MINUTES OF THE
OUTGOING COUNCIL MEETING
(January 30, 2017)

Subject to the approval of the ION Council, the following minutes are submitted. The Council Meeting was called to order on January 30, 2017 at the Hyatt Regency Monterey, Monterey, CA at 5:00 p.m. Those present were:

VOTING COUNCIL MEMBERS:

<table>
<thead>
<tr>
<th>Name</th>
<th>Outgoing Office Held</th>
<th>Incoming Office Held</th>
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</thead>
<tbody>
<tr>
<td>John Raquet</td>
<td>Executive VP</td>
<td>President</td>
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<tr>
<td>Frank van Graas</td>
<td>Treasurer, Past President</td>
<td>Treasurer, Past President</td>
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<tr>
<td>Elliott Kaplan</td>
<td>Military Division Chair</td>
<td>Military Division Chair</td>
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<tr>
<td>Sanjeev Gunawardena</td>
<td>Eastern Council M-at-L</td>
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<tr>
<td>John Nielsen</td>
<td>Western Council M-at-L</td>
<td>Membership Chair</td>
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<tr>
<td>Michael Meurer</td>
<td>Air Representative</td>
<td>Awards Chair</td>
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<tr>
<td>Olivier Montenbruck</td>
<td>Space Representative</td>
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<tr>
<td>John Clark</td>
<td>Finance Chair</td>
<td>Finance Chair</td>
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<tr>
<td>Gary McGraw</td>
<td>Bylaws Chair</td>
<td>Western Vice President</td>
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<tr>
<td>Terry Moore</td>
<td>Awards Chair</td>
<td>Technical Representative</td>
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<tr>
<td>Tim Murphy</td>
<td>Membership Chair</td>
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<tr>
<td>Keith McDonald</td>
<td>New England Section Chair</td>
<td>Section Chair/East M-at-L</td>
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<td>Todd Walter</td>
<td>No Cal Section Chair/Past Pres</td>
<td>No Cal Chair/Past Pres</td>
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<tr>
<td>Steve Rounds</td>
<td>So Cal Section Chair</td>
<td>So Cal Section Chair</td>
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<tr>
<td>Chris Hegarty</td>
<td>Past President</td>
<td>Past President</td>
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<td>Larry Hothem</td>
<td>Past President</td>
<td>Past President</td>
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<tr>
<td>Karen Van Dyke</td>
<td>Past President</td>
<td>Past President</td>
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<tr>
<td>Lisa Beaty</td>
<td>Proxy Vote for Brzezinska, President</td>
<td>Proxy Brzezinska, PastPres</td>
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VOTING MEMBERS AT INCOMING COUNCIL:

<table>
<thead>
<tr>
<th>Name</th>
<th>Executive Position</th>
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<tbody>
<tr>
<td>Jade Morton</td>
<td>Executive Vice President</td>
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<tr>
<td>Anthea Coster</td>
<td>Eastern Vice President</td>
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<tr>
<td>Francine Vannicola</td>
<td>Eastern Member-at-Large</td>
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<tr>
<td>Sunil Bisnath</td>
<td>Technical Representative</td>
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<td>Mathieu Joerger</td>
<td>Technical Representative</td>
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<tr>
<td>Olivier Julien</td>
<td>Technical Representative</td>
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<td>Allison Kealy</td>
<td>Technical Representative</td>
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<td>Di Qiu</td>
<td>Technical Representative</td>
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<td>Andrey Soloviev</td>
<td>Technical Representative</td>
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<td>John Betz</td>
<td>Fellows Chair</td>
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<td>Sherman Lo</td>
<td>Meetings Chair</td>
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NON-VOTING PARTICIPANTS:

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<tr>
<th>Name</th>
<th>Outgoing Position Held</th>
<th>Incoming Position Held</th>
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<tr>
<td>Lisa Beaty</td>
<td>Executive Director</td>
<td>Executive Director</td>
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<tr>
<td>Ryan Dupuis</td>
<td>PTTI General Chair</td>
<td>PTTI General Chair</td>
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<tr>
<td>Frank Czopek</td>
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<td></td>
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<tr>
<td>Mitch Narins</td>
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It was reported that ION president, Dorota Brzezinska, had been delayed in flight – would possibly be arriving late – and in her absence had given her proxy vote to Lisa Beaty and asked her to conduct the meeting until she arrived. It was determined that a quorum was achieved.

**AGENDA**

See Attached File:  Agenda – January 2017

**Approve September 12, 2016 Council Meeting Minutes:** D. Brzezinska

> Motion: Council approves the September 12, 2016 Council Meeting Minutes as circulated. Motion made by Terry Moore, seconded by Gary Moore and passed by the Council.

**Nominating Committee Report:** L. Beaty

Lisa Beaty reported on behalf of Patricia Doherty, Nominating Chair, that the 2017 Nominating Committee had consisted of Pat Doherty (Chair); Mikel Miller, Chris Hegarty and Karen Van Dyke (Eastern Region); and Todd Walter, John Lavrakas and John Clark (Western Region).

See the Attached Report (includes nominees and election results): Nominating Report Jan 2017

Council was reminded that with bylaws changes made in the past year:

- Land, Air, Space and Marine Representatives (two each) were replaced by 16 Technical Representatives. The committee nominated candidates and Nominating Chair paired candidates into eight votes. Candidates were matched based on interest, level in their career, academic/commercial/government, etc.
- Two Council Members-at-Large were to be elected from each region in the same year, instead of one representative rotating on and off Council each year as had been the previous practice.

However, it was reported that using the prior year template for nominees, Beaty had erroneously confirmed only two nominees for each Council M-at-L positions (instead of four). Thus, only one Council M-at-L from each region was elected instead of two. The result was that Council was currently short one Council Member-at-Large from both the Eastern and Western Region. It was reported that corrective options included:

1. Seat all four nominated candidates from ballot. Council would seat Keith McDonald (Eastern Region) and Paul Benshoof (Western Region) for two year term.
2. Leave two seats vacant for two years.
3. Hold second follow-up election.

Beaty reported that the error and the three corrective options had been discussed with the Nominating Chair, president and incoming president who made the following recommendation to Council:
Motion: Council seats Keith McDonald and Paul Benshoof as Eastern and Western Council Members-at-Large, respectfully, for the ION's 2017-2019 term. Motion made by John Raquet, seconded by John Clark and passed by the Council.

President’s Report: D. Brzezinska

See Attached File: Presidents Report 1-30-17

Lisa Beaty reported on behalf of Dorota Brzezinska, President, on actions the Executive Committee had taken since the September Council meeting including:

- Approved the FY 2015-'16 Audited Financial Statements, Governance Communication and Management Letters.
- Authorized a $200,000 transfer from the operating accounts to the Reserve Fund over a six month period.
- Approved the ION's 2017-'18 Budget for presentation to Council.
- Approved a change to the ION Personnel Manual September 13, 2016, giving the Executive Director discretion to close the ION office during year-end holidays with the following motion:
  
  Section V. BENEFITS - Holidays:
  *Based on the calendar year, and at the Executive Director’s discretion, the office may close for select days between the Christmas holiday and New Year’s holiday. When the office is closed during this period, employees are permitted to use compensatory time from the September conference prior to this period, or January conference following this period, for these days; or elect to use personal leave. The Executive Director shall notify the staff of any intended closure in October for staff planning purposes.*

- Approved Conflict of Interest Statement for Peer Review of Conference Papers as Follows:

  **Conflict of Interest Statement for Peer Review of Conference Papers**

  Confidentiality:
  Peer reviewers shall ensure the confidential handling of manuscripts. Reviewed manuscripts and associated results shall not be discussed, referenced or cited until the manuscripts have been presented at the conference and are in the public domain. This includes not discussing details of the manuscript with anyone except the Peer Review Committee Chairs or the ION, and not contacting the author(s) directly about the manuscript.

  Conflict of Interest:
  When conducting your review please consider whether you have any conflict(s) of interest that may have an impact on the impartiality of your review. Please disclose any conflict prior to accepting your invitation to complete the review. Examples of
potential conflicts of interest include having collaborated with the authors recently, being based in the same institution as the authors, being in direct competition with the authors, having a personal conflict or close personal relationship or association with the authors, or if there is a financial interest in the manuscript. If your conflict is serious enough to preclude your participation you should decline this invitation to review. Please contact a Peer Review Chair prior to accepting this invitation if you need to discuss what constitutes a serious conflict.

**Motion:** Council ratifies the approval the Conflict of Interest Statement for Peer Review of Conference Papers. Motion made by Terry Moore, seconded by Frank van Graas and passed by the Council.

**Action:** Incoming Meetings Chair, Sherman Lo, is asked to make a recommendation to Council in September as to whether or not ION should present Best Presentation Awards at ITM.

The report also advised Council to a change in the Satellite Division’s Best Presentation Award criteria, provided an update on ION membership enrollment, recent ION GNSS+ meeting performance and advised Council of upcoming ION events. Council was asked to continue to look for opportunities to jointly sponsor or host new technical meetings or related events and Council should continue to look for new ways to increase and promote ION membership; and for ways to increase ION visibility through participation at other PNT industry conferences and events.

Additionally it was reported that Annual Award and ION Fellow nominations on the rise and becoming increasingly competitive. Council was asked to continue to nominate and support worthy candidates.

It was noted that Dr. Brzezinska concluded her report with a thank you for all Council members with whom she had served as president for the past two years.

**Executive VP Report:** J. Raquet

John Raquet, Executive Vice President, reported that, this past year, the majority of his time had been spent working to update the ION’s Strategic Plan, which was updated and approved by Council at the September Council meeting.

Additionally, it was reported that at the September Council meeting, the Council had approved a Code of Ethics and given him an action to appoint an ad hoc Ethics Chair to incoming Council in January 2017, who would work to make a recommendation to Council as to the role that the policy should play in the organization and the membership, and to the role and scope of the Ethics Chair/Committee.

**Motion:** John Nielson be appointed as ION’s ad hoc Ethics Chair. Nielson is to work with John Raquet, incoming president, to bring a proposal to Council in September 2017 that includes: 1) the role the ethics policy should play in the organization and the membership; and 2) the role and scope of the Ethics Chair/Committee. Motion made by John Raquet, seconded by Gary McGraw and passed by the Council.
Regional Vice President Reports:

Regional Vice Presidents were unable to attend the Council meeting. Beaty asked each of the local section chairs present at the Council meeting to take one to two minutes and report on the status of their local sections.

- Keith McDonald reported on New England Section activities and recent meetings.
- Steve Rounds reported that Southern California had not been as active this past year, as their program chair had not been as active in finding speakers.
- Todd Walters reported that the Northern California Section had also not been as active and most section activities were limited to Stanford.

Elliott Kaplan, Military Division Chair, reported that the Military Division had recently approved an initiative to sponsor military-related GN&C activity at the Regional Section level and thus offered to host a military-themed guest speaker, up to once per year, at local section meetings. Specifically, the Military Division would reimburse travel or similar hosting expenses (up to a reasonable limit) for such a speaker who is coordinated through the Division and the ION National Office. The Military Division would also help identify potential speakers whose backgrounds would be of most interest to each section.

Annual Awards Committee Report: T. Moore

See Attached File: Annual Awards Committee Report 2016

Terry Moore, Annual Awards Chair, reported that the 2016 Awards Committee was originally comprised of: Prof. Terry Moore (Chair), Pat Fenton, Glen Gibbons, Dr. Mikel Miller, Mitch Narins and Dr. Allison Kealy. After Council approved the committee’s membership, Dr. Kealy became an award nominee. In order to facilitate open dialog and confidential voting among all the members of the Awards Committee, Prof. Terry Moore, Chair, invited Karen Van Dyke to serve in place of Dr. Kealy, and the ION Executive Committee approved a motion to substitute Karen Van Dyke for Dr. Kealy as a member of the 2016 Awards Committee. All other members remained the same.

Thus the final voting members of the 2016 Annual Awards Committee were: Prof. Terry Moore (Chair), Pat Fenton, Glen Gibbons, Dr Mikel Miller, Mitch Narins and Karen Van Dyke.

It was reported that the committee selected the following as their recommendations of the proposed recipients of The Institute of Navigation’s Annual Awards.

- Early Achievement: Dr. Pau Closas
- Superior Achievement: Captain Christopher Wright
- P.V.H. Weems: Charles P. (Phil) Bruner
- Tycho Brahe: Dr. Michael Moreau
- Norman P. Hays: Larry Hothem
- Thomas L. Thurlow: Dr. Paul Groves

Burka Award (selected by the editor and associated editors of NAVIGATION):
Yu Jiao, Dongyang Xu, Dr. Yu Morton, Dr. Charles L. Rino

Distinguished Service Award to be presented to Dr. Dorota Grejner-Brzezinska, outgoing president, for extraordinary service to The Institute of Navigation.

It was reported that the Annual Award Selection Committee’s recommendations were approved by the ION Executive Committee, by e-mail vote, during November 2016. The Annual Award Selection Committee requested the Council ratify the 2016 ION Annual Award selections with the following motion:

Motion: Council ratifies the recommendation of the Annual Awards Committee of the proposed recipients of the 2016 Annual Awards, as outlined above. Motion made by Terry Moore, seconded Todd Walter by and passed by the Council.

Fellow Selection Committee Report: P. Misra

See Attached File: Fellow Committee Report 2017

It was reported that the 2017 Fellows Selection Committee had consisted of: Dr. Pratap Misra (Chair), Dr. Alan Evans, Dr. Chris Hegarty, Dr. Richard Langley, Dr. Boris Pervan, Logan Scott, and Karen Van Dyke.

The Committee elected the following to Fellow:

Dr. Naser El Sheimy
For major contributions to the development, dissemination and commercialization of integrated navigation system technology and for significant educational impact on the next generation of navigation professionals.

Tim Murphy
For significant and sustained contributions to navigation technology and its application to civil aviation.

Dr. Sam Pullen
For sustained contributions to GPS integrity and the Ground Based Augmentation System.

The ION National Office verified all eligibility requirements of the nominators and the candidates. All three selected 2017 Fellows received four or more votes, comprising a 2/3 majority.

The Fellow Selection Committee’s selections were approved by the ION Executive Committee by e-mail vote in November 2016. The Fellow Selection Committee asked the Council to ratify the 2017 Fellow selections with the following motion:
Motion: Council ratifies the approved 2017 Fellows as outlined above. Motion made by Karen Van Dyke, seconded by Larry Hothem and passed by the Council.

Publication/Editor’s Report: B. Pervan

It was reported that submissions were on the rise, the impact factor had almost doubled in the past year, the journal was expanded, the editorial board had been expanded, a format and cover update were being worked and the associated editors of NAVIGATION would be meeting with Wiley later in the week.

See Attached Files from the Associate Editors Editorial Board Meeting held Tuesday, January 31, 2017, noon-2 p.m.:
- Editors Report Editorial Board Meeting 1-31-17
- Wiley NAVI Publishers Report 2015_IQN
- Wiley NAVI Publishers Report 2016 Q4_IQN

Treasurer’s Report: F. van Graas

See Attached Files:
- Treasurer Report January 2017 Council
- Audited ION Financial Statements 3.31.16
- Auditor ION Governance Comm Letter 3.31.16
- Auditor ION Internal Control Letter 3.31.16
- Budget 2017-18
- Conflict of Interest Disclosure Form 2017

Frank van Graas, Treasurer, reviewed the FY 2015-’16 audit and FY 2017-’18 budget. It was noted that Lisa Beaty had sent a draft copy of the proposed 2017-’18 budget to Executive Committee, Finance Chair, ION Treasurer and Satellite Division Treasurer for review in December 2016. The Executive Committee had then approved the 2017-’18 budget for formal presentation to Council in January 2017.

Items to note FY 2015-’16 Audit Report:
- Large meeting programs (ION GNSS and JNC) were in line with prior year in terms of revenue and expenses.
- The co-located ITM/PTTI 2016 experienced twice the rate of return in comparison to the prior year when meetings were held in separate locations (net excess of $59K in FY 2015-16 with combined meetings vs. net combined excess of $30K for individual meetings in FY 2014-15).
- Pacific PNT less profitable than PLANS in prior year; but this is to be expected both due to meeting size and location.
- Government Fellow expenses commenced in September 2015 (none prior year).
- Membership enrollment remained mostly level. Membership dues increased in January 2016. It will take a full year to realize this revenue.
- ION staff/management continues to rely on the professional services of the auditors to ensure financial statements are in conformity with GAAP (Generally Accepted Accounting Principles). This is common for an organization of ION’s size.
It was reported that the ION Executive Committee had approved the FY 2015-'16 Audited Financial Statements, Governance Communication and Management Letters in September 2016. Additionally, the ION Executive Committee approved $100,000 transfer from the ION’s operating fund into the ION’s short term investment fund over a six month period; and an additional $100,000 transfer from the operating fund be transferred into the ION’s long term investment fund (for a total of $200,000 transfer from the operating fund to the ION Reserve Fund).

Items to note in the proposed 2017-18 budget:

- The budget had a projected excess due to a large projected attendance at JNC 2017 in Dayton (a city with a lower cost basis that creates a greater than usual return). Programs were budgeted according to established norms and percentages instead of subsidizing FY 2017-'18 programs from non-typical JNC earnings. This avoids artificially lower fees in FY 2017-'18, followed by disproportionate increasing the following year.
- The budget included proposed increase in registration fees of 6% for ITM/PTTI (new east coast location); 2% for ION GNSS+ and 3% for Pacific PNT. There was no increase for JNC. It was noted that proposed rates are still competitive with other three-four day technical meetings that provide meals, internet, etc. and the increases are for food and beverage and wait staff fees that increased an average of 5% and 2% respectively this past year.
- No increase in membership dues were proposed.
- The budget included an increase in the NAVIGATION editor’s honorarium from $1,500 per issue/$6,000 per year to $4,000 per issue/$16,000 per year to compensate for increase in volume and COLA adjustment.
- New Initiative budget includes funds for the remaining terms for ION’s current 2016-'17 Government Fellow. A new 2017-'18 Government Fellow would require Executive Committee action to authorize expenditure of reserve funds. Also included were funds for the Metadata Standard legal review, Women in PNT initiative and marketing and award expenses associated with modernization of ION logo.
- It was noted that Satellite Division and Military Division expenses include the rebates/commissions to the Divisions for Division meetings. The meeting commissions are included as expenses to the National organization, as these funds are restricted for Division purposes. Satellite and Military Division expenses are for informational purposes only. Divisions retain autonomy to expend their funds separate from the national organization.

Motion: Council ratify the Executive Committee’s approval of the FY 2015-16 Audited Financial Statements, Governance Communication and Management Letters. Motion made by Frank van Graas, seconded Gary McGraw by and passed by the Council.

Motion: The Executive Committee approves CliftonLarsonAllen, CPA’s for ION’s FY 2016-'17 audit. Motion made by Frank van Graas, seconded by John Clark and passed by the Council.

ACTION: John Clark (Finance Chair) and John Nielsen (Membership Chair) work with Lisa Beaty to create a program whereby members can designate use for membership donation amounts. It was suggested a policy/program be implemented for formal thank you letters for larger donations etc.
Motion: Council approves the 2017-'18 budget as submitted. Motion made by Frank van Graas, seconded by John Clark and passed by the Council.

Conflict of Interest Disclosures for 2017: Frank van Graas reviewed the Conflict of Interest Disclosure Form and requested Council members present complete the form and submit it prior to the end of the Council meeting. See Attached File: Conflict of Interest Disclosure Form 2017

Proposal Update ION Logo: L. Beaty

See Attached File: Logo Modernization Proposal Jan 30 2017

Motion: Council approves the new logos depicted below. Motion made by John Raquet, seconded by Frank van Graas and passed by the Council.

SDR Metadata Standard Report: S. Gunawardena

Sanjeev Gunawardena reported that the committee had met in September and research groups were beginning to adopt the draft standard. It was noted that the draft standard still needed some review prior to being issued for formal public review process (that has been delayed due to time commitment of members of the committee). It was noted that Thomas Pany was currently working on getting funding from ESA to get some graduate students to continue some of the work.

Appointment ITM 2018 and PTTI 2018 Program Chairs: D. Brzezinska and R. Dupuis

Council was advised that Dr. Jiyun Lee, KAIST, South Korea, had been appointed as the ITM 2018 program chair and James Hanssen, USNO, had been appointed as the PTTI program chair.

The outgoing Council meeting adjourned at 7:20 p.m.

MINUTES OF THE
INCOMING COUNCIL
(January 30, 2017)

Goals for the Incoming Council: J. Raquet

John Raquet, incoming president, reported that he planned to continue the initiatives well underway. Additionally, his specific goals for his two year term as president included:

1. Focusing on new technologies to be represented in ION programs, with an emphasis on autonomous systems.
2. Fostering the next generation of ION leadership.
3. Collaborating with the Publications Committee to increase NAVIGATION’s impact factor.
4. Determining the role and scope that ION’s ethics policy should play in the membership.

Appointment Standing and Ad Hoc Committee Chairs: J. Raquet

John Raquet, incoming president, congratulated all incoming members of Council and presented the following committee chair names to Council for approval:

Standing Committee Chairs:

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<thead>
<tr>
<th>Committee</th>
<th>Chair</th>
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<tbody>
<tr>
<td>Nominating</td>
<td>Dorota Brzezinska</td>
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<td>Finance</td>
<td>John Clark</td>
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<td>John Nielson</td>
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<td>Fellow Selection</td>
<td>John Betz</td>
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<td>Jade Morton</td>
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<td>Publications</td>
<td>Boris Pervan</td>
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<td>Meetings</td>
<td>Sherman Lo</td>
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<td>Awards Selection</td>
<td>Michael Meurer</td>
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<td>Bylaws</td>
<td>Michael Veth</td>
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Ad Hoc Committee Chairs:

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<th>Chair</th>
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<tbody>
<tr>
<td>Editor</td>
<td>Boris Pervan</td>
</tr>
<tr>
<td>New Initiatives</td>
<td>Dorota Brzezinska</td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>Jade Morton</td>
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<tr>
<td>Historian</td>
<td>Marvin May</td>
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<td>Government Fellows</td>
<td>Clark Cohen</td>
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<tr>
<td>Ethics</td>
<td>John Nielson</td>
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Motion: Council approves all committee chairs as listed above. Motion made by John Raquet, seconded by Frank van Graas and passed by the Council.

Approval 2017 Annual Awards Chair & Committee: J. Raquet

Dr. Michael Meurer, 2017 Annual Awards Chair, reported that he would have the committee organized in the next few weeks and approved by the Executive Committee by email vote.

Approval 2018 Fellows Committee Chair & Committee: J. Raquet

Motion: Council approves the following as members of the 2017 Fellows Selection Committee: John Betz (Chair), Pratap Misra, Karen Van Dyke, Tom Stansell, Peter Teunissen and Anthea Coster. Motion made by John Betz, seconded by Todd Walter passed by the Council.

The meeting adjourned at 7:30 p.m.
Additional Documents Included with these Minutes:

Calendar 2017