloads.

Currently, the committee is extremely informal and does all business through e-mail. As we have not had a teleconference for many years (informal email meetings were last held in late summer 2011), it is not clear how the various regions select their schools and whether they vet them through their space agencies. Also, the roles and responsibilities of the team and various committee members have changed over the years, and are no longer totally in line with the TOR. For example, “The Committee makes a pre-selection of the applications” is no longer done. It is now the regions that make the pre-selection of the applications, not the committee. Also, “The Chair of the Committee submits the school selections” and subsequent wording assumes that the chair develops the overall selection list and turns it over to the Ops committee. Again, this is no longer done, as the applications from each region are submitted directly to the operations team with some committee members copying the committee chair on the e-mail, and others not copying the chair on the e-mail.

The many differences between committee operations and the TOR point to the need to revamp the TOR and to modify the School Selection committee operations.

# Issues & Concerns

* The current Terms of Reference is over 12 years old and no longer represents how the committee operates
* The committee operations could use strengthening through regular meetings.
* There is a regional imbalance of schools in the queue with nearly 70% of the school from ARISS-EU.
* The current TOR and committee reports are no longer on the ARISS website, as communicated to the general public

# Proposed Future Plans

* Commission a team to update the 2002 TOR to reflect School Committee Operations
* Conduct periodic meetings by teleconference. These will be used to formally approve the updated TOR and to strengthen the committee team.
* Work with the committee to resolve the imbalance in the school queue

# Additional, Proposed Future Plan Suggestions, provided by Francesco, IK0WGF

* Reintroduce the ARISS US selection committee especially for the verification of the technical requirements of the direct school contacts

Note from committee chair: I assume you are asking for the technical requirements for school direct contacts to be included in the proposal for ARISS US schools. The chair would like to see this too. However, the US educational proposal efforts are led by NASA with support from the ARRL and AMSAT-NA. It is their opinion that educational outcomes, resulting from the ARISS contact, can be accomplished through telebridge as well as direct contacts. So it is their opinion that this information is not necessary in the proposal and it detracts from getting the school to prepare a good educational proposal. It is their opinion that this information can be obtained later in the school preparation process.

* Make clear and equal the minimum requirements of the educational proposals mediated support of space agencies

Note from committee chair: I think it is critical to recognize that without the space agencies, we would not have ARISS. ARISS is a working group, as developed by the space agencies. ARISS is not a separate entity that can operate independently from the space agencies. We are a guest on the ISS. As such, when a space agency wants to include requirements on ARISS—educational, safety, or otherwise—we need to listen. NASA has added requirements on how US schools propose and are selected for an ARISS contact. These selections are competitive, based on educational content. Not all schools that apply are selected. That is why the US team has limited its number of contacts per year, as compared to the past. This is something that other regions should consider emulating too.

* Each ARISS region must be responsible and the only one competent for their waiting list for presentation to schools in own region to the committee operations

Note from committee chair: This would eliminate the need for an ARISS-I school selection committee as all schools for each region would go directly into the operations queue.

* If one ARISS region does not have in waiting list a number of schools to reach the number of schools in the U.S.(pending +scheduled), this region can donate their slots to one region with long waiting lists.

Note from committee chair: This is already happening. If it was not, then with the 100 contact per year cap, each region would be limited to 20 contacts per year. The US and Europe have done more than 20 contacts per year. What is important to recognize is that NASA has stipulated that the maximum number of school contacts per region not exceed the number of school contacts performed by the US region. The justification for this restriction is as follows: NASA Teaching from Space is responsible for scheduling the crew time for all regions but Russia. They are expending significant money per year to schedule these contacts for all regions. They need to justify this funding expenditure to NASA Education, to NASA HQ and to Congress. ARISS could lose its ability to schedule all regions contacts (except Russia) without this funding in place. Also, as an Educational Outreach/ School Selection Committee team, we should be looking at constructive ways to improve educational content of each school contact. In other words, how do we focus on each contact and make it better from an educational content perspective? We should not be focusing on how many contacts we can do per year. Focusing on how many contacts we do per year is public outreach. It is not educational outreach.

**ARISS**

**School Selection Committee**

**Terms of Reference**

**Approved by the ARISS Chair, February 28, 2002**

revised

**1.     Foreword**

The NASA Human Space Flight Web page features, under the heading Ham Radio, the following statement:

More than 40 missions over five years will be required to assemble the International Space Station in orbit. The astronauts and cosmonauts will work hard on these missions, but they plan to take some time off for educational outreach contacts with schools. NASA's Division of Education is a major supporter of the amateur radio activity.

As the International Space Station takes its place in the heavens, the amateur radio community is prepared to do its part by helping to enrich the experience of those visiting and living on the station.

ARISS (Amateur Radio on the International Space Station) is in charge of providing the expected educational outreach service from the amateur radio community to the space explorers on board ISS.

A major aspect of this service is to organize, to implement and to control school contacts. Space time is a limited and most precious commodity. Careful planning, feasibility checking, selection and follow up are a must.

In order to assure the service, ARISS has set up an Educational Outreach/School Selection Committee. The present Terms of Reference describe the duties and the operational processes of the Educational Outreach/School Selection Committee (hereinafter referred to as the “Committee”).

**2.     Members, Chair and Meeting**

a. The Committee shall consist of one voting member from each ARISS region who shall be appointed yearly by the ARISS delegates from that region and shall serve at the pleasure of those delegates.

b. The Chair of the Committee shall be elected yearly by the committee members.

c. Names of the Chair and members of the Committee shall be posted to the ARISS Web page.

d. The Committee shall meet by teleconference approximately once a month, or more often if the situation dictates. The Committee meeting may be held in person when it is available.

**3.     Responsibility**

a. The Committee shall provide the Operations Committee with enough schools for at least the next three months.

b. The Committee shall clearly identify the person they authorize to provide requests to the Operations Committee.

c. Special on-the–air events must be bona fide educational activities, having on file an official ARISS application and educational proposal, and approved unanimously by the Committee.

(Note 1: The Operations Committee reserves the right to determine the order of contacts to fit operational constraints such as orbital mechanics and crew schedule, and to determine if contacts are implemented as direct or as telebridge contacts.)

(Note 2: The Operations Committee receives official ARISS school applications from ISS crew members normally through the space agencies. The Operations Committee shall keep the Educational Outreach/School Selection Committee apprised of these contacts.)

d. The Committee is responsible for assuring that third party and other regulatory issues are settled before submitting a school to the Operations Committee.

e. The Committee shall select schools to be equally allocated among: Europe, Russia, USA, Japan, Canada, and schools selected for QSOs by ISS crew members.

f. The Committee shall submit schools annotated with suggested order of implementation to the Operations Committee.

g. If an ARISS country does not have a school ready, it may “denote” its slot to one of the other ARISS partners or sponsor contacts from non-ARISS countries.

h. The Committee’s task covers:

* collecting and validating applications
* listing pending applications
* liaise with the Operations Committee for school contacts
* follow up implementation of contacts
* reporting on contacts

 i. The Committee makes a pre-selection of the applications (see 5.).

j. The Chair of the Committee submits the school selections (see 6.).

**4.     School Application Form**

a. An official ARISS school application form must be filled out and submitted along with an educational proposal prior to the Committee initiating the selection process. This application form is intended to gather the data required for preparing a successful school contact.

b. The official ARISS school application form is downloadable from the ARISS Web page: http://ariss.gsfc.nasa.gov/Application/

c. Amateur Radio societies are asked to refer to this official form when circulating information about ARISS school contacts to their members.

**5.     School Pre-selection**

The Committee members shall evaluate applications, taking into account the following criteria:

        official ARISS school application form properly completed

        technical possibilities and preparedness

        educational project or proposal

        third party issues

**6.     School Selection**

a. The Chair of the Committee keeps a permanent list of pending applications. The applications are listed taking into account the following data:

        time stamp of the application

        special status

        language to be used during the contact

        direct contact or telebridge (The latter are used when third party issues are problematic, if school equipment isn’t adequate to ensure success, or if orbits are not during school hours.)

  b. The resulting list shall be negotiated with space agencies by the Operations Committee.

c. The Chair of the Committee shall circulate the lists of pending applications by e-mail to the Chair of the Operations Committee when applications are needed to fill time slots.

d. In case the order of listed contacts is drastically modified, the Chair of the Committee shall give the reason to the Chair of the Operations Committee.

**7. Modification of the List of Pending Applications**

a. The Committee members can ask for modifying the list of pending applications. The request is to be justified.

b. The Committee members can oppose a listed school contact, but must give justification.

c. The Chair of the Committee can oppose the listing of an application, but must give justification.

d. In case of conflict between the Committee members or between the Chair of the Committee and a Committee member, if no consensus can be reached, the ARISS Chairperson, having consulted the ARISS board, shall make the decision.

**8.     Reporting**

a. The Committee members shall insist that schools where a contact has been successfully completed, shall fill out a required NASA evaluation form, and provide a report on the QSO.

b. NASA’s evaluation form is at: <https://ehb2.gsfc.nasa.gov/edcats/user_ariss_report.html>

c. The report shall be well documented and cover:

        the implementation on the educational project

        media impact

        cooperation with local authorities

d. The report will be given to the ARISS Webmaster for the ARISS Web page.

**Educational Outreach / School Selection Membership 2002**

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[Link to School selection commiteee minutes](http://www.rac.ca/ariss/arissschm.htm)

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