

**MINUTES OF THE
SATELLITE DIVISION EXECUTIVE COMMITTEE MEETING
(September 16, 2016)**

Subject to the approval of the ION Satellite Division Executive Committee, the following minutes are submitted. The Satellite Division Executive Committee Meeting was called to order on September 16, 2016 at Altabira City Tavern, Portland, Oregon. Those present were:

John Betz	Satellite Division Chair
Frank van Diggelen	Vice Chair
Doug Taggart	Secretary
Grace Gao	Treasurer
Jade Morton	Immediate Past Chair
Terry Moore	European Technical Advisor
Allison Kealy	Pacific Technical Advisor
Dorota Brzezinska	ION President

NON-VOTING PARTICIPANTS:

Patricia Doherty, Tutorials Chair
Jose Angel Avila Rodriguez, Technical Representative
Neil Gerein, ION GNSS+ 2016 Program Co-Chair (Applications and Advances Tracks)
Sherman Lo, ION GNSS+ 2016 Program Co-Chair (Research and Innovation Tracks)
Chris Hegarty, Incoming Vice Chair
Sandra Kennedy, In-coming Secretary
Sanjeev Gunawardena, In-coming Treasurer
Alex Stratton, ION GNSS+ 2017 Program Co-Chair (Applications and Advances Tracks)
Michael Veth, ION GNSS+ 2017 Program Co-Chair (Research and Innovations Tracks)
Lisa Beaty, ION Executive Director

AGENDA

1. Record Approval of the September 2015 Minutes by Email
2. Document Motions Approved by Email Since the Last Meeting
 - a. Approval Kepler and Parkinson Chairs
 - b. Funding 2017 Autonomous Snowplow Competition
3. Outreach Activity Status, Africa Program: P. Doherty
4. Lessons Learned 2016 Tutorial Program & Recommendations for 2017: P. Doherty
5. Lessons Learned 2016 Technical Program & Recommendations for 2017
 - a. Research and Innovations Tracks: S. Lo
 - b. Applications and Advances Session: N. Gerein
 - c. Peer Review Process: T. Moore & A. Kealy
6. Approval of ION GNSS+ 2017 Program Committee: J. Betz
7. Other/New Business
 - a. Announce Newly Elected Officers

Record Approval of the September 2016 Minutes by Email

Motion: Minutes from the September 18, 2015 meeting of the Satellite Division Executive Committee were approved by email vote. (September 2015)

Document Motions Approved by Email since the Last Meeting

It was noted that the following motions had been approved by email since the last Satellite Division Executive Committee meeting:

Awards Chairs:

Motion: Dr. Pratap Misra was approved as the 2016 Kepler Award Chair and Dr. Kyle O'Keefe was approved as the 2016 Parkinson Award Chair. Subsequent to these approvals, the Satellite Division Chair approved the committees' membership. (July 2016)

Funding 2017 Autonomous Snowplow Competition:

In July it was reported by email that the 2016 Snowplow Competition was successful, and the committee kept to the \$15,000 budget allocated to them by the Satellite Division Executive Committee. Additionally, it was reported that the winners of the 2016 competition presented a technical paper on the winning snowplow at the ION GNSS+ meeting (session C2, paper #8).

The 2017 Snowplow Committee started work early on the 2017 competition and requested the Satellite Division Executive Committee approve funding for the January 2017 competition prior to the Satellite Division Executive Committee. The Division approved the following motion in July 2016:

Motion: The Satellite Division approves \$15,000 for the 2017 snowplow competition expenses; with an additional \$5,000 contingency fund for emergencies, loss of sponsors etc. for a maximum expenditure of no more than \$20,000 with the expectation that the additional \$5,000 should be for emergencies and unexpected loss of sponsorship only. It is agreed that of the \$15,000 allocated to competition expenses, \$12,000 will be committed to operations and \$3,000 will be reserved as an expense and travel stipend for a student(s) from the winning team to attend the ION GNSS+ September meeting and present a technical paper on the winning snowplow design. These funds shall be remitted to the winning school following their attendance at the conference to reimburse the student's expenses. (July 2016)

Outreach Activity Status, Africa Program: P. Doherty

Pat Doherty reported that a smaller Africa outreach seminar had been held in 2016 in conjunction with the Beacon Satellite Symposium. Ms. Doherty referenced her ION GNSS+ plenary presentation for an update on sustainable developments in Africa. It was noted that a

former Africa workshop participant had won an ION GNSS+ student best paper award this year and was attending the meeting on a travel grant.

It was reported that the next Africa workshop would be held in 2017 in Trieste and the plan was to hold the 2018 workshop in South Africa. It was noted that \$25,000 for instructor travel had already been approved.

Motion: The Satellite Division Executive Committee approve \$5,000 to purchase supplies and text books. Purchase will be made from current year funds (made prior to March 31, 2016). Motion made by Grace Gao, seconded by Jade Morton and passed by the Satellite Division Executive Committee.

Lessons Learned 2016 Tutorial Program & Recommendations for 2017: P. Doherty

Pat Doherty reported that 275 courses were sold in 2016; with over 90 of these attributable to van Diggelen's Raw Measurements course. All acknowledged tutorials were on the decline. There was considerable discussion about whether or not traditional tutorials were still relevant in the current marketplace. The following ideas were discussed:

- Providing free introductory tutorials on Monday with paid tutorials on Tuesday
- Providing a suite of introductory tutorials taught by multiple instructors (PTTI model)
- Manufacturer tutorials – user sessions – where customers could ask questions about how to use a product (discussed making this only available to vendors who exhibit and/or charging vendors a fee for this)
- It was suggested BeiDou Signal Structure course be added

Action: Pat Doherty to organize discussion group on the future of ION GNSS 2017 tutorials.

Lessons Learned 2016 Technical Program & Recommendations for 2017

Sherman Lo, Chair of the Research and Innovations Tracks and Neil Gerein, Chair of the Applications and Advances Sessions led session review. The overall feeling was that the technical content of the meeting was up from prior year and the energy and activity in the exhibit hall had improved this year as well.

Frank van Diggelen asked about the practicality and possibility of video recording conference presentations and putting the content online for registered attendees so they could go back later and view presentations they were not able to see or review presentations. Lisa Beaty suggested this was very expensive to produce and host.

Action: Lisa Beaty to obtain estimate of cost to video record ION GNSS+ sessions and host content online for attendees.

There was some discussion about Best Presentation Awards and criteria for the same.

Action: Lisa Beaty to send Grace Gao the current criteria and instructions given to session chairs to make Best Presentation selections. Grace Gao to review and propose updates to the process/instructions and provide to the new incoming Satellite Division officers for review and vote.

Additional Comments:

- All agreed panel sessions/discussions should not be scheduled for Friday afternoon.
- It was agreed the Indoor Navigation panel with demonstrations is stale and should be eliminated in 2017.
- It was agreed the Indoor Navigation panel was extremely popular and should be repeated.

Action: It was agreed Chris Hegarty would manage the 2017 plenary session.

Terry Moore and Allison Kealy reported that there had been 117 papers submitted for peer review; 35% passed review as “endorsed”, 53% required small revisions and 11% were rejected. It was noted that the number of papers and scheduling had made it a large task. Dr. Moore reviewed the processed of the double peer review each paper underwent.

It was noted that Moore and Kealy agreed to manage the process again in 2017 to help perfect the process. Additionally, they agreed that peer reviews needed to be blind this next year and they needed to develop better instructions and an ethics statement to be sent to reviewers reminding them of confidentiality of materials they were reading, etc.

Action: ION National Office to provide written ethics/confidentiality guidelines for peer reviewers.

Moore stated again that the purpose of the reviews was to increase the overall quality of the conference; when asked how/if this could be measured it was suggested that eventually this would be measurable by citation rates from Google scholar.

Frank van Diggelen suggested that the head table at the Friday awards luncheon be removed and the program committee be reserved a table at the front of the room by the podium to facilitate plaque presentation during the awards ceremony.

Motion: The head table be eliminated at the Friday awards luncheon. Motion made by Frank van Diggelen and passed with four voting in favor, three against and one abstention. For: van Diggelen, Kealy, Moore and Morton. Against: Betz, Taggart and Gao. Abstained: Brzezinska. Avila-Rodriquez raised his hand to vote, but is not a voting member.

Action: Sandra Kennedy volunteered to produce a plan for projecting images of the program committee onto a screen during the lunch, as a way to recognize them, and especially to give younger members exposure to the whole audience.

Approval of ION GNSS+ 2017 Program Committee: J. Betz

Motion: The Satellite Division approves the following ION GNSS+ 2017 Program Co-chairs: Alex Stratton to oversee the Applications and Advances tracks, Dr. Mike Veth oversee the Research and Innovation tracks and Patricia Doherty shall oversee the tutorial program. Dr. Chris Hegarty, incoming Vice Chair, shall have primary responsibility for the plenary session and Dr. John Betz, outgoing Chair shall lead the selection of the sponsored student program. Motion made by John Betz, seconded by Frank van Diggelen and passed by the Satellite Division Executive Committee.

Other/New Business

Satellite Division Election Results:

It was noted that the Satellite Division election was held in August and the following newly elected officers would take office at the conclusion of this meeting:

Chair: Dr. Frank van Diggelen (member of ION Executive Committee)

Vice Chair: Dr. Chris Hegarty

Secretary: Ms. Sandra Kennedy

Treasurer: Dr. Sanjeev Gunawardena

Dr. John Betz, outgoing chair, will continue to serve on the committee for two additional years as Immediate Past Chair. Lisa Beaty will act as assistant secretary for the purpose of certifying the Satellite Division officers on the banking corporate resolution forms.

Additionally, Lisa Beaty noted that the corporate resolutions for the Satellite Division's checking/operating account at PNC Bank would be updated to reflect the new officers and authorized signers on the checking account would be updated and include the following: Lisa Beaty, ION Executive Director/Assistant Secretary (for purposes of the bank resolutions) and Dr. Sanjeev Gunawardena (Treasurer).

The meeting ended with John Betz thanking the outgoing officers and welcoming all the incoming officers as noted above. The meeting adjourned at 9:50 p.m.