

**30<sup>th</sup> IADC Meeting  
CSA  
Montreal, Canada  
May 22-25, 2012**

**Working Group 1: Measurements**

**Agenda of the Meeting (Version 3, May 24, 2012)**

<b>TIME</b>	<b>May 22 Tuesday</b>	<b>May 23 Wednesday</b>	<b>May 24 Thursday</b>	<b>May 25 Friday</b>
08:30-10:00	<b>9:00-10:00 Registration &amp; Welcome Reception</b>	<b>WG1 Session 2.1 Instrumentation</b>	<b>WG1/WG2 Session 3.1</b>	
10:00-10:15	<b>10:00-11:30 Opening Plenary</b> McGill Stephen Leacock Building Rm 232	Coffee Break	Coffee Break	<b>10:00-12:00 Closing Plenary</b> McGill Stephen Leacock Building Rm 232
10:15-11:30		<b>WG1 Session 2.2 Observations</b>	<b>WG1 Session 3.2 Open ITs</b>	
11:30-13:30	Lunch	Lunch	Lunch	
13:30-15:00	<b>WG1 Session 1.1 General</b>	<b>WG1 Session 2.3 Observations</b>	<b>WG1 Session 3.3 Open Its, Future Activities</b>	
15:00-15.30	Coffee Break	Coffee Break	Coffee Break	
15:30-17:00	<b>WG1 Session 1.2 Open AIs</b>	<b>WG1 Session 2.4 WG1/WG2 preparation</b>	<b>WG1 Session 3.4 Review and Closing</b>	
17:00-18:00	WG1 Chair report to SG	WG1 Chair report to SG	WG1 Chair report to SG	

<b>20:00-21:00 Public Lecture</b> McGill (IASL) Moot Court	<b>19:30-23:00 Dinner</b> Old Montreal
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All WG sessions take place at the McGill Faculty Club

## **Day 1: Tuesday, May 22**

### **9:00 – 10:00 Registration & Welcome Reception**

### **10:00 – 11:30 Plenary Meeting**

- Welcome and Overview – IADC Chair
- Presidential Address
- Inaugural Address Statements by Heads of Delegations
- Outline by Working Group Chairs
- Plenary Presentations

### **11:30 – 13:30 Lunch**

### **13:30 – 15:00 Session 1.1**

#### **General**

- Meeting overview & objectives; status of Action Items, Summary of SG meeting October 2011 (T. Schildknecht, ESA, F. Piergentili, ASI, 10min)
- Update and approval of Agenda
- Agency Status Reports: space debris related activities in 2011/2012 (5 min per WG1 member Agency: ASI, CNES, CNSA, CSA, DLR, ESA, ISRO, JAXA, NASA, ROSCOSMOS, SSAU, UKSpace)

### **15:00 – 15:30 Coffee Break**

### **15:30 – 16:45 Session 1.2**

#### **General (continue)**

- Agency Status Reports: continuation

#### **Open Action Items**

- Final report for AI 23.2 (Investigation of high A/m ratio debris in higher Earth orbits) (V. Agapov, Roscosmos, T. Schildknecht, ESA, 10min)
- Discussion of AI 23.2 (all)
- Final report for AI 23.4 (International 2007 optical observation campaigns in higher Earth orbits) (P. Seitzer, NASA, F. Piergentili, ASI, 10min)
- Discussion of AI 23.4 (all)
- AI23.3, AI25.1, AI 28.1 (International 24h LEO space debris measurement campaign 2006, 2008, 2010) (G. Stansbery, NASA, T. Flohrer, ESA, 10min), status of Final Reports

### **16:45 – 17:00 Preparation of WG1 report to SG**

### **17:00 – 18:00 WG reports to SG**

## **Day 2: Wednesday, May 23**

### **08:30 – 10:00 Session 2.1**

#### **Instrumentation/Observations**

- Status of TIRA Upgrade Activities (K. Letsch, DLR), 15min
- MCAT Update (G. Stansbery, NASA, 15min)
- Satellite Handoff from MCAT (P. Kervin, NASA, 15min)
- Study on infrared observation potential (P. Richard, CNES, 15min)
- Further results of the spectrometry observations from the Loiano 1,5 meter telescope (F. Piergentili, ASI, 15min)

### **10:00 – 10:15 Coffee Break**

### **10:15 – 11:30 Session 2.2**

#### **Observations**

- Detection and orbit determination of un-cataloged GEO objects at Nyukasa Observatory and Bisei Spaceguard Center (Toshifumi Yanagisawa, Jaxa, 15min)
- Measurement accuracy for orbit determination of GEO close approaching objects (F. Piergentili, ASI, 15min)
- Optical Studies of GEO Debris with the 6.5-m Magellan Telescopes (P. Seitzer, NASA, 15min)
- Results of Optical Surveys for Space Debris in MEO (T. Schildknecht, ESA, 15min)

### **11:30 – 13:30 Lunch**

### **13:30 – 15:00 Session 2.3**

#### **Observations (cont.)**

- Catalogue of high AMR GEO-like debris (T. Schildknecht, ESA, 15 min)
- ISON network development in 2011-2012 (I. Molotov, Roscosmos, 15min)
- Updated Results of 8 Years of GEO Region Surveys (V. Agapov, Roscosmos, 15min)
- Photometry of Rocket bodies (Yiding Ping, CNSA, 15min)

### **15:00 – 15:30 Coffee Break**

### **15:30 – 16:45 Session 2.4**

#### **Observations (cont.)**

- Optical tumbling rate observation experiments on LEO and GTO objects (P. Richard, CNES, 15min)

#### **WG1/WG2 Session preparation**

- IT25.1 Data Exchange format
- Issues to be discussed with WG2
- Nomination of new WG1 Co-Chair (to be submitted to SG)

**16:45 – 17:00    Preparation of WG1 report to SG**

**17:00 – 18:00    WG reports to SG**

**20:00 – 21:00    Public Lecture**

## **Day 3: Thursday, May 24**

### **08:30 – 10:00 Joint WG1/WG2 Session 3.1**

#### *Other topics*

- WG2: The attitude evolution of conductive objects in magnetic field (from standard radar measurements) (Carlos, CNES, 10min)
- WG2: Multi-Layer Insulation Debris from GEO Fragmentations (Sven, DLR, 10min)

#### *AI 25.1: Data Exchange Format*

- WG2: WG1-WG2 Data Exchange Document (P. Krisko, NASA, 10min)
- WG1/WG2: Discussion on Data Exchange Document (15min)

#### *Other topics*

- WG1/WG2: Discuss the origin of some of the HAMR currently observed (A. Rossi ASI, ??min)
- WG1: ESA Classification of Geosynchronous Objects, Issue 14 (T Flohrer, ESA, 5min)
- WG1: The IADC re-entry database Web-frontend (T. Flohrer, ESA, 5min)
- WG1: IADC re-entry predictions campaigns For UARS, ROSAT, and Phobos-Grunt (H. Klinkrad, ESA, 5min)
- WG1: Search for fragments caused by breakup of Titan 3C transtage in the geostationary region (Toshifumi Yanagisawa, Jaxa, 5min)
- WG1: Light curve observations of LEO objects at the innovative technology research center of JAXA (Toshifumi Yanagisawa, Jaxa, 5min)

### **10:00 – 10:15 Coffee Break**

### **10:15 – 11:30 Session 3.2**

#### **Open Internal Tasks**

- Feedback from SG
- Nomination of new WG1 Co-Chair (to be submitted to SG)
- First results on comparison of GEO and HEO object brightness (V. Agapov, Roscosmos)
- Conclusions from joint WG1/WG2 session (IT25.1 Data Exchange format, etc.)
- IT25.2 Preparation of future High AMR campaign (V. Agapov, Roscosmos)

### **11:30 – 13:30 Lunch**

### **13:30 – 15:00 Session 3.3**

#### **Open Internal Tasks (cont.), Future Activities**

- IT26.1 Preparation of new high Earth orbit campaign (P. Seitzer)
- IT 28.1 Calibration (V. Agapov, Roscosmos, T. Schildknecht, ESA, 10min)
- Discussion on IT 28.1 (all)
- IT28.2 Comparison of CCD image processing approaches (P. Richard CNES, 10min)
- Discussion on IT 28.2 (all)
- IT29.1 Investigation and comparison of techniques for tumbling rate assessment of massive LEO objects (F. Piergentili (ASI), G. Stansbery (NASA), 10min)

- NASA Contribution to IT29.1 (G. Stansbery, 10min)
- Discussion on IT 29.1 (all)

**15:00 – 15:30 Coffee Break**

**15:30 – 16:45 Session 4.3**

**Review and Closing**

- Discussion on future role and activities of WG1
- Wrap-up
- AoB

**16:45 – 17:00 Preparation of WG1 report to SG & Closing Plenary**

**17:00 – 18:00 WG reports to SG**

**19:30 – 22:00 Conference Dinner**

**Day 4: Friday, May 25**

**10:00 – 12:00 Closing Plenary**

- Working Group Reports
- Report by SG
- Remarks by Outgoing and new IADC Chair