International Committee

Minutes of the Meetings held in Sirmione, Italy
20-24 April, 2012

Present:

Richard Forster President forster@olympiad.org.uk Great Britain 2011-2014
Kanchit Malaivongs Host 2011 kanchit.ma@gmail.com Thailand 2007-2012
Giuseppe Colosio Host 2012 giuseppe.colosio@istruzione.it Italy 2008-2013
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Peter Taylor Host 2013 pjt013@gmail.com Australia 2009-2014
Greg Lee Host 2014 leeg@csie.ntnu.edu.tw Taiwan 2010-2015
Valentina Dagiene Elected dagiene@ktl.mii.lt Lithuania 2009-2012
Eljakim Schrijvers Elected eschrijvers@eljakim.nl Netherlands 2009-2012
Krassimir Manev Elected manev@fmi.uni-sofia.bg Bulgaria 2010-2013
David Ginat Elected ginat@post.tau.ac.il Israel 2010-2013
Kresimir Malnar Elected malnar@hsin.hr Croatia 2011-2014
Madhavan Mukund § Executive Director madhavan@cmi.ac.in India 2011-2014

§ Non-voting

1. Welcome

• Richard Forster welcomed the committee to the meeting.
• Giuseppe Colosio welcomed the committee to Italy and gave some background about the geography of the region and the two main towns where the events of IOI 2012 would be held.

2. Apologies

• The IC representative from Kazakhstan, the host country for IOI 2015, was unable to attend the meeting on account of commitments with organizing another Olympiad.

3. Confirmation of Minutes (IC meeting 22–29 August, 2011)

• The minute of the previous IC meeting were approved.

4. Matters arising

• Richard Forster reported that the regulations were yet to be modified to incorporate the IOI Foundation and the Treasurer. These updates will be made soon.

5. Report by President

• Richard Forster reported that there had not been any significant activity involving the office of President since his assuming office in July 2011.

6. Report by Executive Director

• Richard Forster reported that he had continued to carry on routine activities related to the office of the Executive Director. These included preparing the minutes of the July meeting, replying to routine email and liaison with countries interested in joining IOI.
• A full handover to the new Executive Director, Madhavan Mukund, will be effected starting April 2012.
7. **HSC and ISC Report**

The IC met with the HSC, ISC and ITWG in a joint session to discuss scientific issues.

Roberto Grossi, chair of the HSC, presented the HSC report.

- 30 new tasks were submitted. In addition 3 old tasks were available for selection. 10 tasks have been selected: 3 each for the two contest days and 4 backup tasks.
- Tasks were selected using the model for selecting conference papers. Each member of the HSC and ISC prepared detailed reports on 3 tasks. This was followed by a discussion to make the final selection.
- In the next 2 to 5 months, the HSC will refine the stories for the tasks and generate test data. This will be done for all 10 tasks, including the backup tasks. Tasks will be updated on a secure website.
- Tasks will be distributed to beta testers on July 15 who have till August 15 to provide feedback. The final tasks will be ready on September 4.
- David Ginat asked about the amount of test data that will be generated for each task. The ISC chair replied that there would be clearly defined subtasks, as in previous years, and as much testdata would be generated for each subtask as needed. In general, the strategy would be to err on the side of caution and generate more testdata, rather than less.
- A new grading system called CMS has been developed for IOI 2012 by members of the HSC. This system is available in the public domain at [https://github.com/giomasce/cms](https://github.com/giomasce/cms) and has already been tested in the Italian national competition as well as in contests involving Australia and France. It is proposed to use this system for IOI 2013 as well and the Australian HSC is actively collaborating in the development of CMS.
- The competition site will be in Montichiari. The site is being prepared under the supervision of Angelo Morzenti from Politecnico di Milano. There will be 400 computers arranged in a rectangular grid with four quadrants having 100 computers each. The computers will be arranged in rows of ten on tables with trapezoidal workspaces alternating on both sides of the table. The main server and ISC control room will be located at the centre of the hall. The site will be fully tested and ready one week before IOI.
- To stress test the competition environment, the last 30 minutes of the IOI 2011 competition will be replayed from competition logs. In parallel, 100 local students will be invited to log in and use the system during this replay to simulate some "random" inputs.
- Greg Lee asked about the availability of logging facilities in the new grading system for various types of analysis. The HSC replied that the CMS system is open source and modular and the existing logging facilities could easily be extended and adapted as required in case specific information that is not already logged was required for future analysis.
- An online scoreboard will be available during the contest.
- The translation system will use MediaWiki which has language support for most languages used in IOI translations. The GA should be asked to try updating Wikipedia in their native language to check compatibility with MediaWiki.
- There was a discussion regarding the preparation of practice tasks. The general consensus was that the goal of the practice tasks should be to allow students to explore all aspects of the grading system. It is not essential that practice tasks should be algorithmically challenging or original.
- The HSC was strongly encouraged to make available a downloadable virtual machine image of the competition environment, including all relevant compilers and tools.

Michal Forisek, chair of the ISC, presented two proposals that the ISC would like the IC to discuss and evaluate.

- The HSC and ISC is in favour of making the IOI contest paperless. It is proposed that tasks will not be printed and distributed to contestants as has been done in the past. Instead, the official English versions and all translations would be made available electronically through the contest environment. Contestants would, of course, be allowed to print copies of the task using the usual contest print service.
- In addition to the "green" aspect and the manual effort saved in preparing envelopes with copies of translations for each contestant, one technical advantage of the new system would be to ensure that there is a single reference version of all translations, namely the electronic version presented to the students.
- One difficulty with such a proposal is to ensure that the electronic versions presented to the students are faithful to the original translations. In some languages, there may be discrepancies in the rendering of character sets across systems. The HSC would have to make available a sufficient number of systems configured in the same way as the contest computers to allow team leaders to verify that the rendering of their translations was faithful.
- The other difficulty relates to the logistical problems that may arise if a large number of contestants decide to print the question papers at the start of the contest. In addition to the load on the printers in the competition
room, there is also the problem of sorting and distributing the printouts to reach the contestants within a reasonable amount of time.

- The HSC reported that the national contest in Italy in 2012 was conducted in this manner and it was observed that very few students printed out the question paper.
- Eljakim Schrijvers suggested having a backup plan for the first day by which the envelopes would be prepared as usual, but not distributed in advance. If it turned out that a large number of students started printing the question paper at the start of the contest, the Hosts could quickly distribute the prepared envelopes to all contestants. The feedback from the first day of competition could be used to decide whether it was feasible to conduct the contest in a paperless manner henceforth.

- The second proposal from the ISC was to introduce a system to allow students extra time in case of appeals arising out of technical problems. This had been discussed in the GA at IOI 2011.
- The general idea was to allow students who had lost time due to technical difficulties (computer malfunctions, delayed replies to clarifications etc) extra time at the end of the contest. The validity of the appeal would be determined as part of the appeals process after the contest, based on which submissions made during the extra time may or may not be considered for the final evaluation.
- Many practical issues remain to be resolved regarding the implementation of the idea. The following points came up in the discussion.
  - Students who do not have any special problems should be able to complete the contest and leave the room at the end of five hours, as usual.
  - Care should be taken that students who get extra time should not be disturbed by students leaving the room at the usual time. Also, there should not be opportunities for inadvertent transfer of information about the tasks, either consciously or inadvertently, through casual conversation among students who are leaving the room.

* One suggestion was to set aside a secluded area of the competition hall. All students who were eligible for discretionary extra time should be moved to computers in this designated area and appropriate measures should be taken to avoid disturbance and interaction between contestants leaving the room after five hours and contestants continuing to work.

8. ITWG Report

Martin Mares reported on the work of the ITWG.

- A new sandbox has been developed and is being tested. If testing is completed in time, this sandbox will be deployed for the IOI 2012 competition. A paper on the new sandbox will be presented at this year’s IOI Conference.
- The various IOI mailing lists are working smoothly.
- A discussion started on improving the IOI website. This discussion continued over lunch and culminated in the proposal to replace the IOI website by the IOI wiki, as detailed in item 17, Communication, below.

9. Olympiads in Informatics Report

Valentina Dagiene reported on the papers to be included in Volume 6 of the Olympiad in Informatics journal, most of which will be presented at the IOI Conference during IOI 2012. (A copy of the presentation is attached).

- The Olympiad in Informatics journal is now indexed by CEEOL, EBSCO, Cabell’s Publishing and ERA. Discussions are on with other agencies that index scientific conferences and journals.
- The plan for Volume 6 of the journal is to have 15 research papers and 8 reports. So far 10 research papers and 5 reports have been accepted. Another 5 research papers, 2 reports and 1 book review are in process.
- One of the papers accepted for publication in the journal may not be presented at the Conference as the author may not be able to attend IOI.
- The Conference will follow the same format as IOI 2011. The Conference will run for two half days in parallel with the contest. Regular presentations will be 25 minutes with 15 minutes for discussion. Short presentations will be 10 minutes, with 5 minutes for discussion.
- The Host country was requested to provide the usual support for the Conference, in terms of a suitable hall to hold the meeting, announcements on the IOI website and preparation of certificates for the presenters.
- The initiative in Thailand to invite local Computer Science teachers to attend the Conference was appreciated. It was suggested that a similar initiative could be explored for 2012.
• The production budget for the journal has reduced from EUR 4800 to EUR 4100 due to partial support from Valentina Dagiene’s parent institution, the Institute of Mathematics and Informatics.
• Peter Taylor enquired about electronic publication of the journal. It was reported that previous editions are available online for free download. Discontinuing the print edition completely was not desirable as printed copies are needed to distribute to libraries.
• Some suggestions were provided for topics for future articles in the journal.
  - David Ginat proposed a statistical analysis of students’ performance in IOI to evaluate the relative effectiveness of different tasks in evaluating students’ abilities.
  - Krassimir Manev suggested posthoc evaluation of the test data used for evaluation after analyzing students’ submissions during the contest.
It was noted in the discussion that such studies would require analytics provided by the grading systems as well as statistically trained personnel to assist in preparing the paper.


Kanchit Malaivongs reported on IOI 2011. (A copy of the presentation is attached).

• There were 78 participating countries and 2 observing countries. There were 152 team leaders and deputy leaders, 302 competing students and 66 visitors.
• EUR 15000 was collected as registration fee from 75 countries. Thailand (as hosts), Egypt and Kyrgyzstan were exempted from paying the registration fee.
• USD 97000 was collected as visitor fees.
• The budget for IOI 2011 was 53,720,000 baht of which government grants accounted for 52,220,000 baht and sponsorship amounted to 1,500,000 baht. (The current exchange rate is a little over 40 baht to 1 euro).
• Some unexpected situations were reported, including a visitor refusing to pay the visitor fee and an accompanying baby falling ill (the medical arrangements did not include medicines suitable for infants).

11. **Report on IOI’2012**

Giuseppe Colosio reported on preparations for IOI 2012. (A copy of the presentation is attached.)

• The IOI 2012 website follows the same basic format as that of IOI 2011. Much of the information is already in place and the rest will be added shortly.
• The dates for IOI 2012 have been shifted by one day from those announced at the closing ceremony of IOI 2011. This has been done to avoid having the second competition day on the Jewish holiday Yom Kippur.
• All IOI participants (students, leaders and guests) will be housed in the Garda Village at Sirmione. The competition will be conducted at the Garda Exhibition Centre in Montichiari. The closing ceremony will be held in Sirmione.
• The official arrival/departure points for IOI 2012 are as follows:
  - *By air*: Milan - 3 airports: Malpensa, Linate and Orio al Serio (Bergamo)
  - *By train*: Desenzano del Garda station on the Milano-Venezia line
Participants who arrive before arrival day in Milan will have to return the airport to be picked up as part of the official airport pickup.
• The proposed fee for Visitors is EUR 1100. These fees have to be paid prior to registration by credit card or bank transfer.
• The country registration fee for IOI (EUR 200) will be collected in cash at IOI at the time of registration. This amount will be kept outside the main IOI 2012 account. The IOI will prepare separate receipts to hand out for these payments. The fees will be handed over to an IOI representative to be deposited in the IOI Foundation account.
• The Opening Ceremony will be held in the morning on September 24 in the Garda Exhibition Centre in Montichiari, which is also the contest venue. The Practice Session will be held after lunch on the same day.
• The two competition days are September 25 and 27.
• The IOI Conference will be held in the Garda Exhibition Centre on September 25 and 27 in parallel with the contest.
• On the Opening Ceremony day and on the two competition days, lunch for all participants in IOI will be organized at the Garda Exhibition Centre. All other meals will be at Garda Village.
• The GA meeting after the practice day and the GA meetings to discuss and analyze the results after each competition day will take place in the Garda Exhibition Centre. All other GA meetings will be held in the Garda Village. The translation room will be organized in the Garda Village.
• The excursion for students on September 26, the day between the competition days, will be to Gardaland, an amusement park. Leaders can also go on this excursion.
• On September 26, the International Young Talents Conference is being organized in Milan in cooperation with UNESCO. One leader from each country can attend this conference, but attendance is not compulsory. The conference is for half a day, to be followed by a post-lunch visit of Milan.
• The excursion after the second competition day will be to Venice for all participants (students, leaders and guests). All participants will travel by a special train to Venice and back.
• The Closing Ceremony will be held in Sirmione. If the town authorities provide permission and the weather cooperates, the ceremony will be held in the open air, in one of the town squares. The backup plan is to hold the Closing Ceremony at the Sirmione Congress Centre.
• The Organizing Committee is in touch with the government of Italy for ministry participation in the Opening and Closing Ceremonies.

The IC visited the different sites in Sirmione and Montichiari that will be used for IOI activities. As part of these visits, the IC also met the Mayors of Sirmione and Montichiari and the President of the province of Brescia.

The following points were made during the IC meetings in connection with the arrangements for IOI 2012.

• Valentina Dagiene noted that the IOI Conference is not mentioned on the IOI 2012 website and requested that a reference be added.
• Broad slots have been set aside in the schedule for GA, IC and ISC meetings. The exact meeting schedules would be communicated to the Hosts.
• Montichiari is about 30 minutes from Garda Village by road and a fleet of 16-20 buses is being arranged to transport students and leaders back and forth. The schedule allows one hour for each transportation segment, to account for boarding time and potential traffic delays.

The IC pointed out that the way this transportation is organized will be crucial to the success of IOI. The following suggestions were made to the Hosts.

- The bus schedule should be strictly adhered to.
- Rather than assign delegations to buses and have delays waiting for missing people, buses should fill up and leave as they get full.
- This also applies to the transport arrangements at the airport on arrival days. Delegations should not have to spend a long time waiting in the bus for delayed flights.
- There should be a regular shuttle service between the two venues to accommodate those who miss scheduled trips. There could be two buses that, between them, circulate between the two venues at 30 minute intervals.
• It is important to have effective measures to quarantine the students from the leaders before the competition, after the tasks have been discussed in the GA. Though it is impossible to prevent all communication, it is best to take basic precautions to avoid accidental contact between students and leaders which may lead to unnecessary embarrassments.
- Students' accommodation in Garda Village should be arranged so that the area can be clearly marked off as out of bounds for leaders. Guides should be posted at key intersections to ensure that there is no movement of students and leaders across the boundary of the students' residential zone.
- ID badges should be colour-coded so that it is easy to differentiate students, leaders and guides.
- Internet facilities arranged for IOI within Garda Village should be shut off during the quarantine period.
• Arrangements should be made for all participants to have Internet access at Garda Village (outside quarantine times). The Hosts announced that they propose to set up a dedicated tower with a satellite connection.
• The IC pointed out that leaders find it very useful to have Internet access available during translation to assist in the translation process. Since translation takes place during the quarantine period, there should be a separate provision to provide continuous Internet connectivity to the translation room.
• The Hosts confirmed that two people would be accommodated in each residential unit in Garda Village. Guests would have single accommodation. The IC requested the hosts to ensure that the two occupants have separate beds with separate sheets and blankets.
• The Hosts confirmed that the recreational facilities at Garda Village (swimming pool, playing fields etc) will be available to all participants of IOI.
• Regarding the food arrangements, the following suggestions were made to the Hosts.
- Meals should be organized as buffets with multiple serving stations to avoid bottlenecks and long queues.
- All food items should be clearly labelled so that participants with dietary restrictions clearly know what items they can eat.
The IC drew the Hosts’ attention to the fact that there have been instances of alcohol abuse by students in the past. This is a special concern because the legal age for buying alcohol in Italy is 16. Guides can play a key role in controlling such abuse. The Hosts said that the guides will be sensitized to this issue.

The Hosts requested a list of contact addresses to send formal invitations. Kanchit Maleivongs will pass on the data from the organizers of IOI 2011.

The Hosts should be prepared to deal with delivering misplaced and delayed luggage of arriving delegations. Also, some delegations have been known to change their arrival plans at short notice.

The IC expressed serious concerns about the amount of space allocated for the GA meeting room and the translation room at Garda Village. The Hosts propose to have 100 computers in the translation room, which should be adequate. However, each computer table would have to accommodate 2 to 3 chairs for all members of the delegation participating in translation. The total floor area available seemed to be inadequate to hold a meeting area for 200 GA delegates as well as 100 computers with 2 to 3 chairs per computer.

The IC pointed out that the GA meeting room need not be physically adjacent to the translation room. The currently proposed location could continue to serve as the translation room and GA meetings can be held at an alternative venue within Garda Village. One suggestion was to use one of the dining halls for GA meetings.

The IC also expressed serious concerns about the size of the backup venue for the Closing Ceremony. The Sirmione Congress Centre has 500 seats and these are arranged in two levels of about 250 seats each, with no direct access from the upper level of seats to the stage. If the Ceremony is held in this venue, only the students and leaders will be able to sit in the hall. Moreover, all students receiving medals will have to be seated in the lower level and a suitable arrangement will have to be made for leaders who wish to take photographs of their students receiving medals.

12. **Report on IOI’2013**

Peter Taylor reported on preparations for IOI 2013 in Australia. (A copy of the presentation is attached).

- IOI 2013 will be held in Australia’s third largest city, Brisbane from July 6 to 13 2013. The earlier than usual dates are a result of constraints due to the short winter break in Australia. The weather during this period is expected to be sunny and dry with temperatures around 21 C.
- IOI 2013 will overlap with the month of Ramadan but the days will be shorter than they were at IOI 2010.
- The total budget is USD 1.3 million of which USD 1 million has already been raised. The organizers are optimistic about mobilizing the balance. A substantial amount (over USD 100,000) will saved if the contest can be run using computers already available with the University of Queensland, rather obtaining computers from commercial suppliers.
- IOI 2013 is being organized in full partnership with the University of Queensland. Various committees and subcommittees are in place. The logo has been designed and the website is almost ready.
- The arrival/departure point will be Brisbane airport. Many airlines have direct flights to Brisbane from hubs in Asia and there are also direct flights from Los Angeles. Some airlines serving Australia fly only to Melbourne or Sydney, in which case an additional domestic flight to Brisbane would be needed.
- In addition to the usual pickup for teams arriving at Brisbane airport (both international and domestic terminals) on arrival day, teams arriving ahead of schedule will be picked up from wherever they are in Brisbane on arrival day.
- Most nationalities require visas to enter Australia and the processing can take a few weeks. Many teams may have to schedule their selection earlier than usual, given that IOI 2013 is earlier than usual. The IOI 2013 organizers have an arrangement with the Australian Department of Immigration to share their registration data to expedite visa processing.
- Australia has very strict rules controlling the import of food items and items made of natural materials. All visitors should look up the regulations and be aware of them as the punishments for violations can be quite stiff.
- Students and leaders will be housed in colleges of the University of Queensland. All IOI activities will be on the University campus except excursions and the Opening and Closing Ceremonies. One excursion is planned for a wildlife park on the Sunshine Coast and the other is likely to be within Brisbane.
- An outreach programme aimed at teachers is planned on the day of the Closing Ceremony, including general lectures and a session on applications of computing.
- Regarding a question from the IC about the arrangement for guides, Peter Taylor said that the organizers plan to recruit students from 2 or 3 language schools in Brisbane. The person who organized the guides when IMO was organized in Australia is still available and his expertise could be used.
The pre-IOI IC meeting is scheduled for mid-February. The organizers were requested to avoid Chinese New Year, which falls on February 10, 2013. It was strongly recommended the meeting should be scheduled to span a weekend to minimize the number of working days missed by IC members on account of the meeting. The exact dates will be confirmed after checking the availability of the key members from the host committees.


Greg Lee reported on preparations for IOI 2014 in Taiwan. (A copy of the presentation is attached.)

- The plan is to have the competition on the 84th floor of the Taipei 101 building, which is currently unoccupied. However, the space can be confirmed only about one year in advance. The backup plan is to use the International Convention Centre next door to Taipei 101.
- Leaders, Observers, VIPs and Guests will be accommodated in a hotel. The current plan is to house students and guides in university dormitories. If the budget permits, students will also be moved to hotels.
- Several sponsors have been lined up including national agencies and commercial organizations. In particular, commercial sponsors have been identified for the technical equipment and services required for IOI as well as for special events.
- The proposed dates for IOI 2014 are July 3 to 10, 2014. This is due to constraints with availability of university dormitory accommodation. If the budget permits students to be housed in hotels, the dates could be shifted relatively easily to any slot in July/August.


The IC member from Kazakhstan could not attend the meeting and no report was sent to the IC to be presented at the meeting.

15. **Nomination of GA Chairman for IOI’2012**

- The Hosts have yet to decide on a name for GA Chairman.
- Eljakim Schrijvers reminded the Hosts that the GA Chairman should be fluent in English and should have the capacity to chair a meeting with 200 participants.
- The Hosts will send a CV and a brief descriptive note about their candidate for GA chairman to the President/Executive Director to be distributed to the IC.

16. **Awards and Trophies**

- The Hosts indicated a preference for blue as the background colour for the IOI lapel pins to be handed out this year.
- There was a discussion about candidates for Distinguished Service Awards. Two names that came up in the discussion were Arturo Cepeda and Jyrki Nummenmaa.
- It was agreed that the outgoing President should not automatically receive a Distinguished Service Award as any such automatic award diminishes its value.
- Some members of the IC said that they were not fully aware of the contributions made in the past to IOI, particularly by individuals who are no longer active in the community (such as Jyrki Nummenmaa). It was suggested that each proposal for an award should be accompanied by a short write-up about the individual justifying the award.
- It was finally agreed to postpone the decision about the award to be given out at IOI 2012. IC and ISC members are requested to submit nominations for this year’s Distinguished Service Award to the President by May 20, with a short note about the candidate as indicated in the previous point. In future, the practice will be to solicit such nominations in advance of the IC meeting.
- Mohamed Yousuf from Egypt has been making arrangements for the trophies that are handed out at IOI each year. It was agreed that he should be asked to order two trophies to be made for IOI 2012, one for the Distinguished Service Award and one for the top student in the contest.

17. **Communication**

- It was generally agreed that there has been a problem maintaining the IOI website with up-to-date information.
• Richard Forster proposed that the information on the IOI website could move to the IOI Wiki that is being developed for the community. The Wiki could have several sections including
  - A public face, representing the material currently on the IOI website, with only limited access to selected trusted individuals to make updates.
  - A section archiving tasks and translations
  - A compilation of information by each host country which could serve as an “instruction manual” for future hosts.
  - Related information, such as announcements about national contests in various countries, contact information for national olympiads etc.
• It was agreed that the IOI Wiki seemed the most effective way for communication within and outside the IOI community.
• Richard Forster will inform Wolfgang Pohl and Mathias Hiron, who are leading the IOI Wiki project, about the IC’s decision to push forward with the Wiki and have it take over as the primary mode of communicating information about IOI activities both within and outside the community.

18. **Budget**

• Eljakim Schrijvers announced that he would change the way the budget is written down. In the past, some activities with a budget have been completed without incurring any expenditure because of institutional support from the parent institution of the member performing the task. This has led to some confusion in the GA, with the impression that no work was done since no money was spent. In future, in such cases, the money budgeted will be listed as spent and the support received from the parent institution will be listed separately as sponsorship.

19. **New Countries**

Richard Forster reported on some informal enquiries from new countries interested in participating in IOI.

• There have been some enquiries from Jordan, which last took part in 2004. The enquiry is from someone who was a contestant in the 2004 Jordan team.
• There has been some preliminary contact from Benin.
• Two preliminary enquiries have been received from Afghanistan.
• There has been an enquiry from Chile, from a student at a university.
• All these enquiries have been informal. If there is any formal follow-up, details will be communicated to the IC. The Hosts should refer any requests for Observer status at IOI 2012 to the IC.

20. **Potential Hosts**

• Richard Forster reported that a formal letter has been received from Russia with a proposal to host IOI 2016 in Kazan City. The Executive Director will follow up with the usual request for additional information in support of the proposal.
• There have been informal indications of interest from Iran and Ireland to host future IOIs.

21. **Other business**

There were no items proposed for discussion under this heading.