



## MINUTES

### **MEETING OF THE INTERNATIONAL ORGANIZATION OF MATERIALS, METALS & MINERALS SOCIETIES (IOMMMMS)**

**Sunday, November 9, 2003**

**9:00 AM – 4:00 PM**

**Hyatt Regency Downtown Hotel**

***Room - Skyway 280 - East Tower, Blue Level***

**Chicago, IL**

***Bernard Rickinson, Chair, presiding***

#### **Council Attendees:**

ASM International  
Stanley Theobald, Managing Director  
CSM - The Chinese Society for Metals  
Xishan Xie, International Affairs  
IOM<sup>3</sup> - Institute of Materials, Minerals & Mining  
Bernie Rickinson, Chief Executive  
ISS - Iron & Steel Society  
William Barker, ISS President  
David Kanagy, ISS Executive Director  
JIM - The Japan Institute of Metals  
Hiroyasu Saka, JIM Vice President  
KIM - The Korean Institute of Metals & Materials  
To Hoon Kim, Vice President  
TMS - The Minerals, Metals & Materials Society  
Dan J. Thoma, TMS President  
Gregory Hildeman, TMS Vice President  
Alexander Scott, TMS Executive Director

#### **Guests:**

Toni Marechaux - Guest Speaker  
National Materials Advisory Board  
Federico Sciammaraella - Guest Speaker  
National Materials Advisory Board  
  
World Materials Day Contest  
2nd Place US Winners  
Washington State University  
Joint ASM/TMS Student Chapter Reps.  
Eva McGowan  
Jerrod Miller  
Diego Rodriguez-Merek

#### **1. WELCOME AND INTRODUCTIONS**

Chairman Rickinson called the meeting to order. Each of the participants introduced themselves. Chair Rickinson introduced the three students representing the Washington State University, Eva McGowan, Jerrod Miller and Diego Rodriguez-Merek. They are the second place winners of the ASM/ISS/TMS World Materials Day Student Contest. Ms. Eva McGowan gave a short presentation on the outreach project to high school students that the Student Chapter at Washington State University had conducted. The award piece and check for \$500 was presented to the students by the ASM, ISS and TMS Council Representatives.

#### **2. REVIEW & APPROVAL OF MINUTES FROM SEPTEMBER 10, 2002 MEETING**

Secretary Scott highlighted the minutes from the September 10, 2002 Council Meeting in Beijing, China and reviewed the accomplishment of all the Action Items.

It was MOVED and VOTED that:

The minutes from the September 10, 2002 IOMMMS Council Meeting be approved.

**3. ORGANIZATIONAL/ADMINISTRATIVE MATTERS**

3.1 Confirm Current Council Roster/Representatives

Secretary Scott circulated the council roster of member society representatives. Those in attendance updated the contact information for their representatives. The roster will be circulated with the minutes of this meeting for updating by each Member Society.

3.2 Confirm Officers & Executive Committee Members

Secretary Scott confirmed that the Officers and Executive Committee members remained unchanged for 2003 and 2004. All the terms continue through 2004. It will be necessary at the 2004 Council Meeting to appoint a new Chair and three representatives to the Executive Committee. The agenda for the 2004 Council Meeting will include that item.

3.3 Report on Financial Matters

Secretary Scott distributed the updated financial statement for IOMMMS. As of September 30, 2003 the account had a balance of \$14,613.42. It was estimated that the Council Meeting here in Chicago will cost approximately \$1,450.00 and the World Materials Day Student Contest including prize moneys and award pieces will be approximately \$5,620.00. These two expense items will therefore reduce the account by about \$7,000.00 bringing the anticipated year-end balance to about \$7,500.00.

It was noted that several Societies had been remiss in paying their annual dues. Following discussion it was agreed that a letter be sent with the 2004 dues invoice that states if the 2004 dues are not paid by a set date they will be removed from membership in IOMMMS. The letter will be sent by Chairman Rickinson and Secretary Scott. They will be asked to renew or resign their membership.

3.4 Identify other Societies for Membership into IOMMMS

Chairman Rickinson reported that the Portuguese Materials Society had conducted their own World Materials Day Student Contest quite successfully. They had found it on the IOMMMS web site. They are a member of FEMS. Chairman Rickinson recommended that we send a letter inviting the Portuguese Materials Society to join IOMMMS. This was agreed to by the Council with the recommendation to extend complimentary dues for 2004.

Thereafter followed a general discussion on inviting more materials relates societies to join IOMMMS. It was felt that the success of the first World Materials Day and in particular the Student Contest was a real accomplishment of IOMMMS and should attract other societies to join. It was noted the bylaws stipulate that there can be only three societies per country and one federation per continent.

It was then agreed that Chairman Rickinson and Secretary Scott will write a letter to the current IOMMMS member societies to determine their interest, need and goals for IOMMMS. This data will then be presented for discussion at the 2004 Council Meeting. The letter should state that the IOMMMS is a forum to discuss mutual problems/issues related to managing societies (finances, membership development, conference planning, etc.) which is primarily the staff functions. It is an excellent opportunity for the societies to share experiences and learn from each other.

It was further agreed that the IOMMMS should develop and put on its web site a World Materials Conference Calendar listing the title, dates, location and technical theme/focus of its member societies' conferences.

### 3.5 New Policies

Chairman Rickinson recommended that the Council consider developing new policies to be added to the bylaws.

Policy on Non-Payment of Dues:

This should establish the procedure to remove a society from membership for their non-payment of dues.

Policy on Liability Issues:

This should address the responsibilities of the Council Representative of the Member Societies and protect them as well as handle what happens to the funds upon the dissolution of the IOMMMS.

It was agreed that Chairman Rickinson and Secretary Scott will draft both bylaw statements and submit to the Council for mail ballot approval.

## 4. REPORT ON OLD BUSINESS

4.1 Status Report on World Materials Day Contest. The Member Societies that participated in the first World Materials Day Contest were:

- TMS—The Minerals, Metals and Materials Society—United States
- ASM International—United States
- ISS—The Iron & Steel Society—United States
- JIM—The Japan Institute of Metals --Japan
- CSM—The Chinese Society for Metals --China
- IOM<sup>3</sup> - Institute of Materials, Minerals & Mining—United Kingdom
- KIM - The Korean Institute of Metals and Materials --Korea
- IIM - Indian Institute of Metals --India

**ASM/ISS/TMS – joined together to present two prizes**

**First Place Winner \$1,000- University of Connecticut Joint ASM/TMS Student Chapter**

The chapter focused on outreach to younger students with their “UConn Materials Outreach Road Show.” The driving force behind the outreach efforts was the realization that many students entering college had very little understanding about the various fields of engineering. The goal was to highlight the exciting future of Materials Engineering for elementary, middle and high school students, as well as their teachers.

**Second Place Winner \$500 - Washington State University Joint ASM/TMS Student Chapter**

The chapter participated in Future and Cougar Mondays and Saturdays to increase the knowledge of materials science. During these events high school students and their parents visit the campus and meet with students and faculty to answer questions and to see demonstrations.

**JIM - The Japan Institute of Metals - one prize \$500**

**Winner - Aya Miyazaki - Department of Materials Science, Tohoku University**

The exchange project has been conducted by undergraduate students in the Dept. of Materials Science of Tohoku University and POSTECH in Korea and has been mainly focused on motivation of education and research in the field of materials science as well as the promotion of the dissemination of importance of materials in the daily life. The project covers both mutual presentations on topics in the field of materials science and followed discussions in English.

**CSM - The Chinese Society for Metals - one prize \$500**

**Winner - Liang Hong-gang - Institute of Historical Metallurgy and Materials, University of Science and Technology (Beijing)**

The winning paper is entitled "Cast Iron and its Steel Products in Ancient China". The paper discussed the use of iron dating back as far as the 5th century BC. A significant contribution of the ancient Chinese metallurgy was the use of cast iron, which became widespread due to the invention of the malleablizing process of white iron and making of steel from cast or pig iron.

**IOM<sup>3</sup> - Institute of Materials, Minerals & Mining - two prizes \$500 total**

**Winner - Age 16-19 Category - Yale College, Wrexham**

**Winner - Age 12-16 Category - Birkdale School, Sheffield**

The competition was the Ivan-O-the Mean Materials Machine. The design and selection of materials appropriate to the creation of a robot to beat all others in "Robot Wars" has been the centerpiece for a schools competition organized by the Institute of Materials, Minerals and Mining in the UK. Teams of four were set the task to identify the optimum balance of materials to attack and defend against other known competitors and yet at the same time comply with all of the rules appropriate to the TV Robot Wars series. The competition was split into two age ranges and the teams not only needed to justify their choice of materials for construction but also provide an overview of how the robot design provided for the competition could be further improved.

**KIM - The Korean Institute of Metals and Materials – one prize \$500**

**Winners - Ha Bo Hyun, Park Eun Soo and Chang Hye Jung of Yonsei University**

Their contest showed a web page design screen. The theme "Materials is the Basic Force to Lead the World to a New Age". They put together descriptive pictures of the birth of the earth, the Stone Age, the Bronze Age, the Iron Age and the 21st century complete with music. To describe the current materials field in detail, the representative images of mechanics, medical science and memory storage were displayed. With these images of three fields occupying the major parts in materials science and engineering, people can easily understand the concept and the application of materials.

**IIM - Indian Institute of Metals - two prizes \$500 total**

**First Place Winners - Mr. Saikat Das, Mr. Krishanu Nandi and Mr. Arka De of Don Bosco School, Kolkata**

**Second Place Winners - Mr. R. Tushar, Mr. Rahul Singh, Mr. Kunal Kumar of Sunbeam English School, Bhagwanpur, Lanka, Varnasi.**

The contest was the "Prof. Brahm Prakash Memorial Materials Quiz 2003". As part of their efforts to create awareness among the students about the importance of metallurgy and materials science in industrial and technological development, the IIM, since 1990 has been organizing an All Indian Metals and Materials Quiz for Senior High School students. The quiz was organized by the Kalpakkam Chapter of the Indian Institute of Metals and was held on October 17, 2003 at Kalpakkam. As part of the quiz event a booklet "An Introduction to the World of Materials" is issued to the students participating in the quiz.

**Portuguese Materials Society**

Their contest targeted graduate students from universities across Portugal. The graduate students created posters promoting MS&E and gave a 15 minutes oral presentation followed by five minutes of Q & A. The finalists were selected by a seven member group and consisted of 12 posters. FEMS selected this as their winner and also gave a second and third place prize.

It was agreed that IOMMMS is to send a letter and certificate to the winner of the Portuguese Materials Society. Chairman Rickinson is to provide details.

It was agreed to put the information on the contest winners on the IOMMMS web site including the CDs where possible.

Based upon the success and enthusiasm for the World Materials Day Student Contest in 2003 it was agreed to continue the contest for 2004. Secretary Scott is to draft the deadline schedule similar to the 2003 model. This will be circulated to the Member Societies with the examples of the 2003 winners as well as posting it on the IOMMMS web site.

4.3 Selection of Date for World Materials Day 2004

The date of Wednesday, November 3, 2004 was selected as the date of the next World Materials Day.

**5. NEW BUSINESS**

5.1 Discussion of Collaboration on Award Nominations

Chairman Rickinson proposed that IOMMMS develop a matrix of all the Member Society awards as a web based catalogue that is searchable. This would include only those awards whose nominees do not require membership in a particular society. Secretary Scott is to solicit the award information and coordinate its input/format on the web site. Also include a link to each Member Society's awards information web site/page.

5.2 Discussion on Cooperation amongst the IOMMMS Member Societies to Foster Electronic Access to MS&E Information

Chairman Rickinson opened a discussion on the opportunity for the Member Societies of IOMMMS to develop some form of a joint electronic membership. Several Societies (ASM International, TMS, JIM, CSM) indicated they were developing programs for this with selected societies. It was agreed to form a subcommittee to investigate the options, potential services and costs/fees to create some form of a joint electronic membership program within the Member Societies of IOMMMS. The subcommittee members are Rickinson, Scott, Kajiwara, Park, Kanagy and Theobald.

In addition to this project the agenda for the 2004 Council meeting should include discussions on:

- How IOMMMS Societies could cooperate on group purchases
- Development of data bases
- Proposal to have the IOMMMS web site or minimally the home page translated into the national languages of the Member Societies.

5.3 Presentation on International Role/Activities of National Materials Advisory Board By Toni Marechaux, Executive Director NMAB

Secretary Scott introduced Toni Marechaux, Executive Director of the National Materials Advisory Board (USA) and Federico Sciammarella also of the NMAB. Ms. Marechaux gave a presentation on "Materials and Manufacturing at the National Academies." A copy of her power point presentation is attached at Item 5.3.

Ms. Marechaux cited the study "Globalization of Materials R & D" which is a work in progress. This may be a possible topic for discussion at the '04 IOMMMS Council Meeting. Also if members of IOMMMS are interested in serving on this Study Team they can contact Ms. Marechaux at tmarecha@nas.edu.

5.4 Presentation on "Professionals Without Borders" by TMS President Thoma

Secretary Scott introduced Dr. Thoma who is currently the President of TMS for his address on "Professionals Without Borders". A copy of his power point presentation is attached at 5.4.

The presentation generated a number of questions and considerable discussion. The viewpoints on this issue from the Member Societies included:

CSM (China) - student participation in MS&E is growing. Issue is too few jobs available for all the MS&E graduates.

IOM<sup>3</sup> (England) - IOM<sup>3</sup> is heavily involved in these issues. An issue is consistency across borders in accreditation of engineers. IOM<sup>3</sup> grants the Chartered Engineer designation through the UK's Engineering Council.

JIM (Japan) - Primary interest has been establishing an ABET-like accreditation system throughout Japan for MS&E curriculum.

KIM (South Korea) - Availability of jobs for graduating students is the key issue.

Further Discussion noted:

- ISO-9000 impact; how to measure competence assessment/consistency; growing pressure on industry to measure work force competency. The PRI of SAE may have data on this issue.

## **6. REPORTS FROM MEMBER SOCIETIES**

### 6.1 Reports from Member Societies

- A. ASM International - Managing Director Theobald presented an excellent overview of the activities for 2003. A copy of his report is attached at Item 6.1A.
- B. CSM - Professor Xie reported that:
  - The "M" in CSM stands for minerals, metallurgy, mining and materials.
  - CSM officers serve a five year term. Currently in office for 2001-2006.
  - Currently have 114 corporate members.
  - Have many Vice Presidents who are usually the CEO's of major companies throughout China.
  - CSM hosts the PRICM-5 November 2-5, 2004 in Beijing, China.
  - CSM will celebrate its 50th Anniversary in 2006. Will hold a special conference entitled "World Minerals, Metallurgy & Materials Conference". Tentatively scheduled for late October either in Beijing or Shanghai. See attachment 6.1B.
- C. JIM - Professor Saka reported on the following:
  - Headquarters office relocating to smaller quarters still in Sendai. The museum will be closed.
  - Distributed the IOMMMS Member Society Data Form outlining the statistics on JIM. See attachment 6.1C.
- D. KIM - Professor Kim distributed the report on KIM. See attachment 6.1D
- E. IOM<sup>3</sup> - Chief Executive Officer Rickinson reported on the following:
  - Expects membership in '03 to achieve 22,000 members which is static; revenue to be at 3.8 M (£ pounds) achieving a small financial surplus for the year.
  - The Electrical and Mechanical Engineering societies in Great Britain are considering a merger that would create a 250,000 member organization. This again is being pushed/supported by the government.
  - The next April '04 IOM<sup>3</sup> Congress will have 200 papers and 8/900 attendees.

- The IOM<sup>3</sup> has been given an 850,000£ grant to develop a Materials A Level Course for schools throughout Great Britain. Plans area for a pilot program in 50 schools to start in September of 2005.
- Universities sponsor an Open House Week to attract students to MS&E curriculum. Some 600 students attended this year.
- The Foresight program with the government continues with five new reports to be out in November 2003.
- Professional Qualifications are now planning to expand to offer a Chartered Scientist designation.
- A new member service is under development called "My Materials World" which will be a customized service to IOM<sup>3</sup> members providing them based on their technical interest an electronic e-mail listing everything provided by IOM<sup>3</sup> related to their technical interest. This will be updated and sent every two weeks.

F. TMS - Mr. Scott referred the attendees to the Society Data Form which reflects current membership, finances, meetings and publications.

- The TMS Strategic Plan has five goals:
  - I. Broaden the engagement of the global materials community.
  - II. Develop value-added strategic alliances with other materials societies.
  - III. Optimize TMS core functions (programming, publications and membership) to focus on speed, flexibility, agility and quality.
  - IV. Broaden the engagement of the industrial community.
  - V. Capture emerging technologies.
- TMS ISS and ASM International have taken the lead in developing the MS&T Conference in 2005. This will bring together these three Societies as well as AWS, ACerS and possibly NACE.

**7. MATTERS ARISING AFTER PUBLICATION OF THE AGENDA**

No matters were introduced.

**8. MATTERS INTRODUCED BY MEMBERS OF THE COUNCIL**

There was general consensus that the two topics on NMAB and Professionals Without Borders were the type of presentations desired by IOMMMS. It is agreed that for the next Council Meeting Secretary Scott should solicit topics and speakers from all the Member Societies. Also since the next Council Meeting should be in Europe it would be appropriate to have presentations on the European perspective of MS&E research and development issues. A potential topic would be how industry, universities and government labs are linked through the programming of materials societies.

**9. PLANS FOR NEXT MEETING**

Based on the rotation schedule for Council Meetings it was agreed to meet as follows:

- 2004 - FEMS Junior EUROMAT - Lausanne, Switzerland - September 6-9, 2004
- 2005 - JIM Host - Kyoto - November 7 or 8, 2005

**10. ADJOURNMENT**

There being no further business the meeting was adjourned.

**IOMMMS MEETING**

November 9, 2003

Chicago, IL

**FOLLOW-UP/ACTION ITEMS REPORT**

<b>ITEM #</b>	<b>ACTION ITEM/TASK</b>	<b>WHO RESPONSIBLE</b>	<b>TIME FRAME</b>
3.1	Circulate Member Society Roster with minutes for updates	Secretary Scott	Dec. 1, 2003
3.2	Agenda Item for 2004 Meeting - Council Appointments	Secretary Scott	June, 2003
3.3	Send letter with 2004 dues billing stating if dues are not paid those Societies will be removed from the Council	Chair Rickinson/Secretary Scott	Dec. 1, 2003
3.4	Send letter of invitation to join the IOMMMS to the Portuguese Materials Society	Secretary Scott	Dec. 1, 2003
3.4	In cover letter with IOMMMS minutes survey the member societies to determine interest, needs and goals	Secretary Scott	Dec. 1, 2003
3.4	Add World Materials Conference Calendar to IOMMMS web site	Secretary Scott	Feb. 2004
3.5	Draft revised Bylaws for submission to the Council	Chair Rickinson/Secretary Scott	Feb. 2004
4.1	Send letter and Certificate to winner of Portuguese Society WMD	Secretary Scott	Feb. 2004
4.1	Post WMD contest results on IOMMMS web site	Secretary Scott	Feb. 2004
4.2	Draft and circulate deadline schedule for 2004 WMD contest	Secretary Scott	March 2004
5.1	Solicit the award information and coordinate its input/format onto the web site	Secretary Scott	March 2004
5.3	Meeting Topic for 2004 Meeting: "Globalization of Materials R&D"	Secretary Scott	March 2004
8.	Solicit Topics and Speakers for 2004 Meeting from Council Members	Secretary Scott	March 2004