

# ASIA-PACIFIC LEGAL METROLOGY FORUM

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## Thirteenth Meeting Report

November 15-17, 2006  
Furama City Centre Singapore

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### 13<sup>th</sup> Asia-Pacific Legal Metrology Forum Meetings November 15 – 17, 2006

Hosted by SPRING Singapore, APLMF meeting was held from November 15 through 17, 2006 at the Furama City Centre Singapore. The meeting was attended by 41 delegates from full member economies and two guests from the regional organizations.

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Table 1-1 **Hosts**

<b>Singapore</b>	Mr. Teo Nam Kuan	SPRING Singapore
	Mr. Michael Ong	SPRING Singapore
	Mr. S. Koban	SPRING Singapore

Table 1-2 **President and Secretariat**

<b>President</b>	Dr. Akira Ooiwa	National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology
<b>Executive Secretary</b>	Dr. Tsuyoshi Matsumoto	National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology
<b>Secretary</b>	Ms. Ayako Murata	National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology

Table 1-3 **Full Member Economies**

<b>Australia</b>	Dr. Grahame G. Harvey	National Measurement Institute, Australia
	Mrs. Marian Haire	National Measurement Institute, Australia
<b>Cambodia</b>	Mr. Ho Kadeb	Ministry of Industry, Mines and Energy
	Mr. Kim Chandara	Ministry of Industry, Mines and Energy
<b>Canada</b>	Mr. Alan E. Johnston	Measurement Canada, Industry Canada

	Mr. Gilles Vinet	Program Development, Measurement Canada
<b>People's Republic of China</b>	Mr. Liu Xinmin	General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)
	Ms. Ding Zhiyin	General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)
	Ms. Zheng Huaxin	General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)
<b>Indonesia</b>	Mr. Wahyu Hidayat	Directorate of Metrology, Indonesia
	Mr. Dody Martiwidingdo	Regional Verification Office, Jakarta
	Mr. Teguh Triprajogo	Regional Verification Office, Jakarta
	Mr. Arief Budiman	Regional Verification Office, Jakarta
	Mr. Suryatna	Regional Verification Office, Jakarta
	Mr. Kukuh S Achmad	National Standardization Agency
<b>Japan</b>	Mr. Takeshi Mizuno	Ministry of Economy, Trade and Industry
	Dr. Yukinobu Miki	National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology
	Mr. Hiroshi Kitano	National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology
	Mr. Kazuo Neda	National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology

<b>Democratic People's Republic of Korea</b>	Mr. Ri Man Ho	State Administration for Quality Management of DPRK (SAQM)
	Mr. Im Jong Thae	State Administration for Quality Management of DPRK (SAQM)
<b>Malaysia</b>	Mr. Mohd Roslan Bin Mahayudin	Ministry of Domestic Trade And Consumer Affairs
	Mr. Mohd Khalis Bin Kasim	Ministry of Domestic Trade And Consumer Affairs
	Mr. Chen Soo Fatt	National Metrology Laboratory, SIRIM Berhad
<b>Mongolia</b>	Mr. Galbadrakh Gantumur	Mongolian Agency for Standardization and Metrology
	Mr. Ravjir Munkh-Orgil	Deputy Prime Minister's Office
	Ms. Dorjsuren Oyun	Mongolian Agency for Standardization and Metrology
	Mr. Donj Bold	Mongolian Agency for Standardization and Metrology
<b>New Zealand</b>	Mr. Stephen O'Brien	Ministry of Consumer Affairs
<b>Papua New Guinea</b>	Mr. Ronald Paita	National Institute of Standards & Industrial Technology (NISIT)
<b>Chinese Taipei</b>	Mr. Chin Sin Shu	Ministry of Economic Affairs
	Mr. Jin-Hai Yang	Ministry of Economic Affairs
	Ms. Hui-Chung Ma	National Measurement Laboratory

	Mr. Wen-Chen Chang	National Measurement Laboratory
<b>Thailand</b>	Mr. Veerasak Vissutthatham	Ministry of Commerce
	Mr. Sakchai Hasamin	Ministry of Commerce
<b>United States of America</b>	Dr. Charles Ehrlich	National Institute of Standards and Technology (NIST)
<b>Viet Nam</b>	Mr. Pham Ngoc Tran	Directorate for Standards & Quality, STAMEQ
	Mr. Bui Quy Long	Directorate for Standards & Quality, STAMEQ
	Mr. Tran Quy Giau	Directorate for Standards & Quality, STAMEQ

Table 1-4 **International / Regional Organizations**

<b>APMP</b>	Mr. Steven Tan	SPRING Singapore
<b>ASEAN</b>	Mr. Chen Soo Fatt	National Metrology Laboratory, SIRIM Berhad, Malaysia
<b>OIML</b>	Mr. Alan E. Johnston	CIML President / Measurement Canada
<b>PASC</b>	Mr. Teo Nam Juan	SPRING Singapore
<b>SADC MEL</b>	Mr. Stuart Heldrey Carstens	Legal Metrology SABS (South African Bureau for Standards)
<b>SIM</b>	Dr. Charles Ehrlich	National Institute of Standards and Technology (NIST), USA

Table 1-5

**Honorary Member**

<b>Australia</b>	Mr. John Birch AM	Immediate-past President
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Table 1-6

**Guest**

<b>Singapore</b>	Mr. Cedric Foo	Chairman, SPRING Singapore
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Table 1-7

**Observer**

<b>Germany</b>	Dr. Ulrich Diekmann	Physikalisch-Technische Bundesanstalt (PTB)
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## **1 Opening address by Dr. Akira Ooiwa, President, APLMF**

Thank you for the kind introduction. Good morning ladies and gentleman. I am Akira Ooiwa, the President of the Asia-Pacific Legal Metrology Forum, APLMF. I appreciate the attendance of distinguished guests from all over the world and from the hosting economy Singapore and dear colleagues of the APLMF. I am very happy to be here at this thirteenth APLMF meeting at this beautiful city Singapore. At first, on behalf of all the APLMF members, I would like to show my sincere appreciation to Singapore for hosting these meetings and giving the heartfelt and warm welcoming address of Mr. Cedric Foo, Chairman of SPRING, Singapore. It is a great honor for APLMF to have such great opening ceremony on the occasion of the thirteenth meeting of the APLMF with attendance of Mr. Png Cheong Boon, Deputy Chief Executive, and Mr. Teo Nam Kuan, Group Director of the Quality and Standard Group of SPRING, and many distinguished guests from Singapore and also from international bodies, Mr. Alan Johnston, the President of International Organization of Legal Metrology, and Mr. John Birch, Honorary member and past president of APLMF, and Mr. Stuart Carstens from SADC MEL.

I would like to express my deepest gratitude to the Singapore colleagues who have taken the voluntary responsibility to host this Forum meeting, special thanks to the people who have made efforts in the perfect preparation, Mr. Michel Ong, and Mr. Koban, and all the staff of the SPRING, Singapore, and many people who support this meetings.

I also appreciate the participation of all the members and distinguished guests. Some of our members have come a long way across the Pacific Ocean. Thank you all for your participation.

I would like to introduce the roles and activities of the APLMF.

The Legal Metrology has a very old history that goes upstream to thousands years ago because it is indispensable for the foundation of national system. But many of such laws were traditionally established for only domestic purposes, therefore each metrology law covers different areas and scope depending on its historical situation and law system. These days, even domestic legal metrology should adapt to the international trade framework in order to satisfy the strong demand from the WTO; World Trade Organization, regionally the APEC; Asia-Pacific Economic Cooperation. Within the well-known Technical Barriers to Trade (TBT) agreement, legal metrology is one of major concerned fields where harmonization is sought according to an internationally acceptable system that should be established by the activities in the International Organization of Legal Metrology (OIML.) As I mentioned before, each economy has its own metrology law or metrology system that may be different to each other. The APLMF was founded to recover and reduce such discrepancy and to harmonize to the world standards in the framework of APEC. In order to reach such goals, the APLMF has some strategies.

- ◆ APLMF has maintained information services concerning common technical matters in relation with the OIML and other relating articles. In legal metrology, OIML

recommendations and documents have been the model standards and now are becoming almost regulatory standards in the international trade activities as well.

- ◆ We need coordination concerning technical content in testing, verification, and calibration in the fields of legal metrology. Trainings and seminars are strongly asked by almost all economies as technical supports and aides. In APLMF, we have been organizing many training and seminar courses concerning testing and verification of NAWI (Non-Automatic Weighing Instruments), Oil and Fuel Dispensers, Agricultural measurements such as Rice moisture meters, Prepackaged goods, Utility meters, and Medical measurements and so on. We continue to plan more workshops and training courses.
- ◆ In these activities, we have a close relation with the APEC in terms of its financial support funding of the APEC-TILF; Technical Investment for Liberalization and Facilitation.
- ◆ Through such activities, we have been building our capacities so as to establish international harmonized condition and consequently to achieve the Mutual Recognition Arrangement in the legal metrology field. These activities will also enable APLMF member economies to participate in the international activities to develop an effective common technical and legislative infrastructure to ensure consistency.

I would like to mention about the outstanding contribution of Singapore in such APLMF activities. Singapore is one of the most active members in the APLMF. Colleagues of Singapore have been participating most of the APLMF events, training courses, seminars, workshops where they have shown outstanding achievements. Here in Singapore, there is the APEC secretariat office and that means Singapore is acting like the capital of Asia-Pacific region. Singapore is really the most eligible place to hold such international cooperative event as the APLMF.

I am sure that this thirteenth APLMF meeting shall be fruitful and successful because of such voluntary contributions as provided by Singapore government as well as all the member economies.

Thank you very much for your attention.

## **2 Welcome address by Mr. Cedric Foo, Chairman, SPRING Singapore**

To begin, allow me to share with you a quote from Mr John Quincy Adams, the Sixth US President in his report to Congress in 1821. And I quote: "Weights and measures may be ranked among the necessities of life to every individual of human society. They enter into the economical arrangements and daily concerns of every family."

This may have been written some 200 years ago, but the essence of such wise words show the importance of weights and measures. In fact, the influence and impact of the system of weights and measures for trade use is as pervasive as ever. Weights and measures embrace every aspect of modern living, so much so that we often take it for granted. Take a simple

example of topping up petrol at the station that many of us routinely do at least once a week. If we do not have an accurate system of weights and measures, how then can we be sure that we are getting what we paid for at the petrol station?

This example shows how critical it is for any country to have an accurate system of weights and measures. Such a system is indispensable in facilitating trade – it fosters certainty, trust and confidence in all transactions involving weights and measures. It underpins fair trade and competition, and promotes efficiency, and in so doing, helps to grow our economy.

In a small country like Singapore whose economic growth hinges on trade, it is not surprising that our Weights and Measures Office or WMO began its work as early as 1867. With the gazetting of the Weights and Measures Act and Regulations in 1980, our WMO's role is to ensure fair trade and correct excise tax computations for petrol and diesel. The Weights and Measures Programme puts in place a uniform and accurate system of weights and measures so that consumers and traders get exactly what they pay for when they buy goods that are weighed, measured or pre-packaged. This helps to enhance consumer and trade confidence in the fairness of our trading system.

To ensure that the Weights and Measures Programme remains relevant and keeps pace with market changes and international practices, SPRING Singapore conducts regular reviews on the effectiveness of the Weights and Measures Programme. The last review resulted in the amendment of the Weights and Measures Act and Regulations in December 2005.

One of the key changes made to the legislation in December 2005 was the introduction of the Authorized Verifier or AV Scheme.

The AV scheme enables SPRING to empower qualified private sector companies to perform the verification of weighing and measuring instruments. In so doing, the responsibility of ensuring the accuracy of weighing and measuring instruments for trade use then lies with the private sector. As the weights and measures authority, SPRING can then focus on checking the accuracy of the weighing and measuring instruments in post-market surveillance.

The outsourcing of verification to qualified private companies allows traders to tap on a bigger pool of verifiers, thereby reduces turnaround time and lowers compliance costs.

I am pleased to note that the AV Scheme has been successfully implemented since 7 August this year. And this morning, 11 companies will receive their Certificate of Designation for the AV Scheme. My congratulations to this pioneer batch of verifiers.

Over the past decade, the APLMF has played a critical role in contributing to the economic growth and development of the Asia-Pacific region by addressing issues relating to legal metrology in Member Economies.

The APLMF provides an excellent platform for its members to exchange information, monitor trends in legal metrology from developed economies and align members' standards to international standards such as the International Organization of Legal Metrology or OIML Recommendations. All these help to lower technical barriers to trade and foster trade within

the region. For instance, the alignment to the Average Quantity System for pre-packaged goods will result in lower compliance cost for manufacturers and consumers. Manufacturers no longer have to set their automatic packaging machines at higher levels to make sure that the goods meet or exceed the minimum weight stated on the packaging. As long as the average weight of the goods in the same batch conforms to that stated on the packaging, they are allowed to be sold.

Our industries and we have also benefited from the “Train-the-Trainer” courses by the APLMF. Areas covered include the verification of weighing and measuring instruments such as non-automatic weighing instruments and fuel dispensers and on pre-packaged goods. SPRING officers who have attended the courses in turn conduct courses for industry so that the know-how and skills are transferred to industry.

Moving forward, legal metrology authorities in the region will face new challenges due to increasing globalization, de-regulation, liberalization of the regional economies and technological advances. Globalization will require economies to adapt their legal metrology regimes to international practices.

Furthermore, the rapid advances in technologies and introduction of new products will require new measurement capabilities, such as the verification of hydrogen dispensers for the fuelling of hydrogen-powered vehicles.

It is heartening to note that the APLMF is addressing these emerging trends which impact legal metrology among member economies. The APLMF has organized more skills upgrading such as the “Train-the-Trainer” courses for its members and helping members to align with international practices. This has resulted in lower compliance cost and shorter time to market for businesses and consumers.

In conclusion, I would like to commend APLMF for making significant contribution to the improvement and maintenance of legal metrology among Members Economies through training and provision of information on changes in the field of legal metrology. I am confident that the APLMF, with the support of its members, will be able meet the new challenges ahead.

On this note, I wish all of you a fruitful meeting in Singapore. To our overseas friends, I hope you can make the time to visit many of our famous tourist attractions. We are in the heart of our colourful Chinatown district, and you may also want to sample the food and entertainment outlets at Clarke Quay, which is just a short stroll along the river bank.

Thank you

### **3. Roll Call (A13-3)**

Dr. Tsuyoshi Matsumoto took a roll call of the participants. 43 delegates from 16 APLMF member economies and two guests from the Regional Metrology Organizations (RMOs), namely APMP and SADC MEL, attended the meetings. Four APLMF members also represented their international and regional organizations, namely ASEAN, OIML, PASC and SIM. The member economies present were: Australia, Cambodia, Canada, People's Republic of China, Indonesia, Japan, Democratic People's Republic of Korea, Malaysia, Mongolia, New Zealand, Papua New Guinea, Singapore, Chinese Taipei, Thailand, United States of America and Viet Nam.

### **4. Confirmation of the report of the 12<sup>th</sup> APLMF Meetings**

The report of the 12<sup>th</sup> meetings was approved without modification.

### **5. Report of the APLMF President, Dr. Akira Ooiwa**

Dr. Ooiwa, President, gave a report of APLMF status in 2006 and APEC Sub-Committee on Standards and Conformance (SCSC).

He started with the current status of the APLMF Presidency and Secretariat. Due to the lack of candidates, it was decided at the 12<sup>th</sup> APLMF Meeting that Japan would extend the presidential term for another one year. The present personnel responsible for APLMF are:

Dr. Akira Ooiwa.....President  
Dr. Tsuyoshi Matsumoto .....Executive Secretary  
Ms. Ayako Murata .....Secretary

APLMF carries 20 full member economy and 6 corresponding member economies. More economies inside and outside of the APEC members are now interested in the APLMF membership.

The APLMF activities have been introduced in the APEC SCSC meetings, which are held twice every year, with a purpose of acquiring funding from the APEC TILF Fund. These funds are used to conduct the APLMF seminars and training courses. APLMF aims to disseminate the international recommendations in legal metrology and to respond to regional issues. Dr. Ooiwa's proposal for the TILF was successfully accepted by the APEC SCSC in the last four years, and his proposal for the year 2007 has also been approved. For the future consideration on the training topics, Mutual Acceptance Arrangement (MAA) on volume meters for liquids and the international traceability in analytical chemistry might be taken into account. The reports of those seminars and training courses conducted under the APEC TILF project can be retrieved from the APLMF website.

APLMF, however, is now facing a difficulty in obtaining the TILF funding. This is due to the APEC policy that does not allow repeated training courses on a same subject. Dr. Ooiwa suggested taking consideration of APEC-ASF (APEC Support Fund), which is designed for the capacity building of developing economies. This fund may be more appropriate for the

APLMF strategy on training activities.

After Dr. Ooiwa's presentation, Mr. Michael Ong of Singapore inquired whether mass flow meter is counted as the volume meters for liquids. Dr. Ooiwa responded that if the survey on the future training courses shows a demand for mass flow meters, it will be considered as a topic of the upcoming training courses.

## 6. Report of the APLMF Secretariat (A13-6)

### 6.1 Activity of the APLMF Secretariat (A13-6-1)

Dr. Matsumoto presented a list of the APLMF activities conducted between December 2005 and November 2006 as well as the action plans up to March 2007. Following is the confirmed list of the activities.

**Table 2 APLMF Activities in 2006**

Year	Mon	Day	Items	Actions Taken
2005	Nov.	23-25	12th APLMF Meetings	APLMF WG Meeting and 12 <sup>th</sup> Forum Meeting were held in Kuala Lumpur, Malaysia.
2005	Dec.	Early	The Season's Greeting	Greeting cards were sent to all the member economies.
		6	APEC/APLMF Training Course (CTI-18/2004T)	Handbook on Automated Sphygmomanometers was published and sent to the member economies.
		8	12 <sup>th</sup> APLMF Meetings: Documents	All documents of the 12 <sup>th</sup> APLMF meetings were uploaded onto the website.
			Membership fee	Invoice for the APLMF membership fee 2006 was sent to full member economies (due on Apr. 30).
		14	Event Schedule	The request for the event schedule 2006 was sent. Deadline: Jan. 31
		19	APLMF Bank Account Update	Announcement on the change in the APLMF bank account information was sent.
		20-23	APLMF Training Course	The Seminar on Clinical Electrical Thermometers was held in Taipei, Chinese Taipei.
2006	Jan.	4	Website Password Change	The password for the APLMF members-only pages was changed.
		30	APLMF Circular	Circular 51 was published and sent to all member economies.
2006	Feb.	3	12 <sup>th</sup> Meetings: Draft Report	The first draft of the APLMF 12th Meeting Report was uploaded onto the website.

		7	APLMF Directory	The request of the update of APLMF Directory was sent to the member economies.
		17	APEC/APLMF Training Course (CTI-18/2004T)	“Report of Training Course on Verification of Non-Automatic Weighing Instruments” and “Report of Training Course on Electricity Meters” were published and sent to the member economies.
		22-24	APEC SCSC Meeting	The President attended the first APEC SCSC meeting in Hanoi, Viet Nam.
		28-Mar. 3	APEC/APLMF Training Course (CTI-10/2005T)	The Training Course on Electricity Meters was held in Ho Chi Minh City, Viet Nam.
2006	Mar.	7	APLMF Directory	“Directory of Legal Metrology in the Asia-Pacific Region” was revised and uploaded on the website.
		17	APLMF Survey	The analysis of the APLMF Survey on Benefit of Training was uploaded on the website.
		30	12 <sup>th</sup> APLMF Meetings	The final report was uploaded on the website.
2006	Apr.	3-7	APEC/APLMF Training Course (CTI-10/2005T)	The Training Course on Practical Application of OIML R87 on Pre-packaged Goods was held in Shah Alam, Malaysia.
		4	APEC/APLMF Training Course (CTI-10/2005T)	“Report of Training Course on Fuel Dispensers” and “Handbook on Verification of Non-Automatic Weighing Instruments” were published and sent to the member economies.
		11	Change of Contact Person	The contact person of Hong Kong China was taken over by Mr. Y C Wong.
		19	APLMF Survey	Survey on Quality Measurement on Agricultural Products was sent to the member economies. Deadline: Jun. 30
		21	APLMF Survey	Survey on the Next Presidency was sent to the member economies. Deadline: Jul. 31.
		24	APLMF Circular	Circular 52 was published and sent to all member economies.
			12 <sup>th</sup> APLMF Meetings	The final report was published and sent to the member economies.
		30	APLMF Membership Fee 2006	The deadline for the membership fee 2006.

2006	Jun.	20	Change of Contact Person	Mr. Mohd Roslan bin Mahayudinand and Mr. Mohd Khalis bin Kasim were assigned as the contact persons of Malaysia.
			Change of WG Chair	The chair of WG on Good Packed by Measure was taken over by Mr. Stephen O'Brien of New Zealand.
		27-30	APEC/APLMF Training Course (CTI-11/2006T)	Training Course on CNG Fuel Dispensers was held in Shah Alam, Malaysia.
2006	Jul.	7	APEC/APLMF Training Course (CTI-10/2005T)	Handbook on Electricity Meters was published and sent to the members.
		14	APEC/APLMF Training Course (CTI-11/2006T)	The invitation for the speakers for the Workshop on Metrology of Agricultural Product and Foods was sent to the members.
		17-21	APEC/APLMF Training Course (CTI-11/2006T)	Seminar on Automated Sphygmomanometers was held in Taipei, Chinese Taipei.
		18	APLMF Survey	The result of the Survey on Quality Measurement on Agricultural Products was published on the website to the members.
		20	Change of the Contact Person	Mr. Oke Nurwan was assigned as a contact person of Indonesia as a successor to Mr. Hari Prawoko.
		28	13 <sup>th</sup> APLMF Meetings	The invitation was sent to the members and international/regional metrology organizations.
			APLMF Circular	Circular 53 was published and sent to all member economies.
2006	Aug.	10	13 <sup>th</sup> APLMF Meetings	The webpages designed for the 13 <sup>th</sup> APLMF Meetings were uploaded on the website.
		16	13 <sup>th</sup> APLMF Meetings	The request for the meetings documents was sent to the members and related organizations.
		29	APLMF Survey	Survey on Metrological Control for Medical Measurement Instruments was sent to the member economies. Deadline: Sep. 30
		31	APEC/APLMF Training Course (CTI-10/2005T)	Handbook on Prepackaged Goods was published and sent to the members.
		28-1	APEC/APLMF Training Course (CTI-11/2006T)	Training Course on Verification of LPG Fuel Dispensers was held in Shanghai, P.R.China.



2006	Sep.	6-10	APEC SCSC Meeting	The President attended the second APEC SCSC meeting in Danang, Viet Nam.
		6	Change of Contact Person	Mr. Rusmin Amin was assigned as a contact person of Indonesia as a successor to Mr. Oke Nurwan.
		13	Change of Contact Person	Dr. Choe Hui Jong was assigned as a contact person of DPR Korea as a successor to Mr. Kim Hyong Chol.
		21	Change of Contact Person	Mr. Wu-Hsiung Chen was assigned as a contact person of Chinese Taipei as a successor to Mr. Jenn-Dong Juang.
		25	APEC/APLMF Training Course (CTI-11/2006T)	Handbook of CNG Fuel Dispensers was published and sent to the members.
		27	Change of Contact Person	Mr. Galbadrakh Gantumur was assigned as a contact person of Mongolia as a successor to Mr. Khurelsukh Jigmedtseden.
2006	Oct.	16	APLMF Circular	Circular 54 was published and sent to the members.
		14-20	CIML Meeting	The President attended the 41 <sup>st</sup> CIML meeting in Cape town, South Africa.
		20	13 <sup>th</sup> APLMF Meetings	The deadline for the meeting documents.
2006	Nov.	15-17	13 <sup>th</sup> APLMF Meetings	The Working Group Meeting & 13th Forum Meeting are going to be held on in Singapore.
2006	Dec.	Early	The Season's Greetings	The cards are going to be sent to all member economies and international and regional organizations.
		Early	13 <sup>th</sup> APLMF Meeting -Documents	All documents of the 13 <sup>th</sup> APLMF meetings will be uploaded on the website.
		11-16	22nd APMP General Assembly and associated meetings	The President is going to attend the 22nd APMP General Assembly and associated meetings in New Delhi, India.
		Late	13 <sup>th</sup> Meetings: Draft Report	The first draft of the 13th APLMF Meeting Report will be uploaded on the website.
2007	Jan.	Early	APLMF Circular	Circular 55 will be published and sent to all member economies.

2007	Feb.	7-9	APEC/APLMF Training Course (CTI-11/2006T)	Workshop on Metrology of Agricultural Products and Foods is going to be held in Chiang Mai, Thailand.
2007	Mar.	TBA	APEC/APLMF Training Course (CTI-11/2006T)	The Training Course on Electricity Meters will be held.

### 6.2 Activity of the APLMF Secretariat (A13-6-2)

Dr. Matsumoto presented the list of the current APLMF contacts details. The new contact persons joined the APLMF members in 2006 are as follows:

- ◆ Mr. Y C Wong ..... Hong Kong China
- ◆ Mr. Rusmin Amin ..... Indonesia
- ◆ Dr. Choe Hui Jong ..... DPR Korea
- ◆ Mr. Jo Hui Kon ..... DPR Korea
- ◆ Mr. Mohd. Roslan bin Mahayuddin ..... Malaysia
- ◆ Mr. Mohd Khalis bin Kasim ..... Malaysia
- ◆ Mr. Galbadrakh Gantumur ..... Mongolia
- ◆ Mr. Stephen O'Brien ..... New Zealand
- ◆ Mr. Wu-Hsiung Chen ..... Chinese Taipei
- ◆ Ms. Carol Hockert ..... USA

### 6.3 Membership Fee (A13-6-3 & A13-6-4)

Dr. Matsumoto stated that the Secretariat has not modified the structure of the APLMF membership fee in the last year and has no plans to change it.

## 7. Presentation nominated by the host economy (A13-7)

Mr. N.K.Chaudhary, Industry Marketing Manager (Oil / Gas & Refining) of Emerson Process Management Asia Pacific Private Limited, made a presentation titled "Emerson Process Management's perspective on Flow Meter selection in Custody Transfer". The following is the agenda of his speech.

- ◆ Introduction to traditional flow meters
  - DP Element
  - Turbine Meter
  - PD Meter
- ◆ Dominating flow technologies of future
  - Coriolis flow meter
  - Ultrasonic flow meter
- ◆ Coriolis flow meter
  - Theory

- Benefits of Coriolis flow meters
- Approvals for custody transfer applications
- Applications / References
- Proving

## **8. Activities of the Working Groups (A13-8 & W13)**

### **8.1.1 WG on Training Coordination (W13-2-1)**

The Chair, Mrs. Marian Haire reported that there were six seminars and training courses conducted since the 12th APLMF Meetings; and two more have been planned under the action plan for 2006. These two courses are: Workshop on Metrology of Agricultural Products and Foods and Training Course on Electricity Meters.

The Workshop on Metrology of Agricultural Products and Foods is scheduled from February 7 to 9 in 2007 hosted by Thailand. This workshop will provide three major topics:

1. Agricultural quality measurements
2. Food quality & safety measurements
3. Measurement Infrastructure – domestic (quality of life) and international (trade & regulation) requirements

In the WGs Meeting on the previous day, P.R.China and Thailand came forward to provide speakers for “Development of Moisture Recommendation” and moisture measurements for rice and tapioca, respectively in Topic 1. As a part of Topic 2, Singapore is considering to arrange a speaker for chemical contaminants. Viet Nam is also looking to provide a speaker as well. There still are several specific topics to be decided on; the WG announced they would appreciate additional suggestions from the members.

As a possible outcome of the WG for the coming year, the Chair is seeking to clarify the current situation of the member economies and define the issues and problems that exist in the region. The Chair also intends to contribute relevant information to the APMP TCQM (Technical Committee on Amount of Substance) from a legal perspective.

It was also confirmed that another course on electricity meters would be hosted by P.R.China and held in March 2007. Japan agreed to provide trainers in cooperation with the WG on Utility Meters chaired by Canada.

Mrs. Haire announced that APLMF’s proposal for the APEC TILF for 2007 had been approved. This fund is going to be used to conduct four seminars and training courses as the 2007 project. Viet Nam offered to host for one of the courses, the training course on mechanical weighing scales program. For other courses, the WG would be pleased to hear from the member economies willing to host a course.

The WGs Meetings also discussed possible new topics for future training courses. With suggestions from the member economies, the WG is looking to organize a training course on management & administration in legal metrology designed specifically for managers working in legal metrology. This “capacity building” course intends to develop skills in long term

planning. The ASF (APEC Support Fund) will be considered for the funding source. In order to compile an updated list of members' needs, the WG is planning to conduct another survey on the training needs in the mid 2007.

#### **8.1.2 WG on Goods Packed by Measure (W13-3)**

Mr. Stephen O'Brien, the Chair who replaced Mr. David Morris in 2006, presented highlights of the presentation and discussions carried in the WGs Meeting.

The WG Meeting emphasized the increasing significance of the application of legal metrology to prepackaged goods. Responding to this trend, the work in the OIML TC-6 on Prepackaged Goods has been making tremendous progress. The WG strongly encourages the APLMF members' involvement in such international activities by participating and responding to the requests from the committee. The updates of the committee can be retrieved from the OIML website.

The Meeting also covered the action plan for 2007. Please refer to the meeting documents for details. The WG is also currently updating the economy contacts of prepackaged goods.

#### **8.1.3 WG on Utility Meters (W13-4)**

Mr. Gilles Vinet, the Chair, reported the topics discussed in the WGs Meeting.

The Chair reviewed the works performed by the WG in 2006 and presented the OIML technical works with regard to utility meters namely: electricity meters, natural gas meters, water meters, taxi meters and statistical sampling. Action plan for 2007 was also announced. All of the detail reports are available in the meeting document.

#### **8.1.4 WG on Mutual Recognition Arrangements (W13-5)**

Dr. Charles Ehrlich reviewed items of the last year's work program and reported the progress made since the 12<sup>th</sup> Meetings.

- ◆ Continue to support the OIML work on implementation of the MAA (Mutual Acceptance Arrangement) and not develop a regional MAA

This item will remain in the same direction for the next year. He emphasized that the APLMF economies were well represented in the signatories of the Declaration of Mutual Confidence (DoMC) on OIML R60 on Load Cell and R 76 on Non-Automatic Weighing Instruments, which have signed this year.

- ◆ Monitor ways in which APLMF members can participate in the OIML MAA (such as providing experts to conduct peer review audits)

Dr. Ehrlich announced the success from last year that the OIML corresponding members now can sign the DoMC as utilizing participants and are allowed to participate within limited extent in the MAA program. This item will continue in 2007.

- ◆ WG Chair to provide OIML MAA implementation update report for APLMF circular (based on results of CPR meetings)

The status of the OIML MAA has been reported in the APLMF Circular 53. If there are any updates on the issue, the Chair will inform APLMF members.

Dr. Ehrlich added at the end of the report that he will take any requests and suggestions from the APLMF members on how the APLMF members can participate in the OIML MAA into consideration.

#### **8.1.5 WG on Medical Measurement (W13-6)**

Mr. Brian Chinsin Shu of Chinese Taipei, on behalf of Dr. Jay-San Chen, the chair who was not able to attend the forum meeting, gave a report of the WG work plan made based on the survey on the metrological control conducted in 2006.

The WG conducted the Survey on Metrological Control on Medical Measurement with a purpose to seek the current situation on metrological control in the member economies on the medical measurement instruments. The responses from the member economies indicated that they are interested especially in non-invasive sphygmomanometers and thermometers. Upon this request, the WG will organize a training course on medical measurement instruments in the first half of 2008 under the APEC TILF project. Another important demand the survey found is that the trainees wish to have more hands-on trainings. This demand will definitely be included in the next training course.

The WG will keep collecting the data from the member economies for a better understanding of medical measurement practiced in the region.

#### **8.1.6 WG on Measurement of Moisture Content of Agricultural Commodities (W13-7)**

Mr. Hiroshi Kitano, the Chair, gave a presentation on the activity in 2006 and work plan for 2007.

He started with three main activities run by the WG since the 12<sup>th</sup> Meetings: organizing training courses, interacting with OIML and conducting APLMF survey. One training course titled “Training Course on Traceability of Non-Contacting Body Thermometers” was carried out from December 5 to 8 in 2005 hosted by SIRIM Berhad, Malaysia. This course was funded by SIRIM Berhad and the Association for Overseas Technical Scholarship (AOTS) in Japan. The WG also contributed work to the OIML TC17/SC1 on R59 on Moisture Meters for Cereal Grain and Oilseeds and TC17/SC8 on Protein Measuring Instruments for Cereal Grain and Oil Seeds. Another significant work done is the Survey on Quality Measurement on Agricultural Products. This survey helped to clarify the needs for the quality measurement in the member economies.

As the work plan for 2007, he proposed three items. First is to continue discussion on the international comparison on the rice moisture meters. The metrological control over grain

moisture meters differs among economies; the mutual understanding is essential for the development of protocol on the issue. Second item is to contribute to the OIML TC17 linking to the APLMF benefits. OIML activity is the key for the broader international harmonization. The third item is to conduct a workshop in metrology on agricultural products and foods in cooperation with the Secretariat.

#### **8.1.7 WG on Traceability in Legal Metrology (W13-8)**

Dr. Akira Ooiwa, the Chair, summarized the discussion carried in the WGs Meeting and proposed the action plan for 2007.

The WG discussed the relation and role of the accreditation in metrological traceability in the previous day's WGs Meetings. The group found that the actual confidence of traceability cannot be achieved only by the concept of accreditation. The current accreditation system needs to be clearly defined on its work and understood by the authorities. As the issue brought out, Mr. Chen Soo Fatt of Malaysia informed that the ASEAN Consultative Committee on Standards & Quality Working Group on Legal Metrology (ACCSQ WGLM) was considering the development of a guidance document to assist ASEAN member countries in the development of accreditation in legal metrology.

For the action plan for 2007, the Chair proposed to conduct a survey on the status of traceability practiced in the member economies and report the result. He also announced that the WG is seeking a candidate for the new Chair.

#### **8.1.8 WG on Pattern Compliance (W13-9)**

Dr. Grahame Harvey, the Chair, gave a report on the OIML WG Meeting held on October 14, 2006 in conjunction with the 41<sup>st</sup> CIML Meeting in Cape Town.

The OIML WG on Conformity to Type is planning to conduct a survey of the industries to determine the desire for conformity to type program. In addition, they are going to develop a strategy paper to include the experiences of member economies and to describe options for achieving conformity to type. Both of these will be addressed in the seminar to be held in conjunction with the CIML Meeting in 2007.

### **8.2 Update of the WGs structure and policy**

Dr. Ooiwa declared that there are no structural or political changes to propose. However, there was a suggestion made by Dr. Harvey on the slight structural modification to the WGs. He suggested renaming the WGs to Technical Committees (TCs). Mr. Birch and Dr. Ooiwa gave some positive comments to his idea. Mr. Birch pointed out that the APLMF WGs are too small in its size to be TCs; however, it needs to evolve eventually and function as TCs. The WG on Training Coordination chaired by Mrs. Haire, for example, might need to meet the delegates from all member economies, who are the contacts to the interested applicants of courses, and discuss possible problems and demands of each economy. This could be

attempted as a separate meeting prior to the 14<sup>th</sup> APLMF Meetings involving only the WG members. Dr. Ooiwa suggested having a TC meeting at a training course. Seminars and training courses are where specialists gather from many different economies; it is a special opportunity to have a detailed, technical discussion in the field. Mrs. Haire opposed the ideas. She believes that the current style of the operation works most effectively as for the WG on Training Coordination. She has had active interactions with the members via Email and through annual meetings and always proposed a firm 12-month plan at each meeting to ensure that all members are aware of its activities. Preparing an annual proposal and having interactions with people at annual meetings involves all members; it is more efficient than having a separate meeting where only selected members gather. Dr. Ehrlich and Dr. Harvey agreed with Mrs. Haire's analysis. Mr. Vinet also agreed and added that the WGs should cooperate with other APLMF members and share the WG tasks. Dr. Ooiwa concluded that the Forum will not make any change in its structure at this time.

## 9. Strategy of APLMF

Dr. Ooiwa reported that there has been no significant modification made to the APLMF strategy for 2006 and 2007. APLMF will continue to focus especially on the capacity building in the field of legal metrology requested by member economies.

**Table 3 Objectives and Methodology of APLMF 2006/2007**

<b>Objectives</b>		
1		To identify and promote the removal of technical or administrative barriers to trade in the field of legal metrology.
2		To develop and maintain mutual confidence in measurement (metrological control) among legal metrology authorities in the Asia-Pacific region
3		To provide a forum for exchange of information among legal metrology authorities.
4		To promote mutual recognition arrangements among members and with other regional groups and individual economies.
5		To cooperate with the international organization of legal metrology (OIML) and promote the use and acceptance of OIML international recommendations and other publications and the OIML certification system.
6		To collaborate with other regional bodies in the field of legal metrology.
7		To coordinate regional training courses in legal metrology and facilitate exchange of staff among authorities.
8		To facilitate the provision of cooperation and assistance in the development of the legal metrology infrastructure of members.
9		To respond to request and to disseminate information related to APLMF activities or member economies to international organizations such as OIML, RLMO's, APEC, SRB's, etc.
<b>Methodology</b>		
Finance	1	The president, secretariat and member economies make efforts to secure necessary budgets for the APLMF activities, by applying to the APEC -TILF and -ASF funds, governmental fund from each member economy, and/or other appropriate sectors.
	2	The members assist and support the APLMF so as to get such funds from international organizations, etc.

	3	The secretariat controls the budget to be spent impartially for the benefits of member economies according to a process approved by the members.
	4	The secretariat keeps the members informed about the activities in which the APLMF fund is spent.
	5	The APLMF has been approved with APEC-TILF funds in the years 2004-2005, and 2006 for the project 'Seminar and Training Courses in Legal Metrology'.
WG	6	A working group applies to get a fund of the APLMF to carry on its activities and provide benefits to the members.
	7	Working groups supply information to the members through the APLMF secretariat.
Technical Infrastructure	8	The APLMF develops technical infrastructures for the members that should be specific and demanded among the APLMF members.
	9	The members and working groups are encouraged to develop specific metrological and quality control standards that are beneficial to the APLMF members so as to keep confidence in measurements, such as verification methods of measuring instruments.
Information Services	10	The secretariat fulfills information facilities such as the web site and provides information services in order to make the member well informed and involved into the APLMF activities easier and quicker.
<b>APEC and Other Organizations</b>		
APEC	11	The APLMF makes a strong relation with APEC, to influence the APEC activities as well as to be influenced by APEC.
APLMF	12	The Executive Committee prepares an analysis of the impact of the Forum's program.

Mr. Birch suggested building a closer relationship at the regional level with APLAC and APMP by working together and sharing information in specific fields noting that OIML and ILAC (International Laboratory Accreditation Cooperation) signed an MOU. Mr. Johnston commented that, while OIML cannot give a concrete perspective on the link between international and regional organizations; interaction among the regional bodies would bring benefits. Mr. Steven Tan of APMP added that APMP signed an MOU with APLAC with a purpose to collaborate in tangible areas such as sharing of peer reviewers. Dr. Ooiwa concluded that APLMF will try to develop a close relationship with APMP and APLAC.

## **10. Report of Specialist Regional Bodies (SRBs)**

### **10.1 Asia-Pacific Metrology Program (APMP) (A13-10-3)**

Mr. Steven Tan gave a report on the current APMP status and the movement.

APMP carries 21 member economies of which 16 are signatories to the Meter Convention; 6 economies are associate members. 14 economies out of all full and associate member economies are participating in the International Committee of Weights and Measures Mutual Recognition Arrangement (CIPM MRA). These signatories are authorized to use the CIPM MRA logo in the calibration report they issue. The detailed list of the signatories can be retrieved from the website of the International Bureau of Weights and Measures (BIPM).

APMP, which has 11 Technical Committees (TCs), has been putting efforts in the investment to the developing economies in demanded area of metrology. 30 % of APMP



budget is used for such economies. Due to the increasing need for the metrology on chemistry, the TCs invited one expert from the National Metrology Institute of Australia (NMIA) to establish a new TC in the area. There is now a lot of interest in this type of physical measurement, and it is the APMP's new focus.

Another significant movement is that APMP is in the process of signing an MOU with APLAC. The benefits expected to gain are: share of peer reviewers, comparison exercises to maintain traceability to SI, aligning terms use, etc.

In addition, Mr. Tan presented and explained the structure of the APMP operations. The visual aids used to outline the structure are available in the meeting document. Also, meetings schedule and activities plan of APMP are listed in the handouts as well.

## **10.2 Pacific Area Standards Congress (PASC) (A13-10-5)**

Mr. Teo Nam Kuan spoke about PASC's meetings and issues being discussed within the PASC members.

PASC conducted two meetings in the past 12 months: PASC Standing Committee (SC) meeting held in conjunction with the APEC SCSC meeting in Ha Noi in February and the PASC 29<sup>th</sup> Meeting held in Cape Town in May.

In those meetings, 6 main issues were raised for discussion:

- ◆ The importance of involving regulators in standardization and of meeting regulators' needs.
- ◆ The development of case studies which can be used for guidance and communication with governments on standardization activities.
- ◆ Consideration as to how PASC and other assessment bodies in the Pacific region might work more effectively with APEC SCSC.
- ◆ Consideration as to how PASC and APLMF might liaise on issues of common interest.
- ◆ Encouraging closer working between International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC).
- ◆ Follow up on special sessions with Conversation on Standards for a Safer World discussing on the improvement on the standardization system regarding disaster / recovery management.

Mr. Teo emphasized that PASC is looking to establish cooperation with APLMF in the areas of same interests.

After the report, Dr. Ooiwa raised a question in what fields PASC could consider to provide assistance to less developed economies if there is such a plan. Mr. Teo replied that upon the agreement of the member economies, PASC would be willing to support the member in the area they wish. In addition, Dr. Ooiwa asked how PASC members are trying to reduce the difficulty developing economies have in applying international level of standards. Mr. Teo answered that developed member economies have been encouraging less developed members

in capacity building. For instance, Japan has been a huge contributor for such an activity. The ISO TCs also try to get together with members of all levels and have all members participated in discussion.

Mr. Birch inquired how PASC is dealing with the area in which ISO does not cover due to limited international interest such as standards of rice moisture meters. Mr. Teo said PASC applies funds to the governments, APEC and European Unions so that they can organize capacity building training by which developed members disseminate their methods to economies in need of the guidance. Mr. Teo added that ISO recently signed MOU with PASC.

Mr. Wahyu Hidayat of Indonesia mentioned that their economy also has a demand for a training course to help them maintain national standards. He inquired if APMP could consider providing such an opportunity. Mr. Tan replied that APMP hold a training course annually on a subject that the members request; and assistance is also available to interested members. For instance, Australia assisted Thailand in setting up a capability in the field of metrology and chemistry.

## **11. Report of the International Organization of Legal Metrology (OIML) (A13-11)**

Mr. Alan Johnston gave a report on current status of issues/projects in OIML.

The 41st CIML Meeting and Associated Events were held from October 11 to 20, 2006 in Capetown. 52 of 59 full members attended. At the meeting, Mr. Grahame Harvey, the APLMF delegate of Australia, was elected as the second Vice President. Mr. Willem Kool will join as Assistant Director in February 2007, -Mr. Attila Szilvássy will retire in 2007; and Mr. Samuel Just has joined as an engineer.

On the MAA, the Declaration of Mutual Confidence (DoMC) for OIML Recommendation R60 (Load Cells) and R 76 (Non-Automatic Weighing Instruments) have been signed, and now the Bureau is moving towards the third DoMC on R 49 (Water Meters).

OIML approved 11 Recommendations at the Capetown meeting.

In terms of support to developing economies, OIML is working to define what role it can play to assist them. This issue was also raised by other international organizations such as ISO and ILAC. OIML facilitated access to technical equipment for developing economies; however, the refurbishing and shipping costs were sometimes greater than the purchase price of new equipment.

Another project under consideration is revision of directives for technical work. OIML is looking for ways to expedite the technical work. Mr. Johnston believes that human resources are what they need the most, but most economies are experiencing declining legal metrology resources, making it difficult to identify experts to assist with the work of OIML.

Mr. Johnston also mentioned the Seminar on Prepackaged Goods which was held in conjunction with the 41<sup>st</sup> CIML Meeting. It was organized by OIML and the South African Bureau of Standards (SABS). He thanked Mr. Stuart Carstens and Dr. Grahame Harvey for organizing the seminar, which was attended by more than 100 people and was successful.

Mr. Johnston concluded his report by providing information on cooperation between OIML and other international organizations. OIML maintains cooperation with six organizations: Metre Convention, International Laboratory Accreditation Cooperation (ILAC), International Electrotechnical Commission (IEC), International Standards Organization (ISO), International Accreditation Forum (IAF) and United Nations Industrial Development Organization (UNIDO). OIML developed a joint action plan and common website and brochure with Metre Convention. With ILAC, OIML recently signed an MOU concerning the approval of laboratories as issuing authorities under MAA using ILAC assessors and OIML experts. IEC and ISO work with OIML on the development of technical requirements. At the IAF Meeting in Cancun, Mexico, Mr. Johnston met with Mr. Thomas Facklam, Chair, IAF, with a view to determine the possibility of OIML working closer with IAF but no concrete plans have been developed. OIML is also looking into developing better cooperation for assistance to developing economies with UNIDO through the Joint Committee on Developing Countries in Metrology, Accreditation and Standardization (JCDCMAS) of BIPM.

## **12. Report of Regional Legal Metrology Organizations (RLMOs)**

### **12.1 Association of Southeast Asian Nations (ASEAN) (A13-12-1)**

Mr. Chen Soo Fatt presented a report on the ASEAN Consultative Committee for Standards and Quality Working Group on Legal Metrology (ACCSQ WGLM).

The WG was established in 2001 and consisted of 10 ASEAN member economies. Its current Chair and Co-chair are Indonesia and Malaysia respectively. Some of their activities are sponsored by Japan International Cooperation Agency (JICA), Physikalisch-Technische Bundesanstalt (PTB), etc.

The main objectives of ACCSQ WGLM are:

- ◆ to align legal metrology in ASEAN so as to support the objectives of ASEAN Free Trade Area (AFTA),
- ◆ to ensure modernization of legal metrology legislation will not present technical barriers to trade,
- ◆ to establish cooperation in order to improve national metrology systems,
- ◆ to hold discussions and promote ASEAN interest with regional and international organizations.

ACCSQ held its 7<sup>th</sup> Meeting just before the 13<sup>th</sup> APLMF Meetings. The following items were discussed:

1. Harmonization of verification on Non-automatic Weighing Instruments
2. Harmonization of requirements on Pre-packaged Goods
3. Capacity building
4. Training

Regarding item 2, the ASEAN common requirements for pre-packaged goods have been completed. They are targeted to be implemented by all members by 2008. On the item 3, an

inter-laboratory comparison of mass standards has been proposed. This will start in 2008. As for the item 4, many ACCSQ members have been participating in the APLMF training courses. However, it was noted the APEC/APLMF travel supports cannot fully meet the funding requests from all ACCSQ members. The ACCSQ are therefore seeking sponsors so that more members can be exposed to the training opportunities.

### **12.2 Southern African Development Community Cooperation in Legal Metrology (SADCMEL) (A13-12-5)**

Mr. Stuart Carsten gave a report on Southern African Development Community Cooperation in Legal Metrology (SADCMEL).

SADCMEL currently carries 14 members and 3 associate members. As reported at the CIML Meeting, one more economy is considering in near future. Mozambique holds the chairpersonship, and South Africa serves as the regional coordinator and Secretariat. All SADC bodies such as SADCMEL, SADCA (Accreditation), SADC standards bodies and SADCMET (Measurement Traceability) facilitate interactions through annual meetings.

SADCMEL coordinated four training courses this year. Those were on Documents 1 and 4 which are on OIML R79 and R 87, ISO 17020 and 17025, the metrological control on Bulk Storage Tanks, and verification on Non-automatic Weighing Instruments (NAWI).

In addition to the training courses, SADCMEL has been working on the project on the regional requirements for labels and tolerances. The requirements have already been finalized, and they will be published as regional standards shortly. The members will adopt them as national technical regulations.

### **12.3 Inter-American Metrology System (SIM)**

Dr. Charles Ehrlich reported on the Legal Metrology Working Group of the Inter-American Metrology System (SIM).

The WG is chaired by Mr. Cesar Luiz L.M. da Silva of Brazil. They conducted a training course on fuel dispensers in conjunction with SIM and IMEKO meeting that was held in Rio de Janeiro in September. Mr. Wayne Stiefel, a USA delegate of APLMF, provided a training session on sealing of software systems and tracking software systems. This information is available upon request.

### **12.4 South West Pacific Legal Metrology Forum (SWPLMF)**

Mr. Ronald Paita explained the current status and movement within the South West Pacific region.

SWPLMF consists of 21 economies in Pacific region including Australia and New Zealand. The Secretariat, which is run by Suva-Fiji, conducted a study on standards and conformance practiced in the member economies in 2005. Mr. Birch joined in this study as a consultant. Furthermore, the trade ministers of the members met in June and endorsed some

of the recommendations proposed in this study. Further actions, however, have not been taken since the meeting due to a lack of funds. The future status of metrology is becoming a political issue.

Mr. Birch pointed out that the governments of developing economies need to give a priority to metrology in their strategies in order to acquire the funds from organizations like World Trade Organization (WTO) for the further development. By doing this, Bureau International de Métrologie Légale (BIML) would have a better understanding of the needs of the developing economies.

### **13. Full Member session**

The report of full member session is available only to the full members. Please go to the APLMF website for this information.

### **14. Economy Report (A13-14)**

#### **14.1 Australia (A13-14-1)**

Dr. Grahame Harvey highlighted eight items on which Australia has been working.

First, they are trying to build a firm national system for the territories on trade measurement, which is currently shared with the states. This is the most significant development being made this year. Second, the NMI type approval facilities are moving to Lindfields; the facilities are being installed. Third, the NMI has signed two MAAs: OIML R60 and R76 as an issuing authority. Fourth, the NMI has signed a contract with the National Water Commission for the development of water meters of agricultural use by the NMI's national standards and test procedures for open and closed channels. Fifth, they are working with the traffic regulatory agencies for the development of national standard on traffic speed measuring instruments. Sixth, they are about to reactivate the grape and sugar quality measurement completing the project and moving towards grape color measurement. Seventh, the harmonization of trade measurement within Australian State and Territory Jurisdiction is achieved. The final item is the development of uniform test procedures (UTPs) for the verification, certification and in-service inspection of instruments used for trade. Mrs. Haire has put great effort into this project.

#### **14.2 Cambodia (A13-14-2)**

Mr. Kim Chandara spoke on three main activities being preceded in Cambodia.

First, the Law of Metrology and regulations on four items have been reviewed and submitted for adoption to the ministers:

- ◆ The Ministerial decision on Management of Requirement for Weights and Measure
- ◆ The Ministerial Prakas<sup>\*1</sup> of SI Unit
- ◆ The Ministerial Prakas on Management of Standard and Equipment of Liquid Volume

◆ The Ministerial Prakas of Pre-Packaged Products

The offence and penalty chapter is currently under discussion with assistance of legal advisors of Ministry of Justice.

Second, Cambodia has been working with the United Nations Industrial Development Organization (UNIDO) on the market access and trade facilitation. This project started in March 2006 among the Mekong Delta Countries aiming at strengthening the Industrial and Scientific Metrology Laboratory. Cambodia is also assisted by New Zealand, Japan and APLMF in technical procedures and capacity building.

Third, they joined the APMP-DEC (Developing Economies' Committee) inter-comparison of mass standard in early 2006. They are also looking to participate in the inter-comparison of temperature standard.

\*1 Regulation

### **14.3 Canada (A13-14-3)**

Mr. Gilles Vinet extracted 5 points from the economy report and spoke on the metrological trends in Canada.

First, Measurement Canada initiated the revision of two acts: the Weights and Measure Act and the Electricity and Gas Inspection Act. Key objectives behind this legislative review are to facilitate the timely adoption of international standards, regulate water meters, increase flexibility in the delegation of Measurement Canada's work to service providers, and establish mandatory recertification period for weights and measure devices.

Second, Measurement Canada is developing the Canadian type approval requirements and program for water meters based on the OIML R49 and American Water and Waterworks Association (AWWA) standards.

Third, they have completed the evaluation of the impact of gasoline evaporation on fuel dispenser inspection and are now looking at improvements to the inspection test equipment.

Fourth, Canada has signed the OIML MAA for R76 as utilizing participant in 2006. The MAA for R60 will be signed in 2007.

Fifth, Measurement Canada has modified the sampling plan for the verification of electricity and gas meters in cooperation with industry and using ISO statistical sampling standards. The training of MC personnel and industry has been finalized.

Further information is available in the economy report.

Mr. Stephen O'Brien inquired if the study on the impact of evaporation of gasoline would be available to the public. Mr. Vinet replied that the report will be published but might not be posted on the web site. The report will be provided by Email to interested members upon request.

#### **14.4 People's Republic of China (A13-14-4)**

Ms. Ding Zhiyin reported the domestic and international activities conducted in P.R.China in 2006.

##### Domestic

1. The new category of type approval on imported measuring instruments was added and implemented from Aug. 1, 2006.
2. The certificate for technical works on metrology is now mandated for all technicians effective from June 1, 2006.
3. The guide for energy conservation and cutting the energy consumption was developed.
4. The National Institute of Metrology (NIM) participated in 18 key comparisons.
5. 65 national technical regulations were revised.
6. The metrological supervision and administration for pre-packaged goods has been improved.
7. The metrological supervision and inspection for the major measuring instruments were strengthened.
8. The metrology and energy conservation was discussed on the World Metrology Day.

##### International

9. P.R.China signed OIML R76 and R60 as issuing authority.
10. P.R.China hosted the APEC/APLMF Training Course on LPG Fuel Dispensers.
11. The MRA on type approval test reports between AQSIQ and NMI of Netherlands was signed on Aug. 22, 2006.
12. The MOU between AQSIQ and METI (Ministry of Economy, Trade and Industry of Japan) was signed on Sep. 26, 2006.
13. The 4<sup>th</sup> China-Japan Meeting on metrology was held in Shanghai.
14. The 3<sup>rd</sup> China-Japan-Korea workshop on metrology was held in Guilin, China in March 2006.
15. Two workshops on calibration and flow-meter measurement were organized by AQSIQ in cooperation with PTB.
16. AQSIQ invited two international speakers to the workshop on SI.

Mrs. Haire asked for the details on the item 2. Ms. Ding said that the government organizes training courses and prepare the national examination for the engineers to acquire the certificate.

#### **14.5 Hong Kong China**

The delegates of Hong Kong China were absent, and the economy report was not provided.

#### **14.6 Indonesia (A13-14-6)**

Mr. Wahyu Hidayat explained the division of authorities and the current movement in Indonesia.

Directorate of Metrology (DOM) changed its administrative system from centralized to decentralized in 2000. This caused a difficulty in harmonizing the policies of the central government and regional governments. At present, DOM is a policy maker, regulator and supervisor in legal metrology to the provincial governments who provide the verification / re-verification service and technical assistance. The city governments are responsible in the actual operational inspection on measuring instruments and pre-packing procedures. In order to improve the legal metrology system, DOM conducted the study on the system in cooperation with Japan International Cooperation Agency (JICA). The specific plan for further development is being discussed.

Other projects under operation are the revision of the testing regulation on bottom loading truck tanker and the preparation of the construction of ultrasonic flow meter between Kalimantan and Java. The ultrasonic flow meter, however, does not have any regulation and testing facility within Indonesia. This issue is currently under discussion.

#### **14.7 Japan (A13-14-7)**

Mr. Takeshi Mizuno spoke on the structural modification of the Measurement Law and domestic / international activities.

As one of the most significant movements operated by the Ministry of Economy, Trade and Industry (METI), he introduced the incorporation of technical requirements of measuring instruments into Japanese Industrial Standards (JIS) from the Measurement Law. This will make amendments of requirements adopted more timely into the regulation, which is very significant considering the fast advancement of the modern technology.

Also as movement at the national level, National Metrology Institute of Japan (NMIJ) signed OIML R60 and R76 as issuing authority in September 2006.

On the other hand, the local governments are working on the promotion of accurate measurement by involving the consumers in its activities. For example, “Consumer Monitoring Activity”, which consumers check the quantities of products they buy and report the result to the local authorities, seeks the evaluation directly done by the end users.

The detailed explanation on the JIS and the Measurement Law can be found in the economy report.

#### **14.8 Democratic People’s Republic of Korea (A13-14-8)**

Mr. Ri Man Ho introduced the state policies and activities of the State Administration for Quality Management (SAQM).

SAQM enforces the metrological control over the following three objects in legal metrology:



- ◆ Measuring means used in the production processes and the inspection of products
- ◆ Measuring means used in the scientific research, tests and result analysis
- ◆ Measuring means used in the commercial transactions

They put significant efforts into the improvement of pattern approval and verification of measuring instruments used in industry management.

As the digital measuring means increase, the importance of reviewing and revising the contents of pattern approval and verification raises. Therefore, the Central Institute of Metrology (CIM) has been reviewing some standards and guidelines in cooperation with other associated institutions. This process is proceeded along with the OIML and IEC recommendations.

Regarding trainings, SAQM sent two experts to the APEC/APLMF Training Course on CNG Fuel Dispensers in June. In addition, SAQM organized and hosted a training course on the development of standardization and metrology designed for developing economies such as Nigeria, Sudan, Uganda and Ethiopia. It was financially supported by Perez-Guerrero Trust Fund and held in Pyongyang. Another training course organized was on the time and frequency measurement and reference materials, which was jointly held with Directorate for Standards and Quality of Viet Nam (STAMEQ).

#### **14.9 Republic of Korea**

The delegates of Rep. Korea were absent, and the economy report was not provided.

#### **14.10 Malaysia (A13-14-10)**

Mr. Chen Soo Fatt gave a report on the activities conducted by the National Metrology Laboratory, SIRIM Berhad and the Ministry of Domestic Trade and Consumer Affairs (MDTCA).

The final draft of the National Measurement System Act (NMSA) has been approved by the Attorney General Chambers. This Act coordinates the national measurement system by prescribing provisions for a coherent approach in establishing uniformity and traceability in measurements for legal, scientific and industrial metrology.

The Malaysian Standard on pre-packaged goods, “Guideline for Quantity of product in Prepackages”, which is based on OIML R87, will be approved soon. The MDTCA is in the process of drafting the relevant regulations based on this standard and the ASEAN common requirements for pre-packaged goods. Malaysia hopes to implement these requirements by 2008.

Other significant activities are training courses. Malaysia hosted two APLMF Training Courses in 2006; one is on Prepackaged Goods and another is on CNG fuel Dispensers. Malaysia participated in all five training courses organized by APLMF this year. SIRIM itself conducted an international workshop on standards and quality for ASEAN economies and other developing countries. Within the economy, SIRIM organized two one-day training

course specifically designed for government enforcement authorities. The topics were: the measurement of breath alcohol level, and legislation and measurement procedures for vehicle tinted glass and exhaust smoke emission. After privatizing the verification and re-verification services for measuring instruments in April 2005, the MDTCA has been responsible for monitoring and supervising the performance of the private companies appointed. Two training courses were conducted by MDTCA for officers responsible for such monitoring and supervision work.

#### **14.11 Mongolia (A13-14-11)**

Mr. Galbadrakh Gantumur spoke about the current trends and activities in Mongolia.

Mongolia has been working towards the adoption of OIML Documents D1 and D19. The procedures of pattern approval recommended in D1 has been adjusted to the Mongolian system and approved in November 2006. The full adoption of D1 and D19 is scheduled in 2007.

Another significant project going is installation of alcohol meters. This plan was decided in 2002, and Mongolian Agency for Standardization and Metrology (MASM) is responsible for the pattern approval and verification. Installation and maintenance are conducted by two licensed companies.

With regard to the involvement in the APLMF, MASM has sent five verification officers to the training courses in the fields of fuel dispensers, mass and electricity meters. The information gained by the trainings are disseminated to other officers through in-house training courses.

#### **14.12 New Zealand (A13-14-12)**

Mr. Stephen O'Brien presented the activities and projects held by the Ministry of Consumer Affairs in 2006.

Two international projects have been under operation: Parking Meter Project in Fiji and Mekong Metrology Capacity Building Project with Cambodia, Laos, Myanmar and Viet Nam. The Parking Meter Project is aimed at developing type approval and test procedures to verify the accuracy of the meter under various environment and electrical disturbance conditions. The Mekong project, which is sponsored by New Zealand Aid, is to assist in the development of the needed economies by providing procedure manuals and trainings. In 2007, they are planning to cover such topics as Laboratory Calibration, Non-Automatic Weighing instruments and Pre-packaged Goods.

Other international activities conducted are training courses on the practical application of the average quantity system. The Ministry provided trainers to the training courses held in Malaysia and Papua New Guinea. One of the two was the APEC/APLMF Training Course.

With regard to the international relationship, New Zealand invited the delegates from STAMEQ, Viet Nam with a purpose to assist them in developing systems to manage their

metrology infrastructure as Viet Nam is becoming a full WTO member.

As one of the most important issues, the signatory to the OIML DoMC was signed for the Recommendation R60 and R76 on September 7, 2006. This will benefit the economy in the reduction of technical barriers to trade.

#### **14.13 Papua New Guinea (A13-14-13)**

Mr. Ronald Paita spoke about the completed training course and the future perspectives of Papua New Guinea.

The Measurement Standard Laboratory (MSL) organized a training course on the practical application of OIML R87 on pre-packaged goods from August 21 to 24, 2006 in collaboration with the New Zealand Ministry of Consumer Affairs. The participants include regulators from private sectors and NGOs. Their feedback indicated that they hope to have another training course on the same subject in 2007.

The demand for training courses will gradually increase as PNG intends full adoption of the OIML Recommendations in the future. They will play a role as a leader concerning the adoption of international standards in the Pacific Island Countries (PIC); they are devoted to the education on the international standards for the all involved personnel in the economy. The National Institute of Standards and Technology (NISIT) and MSL are planning to hold two training courses on Non-Automatic Weighing Instruments and Fuel Dispensers in 2007.

#### **14.14 Philippines**

The delegates of Philippines were absent, and the economy report was not provided.

#### **14.15 Russian Federation**

The delegates of Russian Federation were absent; however, the economy report is available on the APLMF website.

#### **14.14 Singapore (A13-14-14)**

Mr. S. Koban highlighted two updates from the Standards, Productivity and innovation Board (SPRING Singapore).

First, the revised Weights and Measures Legislation were gazetted and made effective from January 1, 2006. The main changes are applied for (i) Authorized Verifier Scheme, (ii) Average Quantity System and (iii) verification procedures on weighing instruments and pre-packaged goods. The item (i) gives permission for handling verification of weighing instruments for trade use to the personnel of private sector bodies who has the license designated by SPRING. Eleven verifiers have been licensed so far. As for the item (ii), the current Minimum Quantity System (MQS) was replaced by the Average Quantity System (AQS) in accordance with OIML R87. This procedure is disseminated to the industry through the training courses organized by SPRING. For the item (iii), SPRING aligned the verification

procedures and the maximum Permissive Errors for measuring instruments and pre-packaged goods with the relevant OIML Recommendations.

Second, SPRING replaced the lead and wire seal with the new plastic verification seal for use on weighing and measuring instruments for trade use. The picture of the new seal is shown in the economy report.

More detailed information can be retrieved from the meeting documents.

#### **14.17 Chinese Taipei (A13-14-17)**

Mr. Brian Shu reported the activities and updates from the Bureau of Standards, Metrology and Inspection (BSMI).

BSMI conducted seven sessions of metrology training on measurement management and verification skills for their technical staff in 2006. They also promoted a program of measurement management system on ISO 10012:2003 for the factories. The e-learning program is also available at <http://units.bsmi.gov.tw> which was updated in October.

There were revisions of technical specifications for verification and inspection on two instruments: (a) diaphragm gas meters and (b) sphygmomanometers. These were modified according with OIML R6 and R31 for (a) and OIML R16-1 for (b). The technical specification for verification and inspection of laser speed-measuring devices was formulated with reference to NHTSA standard (NIST drafted: DOT HS 809 239 Lidar module) and published. In addition, as for the technical specifications of type approval, of which taximeters were revised and non-invasive automatic sphygmomanometers were published.

#### **14.18 Thailand (A13-14-18)**

Mr. Veerasak Vissutthatham reported on the trends in legal metrology in Thailand and involvement in the APLMF activities.

Thailand approved the verification license for instruments to the water meters and measuring tapes manufactures. Department of Internal Trade (DIT) has issued the license to 4 water meter manufactures so far.

As an ongoing project, DIT is working on the draft of the ministerial regulation for the control of CNG dispensers, which is scheduled to be implemented from the year 2007. This is due to the increase of CNG demand in the economy affected by the surge in gasoline price.

Regarding the APLMF involvement, DIT is hosting the Workshop on Metrology of Agricultural Products and Foods to be held on February 7-9, 2007 in Chiang Mai. DIT also sent their officials to the APLMF training courses on electricity meters, pre-packaged goods, CNG fuel dispensers and LPG fuel dispensers as trainees.

#### **14.19 United States of America (A13-14-19)**

Dr. Charles Ehrlich summarized main activities in legal metrology in the United States of America and reported to the members.

The National Conference on Weights and Measures (NCWM) signed the DoMC for R60 as a Utilizing Participant in July 2006, and they are also intending to sign the R76 as an Issuing Authority, but not until they are prepared to do so.

Regarding the labeling in the SI Units, NCWM and National Institute of Standards and Technology (NIST) are working together towards the approval of the SI labeling legislation by the federal government. The draft amendments, which intend the SI-only labeling on net contents of prepackaged good permissible, have been developed but must undergo the national legislative process.

The NCWM is also working to initiate a National Production-meets-Type Program . This process is moving slowly; however, the experimental program for the load cells has been planned and is intended to achieve the goals. In addition, they are now putting a focus on a new sector for software working under the NTEP. This is sought along with the movement of the OIML and WELMEC.

Dr. Ehrlich added at the end that the NCWM is now recruiting new members. If there is anyone interested in joining the NCWM, the detailed information and registration form will be provided by him.

More details on the above matters are explained in the meeting document.

#### **14.20 Viet Nam (A13-14-20)**

Mr. Pham Ngoc Tran reported the current status and the future plan in legal metrology in Viet Nam.

The following legal documents were revised and issued in 2006 and the process of developments in the particular areas were proceeded:

- ◆ Regulation on stamp, seal and verification certificate
- ◆ Regulation of verification capability
- ◆ Regulation on verification on the license for legal metrology officers
- ◆ List of measuring devices subject to mandatory verification
- ◆ Regulation on controlling over measurement standards, reference materials and CRMs
- ◆ 24 Viet Nam technical documents on metrology
- ◆ Conversion of the legal and technical regulations respectively in line with the requirements of the newly promulgated law on standards and technical regulations
- ◆ Preparation of the program on development and issuing the Vietnamese standards and technical regulations on metrology for 2006-2010

They are also active in the international and domestic works such as the WG in the ACCSQ and APLMF. These activities benefit the economy in adjusting the domestic standards in verification, calibration, type approval and project management to the international trends.

As the future goals, they will put efforts on the issues on prepackaged goods, agricultural regulations and medical equipments. The draft of the metrology law for 2008-2009 is also

under consideration.

#### **15. Needs of Member Economies**

No proposal or comments was made for this category.

#### **16. Next Presidency**

It was endorsed in the full member session that P.R.China will take over the Presidency and Secretariat of the APLMF in 2007.

#### **17. Future Meetings**

Mr. Liu Xinmin of People's Republic of China proclaimed that P.R.China is willing to host the 14<sup>th</sup> APLMF Meetings. Since they are also hosting the 42nd CIML Meeting and Associated Events in October in Shanghai, they proposed to hold the 14<sup>th</sup> APLMF Meetings before or after the CIML Meeting.

#### **18. Closing Address**

Mr. Teo Nam Kuan, the Honorary Chairman of the 13<sup>th</sup> APLMF Meetings, expressed his appreciation for hosting the APLMF Meetings. He also remarked the considerable effort made by Mr. Michael Ong, Mr. S. Koban and other SPRING staffs to lead the meetings to a success.

Dr. Akira Ooiwa, the President of APLMF, expressed his gratitude for everyone's support to be able to achieve the significant outcomes from the meetings. He also emphasized that the success of the meetings could not be achieved without the great dedicated work by the SPRING members. APLMF is grateful for the support by the host economy.