Please address the issues mentioned in the blue “margin notes” herein. In providing
the additional information as requested, please do not delete the blue-font margin
notes from the periodicals review committee (this is so that the PRAC can track the
changes as requested). Your responses to these margin notes should stand alone
(should not refer to the margin notes, nor answer them directly as questions),
because the blue-font margin notes will eventually be stripped out before the final
report is submitted. Also, do not be concerned about where page breaks occur,
because those things will be taken care of before final submission. Finally, if
appropriate, please use another color font (please use red) for additional material
you add to make it easy for the PRAC to see the changes made.

TAB Periodicals Committee
Periodicals Review and Advisory Committee (PRAC)

Report for the IEEE Transactions on Aerospace and Electronic Systems

Date of Review: February 2015

First draft returned by S/C for review: 15 January 2015
Post-review draft returned to S/C: 10 March 2015
Adjusted draft returned by S/C: (Date)
Final report submitted to TAB Periodicals Committee: (Date)

TAB Periodicals Review and Advisory Committee Members:

Samir El-Ghazaly TAB PRAC Chair
Jim Keller TAB Transactions Committee Chair
David Daut TAB Magazine Committee Chair
Steve Yurkovich TAB Newsletter Committee Chair
Michael Polis TAB Periodicals Committee Chair
William Emery Member
Lawrence Hall Member
Syed Islam Member
Carmen Menoni Member
Mari Ostendorf Member
Ross Stone Member
Joseph Tront Member

Overview
The Charter of the TAB Periodicals Committee states that the Committee has oversight responsibility for all
Society/ Council (S/C) periodicals. Specifically, the IEEE TAB Periodicals Committee is charged with:
ensuring timeliness and quality of TAB periodicals; assessing proposals for new periodicals and making
recommendations to TAB; resolving conflicts between S/Cs on issues of publications; informing TAB on new
developments in the area of periodicals; and, assessing and recommending to TAB annual charges for IEEE
periodicals. To carry out its responsibilities to TAB, and in particular to address the issues of timeliness and
quality, the Periodicals Committee has instituted a five-year review cycle of S/C periodicals, conducted in
coordination with the S/C review. The review process is carried out by a subcommittee of the Periodicals
Committee, the Periodicals Review and Advisory Committee (PRAC).

Objectives of the Periodicals Review Process
The objectives of the PRAC review process are to:
- examine timeliness and quality;
- assure that periodicals comply with IEEE policies and procedures;
- assist the S/C in enhancing self awareness of its periodicals;
- determine the financial health of the publications (input from TAB Finance Committee); and,
- provide suggestions for improvements and share best practices from other S/Cs.
The Review should be viewed as a positive vehicle, with volunteers assisting other volunteers to ensure that all
the IEEE periodicals continue to maintain the highest of standards.

Review and Reporting Process
The Review process consists of a face-to-face component and the completion of a report:
For convenience of the S/C, the report is separated into components, for which the following templates are provided to the S/C several months in advance of the scheduled Review:
- a summary template in which the S/C provides information that pertains to all of its periodicals;
- individual templates for each of the S/C periodicals being reviewed (completed by Editor-in-Chief).

S/C responses (completed first draft of summary and individual periodical reports), along with other relevant information, are provided to the PRAC by the S/C several weeks prior to the face-to-face review. Financial information on the periodicals is inserted by TAB Finance.

The PRAC meets with the S/C officers and periodicals editors in the face-to-face review session scheduled during a TAB series meetings (on a five year cycle for each S/C).

After the face-to-face review session, the PRAC returns the post-review draft to the S/C for further adjustment.

The S/C returns the adjusted draft, consisting of the summary and individual periodical components, which in turn is submitted to the IEEE TAB Periodicals Committee for approval. The process is complete when the final report is submitted to TAB for final approval as an archival record of the Review, to be referenced in future Reviews.

IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS
(Completed by S/C; please give responses in 10-pt, non-bold Times New Roman font)

A. OVERVIEW OF TRANSACTIONS

1. Date of first issue – 1964.

2. Frequency of publication – 4 times per year.

3. Is subscription to this periodical included in the Society membership fee? No.

4. Please list EiC information below
   Current Editor-in-Chief (EiC): 2012-2017 – Lance Kaplan
   Phone: +1 (301) 394-0807  Email: lkaplan@ieee.org

   Please fill out the history table of EiCs including the current EiC

<table>
<thead>
<tr>
<th>Name of EiC</th>
<th>Affiliation</th>
<th>Region</th>
<th>Period of EiC Start date to end date</th>
<th>Role on this Journal before EiC</th>
<th>Expertise</th>
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<tbody>
<tr>
<td>Lance Kaplan</td>
<td>U.S. Army Research Laboratory</td>
<td>Region 2</td>
<td>Start date: 2012</td>
<td>Associate EiC and Technical Editor</td>
<td>Signal and Information Fusion</td>
</tr>
<tr>
<td>Peter Willett</td>
<td>University of Connecticut</td>
<td>Region 1</td>
<td>Start date: 2006 End date: 2011</td>
<td>Associate EiC and Technical Editor</td>
<td>Target Tracking and Information Fusion</td>
</tr>
<tr>
<td>W. Dale Blair</td>
<td>Georgia Tech Research Institute</td>
<td>Region 3</td>
<td>Start date: 2002 End date: 2005</td>
<td>Associate EiC and Technical Editor</td>
<td>Target tracking and Radar Signal Processing</td>
</tr>
</tbody>
</table>

B. SCOPE OF TRANSACTIONS

1. Please provide the most recent formal scope of this periodical as approved by the Technical Activities Board (TAB) and the Periodicals Committee. Please also indicate the date of the most recent approval by TAB. Note that any changes in the scope of the periodical need to be endorsed by the Periodicals Committee and approved by the Technical Activities Board.

Please note that the official TAB scope for your periodical can be found at:
http://taops.ieee.org/operations.html#!periodicals
> Periodicals tab > Periodicals Data > Scopes for All TA Sponsored Periodicals (XLS)
“The organization, design, development, integration, and operation of complex systems for space, air, ocean, or ground environment. These systems include, but are not limited to, navigation, avionics, spacecraft, aerospace power, radar, sonar, telemetry, defense, transportation, automated testing, and command and control.”

Please see Appendix A for the Technical Areas, also available online at http://ieee-aess.org (click on Publications/Transactions/Technical Areas and Editors/Click for Description). Also please see Appendix D for information about technical area popularity. The technical areas were first formally described and posted on the web approximately 8 years ago, and there has been continual editing, update and reconsideration since.

2. **Comment on the overlap of scope with other IEEE Transactions.**

As is clear from Appendix A, the scope of the IEEE Transactions on Aerospace and Electronic Systems has overlap with multiple journals of the IEEE as regards the underlying subject matter. However, papers of interest to the readers of our Transactions tend to differ from those of the other journals due to a greater focus on the aerospace application. For example, an abstract paper on target tracking or state estimation might appear in the IEEE Transactions on Automatic Control; but the application of the results to a radar system might better appear in the IEEE Transactions on Aerospace and Electronic Systems. Similar overlaps exist with the IEEE Transactions on Signal Processing, IEEE Transactions on Communications, IEEE Transactions on Geoscience and Remote Sensing, IEEE Transactions on Antennas and Propagation, IEEE Transactions on Power Systems & IEEE Transactions on Systems, Man, and Cybernetics. In each case, our editorial decision begins with a determination as to whether the aerospace systems application focus is central or incidental. It is quite common for an editor to issue a quick “decision without review” that suggests the author resubmit his/her work to a specific IEEE journal other than the AES Transactions. The information in Appendix A is easily accessible to all authors.

### C. EDITORIAL POLICIES AND PROCEDURES

1. **If applicable, describe the membership and function of the Society/Council AdCom, Publication Committee, Steering Committee, or Periodical Advisory Committee, in overseeing operation of the Transactions and in establishing and administering publication policies and procedures.**

The VP-Publications and the IEEE AESS Board of Governors (BoG) provide oversight of the Transactions. The EiC provides a report at each (biannual) meeting of the BoG and coordinates with the AESS Officers regarding Strategic Planning at the thrice-annual Officers’ Meeting. Typically, the EiC personally delivers the report at each BoG meeting, and the EiC often serves as a BoG member. (The current EiC has served on the Board from 2009-2014, and hence cannot serve on the Board during 2015 because of term limits.)

2. **Describe the membership, function, and make-up (such as regional distribution, academic versus industrial, and so forth) of the Associate Editors body (for example, the Transactions Editorial Board or Committee) and complete the Tables of Associate Editors and their Demographic Summary below:**

The Transactions Editorial Board is made up of an EiC, one or two Associate EiCs, Technical Editors (TE), and Associate Editors (AE). The EiC is responsible for the appointment of all editors and requests ratification from the IEEE AESS VP-Publications and his/her Associate of all appointments, as they are made; the EiC also presents all appointments to the IEEE AESS BoG during their meeting. A Technical Editor is appointed for each technical area – see http://ieee-aess.org (click on Publications/Transactions/Technical Areas and Editors), and is also an Associate Editor with responsibilities in that area. Currently, of the 67 Associate Editors, 51 are from academic institutions while 16 are from industry or laboratories.
The EiC performs an initial quality check on every submitted manuscript; manuscripts that are in scope and in a condition to be reviewed pass this quality check and are assigned to the Technical Editor assigned to the area selected by the author upon submission. (The EiC can change the technical area if the author-selected area is not appropriate to scope). The Technical Editor assigns each manuscript to an Associate Editor (possibly the Technical Editor him/herself), and this Associate Editor manages the review. Technical areas that see heavy submission have multiple Associate Editors in addition to the Technical Editor. Currently, the EiC works closely with two Associate EiCs (currently Michael Rice and Wolfgang Koch, see the table below) to direct the daily operations of the review process for the Transactions; for the most part, these Associate EiCs offer (only, but very valuable) advisory assistance. These Associate EiCs are also Editors for one of the technical areas.

**Table of Associate Editors (please add rows as needed)**

<table>
<thead>
<tr>
<th>Full Name</th>
<th>Country</th>
<th>IEEE Regio</th>
<th>Institution</th>
<th>Academia, Industry or Government</th>
<th>Gender</th>
<th>Expertise</th>
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<tr>
<td>Michael Rice</td>
<td>USA</td>
<td>6</td>
<td>Brigham Young University</td>
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<td>Command, Control and Communications Systems</td>
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<td>2 Systems Technology and Research, Inc.</td>
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<tr>
<td>Lyudmila Mihaylova</td>
<td>United Kingdom</td>
<td>8 University of Sheffield</td>
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<td>8 Università degli Studi di Salerno</td>
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<td>Shozo Mori</td>
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<td>Felix Govaers</td>
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<td>G</td>
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</tbody>
</table>

Note that technical editors are indicated in boldface in the above table. Technical editors are always also associate editors. The two associate editors-in-chief (AEiCs: Rice and Koch), who are also AEs, are indicated by underline.

Add indication of who is AEiC.

## Demographic Summary

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Total number of AEs</strong></td>
<td></td>
</tr>
<tr>
<td><strong>AEs by Regions</strong></td>
<td></td>
</tr>
<tr>
<td>Region 1-6:</td>
<td>51.47%</td>
</tr>
<tr>
<td>Region 7:</td>
<td>4.41%</td>
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<tr>
<td>Region 8:</td>
<td>30.88%</td>
</tr>
<tr>
<td>Region 9:</td>
<td>0%</td>
</tr>
<tr>
<td>Region 10:</td>
<td>13.24%</td>
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<tr>
<td><strong>Membership by Regions</strong></td>
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<td>Region 1-6:</td>
<td>59.29%</td>
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<td>Region 7:</td>
<td>3.64%</td>
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<td>Region 8:</td>
<td>23.42%</td>
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<td>Region 9:</td>
<td>0.77%</td>
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<tr>
<td>Region 10:</td>
<td>12.88%</td>
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<tr>
<td><strong>AEs by Gender</strong></td>
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<tr>
<td>Male:</td>
<td>94.12%</td>
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<tr>
<td>Female:</td>
<td>5.88%</td>
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<tr>
<td><strong>AEs by Affiliation</strong></td>
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<td>Academia:</td>
<td>76.12%</td>
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<tr>
<td>Industry:</td>
<td>8.96%</td>
</tr>
<tr>
<td>Government:</td>
<td>14.92%</td>
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</table>

Very low representation of women. Lower representation of industry than one would expect given the society overview stating that there is a high industrial membership and you mentioned that there are a lot of industry reviewers. You provided suggestions for improving the industry numbers in the discussion (e.g. being willing to take people who publish fewer papers) – please mention this.

The proportion of female AEs (6%) is rather lower than a typical number, which would be 15-20%, although it is (unfortunately) representative of AESS membership (5%). As a result of the PRAC process we intend especially to recruit female associate editors.
Additionally, the proportion of industrial (9%) AEs is low compared to society membership (46%); the numbers for laboratory membership are 15% of AE pool and 10% membership. One reason for the industrial numbers is that the incentives for society service in industry are lower than in academe; and that work pressures sometimes interfere with timely processing of papers. But the imbalance is something that should be addressed, and one way to do so is to formalize a process whereby paper/citation count be a less important requirement for AE appointment when the AE candidate works in industry. Informally this has already (since the PRAC meeting) been a factor in replacement of certain AEs.

3. Describe the process for Editor-in-Chief (EiC) selection and training, and terms/term limits.

The selection of the EiC is based on a candidate’s track record as an editor for the Transactions and his/her ability to perform the function of EiC. Typically, the EiC identifies and recommends the candidate for his/her replacement, and prior to taking over as EiC the incoming EiC serves as Associate EiC. The term limit of the EiC is three years, extensible to six subject to reappointment. All EiC appointments are approved by vote of the AESS BoG.

Potential EiCs are groomed by selecting the top performing Technical Editors to serve as an Associate EiC. At any given time usually two people serve as Associate EiC. The role of each Associate EiC is that he/she assist the EiC with the quality control process by commenting (via the website consultation feature) on the scope and quality of questionable manuscripts; and by serving on ad-hoc committees as needed, e.g., investigating author disputes, serving on plagiarism committees, etc. Near the end of the term of the EiC, the EiC nominates the Associate EiC that he/she believes is best suited to manage the Transactions. The nomination goes to the VP of Publications who formally presents it to the Board of Governors for final approval. AESS publications personnel are a close-knit team with almost-daily communication. This team-based process for selection of the EiC has worked well for our society, which is small and must mitigate the risk of selecting an unengaged EiC.

WRS: In the review, it was explained that the EiC had a term of three years, and could serve one term plus the possibility of one additional term. Please add this.

4. Describe the process for Associate Editor selection and training, and terms/term limits.

Each area’s Technical Editor most often identifies candidates for Associate Editor; and the EiC and Associate EiC identify candidates for Technical Editor. The candidacy and selection of both Technical and Associate Editors are based on publication record, performance as a referee, and visibility within the field. The EiC makes the final decision. The training for new editors is based on personal interaction with the EiC. The EiC and his/her Associate EiC(s) regularly monitor, via the web, the performance of Associate Editors, and this is quite straightforward using the EJPress tools. Papers for which referee response has been light (one of two responding reviewers only) and/or late papers are identifiable, and the EiC brings these individually to the Associate Editors’ attentions. Further, aggregate performance (timeliness, acceptance rate, etc.) for each Associate Editor is available and is reported to the BoG. Associate Editors who are not performing well are identified, informed of the issues, and removed if necessary.

The role of a Technical Editor is to be the most senior resource within his/her technical area; and to assign review management of each manuscript to the most appropriate Associate Editor. Technical Editors – who always also are Associate Editors – are identified as the most appropriate (in terms of experience, technical expertise and performance) Associate Editor from the current pool; or in the case of smaller technical areas are the only Associate Editor.

No explicit turnover cycle has been established for either Technical Editors or Associate Editors. As part of the response to this PRAC exercise such a procedure is in the process of being formalized. Specifically, the procedure will be that AE term limits are three years, extensible to six subject to reappointment. This is being implemented on a staggered basis so that there will not be an AE “cliff” three or six years hence. The term limits will be implemented over the next three years: one third in 2015, one third in 2016 and one third in 2017, at the end of which year the process will be complete.

WRS: In the review, it was stated that a policy of a three-year term plus the possibility to serve one additional three-year term would be put in place. Please add this.
D. QUALITY

(i) Describe handling of papers from submission to publication. Include a thorough description of the paper peer review process. (For example, who reviews the first submission? How are papers distributed for review? To how many reviewers is each paper sent? Is there a summary review prepared by the editor? How many reviews are needed, at the minimum, to reach a decision?)

The IEEE T-AES Operations Manual (see Appendix B) provides the details of the review and production process for papers. Here, we describe the workflow for a typical paper. This manual dates from 2011, and there should be some modifications due to a vendor switch, IEEE policy changes and rapid posting of accepted articles. The vendor switch occurred in September of 2013: prior to that date the workflow was somewhat fragmented, with multiple subcontractors (for copyediting and typesetting, etc.) but coordinated by Allen Press, Inc. After the switch IEEE AES needs to interact with only one vendor, Allen Press, for post-acceptance manuscripts. The AES Transactions has continued its relationship with EJPress for website hosting and associated recordkeeping. EJPress is in the process of an upgrade to “tag” manuscripts at the time of submission to facilitate early posting on IEEEXplore.

WRS: Please identify the vendor switch.

All manuscripts are submitted electronically for peer review at http://taes.msubmit.net. All submissions, peer reviews, and editorial decision are archived by EJPress as part of the web-based review service. Upon submission, a manuscript enters a “QC” phase managed presently by the EiC. This includes, among other things:

(i) checking that the manuscript is formatted reasonably;
(ii) checking that the manuscript is ethically appropriate, which includes review of the CrossCheck report for the manuscript (the EJPress web interface supports both CrossCheck and the Prohibited Authors List seamlessly);
(iii) checking that the manuscript’s scope – both technical and quality – is appropriate for the AES Transactions;
(iv) changing the technical area and technical editor, if necessary;
(v) checking that all authors are included on the website;
(vi) checking that all authors’ emails are correct, so that news of the manuscript’s dispensation is delivered to all;
(vii) managing duplicate accounts via the “merge person” feature; and
(viii) assuring that a detailed response to the previous review is entered for all revised manuscripts, and that this is entered as a “rebuttal letter” (since any “cover letter” is invisible to reviewers).

The EiC does not claim that neither errors nor problems will persist after the QC phase, only that a good-faith attempt will be made to catch them. Regarding item (iii), all immediate-rejection decisions are made only after a website consultation initiated by the EiC and involving at least two volunteers, most usually the VP Pubs, the AEiCs and the relevant Technical Editor.

WRS: in item (iii), there is a check made for quality. Please make it clear how many sets of eyes are used for this. The above process does not indicate any mechanism being used to detect plagiarism. Is CrossCheck being used (note that this is a requirement for all IEEE publications by 2016)?

The EiC may (and often does, and indeed always does in the case of an immediate rejection decision) use the website’s “Consultation” feature to gather preliminary opinions on a submitted manuscript. Those involved in the consultation usually include the Associate EiCs, the VP Pubs and the Associate/Technical Editors concerned; and in all cases at least two people as well as the EiC are involved in this consultation and examine the manuscript. The comments are archived on the website and are available to be matters of record.
Each manuscript that passes the QC phase is assigned to a TE based on the corresponding author’s choice (or EiC’s assignment) of technical area. The TE takes a second look at the manuscript to determine whether or not it fits within scope and meets the quality requirement of his/her technical area. The TE can choose to suggest an editorial immediate reject (IR), which must be approved by the EiC. Assuming no IR, the TE then selects an appropriate AE for papers that pass his/her inspection. The TE decides on an appropriate AE based on familiarity with the area, current workload and any known relationships of the authors to the AEs. In general, AEs are not to handle manuscripts of authors who are employed by the same organization. Exceptions to this rule are made upon the TE’s consultation with the EiC as documented in the electronic review records. If the “Other” technical area is chosen, the EiC will select the appropriate TE. Within reason, an author has the right to make a request that certain TE’s and/or AE’s and/or reviewers not be involved in the review of their manuscript. The EiC has the right to honor this request or ignore it. Such requests are generally granted.

Not clear that editorial rejects are getting two pairs of eyes beyond the EIC.

Note that IEEE PSPB Ops Manual (p. 87) says that “generally” author requests regarding reviewers should be granted.

The AE performs the final inspection of the paper to determine whether or not the quality of the paper is sufficient for peer review. Any AE decision to reject without peer review must be approved by the EiC. For papers sent out to peer review, the AE assigns reviewers. The basis for the decision to request a review from a particular referee are the familiarity with the subject of a manuscript, apparent workload, demonstrated expertise, and past reviewing performance. An author has the opportunity to suggest referees. While the AE managing the manuscript may (or may not) ask some of these for a review, it is expected that other referees will be included in the review of the manuscript. Within reason, as judged by the AE, an author has the right to make a request that certain referees not be involved in the review of his/her manuscript; the AE will consider this recommendation but is not bound by it. Ideally, each manuscript will have four anonymous reviews. At a minimum all manuscripts that are not rejected after the first round must be vetted by two anonymous reviewers. In rare cases a rejected paper might only be has in the past only been vetted by one reviewer when it becomes clear that too many potential reviewers are rejecting their invitations because the quality of the manuscript is particularly poor. As a result of the 2015 PRAC process that will be addressed, and in future all decisions will involve at least two reviewers.

This is not an administrative reject and therefore is in violation of IEEE policy (p. 89) as you note later in the report. Include a forward pointer to that section acknowledging the problem and indicating that it is being addressed.

WRS: The problem here is – again – that there are not two sets of eyes involved in the rejection process.

Decisions are made by the AE. Normally the decision will be based on the reviews, but the AE has the ultimate and absolute authority. An accepted manuscript may be designated as a “regular” or “correspondence” item: the choice is a matter of scope and depth of treatment, rather than of quality. A “Letter” can only be considered as a letter, and no decision is possible save “accept/minor” or “reject” – there is no second round of review for a letter, although one may be resubmitted. In the case of an article that is obviously out-of-scope or not of sufficient quality, an AE may make a summary decision without review. IEEE Policy mandates that any accepted paper must have had at least two disinterested referees. For T-AES, manuscripts are never accepted without at least two anonymous reviews of high quality. A review is judged to be of high quality if the referee indicates a high level of confidence in their review and the comments of both reviewers demonstrate that a thorough review of the manuscript has been conducted. The acceptance of a manuscript with two anonymous reviews of high quality will be made in consultation with the EiC as documented in the electronic review system. There is neither IEEE nor AESS requirement regarding the number of referees needed to issue a “reject” decision.

WRS: The statement at the end of the paragraph is confusing. What is really meant is that both reviewers don’t have to agree on rejecting a manuscript in order for it to be rejected, and that is certainly correct. Indeed, IEEE policy explicitly allows an EiC to accept or ignore all or part of a review. However, the
sentence as written makes it sound like there is no requirement on the number of referees that have to review an article, and that isn’t correct. It is suggested that sentence be reworded or removed.

Once the AE has acquired enough reviewer comments, he/she writes a decision letter. The decision letter explains the decision (reject, revise/resubmit, significant revision, minor revision, or accept). In cases where the reviewer comments are conflicting or the relevance is not clear, the AE will offer his/her interpretation of what is relevant and what is not.

An important feature As part of the AES Transactions process is that the EiC inspects all review decisions before releasing the decision letter to the authors; and naturally this includes any editorial IR. If the AE has apparently failed to meet the requirements of T-AES for a proper review, the EiC will delete the decision and inform the AE of the issue that he/she must correct. Once the EiC approves the decision, the decision letter is emailed to all authors. Furthermore, all reviewers are notified of the decision via email with a blind carbon copy of the decision letter.

WRS: This isn’t an “important” feature: it is a necessary feature. Rewording is suggested.

Upon acceptance, the Administrative Editor takes over management of the manuscript. The Administrative Editor acquires the source material (LaTeX, Word, etc.) from the authors and oversees the copyediting, typesetting and production of the final PDF and XML files. During this process, galley proofs are created and sent to the authors to identify and correct any errors. Finally, the Administrative Editor packages the final PDF and XML files into its corresponding journal issue and ships each issue to IEEE for posting on Xplore.

(ii) How are special issues approved? How are they handled, particularly with regard to Guest Editors?

Due to the quarterly publication schedule and the concomitant large number of pages per issue, T-AES does not entertain proposals for special issues. However, proposals for special sections of T-AES issues are considered. Proposals should include the list of guest editors with biographical information, the motivation for the special section, a general call for contributed papers to the special section, a candidate list of papers with authors for direct invitation, and a schedule for delivery and review of the papers for the special section. The publication date of the special section is not set until all the manuscripts have been delivered for typesetting. All manuscripts for a special section must meet the same peer review standards as regular submissions. Information about special sections will be posted at http://www.ieee-aess.org so that interested guest editors can clearly understand the T-AES policies. As part of the 2015 PRAC review, the quarterly issue schedule of the Transactions has been identified as a contributor to the long sub-to-pub delays. A switch to bimonthly (or even monthly) is being considered for 2016 and beyond, since given the electronic nature of the publication the extra expense would almost certainly be minimal. A more frequent publication schedule would also be more forgiving of special issues.

WRS: Why not have a more frequent schedule? It could help a little with timeliness.

Once approved, all guest editors are given AE roles within the EJPress online review system. The TE whose technical area is closest to the topic of the special issue serves as the TE for the special issue – that is, the TE, who is a “regular” T-AES volunteer and is not affiliated with the Special Section monitors and has authority over the AEs (who are so affiliated). The TE consults with the lead guest editor to make editorial (scope or quality) reject decisions as well as AE assignments from the pool of guest editors. The TE works with the lead guest editor to monitor the review process to make sure that schedules can be met.

(iii) Please also comment on the policy (if any) or practice for “Administrative Rejects” and “Editorial Rejections” (that is, return of manuscripts without review, see Table in Section E. TIMELINESS, rows 3c and 3d for explanations).
All editors at the EiC, TE and AE levels are encouraged to review each manuscript for scope, language and novelty of contribution before releasing the manuscript to the next stage. As the paper moves along the chain, the level of scrutiny increases. The EiC can open up a consultation session with two or more relevant Editors to discuss the suitability of every questionable manuscript before reaching a final reject decision; that is, any decision in favor of immediate rejection always involves at least two volunteer editors in addition to the EiC. The TE and AE have the option to use the consultation feature themselves for reaching rejection decisions at their respective levels, and if an immediate rejection occurs at the AE or TE levels the consultation would nonetheless involve at least three volunteer Publications persons, drawn generally from among the AE, TE, EiC and AEiC incumbents. Nevertheless, the EiC reviews and approves all decision, will delete any inappropriate decisions, and work with TE to AE to rectify any inappropriate decisions.

WRS: This consultation feature is very nice. Please make it clear that at least two sets of eyes are involved in all administrative rejection decisions.

(iv) **What is the policy of publishing Conference papers? How much overlap is permitted?**

As stated in our information for authors (see Appendix C), T-AES does allow for prior publication of an abbreviated and/or preliminary form of the material in conference proceedings or digests. The authors must cite the earlier work in their submission and should provide a short description of how the current submission expands on that work in the manuscript’s introductory section.

E. **TIMELINESS**

Is every issue of this periodical mailed on or before the cover date? If not, comment on the reason, and provide a corrective action plan.

T-AES became electronic-only (no print) in 2011. The Transactions is generally not sent to IEEE for posting on IEEE Xplore before its cover date, but a month or two later. We have been working to decrease this delay. The October 2014 issue of T-AES was delivered to IEEE on November 12th, 2014 but was not posted to Xplore until the middle of December. We are currently experiencing very large delays in the time we deliver to IEEE to the time the material is published on IEEE Xplore. This delay began due to changes in delivery specifications starting January 1, 2014. IEEE created new requirements for metadata in XML format so that all articles can be viewed in HTML format on Xplore. Unlike most IEEE publications, we have been using an out-of-house vendor for copyediting and typesetting. In general we are pleased with our vendor selection (Allen Press) and we appreciate IEEE’s support of them and of us. However, we are aware that the AES Transactions’ sub-to-pub delay is unacceptably long, and we are making it a priority to address it.

I’m glad to see someone exploring another vendor, but reducing the time to publication needs to be a priority. The e-pub time is huge compared to other journals, but it was large before 2014.

The new electronic “tagging” requirements for manuscripts delivered to IEEE Xplore will ultimately be a positive for all, but it has led to some significant delays in posting for the AES Transactions. For instance, the July issue of T-AES was delivered to IEEE on August 26th, 2014, and it was not posted until the middle of December. We are uncertain as to how our delivered content is noncompliant. We have been in communication with IEEE, and we certainly understand that they are working hard to solve the problem. They are simply overwhelmed, and our issue is an unintended consequence of a new IEEE policy. However, we are also aware that this makes our Transactions appear deficient as regards timeliness to the PRAC reviewers, and we are somewhat frustrated by that. AESS Publications staff are actively and continuously engaged with Allen Press and with IEEE on the matter, and we expect resolution very soon, and a considerable reduction in sub-to-pub times by the end of the year.

WRS: As discussed in the review, the time problem here appears to be almost completely associated with the delays in XML conversion. Experience with other outside vendors meeting IEEE requirements has shown that a one-week turnaround for a 300 page publication is quite reasonable. The problems being
encountered thus seem to be inconsistent with other experiences, and explanations and solutions should be pursued.

We would also like to mention that we have contracted with our web vendor (EJPress) to tag, process and deliver accepted articles to IEEEXplore for pre-posting. We expect this will be accomplished in by mid-2015. However, we are somewhat concerned that issues similar to those discussed in the previous paragraph may be problematic.

The table below is a status report (a “slice in time”) of all actions for the past 5 years, as of the time in current year when the table was completed. This table is year driven; each entry describes the requested information for the column year under review, not the year in which the paper was first submitted. Please use the COMMENTS section below for explanation.

The table should cover 2010-2014.

The formal IEEE TAB definition for ‘administrative reject’ can be found in the PSPB Ops Manual: http://www.ieee.org/documents/opsmanual.pdf - Section 8.2.2.A.3 Prescreening of articles by editors.

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<tr>
<th>Year for report period</th>
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<th>2013</th>
<th>2012</th>
<th>2011</th>
<th>2010</th>
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<tr>
<td>1 Papers submitted in the given year</td>
<td>623</td>
<td>579</td>
<td>592</td>
<td>555</td>
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<tr>
<td>2 Papers sent for peer review in the given year</td>
<td>523</td>
<td>471</td>
<td>488</td>
<td>423</td>
<td>421</td>
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<tr>
<td>3a Papers accepted in given year (A)</td>
<td>209</td>
<td>223</td>
<td>174</td>
<td>191</td>
<td>192</td>
</tr>
<tr>
<td>3b Papers rejected in given year (R)</td>
<td>264</td>
<td>194</td>
<td>196</td>
<td>211</td>
<td>158</td>
</tr>
<tr>
<td>3c* Papers returned by EiC as “Administrative Rejects” for administrative reasons, including “Out of Scope”, style problems, page count, language, etc. (It is recommended that “Out of Scope” decisions be made by the EiC)</td>
<td>90</td>
<td>98</td>
<td>94</td>
<td>119</td>
<td>117</td>
</tr>
<tr>
<td>3d* Papers rejected as “Editorial Rejections” for technical content reasons (ER). Please address in comments (It is recommended that 2 add’l ‘pairs of eyes’ such as AEs, special reviewers, can identify the reasons for such rejections w/o the full review cycle)</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>3e Accept Rate for given year (Accept Rate = A/(ER+R+A))</td>
<td>43%</td>
<td>52%</td>
<td>46%</td>
<td>46%</td>
<td>46%</td>
</tr>
<tr>
<td>4 Papers in given year taken out of the review cycle (explain in comments below; withdrawals, expirations)</td>
<td>23+16</td>
<td>30+29</td>
<td>25+27</td>
<td>29+26</td>
<td>22+29</td>
</tr>
<tr>
<td>5a For papers accepted in given year: Average time in months from submission to first review</td>
<td>5.2</td>
<td>4.6</td>
<td>4.7</td>
<td>5.7</td>
<td>5.9</td>
</tr>
<tr>
<td>5b For papers accepted in given year: Average time in months from submission to final decision</td>
<td>12.7</td>
<td>11.4</td>
<td>11.2</td>
<td>12.1</td>
<td>13.0</td>
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</table>
For papers rejected in given year (both ER and R): Average time in months from submission to final decision

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<thead>
<tr>
<th></th>
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<th>4.2</th>
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<td>6</td>
<td>For papers published (electronically) in given year: Average time in months from submission to e-pub Check one: Preprint (No) Fully edited (Yes)</td>
<td>24</td>
<td>23</td>
<td>25.5</td>
<td>29.6</td>
<td>28.7</td>
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<tr>
<td>7a</td>
<td>For papers published (in print) in given year: Average time in months from submission to publication</td>
<td></td>
<td></td>
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</table>

3c, 3d*- Depending on how the publication is set up, the EiC may not be able to specifically split these reasons. PRAC is asking, if possible, to produce a realistic division. If it is not possible, please explain in the comments section below.

WRS: Based on discussions in the review, it appears that the major reason for the large numbers of rejections in 3c is that authors are submitting papers that are out of scope. It is suggested that a more comprehensive set of instructions regarding what is and is not acceptable be provided in the author submission information as a way of reducing this. The times in 5a are quite long. Based on the discussion in the review, some administrative help to support AEs in flagging slow papers would help to reduce this. The times in item 7a are extremely long. Please provide an explanation for why, and steps that can be taken to reduce this time.

**COMMENTS (use for further explanation):**

For Item 3, we currently cannot track the difference between an administrative and editorial rejection. The numbers in the table represents the EiC's impression that 90% of papers that do not go out to peer review are due to scope issues. We are happy to find solutions so that we can accurately track the data in the future. In preparing the 2015 PRAC review document we have become aware of the large number of out-of-scope submissions. We will clarify acceptable scope in the web information for authors, and will also include the information on the submission website.

Item 4 is the sum of withdrawals and abandoned revisions. The EJPress web review system does not allow us to track the abandoned revisions based upon the date the revision expired. Our best guess for abandoned revision is to count the manuscript as abandoned during the calendar year after the initial submission. We believe that this provides a reasonable estimate for the order of magnitude of abandoned manuscripts over the years.

The times in Item 5 are long relative to competitor publications, especially those within IEEE. As regards 5a, our analysis indicates that the average is skewed from the desire 3-month cycle to closer to 5 months by outlier papers. We have recently (in late 2014) contracted with ConferenceCatalysts (with which AESS has a good working relationship) for editorial assistance. This amounts to about 2 hours a week, and is intended for reminding editors and reviewers on problem papers. We expect that TAES can reach IEEE 90-day expectation. Regarding 5b, a large component of this is rather generous attitude toward resubmission of revisions, currently a 90-day window. This is a society decision reflective of its sympathy to industrial authors whose archival work almost always must be performed on personal time.

Item 6 shows the average review time for all rejected manuscript.

Item 7a demonstrates the AES Transactions greatest concern: its lengthy sub-to-pub time. Approximately 50% of the time is the sub-to-accept time, and that has been discussed above relating to Item 5. The other 50% is, of course, the accept-to-pub time. Part of this is due to the new XML tagging issues and the fact that the AES Transactions uses an outside vendor (see Section E), and we expect this to be resolved very soon. Part of it can be traced to the quarterly publication schedule of the AES Transactions, and this was discussed in Section D, Subsection (ii); specifically, AESS will consider making the Transactions bimonthly or quarterly by 2016. Part of the time is internal to our vendor, and AES Publications personnel are actively engaged with Allen Press to determine a better schedule and workflow for appearance. Finally,
part of the delay arises due to a reputational factor: the AES Transactions has historically been rather relaxed about deadlines such as proof-returns and delivery of files, and authors know this; the problem is easy to address by stricter adherence to deadlines and cancellation (and resubmission) of papers that are noncompliant.

Item 7b is blank since the AESS Transactions is electronically published.

Geographical distribution of authors (percentage of total) of published papers in the year of publication (not year of submission). Use current location of author as shown in the Biography. Count all authors of a paper (a set of authors may represent more than one region).

<table>
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<td>Regions 1 – 6 (U.S.A.)</td>
<td>%</td>
<td>%</td>
<td>%</td>
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<td>37</td>
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</table>

COMMENTS:

The geographical distribution of the author base is stable at about one-third for each of the US, Region 8 and Region 10. There has however, been a substantial increase in submissions from Region 10, one that is not entirely reflected in the published product.

F. COMPETITOR PUBLICATIONS

List ALL the competitor publications, including those of the IEEE, other learned societies, and commercial publishers. Briefly compare the scope and status of the five most important of these.

Brief discussion of scope differences is needed here. Picking just 5 is fine, but be consistent with the table.

Well-known measures exist for comparing periodicals with respect to the “impact” they have on the field. While no judgment is made here on the effectiveness or validity of these measures, because of their use in published lists, in this section you are asked to provide such information. For the IEEE periodical reported on herein, and for each of the five competitor publications listed above, please complete the table below. This information (for most publications in the field) was provided to the EiC for this Review, but may also be obtained from IEEE staff (because it is a commercial product, the information is not readily available electronically). Definitions of these measures are as follows:

**Impact factor:** Average number of citations of articles over a two-year period divided by the number of articles published in the journal in the same period.

**Citation Half-Life:** The number of journal publication years going back from the current year which account for 50% of the total citation received by the journal during the current year.

**Immediacy Index:** The proportion of citations that refer to articles appearing within the most immediate past period (year?)

**Eigenfactor Score:** The Eigenfactor Score is based on the number of times articles from the journal published in the past five years have been cited in each year, but it also considers which journals have contributed these citations, so that highly cited journals will influence the network more than lesser cited journals. References from one article in a journal to another article from the same journal are removed, so that Eigenfactor Scores are not influenced by journal self-citation.
**Article Influence Score**: The Article Influence determines the average influence of a journal's articles over the first five years after publication. It is calculated by dividing a journal's Eigenfactor Score by the number of articles in the journal, normalized as a fraction of all articles in all publications.

**Circulation**: Please provide data for print and online subscriptions, as well as Institutional/Corporate numbers for this IEEE periodical only. (Circulation data not required for non-IEEE publications.)

We have chosen these seven “competitors” from appropriate IEEE publications and from a list of Aerospace journals. The data is from the 2013 JCR Science Edition. Aside from IEEE publications we do not have circulation information.

**WRS**: IEEE publications are not really competitors. Are there IET publications or other non-IEEE publications that are competitors? Please add these. For each publication that is a real competitor, please provide a short paragraph discussing the differences in scope and other major attributes of the publication.

- AIAA Journal has scope “aero-acoustics, aerodynamics, combustion, fundamentals of propulsion, fluid mechanics and reacting flows, fundamental aspects of the aerospace environment, hydrodynamics, lasers and associated phenomena, plasmas, research instrumentation and facilities, structural mechanics and materials, optimization, and thermo-mechanics and thermochemistry.” Thus its overlap with TAES is minor, and mostly relates to space, instrumentation and systems.
- AIAA Journal of Guidance, Control and Dynamics (JGCD) has scope “dynamics, stability, guidance, control, navigation, optimization, electronics, avionics, and information processing related to aeronautical, astronautical, and marine systems.” This is quite similar to TAES, and it can be considered a primary competitor. It is interesting that a former EiC of JGCD (Schmidt) is presently a very active and highly contributing BoG member of IEEE AESS.

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<th>Periodical</th>
<th>Circulation</th>
<th>Articles/Pages published per year</th>
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• IET’s Radar Sonar and Navigation (RSN) has scope “theory and practice of systems involving the processing of signals for radar, radiolocation, radio-navigation and surveillance purposes.” It is thus a primary competitor for TAES. It is interesting that the present EiC of RSN (Griffiths) is past president of IEEE AESS, and is also a valued author both to TAES and Systems Magazine.

• IET’s Microwaves, Antennas and Propagation (MAP) has scope that includes “microwave circuits,” “antenna topics” and “radio-wave propagation.” This represents a relatively minor component of the TAES portfolio, largely managed in the CCC area.

• IET’s Signal Processing (SP) has scope that encompasses “advances in single and multi-dimensional filter design and implementation; linear and nonlinear, fixed and adaptive digital filters and multi-rate filter banks; statistical signal processing techniques and analysis; classical, parametric and higher order spectral analysis; signal transformation and compression techniques, including time-frequency analysis; system modeling and adaptive identification techniques; machine learning based approaches to signal processing; Bayesian methods for signal processing, including Monte-Carlo Markov-chain and particle filtering techniques; theory and application of blind and semi-blind signal separation techniques; signal processing techniques for analysis, enhancement, coding, synthesis and recognition of speech signals; direction-finding and beam-forming techniques for audio and electromagnetic signals; analysis techniques for biomedical signals; baseband signal processing techniques for transmission and reception of communication signals; signal processing techniques for data hiding and audio watermarking.” TAES has a signal processing technical area that considers only manuscripts with a significant aerospace system application; and many of the other technical areas (communications, radar, sonar, tracking, etc.) naturally involve some signal processing. The level of competition here is moderate.

• Elsevier’s Automatica is a high-impact journal with scope “systems and control” as applied to or informed by applications in “communications, computers, biology, energy and economics.” Automatica is broad, and can be a target for a paper in tracking or fusion, but there is more significant overlap with TAES’ Guidance & Control technical area. Overall, the level of competition within G&C and Tracking is high, but strongly limited to those focused areas.

• ACM’s Transactions on Modeling and Computer Simulation (ToMaCS) has scope “all areas of computer modeling and simulation.” The level of competition is minor, and involves only the aerospace applications of the above.

• ASCE’s Journal of Aerospace Engineering (JAE) has scope “aerodynamics, computational fluid dynamics, wind tunnel testing of buildings and structures, aerospace structures and materials, advanced composite materials, dynamics and control, real-time data acquisition, space engineering and construction, lunar base construction, field and remote sensing, and robotics.” Some of these are at first blush very similar to TAES topics, but in fact the level of competition is minor due to the Civil Engineering target audience for this journal.

• SAE’s International Journal of Aerospace (IJA) has scope “avionics, environment, flight sciences, operations, maintenance, fastening, assembly, tooling, manufacturing, materials and structures, power, propulsion, safety, vehicle systems, systems engineering, unmanned aerial vehicles and space environmental systems.” Similar to ASCE’s JAE, the level of competition is mostly minor due to IJA’s focus on mechanical engineering topics. There is some overlap for TAES’ Space Systems technical area.

• The Institute of Mechanical Engineers’ Part G: Journal of Aerospace Engineering (IMA-JAE) has scope that “extends to Structural and mechanical design; Fluid dynamics and aerodynamics; Propulsion systems and fuels; Transmission and landing systems; Tribology, hydraulics and pneumatics; Testing and performance; Flight control systems and avionics; Manufacturing and quality assurance; Materials.” This is quite broad, and would seem to offer a significant competitor level. However, as a practical matter we encounter it very little, perhaps as its impact factor is very low.

G. FINANCIAL AND SUBSCRIPTION INFORMATION

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AES10
Feb15
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<td>(7.7)</td>
</tr>
<tr>
<td>----------------------------------------------</td>
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<tr>
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<td>0.0</td>
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</tr>
<tr>
<td>Mailing Print - Ed</td>
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<td>0.0</td>
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</tr>
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<td>0.0</td>
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</tr>
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<td>9.8</td>
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<td>Pursvc - Voluntary Page Charges</td>
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<td>4.4</td>
<td>5.1</td>
<td>5.3</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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</tr>
<tr>
<td>Pursvc-Subscription Handling</td>
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<td>212.7</td>
<td>419.1</td>
<td>221.2</td>
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<tr>
<td>Pursvc-XPLORE</td>
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<td>8.4</td>
<td>7.5</td>
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<td>6.3</td>
</tr>
<tr>
<td>Total Electronic Expenses</td>
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<td>8.2</td>
<td>8.4</td>
<td>7.5</td>
<td>6.5</td>
<td>6.3</td>
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<td>0.4</td>
<td>0.3</td>
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<td>0.0</td>
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<tr>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Other Expense</td>
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<td>0.5</td>
<td>0.3</td>
<td>0.4</td>
<td>0.3</td>
</tr>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Rmb Services-Itel</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Rmb Services-BEL</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Rmb Services-other</td>
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</tr>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Expense/PurSvc/ReimbSvc</td>
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<td>396.9</td>
<td>404.2</td>
<td>347.0</td>
<td>425.9</td>
<td>356.7</td>
</tr>
</tbody>
</table>
H. FINANCIAL AND SUBSCRIPTION DISCUSSION

1. Comment on any financial anomalies (if any) which may be evident for the data in Section G.

   In 2012, we temporarily increased the page count to 3700 in order to clear a backlog of papers that was affecting the acceptance-to-publication timelines. This was successful, and the number of published pages is now budgeted to be 3200 pages/year.

   The Transactions’ “Total Creation Expenses” row has shown a marked downturn in the past years. We are pleased with and proud of this, and believe that it reflects our re-vendoring in 2013 and tighter controls on pages per article. It is also notable that the over-length page charges collected in 2014 are significant and positive to the Transactions’ financial performance. Please note that the penultimate column is “budgeted” and the “actuals” in 2014 were considerably lower.

   It appears that revenues peaked in 2013 during a dip in the number of electronic subscribers, due to revenue from the APP/IEL/MD packages. The fluctuation in expenses from year to year is an artifact of how we contract with our out-of-house vendors. We also consolidated all our out-of-houses service to Allen Press during calendar year 2013. This should show as a reduction in expenses for the upcoming years. Several of the numbers in this financial table are surprising to us, but these are numbers of minor significance. The broad message is one of reduced cost.

2. Comment on any subscription anomalies (if any) that may be evident for the data in Section G.

   T-AES became electronic-only in 2011, and hence the sharp rise in electronic subscribers for 2011.

I. COMPLIANCE WITH IEEE POLICIES AND PROCEDURES

   The EiC shall have in his/her possession a current copy of the appropriate IEEE manuals regarding policies and procedures for publications. The EiC shall have read and be familiar with all sections of the above documents concerning publications. Please visit the following sites for such documents:


   Comment regarding compliance with the above requirement, and compliance with the individual publication related policies of each document. If this IEEE periodical is compliant, please state so. Otherwise, please describe action plans to come into compliance.

   The EiC is aware of all matters discussed in Section 8 of the PSPB Operations Manual, and is not aware of any issues in which the Transactions is out of compliance, excepting the matter of editorial rejects. All complaints by authors regarding the treatment of their submitted manuscripts during the peer review process have been addressed in a way that is compliant with IEEE policies.

   Regarding immediate rejections, we are compliant at the EiC level: that is, as regards Administrative Rejects. The EiC does vet all editorial rejects from lower levels, but presently we do not require any other editors to review the decision at this time. Starting 2015, any paper rejected without formal review will be subject to consultation (via the website’s consultation feature) with at least two AE or TE. An IR decision must be unanimous or else a full review must take place.
J. RECOMMENDATIONS FROM PREVIOUS REVIEW OF THIS PERIODICAL

If applicable, list the date of the last IEEE TAB Periodicals review, and include a summary of recommendations made at that time. Describe how each recommendation was met.

1. The long delay time from submission to publication needs to be firmly addressed and fixed.

We feel that our submission to final decision time is reasonable, given the industrial/laboratory skew of our reviewer and author base. We have made numerous efforts to improve the acceptance to publications time. We have decreased the backlog. Unfortunately, new metadata requirements for 2014 have impacted these timelines rather negatively. We describe in Section L current plans to further improve them. We are working toward implementation of early posting of each accepted manuscript to IEEE by the middle of 2015, which will significantly reduce our delays.

2. Term limits for Associate Editors and Technical Editors should be established.

We had concerns that our pool of potential editors was too limited to institute term limits, but our pool of active editors has been growing over the past five years. Generally, we have good turnover of editors, but we do have cases where editors have been serving way too long. We are in the process of implementing a policy for term limits that will include a transition period so that our senior editors can properly train the incoming crop of editors. Our intention is to “phase-in” this policy, beginning with Technical Editors first, and Associate Editors later. As indicated in Section C, Part 4, the procedure will be that AE term limits are three years, extensible to six subject to reappointment. This is being implemented on a staggered basis so that there will not be an AE “cliff” three or six years hence. The term limits will be implemented over the next three years: one third in 2015, one third in 2016 and one third in 2017, at the end of which year the process will be complete.

WRS: Please explain what the term limits will be.

3. Formalize the training of guest editors if it is not already done.

We have formal requirements for adoption of guest editors in the T-AES operations manual. We are in the process of expanding the manual to include verbiage of best practices for editors that can be distributed to all guest editors as well as incoming associate editors. We have not had a great number of Special Sections to date, but it does appear time for such policies, and indeed for our Transactions to solicit more Special Sections.

4. Administrative rejects for technical reasons: In order to adhere to IEEE policy that all paper submissions receive a minimum of two independent reviews, and recognizing that there exist many reasons to withdraw a paper before a review is undertaken, the PRAC is advocating a process to be considered for adoption by periodicals. To wit, instead of one person (an EiC or an AE) making a unilateral decision, based solely on perceived technical quality, on whether or not a submission deserves a review, consider calling upon a small group of experienced reviewers (these could be “Editors-at-Large”, or “Senior Editors”, or the like) whose task is to spend some time looking over such candidate submissions to determine if a full review should be undertaken. With such a process, the EiC could then justifiably reject a paper based on a review of two (or more) experts, and authors could be encouraged to consider a complete re-work of the manuscript before re-submission. This process would not apply to administrative rejections done on the basis of scope, length, or obvious poor grammar and/or English presentation.

The EJPress web review portal includes the ability to open up consultation sessions for any manuscript. The EiC uses this feature to invite appropriate senior editors to discuss a manuscript that he thinks should be rejected without peer review. Currently, the EiC does not require Technical Editors or Associate Editors to do the same at their levels. However, the EiC does review every
manuscript decision and will challenge the decision when he deems appropriate. Given the ease of use of the website’s Consultation feature, the EiC, starting in 2015, is requiring at least two other editors (Associate, Technical or Associate EiC) to vet each technical IR, and thence either to contribute comments that support it or to veto it. An IR decision must be unanimous or else a full review must take place.

K. NOTABLE FEATURES

Describe notable features for this periodical, such as special issues, ties to conferences, etc.

As discussed previously, the AES Transactions has no special issues, but does have occasional special sections such as that on “Compressed Sensing Applied to Radar,” in April of 2015. There are no ties to conferences, just natural relationships due to Society overlap. There has been some consideration of a policy, similar to IEEE Signal Processing Letters, in which a Transactions manuscript can be presented at (and not republished as part of the Proceedings of) any AESS conference; but this is at the discussion phase.

The Transactions has a prestigious annual best paper award named after aerospace communication pioneer M. Barry Carlton. The award is based on a detailed letter of nomination and two separate letters of endorsement. It is announced in an editorial column and in the Magazine, for which these letters are used as a basis.

It seems worth noting that the AES Transactions is recognized as #2 among all Aerospace journals according to the 2013 Journal Citation Report. When ranked according to journal H-index the AES Transactions also ranks #3 amongst all Aerospace Journals, according to Scimago. Finally, according to Google scholar’s “metrics” the AES Transactions ranks #1 amongst all journals in the “Radar, Positioning and Navigation” subcategory. (It is not clear to us why the AES Transactions is not in the “Aviation and Aerospace Engineering” subcategory for Google; but according to its numerical score it would be #1 in that category as well.)

Another notable recent occurrence was our recent (late 2013) decision to move to a centralized vendor for all publication services: Allen Press. This decision was made partly based on cost. However, a significant factor was a desire to have a central coordinator with multiple in-house and out-of-house paths for order completion. The previous structure – actually that in force at the previous PRAC review – was of multiple single-purpose vendors, and there were occasional problems/bottlenecks due to “failure” of one of these.

Too, the IEEE “Ithenticate” plagiarism checking tool has been successfully integrated to the (out-of-house) submission website EJPress. This is quite a recent addition, but several articles have been rejected based on their inappropriate level of match. AESS is grateful to IEEE that access to the tool has been facilitated.

Additionally, the Transactions formed the “Letter” category of submission, a paid submission of a short article (and allowing no revision) that was promised to go to the head of the publication queue in return for mandatory page charges if the article is accepted. (TAES personnel wish to be clear: the review process focuses on technical contribution alone, and there is no linkage between acceptance and payment.) The number of Letters seems to have remained rather small, possibly due to competition from the pay-for-publication model of Open Access.

Please expand on what a “paid submission” is. If it is “mandatory page charges,” is it only applied to Letters? WRS: the use of the term “paid submission” is probably not appropriate. A rewording is suggested.

Finally, the Transactions has instituted timelines for resubmission of revised manuscripts: a maximum of 3 months is allowed unless the EiC intervenes. This is less straightforward than it may appear, since many AES Transactions authors come from industry and work on papers in their spare time. Nonetheless, the authorship has largely been receptive to the change, and it has had an impact on our review times.
L. FUTURE PLANS

Describe future plans for this periodical, including plans to reduce backlog, upcoming special issues, etc.

The AES Transactions continues to grow in both stature and in size. The review times have converged to levels we consider reasonable for an applied journal relying on peer reviewers and authors largely from industry. We believe that our pool of reviewers is helping to assure the quality of T-AES papers in terms of theoretical innovation coupled with real-world applicability/practicality. This main problem for T-AES continues to be the long acceptance-to-publication timeline.

T-AES has consolidated all post-acceptance activities to Allen Press. This has eliminated most issues of bottlenecks due to a single point of failure, since this larger vendor can use multiple processing paths at each station. At this point, it is difficult for the EiC to track papers during the post-acceptance workflow. Furthermore, authors are complaining about the timelines and slow communication by Allen Press.

We are working with EJPress and Allen Press to develop an improved more automated post-acceptance workflow (see Appendix E) that will enable improved communication with the authors. The initial request for the source material will become part of the acceptance letter. Authors will submit the material using the EJPress portal. Further, the galley proofs and author comments on the proofs will be interchanged via the EJPress portal so that the author and EiC can easily track progress. The most exciting feature of the portal is that EJPress will enable the automatic creation of the XML metadata file that is required for early posting of preprint manuscripts on IEEEExplore. As of the initial version of this document EJPress promises had contracted to have a working version by the middle of February 2015. However, as a result of some miscommunication (it is not clear where) the process did not begin until early April. We hope Whereas we had hoped to start implementing early posting on IEEEEXPLORE by the middle of 2015, this will probably be delayed until the Fall of 2015. This should drastically decrease the sub to pub timelines and improve the experience for our authors.

Are they on track? Include an update in the final version.

We believe that Allen Press provides the best value to our subscribers in terms of quality, flexibility and price. However, because Allen Press is an out-of-house vendor, there are numerous difficulties whenever IEEE institutes new specifications for delivery of Xplore content. The T-AES publications team, Allen Press and IEEE need to continue to work together to solve the current XML data issue for the final versions of the papers. All parties are in contact with each other, and we hope the problem is completely resolved during 2015. However, we have a concern that the formats will continue to evolve as the technology to access the content changes. In other words, we expect that IEEE will continue to change the requirements over the years. We need to work with IEEE to insure that we can have backward compatibility as we strive to keep up. In the future, we hope that we can get feedback on content issues within a couple of weeks of delivery. A wait time of over three months is unacceptable. In addition, the unusually slow publication of our T-AES during 2014/2015 will most likely have a negative impact on bibliometrics going forward.

Starting in 2012 AESS began collecting over-length page charges on all published manuscripts: $200 per page in excess of 10 for regular papers and in excess of 6 for correspondence items. (Voluntary page charges are still solicited.) The obvious reason for this was to raise revenue (see Section G); the indirect but perhaps more beneficial effect to the AESS budget is that authors are now at pains to make their articles shorter and more focused. Several concerns remain: IEEE’s collection procedures are somewhat opaque, and we are unable to see which authors have paid their fees; and there is a concern that some papers “expand” between final submission and publication, as part of the typesetting process. There is little that AESS can do about the former, but the latter would be helped by stronger adherence to a double-column submission template, with figure sizes and fonts that are legible and reasonable. The new administrative support for the Transactions should help in this regard.
M. SELF ASSESSMENT

This section provides an opportunity for self-assessment of this periodical.

(i) Please list the following JCR indices available for the past 5 years starting from the most recent year: Impact Factor with and without self-citations, Citation Half-Life, Immediacy Index, Eigenfactor and Article Influence Score for this periodical. Please comment on the position and trends for this periodical’s JCR indices.

<table>
<thead>
<tr>
<th>Year</th>
<th>Impact Factor (regular, with self-citations)</th>
<th>Impact Factor (w/o self-citations)</th>
<th>Citation Half Life</th>
<th>Immediacy Index</th>
<th>Eigenfactor</th>
<th>Article Influence Score</th>
<th>Articles Published</th>
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<tr>
<td>2013</td>
<td>1.394</td>
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<td>&gt;10</td>
<td>0.327</td>
<td>0.00937</td>
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<tr>
<td>2012</td>
<td>1.299</td>
<td>1.121</td>
<td>&gt;10</td>
<td>0.214</td>
<td>0.00801</td>
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<tr>
<td>2011</td>
<td>1.095</td>
<td>0.966</td>
<td>&gt;10</td>
<td>0.151</td>
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<tr>
<td>2010</td>
<td>0.917</td>
<td>0.854</td>
<td>&gt;10</td>
<td>0.140</td>
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<td>0.573</td>
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<tr>
<td>2009</td>
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<td>1.134</td>
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<td>0.095</td>
<td>0.00682</td>
<td>0.560</td>
<td>126</td>
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</tbody>
</table>

(ii) Please complete the information below regarding IEEE Xplore usage in terms of total yearly “Usage” (or paper “Downloads”) and IEEE download-based ranking for this periodical. The total count is readily available in the columns “SUM by Pub” and “RANK in Periodicals” at http://statistics.ieeexplore.ieee.org/report/external/index.html for each review year → Usage by Publication → Usage for IEEE Publications <Year> → IEEE Xplore Statistics for <Year>, IEEE Periodicals, order by Title. Please comment.

<table>
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<th>2012</th>
<th>2011</th>
<th>2010</th>
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<tr>
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<td>167,264/35</td>
<td>350,617/35</td>
<td>355,048/33</td>
<td>393,518/30</td>
<td>316,291/33</td>
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</tbody>
</table>

Comment:

We see a steady rise in our impact factor and other bibliometrics from 2010 through 2013. The higher impact in 2009 seems anomalous when looking at the data before 2009. Over the past 10 years, T-AES has been enjoying a nearly monotonic trend of improvement for all its bibliometrics (impact factor, eigenfactor, immediacy, influence).

We are also proud that our papers remain of interest over the years, as evidenced by our long citation half-life (greater than 10 years). Overall, we are holding steady in our rank compared to other IEEE journals despite the growth in the number of journals.

(iii) Please compose a narrative to reflect your S/C viewpoints on this periodical; in so doing, cite specific examples of strengths and weaknesses.

Our greatest strength, we believe, is our relevance to IEEE’s non-academic base. The AES Transactions enjoys an unusually large number of authors and readers from industry and laboratories. We are proud of the fact that we are of interest to industry and of the long shelf life (“half-life”) of our papers, as a number of our offerings continue to attract citation for many decades. We have been steadily improving the timeliness of our peer review. Because of our large authorship from industry and government, we must draw many reviewers from those sectors. We have increased the number of industry/government editors from 9 to 16 over the past five years. Of the nine new AEs appointed in 2014, 33% represent industry or government, and we will work to grow the percentage of industry/government editors moving forward.
Our greatest weakness has been (and continues to be) our timeliness. This must be discussed in two phases: in terms of submission to acceptance times and in terms of acceptance to publication. As can be seen from the table in section E, each is approximately 12 months.

Regarding the first (submission to acceptance delay), this of course comprises a time to first decision, plus a delay to resubmission, plus the necessary time for further reviews/resubmissions. Presently now, the average time to first decision is 4-5 months, and while we would prefer it shorter, we believe this is not realistic given the substantial industrial membership of our reviewer pool. Now, we believe that our industrial and government reviewers are crucial to ensure that proposed ideas are not only mathematically correct, but also feasible and of interest in practice. This results in the high interest by practitioners in our journal; but since such reviewers must generally do such “service” work on their own time, we have had pushback in attempts to reduce the review time below the suggested 3 months. It may be possible in the current environment to explore a shorter target turnaround – we are not sure and will try – but we are fairly certain that a new (late 2014) initiative of hiring a contractor to spend approximately two hours per week dealing with “problem papers” (that is, personally reminding reviewers and editors) will reduce the time to first decision to close to or below the target level, 3 months or whatever it is. A similar comment applies to the delay to resubmission: a comparable proportion of authors to reviewers are also from industry/government, and our impression is that reduction of allotted time for revision below the current 3 months would be problematic. We have already reduced the allotted time from the previous 6 months – over some author complaints. Finally, note that IEEE AES Transactions does not limit the number of revisions per paper, as opposed to many journals that (for example) insist that a second rejection is final. It is possible that this policy needs re-examination, but at present it seems the best fit with our author base. Please also note that the AES Transactions does not couch a “major revision” decision as a clock stopping “reject”, so its delays to publication may appear longer than those of other journals that actually incorporate similar delays but avoid counting them. This policy, too, is perhaps open to re-examination, since seeing its effects may have a negative impact on author perception and submission decisions.

WRS: I respectfully disagree with the statement that an average time to first decision of less than 4-5 months is not realistic. Experience with other periodicals with large industrial memberships indicates that if you keep after them, reviewers from industry can be as responsive as any.

Regarding the delay in acceptance to publication (on IEEE Xplore), we believe that we have been taking appropriate steps to reduce this. We believe that we have tightened the process of copyediting, typesetting and production of the electronic content by coordinating these services through one vendor, Allen Press. Rita Janssen, our Administrative Editor, has been instrumental in monitoring the progress of each paper. The problem that surfaced in 2014 is the new metadata requirements so that the electronic content can be presented in HTML format. As a result, all of the 2014 issues posted on IEEE Xplore many months after the respective content was delivered to IEEE. As discussed in Section L, we are working with Allen Press and IEEE to fix the problem. Overall, we are motivated to reduce the acceptance to publication delays, because they have an obvious effect on our Impact Factor. Section L provides our plans to further reduce these delays. We are hoping to incorporate early posting of our manuscript by the middle of 2015. The AES Transactions is published quarterly, and while this policy is open to re-examination, it does not seem at this point to have a material effect on our delays from acceptance to publication. The most important step is early posting.

Two other items will, we believe, be of concern to the PRAC reviewers: editorial rejects and editor term limits. As to the former, we believe that this has been discussed in adequate detail in previous sections: we intend very soon to use our website’s consultation feature to adhere to IEEE’s “two sets of eyes” dictum. As to the latter, we agree that these are a good idea. As discussed earlier, starting in early 2015 term limits for Technical Editors will be established, to be followed by those for Associate Editors in late 2015. We believe the staggered adoption of the policy will be least disruptive in terms of editorial turnover and vacancy.

(iv) Please compose a numbered list of what you consider to be “Best Practices” of processes in place that you feel give you an advantage in terms of competitive positioning in the marketplace (for example, practices that
affect timeliness and quality); the PRAC may eventually use this list to pass along best practices to other IEEE S/Cs

1. The “consultation” feature within our web review portal allows editors to communicate issues about any particular paper. The EiC uses this feature to discuss with an appropriate committee of editors whenever the EiC believes a particular paper is out of scope or low quality for administrative or editorial rejects. The TEs and AEs find it as useful mechanisms to communicate with the EiC about their concerns.

2. Our hierarchical editorial structure of EiC, Technical Editors and Associate Editors is convenient for assigning the most appropriate AE for a particular paper. All papers also go through a progressively more thorough editorial review before the associate editor sends the manuscript out for peer review. The editorial rejections are crucial as we find that reviewers who are tasked to review too many poor quality papers tend to eventually refuse to serve as reviewers.

N. PRAC REMARKS REGARDING THE TRANSACTIONS.
(To be completed by the IEEE TAB PRAC after the review meeting. S/C representatives and EiCs do not need to respond to these remarks. Just reply to the blue margin notes.)

The IEEE Transactions on Aerospace and Electronic Systems is basically a healthy publication that serves its membership well. Its recent shift in vendors has resulted in substantial financial savings. There appears to be a production issue that still requires resolution, but it is an issue that has been successfully addressed by other publications, so it should not be a fundamental problem.

The geographical representation of the AEs reflects the geographical representation of the membership quite well. However, there are very few female AEs, and very few AEs from industry. Given the large industrial representation in the membership, this should be addressed.

Term limits for the EiC and the AEs have just been put into place, which is a positive step.

The T-AES appears to be in compliance with IEEE policies and procedures, except for insuring that two sets of eyes are always involved in administrative rejects. This needs to be addressed.

The average times from submission to first review, and from submission to publication, are both longer than what are considered best practices in the IEEE. These issues also need to be worked on.

O. PRAC RECOMMENDATIONS FOR THE TRANSACTIONS.
(To be completed by the IEEE TAB PRAC after the review meeting. S/C representatives and EiCs do not need to respond to these remarks. Just reply to the blue margin notes.)

1. Efforts should be made to increase the number of female AEs and the number of AEs from industry.

2. The policies and procedures associated with administrative rejections should be carefully reviewed to insure that two sets of eyes are involved in all cases, consistent with IEEE policy.

3. It is an IEEE mandate that a plagiarism checker such as CrossCheck shall be used on all submitted manuscripts in all IEEE publications by 2016. This needs to be put into place.

4. The long delays being experienced with XML conversion must be solved. They are inconsistent with the experience of other publications, and should be straightforward to address. If this is done, it should result in the Transactions being published on schedule.
5. A more comprehensive set of instructions regarding what is and is not acceptable in terms of the Transactions’ scope should be provided in the author submission information. This will hopefully reduce the number of out-of-scope submissions and editorial rejects.

6. Consideration should be given to adding administrative help to support the AEs in flagging slow papers, as a way of helping to reduce the submission to e-publication times. Efforts should also be made to reduce the submission to first review times to the IEEE goal of an average of 90 days.
APPENDIX A: Technical Areas

Avionics Systems
This technical area welcomes papers especially (but not limited to) in the following areas.
- Net-centric operations particularly in conjunction with the next generation air transportation systems, NGATS
- Subjects involving safety and security of aircraft electronics systems; wired and wireless; air to ground; and airborne
- Spectrum utilization
- Systems capable of safe increase of air traffic and delay reduction, such as improved navigation and routing
- Airborne networking for flight-critical systems
- Instrumentation and test for airborne systems
- Implementation of proposed space-based navigation systems; improved GPS, GLONASS, Galileo, and COMPAS
- Antennas and electromagnetic theory having a specific aerospace application

Command, Control and Communications Systems
This technical area welcomes papers describing voice and data links in aerospace applications as well as the communication aspects of command and control links in all applications. While all papers reporting original results or applications on these topics are welcome, of special interest are
- Communication links involving airborne or space-borne platforms
- Low probability of intercept (LPI) and low probability of detection (LPD) techniques
- Anti-jam techniques
- Surveillance applications (e.g., signal classification)
- Secure communications (e.g., encryption, authentication)
- Telemetering
- Multiple antenna systems and space-time processing
- Networking, especially physical layer and data link layer with particular emphasis on media access control.

All aspects of a modern communication link are of interest. We invite contributions to the theory, algorithms, and implementation of modulation, detection, estimation, synchronization, equalization, source coding, channel coding, and signal processing at RF, infrared, and optical (e.g., laser) carrier frequencies. Acoustic communications is part of the Sonar and Undersea Systems technical area. There will be some overlap with the Electro-optic and Infrared Systems; Avionics, Networked Sensor Management, Electronic Warfare Systems, Space Systems, and Guidance and Control Systems Technical Areas. Papers emphasizing solutions to the unique challenges presented to the communications link in each of these technical areas are welcome.

Electronic Warfare Systems
This technical area welcomes papers especially (but not limited to) in the following areas. An aerospace application is expected.
- Application of Electronic Support and Electronic Attack techniques in Electronic Warfare systems.
- Performance analysis and characterization of EW receivers.
- Digital receiver architectures, technologies and algorithms.
- Measurement and estimation of radar and communications signal parameters.
- Detection techniques of Low-Probability-of-Intercept (LPI) signals.
- Passive direction-finding and geo-location techniques.

Electro-Optic and Infrared Systems
This area welcomes novel papers covering the design of hardware components and data processing to realize systems that passively or actively collect measurements using electromagnetic radiation in the optical through infra-red region of the spectrum. Such technologies include:
- Broadband imagers,
- Multi/hyperspectral imagers,
- Lasers, etc.

The processing to generate measurements includes:
- Target detection and/or recognition,
- MTI,
- Image registration and/or stabilization,
- Image enhancement,
- Stereo ranging, etc.

Acceptable papers will focus on the hardware and/or algorithms necessary to generate or characterize the measurements. Papers that mainly focus on the application of the measurements for specific applications such as navigation, robotics, target tracking, communications, etc., should be submitted to those technical areas.

Energy Conversion Systems
This technical area welcomes papers that address topics in (but not limited to) the following areas.
- Power Electronics
  - voltage, current, and frequency conversion
  - Electric motors and actuators
  - high performance drives and controls
- Energy storage and management
  - electrochemical (batteries)
  - electrostatic (capacitors)
  - electromagnetic (superconducting coils)
  - electromechanical (flywheel)
- Power generation
- photovoltaic
- radioisotope
- electrostatic
- fuel cell
- electromechanical
- energy harvesting

- Transmission and distribution
  - power distribution architectures
  - wireless power transmission

- Power System Integrity
  - power quality
  - reliability
  - stability
  - diagnostics
  - health management

An aerospace, shipboard, or underwater system application is expected. Other applications that advance emerging technologies, or unusual applications to systems not falling within the scope of other IEEE Societies will also be considered. The treatment should address a problem specific to a particular system of interest, in contrast to a general description that merely suggests possible applications to such systems. Where there is some overlap with other areas, the manuscript's focus and emphasis on energy conversion will indicate that it might be considered in this technical area. Papers that treat topics in energy conversion or power electronics for general commercial, industrial, or utility applications should be submitted to another journal.

**Fault Tolerant Systems**

Fault-tolerance or graceful degradation is the property that enables a system to continue operating properly in the event of the failure of (or one or more faults within) some of its components. This technical area welcomes papers in the following areas:

- Redundant and seamlessly-switching systems
- Roll-forward and roll-back recovery
- Widely available systems
- Failure and fault detection/isolation
- Component and system prognostics
- Real-time fault detection
- Fault containment and robustness
- Fault-tolerant design
- Byzantine fault tolerance
- Reliability analysis
- Mean time between failure analysis
- Lifetime distributions and hazard functions of systems

An emphasis on either a direct or a potential aerospace application is expected.

**Guidance and Control Systems**

This technical area welcomes papers especially (but not limited to) in the following areas. An aerospace or underwater application is expected.

Modern guidance laws

- Modern flight control methods involving state-of-the-art estimation and control techniques
- Fusion of guidance and autopilot systems
- Spacecraft and missile integrated estimation/control
- Missile applications including national or theatre defense systems
- Vision-based guidance and navigation
- Autonomous guidance, navigation, and control (including GNSS applications)
- Spacecraft/aircraft formation flying
- Spacecraft/aircraft cooperative control
- FDIR/redundancy management systems
- Interdisciplinary flight control systems
- Control of morphing aircraft
- Spacecraft attitude and orbit determination and control systems
- Aerospace man-machine (pilot in the loop) systems
- Applications of optimization, estimation theory, identification, nonlinear filtering and smoothing, detection/tracking, and multiple model/multi-hypothesis methods

There will be some overlap with other areas, especially Aerospace related Robotic Systems (as pertaining to UAVs), Navigation, and Target Tracking and Multi-Sensor Systems, and whether a paper ought to be submitted in this technical area or another depends on its focus.

**Intelligent Systems**

This area welcomes papers on the following topics or related ones that have a strong aerospace application/component:

- Modern and novel (computerized) optimization
- Machine learning
- Knowledge representation
- Cognitive reasoning and artificial intelligence
- Game theory
- Perception and modeling

There is some overlap with other areas. If the thrust of the paper is an application area that matches one of the other technical areas of this journal, one should seriously consider submitting it there.
Navigation
This technical area welcomes papers especially (but not limited to) in the following areas.
  • GNSS design and signal generation
  • GNSS signal processing and utilization
  • Ultra-wide band (UWB) and other ground-based location technique advances
  • Inertial measuring unit development
  • Inertial navigation systems (INS)
  • GNSS-INS integration
  • Attitude, velocity and acceleration determination
  • Space-based and ground-based augmentation systems
  • Advances in estimation techniques applied to navigation
  • Availability, accuracy, reliability and integrity measures
  • Outdoor-indoor vehicular and personal navigation systems

Networked Sensor Systems
This technical area welcomes papers especially (but not limited to) in the following areas. An aerospace or undersea application is expected.
  • Integrated Sensor Management and Target Tracking
    o radar resource management and multifunction radars for multiple target tracking.
    o sensor scheduling and applications of stochastic control
    o net-centric systems and cooperative engagement.
    o Optimal trajectory design and path planning.
  • Sensor Networks
    o networks of radars, unattended ground sensor networks.
    o decentralized/distributed sensor coordination
    o game-theoretic methods in sensor network management.
    o intent and situation assessment using sensor networks.
    o joint medium access control (MAC) and sensing

There is some overlap with other areas, and whether a paper ought to be submitted in this technical area or another depends on its focus: if the manuscript's main thrust is in managing and scheduling sensor resources, it directly falls in this technical area. If a manuscript's focus is tracking or data fusion alone, or detection and estimation then authors may wish to consider submitting it to Target Tracking and Multi-sensor systems, or Sonar and Undersea Systems.

Radar Systems
In the area of radar systems we welcome technical papers emphasizing the following themes with representative examples for each theme.
  • Radar Waveforms:
    o ambiguity function analysis for monostatic, bistatic, MIMO and multistatic radars
    o radar waveform design
    o coding and modulation techniques for radar waveforms
    o target adaptive waveform design
  • Radar Phenomenology
    o statistical characterization of radar clutter
    o bistatic, multistatic, and MIMO radar clutter models
    o physics based models
    o measured data analysis
  • Radar Signal Processing for Gaussian and non-Gaussian environments
    o optimal and adaptive radar signal processing theory
    o sample support issues in adaptive radar signal processing
    o CFAR
    o computational cost and robustness
    o performance bounds (e.g., signal-to-noise-ratio, Kullback-Leibler distance, Cramer-Rao bound)
    o hardware implementation
    o architectures (e.g., KASSPER)
  • Waveform Diversity
    o distributed and netted radar signal processing
    o bistatic and multi-static radar signal processing
  • MIMO radar signal processing
    o target adaptive matched filtering
    o joint adaptivity on transmit and receive
    o cognitive radar
    o knowledge aided radar signal processing
    o tomography based signal processing

Papers can represent theoretical/mathematical, system, or experimental advances in the state-of-the-art pertaining to radar technology for a wide range of military and civilian applications. Examples include (but are not limited to) airborne, space based, ground based, and ship borne radars in surveillance, building penetration, and ground penetration modes.

Robotic Systems
This technical area welcomes papers especially (but not limited to) in the following areas. An aerospace application is expected.
  • Unmanned Aerial Vehicle (UAV) Flight Systems
  • UAV flight control (specific to UAVs, not just "autopilots")
  • UAV interactions (see-and-avoid/docking/in-flight refueling/in-flight coordination) with:
o other UAVs
o manned aircraft/spacecraft
o the physical environment
o microrobotic flight systems

* Micro air vehicles
  o indoor operations
  o obstacle avoidance

* UAV navigation (not navigation systems in general, but topics that are specific to UAV issues in terms of size and mission (e.g., "indoor operations")
* UAV-specific sensors (for example, not radar in general, but things like "smart skins", self diagnostics, self repair)
* UAV Autonomy
  o onboard intelligence
  o intelligent UAV behaviors

There is some overlap with other areas, and whether a paper ought to be submitted in this technical area or another depends on its focus: if the manuscript's main thrust is the UAV system itself, it might be considered in this technical area. If a manuscript's focus is on navigation algorithms or control algorithms in general, or the sensing modality/technology or on sensor management, its authors may wish to consider submitting it to another AES topical editor.

**Signal Processing in Aerospace Systems**
This technical area welcomes papers especially (but not limited to) in the following areas. An aerospace or remote sensing application is expected.

- Detection and estimation systems
- Signal representation (sparse, frequency, scale)
- Sampling, filtering and reconstruction of signals
- Adaptive techniques and automated learning systems

This technical area has substantial overlap with many (or even most) other technical areas. If a submission has a clear application to one of these, it should be submitted to that technical area. On the other hand, authors whose signal processing research could be applied to multiple technical areas should consider submission to this one. Note that the relationship to application areas of interest to our Transactions must be made clear in the submitted manuscript; manuscripts that are purely of theoretical interest should be submitted to other publications.

**Sonar and Undersea Systems**
This technical area welcomes papers especially (but not limited to) in the following areas.

- Applications of detection and estimation theory to active and passive
- sonar systems
- Underwater acoustic communications
- Multiple target tracking algorithms, including track initialization
- and track management algorithms.
- Multiple sensor data fusion algorithms, especially those with sonar
- applications such as multistatic active sonar.

There will be some overlap with other areas, especially Target Tracking and Multi-Sensor Systems (for tracking and/or fusion), with Radar (for detection and signal processing) and with Command, Control and Communications Systems (for acoustic communications). Our experience has been that it is relatively simple to determine if the paper treats a topic at a higher level and can be applied to an undersea system, versus a paper whose focus is intimately tied to the underwater application.

**Space Systems**
This technical area welcomes papers focused on the following topics related to *Space Systems*:

- Missions (manned, unmanned, satellite and ISS-based)
- Design
- Technology
- Development
- Experimental tests
- Operations
- Applications and services.

In particular, coverage of (but not limited to) the following items is of particular interest:

- Launchers
- Spacecrafts
- Constellations
- Formation Flying
- Payloads
- On-board electronic and mechanical sub-systems, antennas and materials
- Ground segment (terminals, control segment, networking)
- Integration with terrestrial systems
- Integration of services (communications, navigation, earth observation).

There is a limited overlap with navigation and radar areas. However, we would expect that algorithm and data based manuscripts would be submitted in the specific areas while contributions where the system or the service is mainly dealt with will apply to the Space Systems area.

**Target Tracking and Multi-Sensor Systems**
This technical area welcomes papers especially (but not limited to) in the following areas. An aerospace or undersea application is expected.

- Multi-Target Tracking
  o techniques to deal with measurement-origin uncertainty (MHT, PDA, assignment)
- kinematic tracking (Kalman techniques, alpha-beta, etc.)
- nonlinear filtering (particle filtering, UKF, etc.)
- automatic track management
- joint tracking and identification
- track-before-detect

• Multi-Sensor Systems
  - data fusion
  - bistatic and multi-static systems
  - decentralized/distributed detection
  - decentralized/distributed estimation

There is some overlap with other areas, and whether a paper ought to be submitted in this technical area or another depends on its focus: if the manuscript's main thrust is tracking or fusion it might be considered in this technical area. If a manuscript's focus is on the sensing modality/technology or on sensor management, its authors may wish to consider submitting it to Sonar Systems, to Radar Systems, to Electro-Optic and Infrared Systems or to Networked Sensor Management.

1. **Objective.** The *IEEE Transactions on Aerospace and Electronic (T-AES)* publishes articles with aerospace or related applications. The areas of interest are naturally quite wide, and include space, avionics, guidance & control, navigation, power conversion systems, command & control, target tracking, and radar systems. Ideas associated with aerospace and electronic systems have wide applicability, hence other topics include intelligent & fault-tolerant systems, multi-sensor systems, electro-optic and infrared sensing, sensor network management, large-scale systems and systems-of-systems, and sonar. Technical areas of the T-AES will be maintained to reflect these areas of interest. New technical areas may arise as society interest evolves.

2. **Positions and Responsibilities.**

   a. **Vice President of Publications (VP-Pubs).** The VP-Pubs is elected by the Board of Governors of the AES Society, and serves at the pleasure of the Board of Governors. The VP-Pubs has responsibility over the T-AES, the IEEE Aerospace and Electronic “Systems” Magazine, and also the “Tutorials” issues from the Magazine. The VP-Pubs has overall authority over these publications and the associated editorial processes. The VP-Pubs may appoint an Associate VP-Pubs as deemed necessary.

   b. **Associate VP-Pubs.** The Associate VP-Pubs is appointed by the President of the AES Society in conjunction with the VP-Pubs and serves at the pleasure of the Board of Governors. The Associate VP-Pubs serves as the VP-Pubs in roles designed by the VP-Pubs.

   c. **Business Editor.** The Business Editor is appointed by the VP-Pubs. The Business Editor’s primary responsibility is to collect voluntary and mandatory page charges from authors, and for monitoring payment. This is typically accomplished via letter to the authors and their organization. Business Editor is responsible for notifying the EiC for non-payment of mandatory page charges. Note that Business Editor does not have authority to collect payments – this lies with IEEE.

   d. **Editor-In-Chief (EiC).** The EiC is responsible for the day-to-day editorial operations of the T-AES. The EiC is responsible for identifying and maintaining the appropriate technical areas of T-AES. Editorial operations primarily relate to the timely review of manuscripts submitted to the T-AES. The EiC will consult with the VP-Pubs on extraordinary issues. The EiC and the VP-Pubs consult on strategic vision for the T-AES.

   e. **Associate Editor-In-Chief.** The EiC may appoint one or more Associate EiC’s. Associate EiC serves in roles of the EiC as designed by EiC. The EiC consults with the associate EiC’s on strategic and extraordinary issues. Generally, an Associate EiC will also be a Technical Editor for T-AES.

   f. **Administrative Editor.** The Administrative Editor is responsible for manuscript post acceptance handling, and subsequent publication. This includes management of copy-editing, typesetting, assembly of complete issues of T-AES, and delivery to IEEE of properly meta-tagged and indexed manuscripts. The Administrative Editor also provides the AES webmaster with current and upcoming content in a suitable form for online posting at the AES website. In order to facilitate the selection of the article for the M. Barry Carlton award, the Administrative Editor provides a table of articles published in the latest volume and include the managing AE of each manuscript in the table. The table is provided upon at distribution of the final issue of the latest volume.

   g. **Technical Editor (TE).** Each Technical Area of T-AES is managed by a TE, who is directly responsible for all manuscripts submitted to that area. Manuscripts are assigned to an Associate Editor (AE) who directly manages their review. TEs will also serve in the role of an AE in their area of expertise and assign manuscripts to themselves for review.

   h. **Associate Editor (AE).** Each manuscript submitted to the T-AES is assigned to an AE. The AE assigns reviewers and assures that these referees deliver their reviews in a timely fashion. The AE delivers the ultimate decision (accept/reject/revise) on each manuscript. Unless AE is also the TE, the AE is responsible to the TE of their technical area.

   i. **Guest Editor.** A Guest Editor functions as an AE and is appointed by the EiC to handle the manuscript reviews of articles for a special section of the transactions. The Guest Editor works closely with the TE for the technical area of the special section to deliver the ultimate decision (accept/reject/revise) on each manuscript. The appointment of the Guest Editor ends upon publication of the special section.

3. **Appointment of Editors.** TEs are appointed by the EiC. In consultation with the associated TE, AEs are appointed by the EiC. While the VP-Pubs has ultimate authority over the selection of AEs and TEs, it is expected that in most cases that the VP-Pubs will delegate this authority to the EiC. Appointments are made based on publication record, familiarity with the subject area, prior relationship and contribution to the AES community and recommendations from relevant experts. Publication record must include multiple articles in peer reviewed journals and publication standards similar to T-AES. Familiarity of the subject area and prior relationship to the AES community is best demonstrated by quality reviews of articles for T-AES. The VP-Pubs and Administrative Editors are informed by the EiC of each appointment, and the information at [http://www.ieee-aes.org](http://www.ieee-aes.org) is updated. This is accomplished by a signed letter to the newly appointed editor with copies to VP-Pubs, Administrative Editor, and AES Society web master, and TE, for AE appointments. Each editor’s performance (acceptance rate, timeliness, etc.) is continuously reviewed by the TE and EiC. The EiC is appointed at the pleasure of the VP-Pubs – normally for a term of six years, beginning in January.

4. **Contributions.**

   a. **Manuscripts.** Manuscripts may be in the form of regular papers or correspondence. The distinction between regular papers and correspondence is not one of quality, but of scope. Regular papers are to be a well-rounded treatment of a problem area, while a correspondence item makes one or two points concisely. In regular papers, the title, abstract, and introduction should be sufficiently informative to illuminate the essence of the manuscript to the broadest possible audience and to place the contributions in context with related work. The body of the manuscript should be understandable without undue effort by its intended audience. Correspondence items should be less discursive but equally lucid.

   b. **Letters.** A new publication format is the Letter, designed for rapid publication of material that may require or deserve it. A Letter must be submitted as such on the website, both as regards publication type (Regular, Correspondence or Letter) and as regards chosen Technical Area (“Letter” as opposed to “Radar” or “Energy Conversion Systems”). This latter ensures that a manuscript so designated will be managed by a special “Letters” Technical Editor (as of this writing this is Uwe Hanebeck). A Letter must be submitted as it will be published: no more than 4 pages double-column and single-spaced. Letters must (i) submit in this format; (ii) be either rejected or accepted with only minor revision; (iii) contain material that clearly and demonstrably would benefit from rapid publication; and (iv) be accompanied by an author’s willingness to accept mandatory page charges of $230 per page, payable after publication. In return for these requirements, an accepted Letter will appear in the next issue – it is placed at the head of the publication queue.
c. **Special Sections.** Due to the quarterly publication rate and number of pages per issue, T-AES does not entertain proposals for special issues. However, proposals for special sections of T-AES are considered. Proposals should give the guest editor with biographical information, the motivation for the special section, a general call for contributed papers to the special section, a candidate list of papers with authors for direct invitation, and a schedule for delivery and review of the papers for the special section. The publication date of the special section is not set until all of the manuscripts have been delivered for typesetting. All manuscripts for a special section must meet the same peer review standards as regular submissions. Information about special sections will be posted at [http://www.ieee-aes.org](http://www.ieee-aes.org) so that interested guest editors can clearly understand the T-AES policies.

d. **Conferences Articles.** While direct submission of a conference paper by its author to T-AES is not acceptable, submission of an appropriately enhanced version of the manuscript is acceptable. It is necessary that both the manuscript cites the conference publication and discusses the enhancement.

e. **Page Charges.** Beginning with manuscripts first submitted (as opposed to a revised manuscript carrying an “R” in its numerical manuscript designation) after November 1st of 2010, there will be mandatory page charges collected. As of this writing these will be $200 per page beyond 6 for a correspondence item and $200 per page beyond 10 for a regular paper. (As mentioned in section 4b, page charges of $250 per page for each Letter page are mandatory.) To signal the author’s understanding of these charges, an electronic initialing procedure has been added to the submission process; and now a second “supporting document” of a single-spaced and double-column version of the manuscript must be uploaded prior to a review – this is intended to give an author a good faith estimate of the eventual page charges that will be owed, but it is not intended to represent them exactly. Page charges will be collected by the Business Editor following appearance of the article. Failure to pay will result in the non-appearance of future AES Transactions contributions by any and all delinquent authors up to the time the charges are paid. Voluntary page charges are still welcome and will be requested by the Business Editor.

5. **Review Process of Manuscripts.**

a. **Submission of Manuscripts.**

i. **Method.** All manuscripts are submitted electronically for peer review at [http://tu.esmsubmit.net](http://tu.esmsubmit.net). All submissions, peer reviews, and editorial decision are archived by EJPress as part of the web-based review service.

ii. **Previous Submissions.** If a manuscript is substantially similar to any previous journal submission by the same authors, its history and some explanation must be provided. If a manuscript was previously reviewed and rejected by a different journal, the authors must be willing to provide to the AE and TE of their copies of all correspondence involving the earlier submission, if that is requested. In addition, the authors must be prepared to explain the reasons why it has been re-submitted and be prepared to deliver further material that would include corrections, such as rewrites, if more is requested. Such reasons for re-submission would include improvements in the publication scheme, and obtaining an enhancement of the previous manuscript, and also cogent and justified disagreement with the previous editorial decision. Failure to comply with these requirements will result in immediate rejection of the manuscript and may include further sanctions or prohibitions. Note that this applies to journal submissions, while previous publication as a conference paper is addressed in 4d.

b. **Prevention of Inappropriate Disclosure of Manuscripts.** Editors and referees for the T-AES are advised that manuscripts under review are for review of that manuscript only and the manuscripts should not be forwarded to anyone outside the editorial board. Editors and referees for the T-AES are advised that manuscripts under review are for review of that manuscript only and the manuscripts should not be forwarded to anyone not directly involved in the evaluation of the manuscript. Editors and volunteers involved in other IEEE publications shall not abuse access privileges to obtain confidential information, particularly about the review results of their own papers. All information relating to any editor’s manuscript (especially reviewer identities) are redacted within the EJPress web-based review process: Even the EiC does not have privileges to see reviewers of their manuscripts. Intentional unauthorized access to confidential information of T-AES article shall be considered an act of misconduct, and suspected misuse of access will be reported to the VP-Pubs and to the PSB Chair.

c. **Quality Control.** Upon submission, a manuscript enters a “QC” phase managed presently by the EiC. This includes, among other things (i) checking that the manuscript is formatted reasonably; (ii) checking that the manuscript is ethically appropriate; (iii) checking that the manuscript’s scope – both technical and quality – are appropriate for the AES Transactions; (iv) changing the technical area and technical editor, if necessary; (v) checking that all authors are included on the website; (vi) checking that all authors’ emails are correct, so that news of the manuscript’s dispensation is delivered to all; (vii) managing duplicate accounts via the “merge person” feature; and (viii) assuring that a detailed response to the previous review is entered for all revised manuscripts, and that this is entered as a “rebuttal letter” (a “cover letter” is invisible to reviewers). The EiC does not claim that no errors nor problems will persist after the QC phase, only that a good-faith attempt will be made to catch them.

d. **Assignment of Editors to Manuscripts.**

i. **General Submissions.** Manuscripts are assigned to TE’s based on the corresponding author’s choice of technical area. The TE decides on an appropriate AE based on familiarity with the area, current workload and any known relationships of the authors to the AEs. In general, AEs are not to handle manuscripts of authors who are employed by the same organization. Exceptions to this rule are made upon the TE’s consultant with the EiC as documented in the electronic review records. If the “Other” technical area is chosen, the EiC will select the appropriate TE. Within reason, an author has the right to make a request that certain TE’s and/or AE’s not be involved in the review of their manuscript.

ii. **Submission of manuscripts by members of editorial board.** Associate EiC’s, TE’s and AE’s may submit manuscripts to the Transactions; and if they do so, these must be submitted to the “Other” technical area. The EiC will assign an appropriate AE or manage the review him/herself. The EiC also may submit manuscripts to T-AES. The VP-Pubs or Associate VP-Pubs must manage the review of the EiC’s submissions. All information relating to any editor’s manuscript (especially reviewer identities) are redacted automatically within the web-based review process: Even the EiC does not have privileges to see reviewers of their manuscripts.

e. **Assignment of Reviewers.** The basis for the decision to request a review from a particular referee are the familiarity with the subject of a manuscript, apparent workload, demonstrated expertise, and past reviewing performance. An author has the opportunity to suggest referees. While the AE managing the manuscript may (or may not) ask some of these for a review, it is expected that other referees will be included in the review of the manuscript. Within reason as judged by the AE, an author has the right to make a request that certain referees not be involved in the review of his/her manuscript; the AE will consider this recommendation but is not bound by it. Ideally, each manuscript will have four anonymous reviews.

f. **Publication Decisions.** Decisions are made by the AE. Normally the decision will be based on the reviews, but the AE has the ultimate and absolute authority. An accepted manuscript may be designated as a “regular” or “correspondence” item: the choice is a matter of scope and depth of treatment, rather than of quality. A “letter” can only be considered as a letter, and no decision is possible save “accept/minor” or “reject” – there is no second round of review for a letter, although one may be resubmitted. In the case of an article that is obviously out-of-scope or of insufficient quality, an AE can make a summary decision. In appropriate cases three anonymous reviews are necessary for a manuscript to be accepted for publication. IEEE Policy mandates that any accepted paper must have had at least two disinterested referees. For T-AES, manuscripts will be accepted with two anonymous reviews of high quality.
review is judged to be of high quality if the referee indicates a high level of confidence in their review and the comments of both reviewers demonstrate that a thorough review of the manuscript has been conducted. The acceptance of a manuscript with two anonymous reviews of high quality will be made in consultation with the EiC as documented in the electronic review system. There is no IEEE or AESS requirement regarding the number of referees needed to issue a “reject” decision.

g. Distribution of Publication Decisions. The current practice is that all reviewers be informed (by blind email) of the decision in which they have participated, and that this communication will include comments from all (other) responding reviewers. In rare cases reviewers do make comments that are inappropriate (irrelevant, scurrilous or even ad-hominem); the Transactions will never modify nor censor these comments. Instead, an AE observing such an exchange will be expected to offer his/her interpretation of what is relevant and what is not. (Please see section 6c: “Referee Misconduct.”)

h. Appeal of Publication Decision. An author may dispute a publication decision by an AE. It is expected that an initial complaint be made to the appropriate AE and TE. If the author remains unsatisfied by the response, he/she may continue to the appeal to the EiC, then to the VP. Unless the EiC or VP handles the complaint, the final decision concerning publication remains with the original AE.

6. Ethics Complaints

a. Plagiarism.
   i. **Making a Complaint.** Claims of plagiarism are made simultaneously to the EiC and the VP. The complaints are made in writing and to include the name(s) of the plagiarist(s), citation information of the relevant articles, and a clear description of the plagiarism.
   
   ii. **Management of Review.** The EiC handles all complaints of plagiarism according to the prevailing guidelines set forth in the Operations Manual of the IEEE Publications Services and Products Board (PSPB). The EiC will employ an anonymous peer review panel to assist in the assessment of the plagiarism complaint. If the EiC is declared to be in a conflict of interest situation, the VP handles the plagiarism complaint. The identity of the complainant will be kept anonymous if this is feasible, and the target of the complaint will be given an opportunity to answer the complaint.
   
   iii. **Definition.** Manuscripts that are found to have been plagiarized from others, or that contain a crossover of more than 25% with another journal manuscript by the same authors will incur sanctions by the Aerospace and Electronic Systems Society. Author reuse of material from an acknowledged conference paper is not considered plagiarism.

b. Editorial Misconduct.
   i. **Making a Complaint.** Claims of editorial misconduct are made simultaneously to the EiC and the VP. The complaint is made in writing and must include the name of the editor in question, citation information of the relevant articles, and a clear description of the misconduct.
   
   ii. **Management of Review.** The EiC handles all complaints of editorial misconduct according to the prevailing guidelines set forth in the Operations Manual of the IEEE PSPB. If the EiC is declared to be in a conflict of interest situation, the VP handles the complaint of editorial misconduct. The identity of the complainant will be kept anonymous and the target of the complaint will be given an opportunity to answer the complaint.
   
   iii. **Sanctions.** Sanctions for editorial misconduct range from reversal of an editorial decision to removal of the editor from their position. The EiC in conjunction with the VP establishes the appropriate sanction.

b. Referee Misconduct.
   i. **Making a Complaint.** A claim of referee misconduct is made simultaneously to the EiC and the TE and AE for the relevant manuscript. The complaint is made in writing and to include name of the referee (or reviewer number and manuscript number for an anonymous referee) in question, title of the manuscript with the name of the authors, and a clear description of the misconduct.
   
   ii. **Management of Review.** As designated by the EiC, the AE, TE, or EiC handles the complaint of referee misconduct according to the prevailing guidelines set forth in the Operations Manual of the IEEE PSPB. If the EiC is declared to be in a conflict of interest situation, an associate EiC or VP handles the complaint of referee misconduct. The identity of the complainant will be kept anonymous and the target of the complaint will be given an opportunity to answer the complaint.
   
   iii. **Sanctions.** Sanctions for referee misconduct range from a prohibition of the individual in question from serving as a referee for the T-AES to a prohibition of the referee from submission of articles for review to T-AES. The sanctions can include (1) immediate rejection of all authored manuscripts by the referee to any of the Society's publications (journals, conferences, workshops); and (3) prohibition against the author for any new submissions, either individually, in combination with the authors of the plagiarizing manuscript, as well as in combination with new co-authors, to ALL of the Society's publications (journals, conferences, workshops). The prohibition shall continue for two years from notice of suspension. A statement of plagiarism as defined in the Operation Manual of the IEEE PSPB will be posted with all previously published articles that are found to include plagiarism. The EiC is responsible for notifying the Chair of the IEEE PSPB of a finding of plagiarism.

c. Author Misconduct.
   i. **Making a Complaint.** A claim of author misconduct is made simultaneously to the EiC and the TE and AE for the relevant manuscript. The complaint is made in writing and to include name of the author in question, title of the manuscript with the name of the authors, and a clear description of the misconduct.
   
   ii. **Management of Review.** As designated by the EiC, the AE, TE, or EiC handles the complaint of author misconduct according to the prevailing guidelines set forth in the Operations Manual of the IEEE PSPB. If the EiC is declared to be in a conflict of interest situation, an associate EiC or VP handles the complaint of author misconduct. The identity of the complainant will be kept anonymous and the target of the complaint will be given an opportunity to answer the complaint.
   
   iii. **Sanctions.** Sanctions for referee misconduct range from a prohibition of the individual in question from serving as a referee for the T-AES to a prohibition of the referee from submission of articles for review to T-AES. The sanctions can include (1) immediate rejection of all authored manuscripts by the referee to any of the Society's publications (journals, conferences, workshops); and (2) prohibition against the referee for any new submissions to ALL of the Society's publications (journals, conferences, workshops). The prohibition shall continue for two years from notice of suspension.

d. Dual Submissions.
   i. **Making a Complaint.** Claim of dual submission is made simultaneously to the EiC and the TE and AE for the manuscript of concern. The complaint is made in writing and to include names of the authors involved, the titles of the manuscripts, the journals involved with the contact information for the editors, and a brief description of the situation.
ii. **Management of Complaint.** The EiC handles all complaints of dual submissions and issues a decision on complaints of dual submissions. The EiC decisions are final.

iii. **Definition.** When a manuscript is found to be under review by two or more peer-review journals at the same time, the manuscript is declared to a dual submission.

iv. **Sanctions.** Manuscripts are withdrawn from peer review immediately and the editors of all relevant journals are notified by the EiC. In the case of an abusive situation, a prohibition will be issued against the corresponding authors for any new submissions, either individually, in combination with the authors of the dual submission, as well as in combination with new co-authors, to ALL of the Society's publications (journals, conferences, workshops). The prohibition shall continue for one year from notice of suspension.

7. **M. Barry Carlton Award**

   a. **Nominations.** The EiC issues a call for nominations near the time of the distribution of the final issue of the latest volume. The call for nominations should appear on the IEEE AES Magazine or on the IEEE AESS web site. 

   b. **Nomination Process.**
      
      i. Nominations are taken from the public in written format for six months after the final issue of the latest volume is distributed.

      ii. The T-AES Editorial Board also has responsibility for soliciting nominations. The AEs for articles published in the latest volume will identify all manuscripts identified as worthy of an award by a referee and select the best manuscript from the set of manuscripts that they handled. In order to facilitate this process, the Administrative Editor will provide a table of articles published in the latest volume and include the managing AE in the table. For each technical area, the TE in conjunction with the AEs will identify the best paper. The TE will solicit nominations for the best paper.

   c. **Selection of Awardees.** The article for the Carlton award is selected by a vote of the EiC and TEs. The vote should be preceded by an appropriate level of discussion among the editors.

   d. **Publication of Awardees.** An announcement of the winner of the Carlton award will be posted on the IEEE AES Magazine web site. The announcement will include the list of nominations with nominator, the winner of the Carlton award, and the nomination and supporting letters of the winner. A brief version of the web posting will be provided to IEEE AES Magazine for publication.

8. **Publication of Manuscripts**

   a. **Request for Manuscript Files for Publication.** After a manuscript has been recommended for publication by an AE, the Administrative Editor contacts the author for the manuscript Final Submission Package, including a completed IEEE Copyright Transfer form. The Administrative Editor maintains file preparation guidelines for the authors, audits the files submitted by the authors for completeness and works with the authors until all of the requirements of the Final Submission Package are met.

   b. **Copy Editor.** After the final manuscript files are accepted, the Administrative Editor transmits the pdf file (or hard copy) of the compiled version of the manuscript to the Copy Editor, who brings the manuscript (including correcting grammar and syntax, and standardization of equations and references), into compliance with T-AES standards. The marked up manuscript is returned to the Administrative Editor.

   c. **Typesetting.** The Administrative Editor provides the article with the improvements of the Copy Editor to the Typesetter, who creates a pdf file for early posting on IEEE Xplore and provides the pdf file to the Administrative Editor.

   d. **Distribution of an Issue.** All manuscripts are reviewed by the Administrative Editor and are reviewed for acceptance in IEEE Xplore. The administrative Editor is responsible for assigning manuscripts, editorials, and other informational items to specific issues. After the contents of an issue have been fully identified, the Administrative Editor provides a table of contents to the Typesetter for pagination and addition of each manuscript's footnotes. The Typesetter provides outside covers, inside covers, manuscripts, and other items in pdf files for posting on IEEE Xplore on a CD ROM. The Typesetter also provides a pdf file for printing the entire issue to the Administrative Editor.

   e. **Printing of Transactions Issues.** The Typesetter provides the Table of Contents for an upcoming issue to the Administrative Assistant of the IEEE AES web site.

   f. **Printing of an Issue.** Printed copies of Transactions issues are no longer distributed.

   g. **IEEE Xplore Posting.** The Typesetter is responsible for ensuring that pdf files of articles are provided to IEEE in an appropriate format for posting on IEEE Xplore.

   h. **Indexing of a Volume.** The Administrative Editor works with IEEE indexing to create the most accurate index possible.

   i. **Distribution of a Volume.** The Administrative Editor is responsible for the annual single bound volume of T-AES and distribution of the volumes as appropriate.
APPENDIX C: IEEE AES Transactions Information for Authors

The IEEE Transactions on Aerospace and Electronic Systems is a quarterly journal that publishes papers concerned with the various aspects of systems for space, air, ocean, or ground environments. The boundaries of acceptable subject matter has been intentionally left flexible so that the Transactions can follow the research activities to better meet the needs of the members of the IEEE Aerospace and Electronic Systems Society. The topics of current interest are best summarized in the titles of the editorial areas published in the inside front cover of the transactions and on our website at http://www.ieee-aess.org.

Restrictions on Publication: The IEEE Aerospace and Electronic Systems Society publishes only original material that has not been either published or submitted for publication elsewhere. However, prior publication of an abbreviated and/or preliminary form of the material in conference proceedings or digests shall not preclude publication in the Transactions when notice is made at the time of submission. In such a case, notification must be given at the time of submission to the Transactions and the relevant works should be cited within the manuscript. Concurrent submission involving other publications and these Transactions is viewed as a serious breach of ethics.

Plagiarism: The authors of a manuscript that is found to have been plagiarized from others will incur sanctions by the Aerospace and Electronic Systems Society. The following sanction will be applied for any of the above-noted infractions: (1) immediate rejection of the manuscript in question; (2) immediate withdrawal of all other submitted manuscripts by any of the authors to any of the Society's publications (journals, conferences, workshops); (3) prohibition against all of the authors for any new submissions, either individually, in combination with the authors of the plagiarizing manuscript as well as in combination with new coauthors, to ALL of the Society's publications (journals, conferences, workshops). The prohibition shall continue for at least two years from notice of suspension.

Self-Plagiarism: If a manuscript is substantially similar to any previous journal submission by any of the authors, its history and some explanation must be provided. If a manuscript was previously reviewed and rejected by a different journal, the authors shall provide to their technical editor copies of all correspondence involving the earlier submission. In addition, the authors must discuss the reasons why it has been re-submitted and be prepared to deliver further material if more is requested. Submission for review to the AES Transactions of a manuscript substantially similar to one currently under review at another journal, or subsequent submission to another journal of a manuscript currently under review at the AES Transactions both constitute self-plagiarism as the AES Society defines it. The sanctions for self-plagiarism are similar to those in force for those who plagiarize others' work. (Please see "Restrictions on Publication" for a discussion of the relationship between conference and journal publications.)

Types of Contributions: Contributions may be in the form of regular papers, correspondence items or letters. Letters are discussed in a following section. The distinction between regular papers and correspondence is not one of quality, but of nature. Regular papers are to be a well-rounded treatment of a problem area, while a correspondence item makes one or two points concisely. In regular papers, the title, abstract, and introduction should be sufficiently informative to illuminate the essence of the manuscript to the broadest possible audience and to place the contributions in context with related work. The body of the manuscript should be understandable without undue effort by its intended audience. Correspondence should be less discursive but equally lucid.

Submission of Regular or Correspondence Manuscript for Review: Authors must submit manuscripts electronically via the internet at http://aes manus.net. Each submission should include a cover letter with the names and addresses of four potential reviewers. Each manuscript should include a list of key words and title of less than nine words. Discovery of the work via a computer-assisted search should be facilitated by the title's relevance. An abstract of 75 words or less that clearly indicates the purpose and content of the paper and that includes the key words must be included as part of the manuscript. Correspondence items should include an abstract of 50 words or less. If there is reference material that is both essential for the reviewing process and unavailable to the reviewers, the authors should provide an electronic copy for the sake of expediting their review process. The manuscript should be double-spaced in a single column; aside from this, authors may wish to consult the guidelines at http://www.ieee.org/portal/pages/pubs/transactions/information.html for formatting. LaTeX users are urged to adopt the ieeetran.cls document class file in single-column draft mode. These transactions do not place limits on a submitted manuscript's length, but authors should be aware that over-long manuscripts may receive unfavorable reviews.

Letters: A Letter contains something that needs to appear very quickly: a contribution to a competitive and fast-moving subfield perhaps, or else a result that would be of immediate benefit to others if widely known. Our intention is that a Letter submission be reviewed expeditiously, and that an accepted Letter will be sent to the head of the publication queue for quick appearance. We anticipate that it will appear in the second-to-next Transactions issue in fewer than six months.

Submission of Letter for Review: Submission of a letter is in most respects similar to that of a regular or correspondence manuscript, as discussed above; an important distinction is that the "Letter" technical area must be selected at the time of submission. In format, a Letter must be short, no more than 4 pages long as published, and hence it must be submitted in single-spaced/double-column format so that we can check this. It must fit the requirements for a Letter, specifically that its expeditious publication be demonstrably important. The author must understand that there is no stage of revision: the manuscript will be either accepted as is, or else rejected - this means that the development must be clear and the language without flaw. The author must also signal his or her willingness to pay mandatory charges of $250 per printed page.

Submission of Revised Manuscript: It is often the case that reviewers have comments, suggestions and concerns about a submitted manuscript. The revised and resubmitted manuscript should address all of these, and it is strongly recommended that it be accompanied by a "Reply to Reviewers Comments" document that discusses both the comments and the modifications. In the interest of timely publication, authors must resubmit revised manuscripts within 6 months of the date the previous decision was returned. After 6 months the manuscript will be considered withdrawn, and a revision received after that date will be treated as a fresh submission.

Submission of Final Manuscript Files: After a paper or correspondence is recommended for publication, you will be contacted by the Editorial Office and given information on what is required for your Final Submission Package. Authors should be careful to ensure that any differences between the accepted manuscript and the version in Final Submission Package be clearly marked and be in accordance with instructions from the accepting associate editor.

Information for all IEEE Authors: General information for IEEE authors (in some cases superseded by specific AES Transactions instructions) is available at http://www.ieee.org/organizations/pubs/authors.html or on request from IEEE Publishing Services Administration, 445 Hoes Lane, Piscataway, New
Copyright: It is the policy of the IEEE to own the copyright to the technical contributions it publishes; authors are required to sign an IEEE copyright transfer form before publication. This form appears in this and IEEE journals from time to time and is available on the web site listed above. If a copy is not submitted with the manuscript, it will be requested upon contribution acceptance. Publication will not take place without a completed copyright form.

Page Charges: Starting with articles whose initial submission is after October 31st of 2010, publication of an accepted manuscript must be accompanied by $200 for each printed page beyond 10 (for a regular paper) and beyond 6 (for a correspondence item) - note that a Letter, as indicated above, has a mandatory charge of $250 per page in return for its expeditious appearance. Submitted manuscripts as of that date will be required in two forms: a single-column/double-spaced "draft class" for review, and a formatted double-column version providing a good-faith estimate of possible publication expense. Please note that voluntary payment of page charges beyond the mandatory is still very much appreciated, makes a difference to the financial wellbeing of the publication, and thus is a significant type of service to our Society.

Open Access: In accordance with IEEE policies regarding open access (OA) content, the AES Transactions has become a "hybrid" journal for submissions dated November 1st 2012 or later. This means that authors have the choice between the traditional publication model and an OA model. The former is the familiar procedure in which an accepted article is available on IEEEXplore to subscribers of that service. Under the OA model the author of an accepted manuscript chooses to pay a fee, such that the manuscript is posted on IEEEXplore and available, free, to all. The current OA fee is $1750 per article, and this figure is independent of manuscript type (regular, correspondence or letter). Please also note that over-length page charges will be collected regardless of which model is chosen. For any questions regarding IEEE's Open Access policy, please refer to our Frequently Asked Questions at http://www.ieee.org/documents/ieee_open_access_faq_2011.pdf.

Dislosability: The IEEE must, of necessity, assume that material submitted for publication is properly available for general dissemination to the audiences the IEEE is organized to serve. It is the responsibility of the author, not the IEEE, to determine whether disclosure of materials requires prior consent of other parties, and, if so, obtain it.
APPENDIX D: Submission Data

This chart shows the number of submissions to the AES Transactions annually. The switch from Correspondence to Regular starting 2011 probably reflects new over-length page charge policies. The 2014 bars are based on partial year data.

This chart shows the progress made in terms of time to first decision for the various article types.
This chart shows the number of submissions as a function of technical area, given as a function of year of first submission.
APPENDIX E: Post-Acceptance Workflow from Allen Press

1. Article is accepted
2. Managing Editor is notified of accepted articles by e-mail
3. Managing Editor requests final production files from author
4. Managing Editor reviews the file for completeness and chooses an issue based on first come first published
5. Directions for graphic sizing is prepared
6. Article text and tables are copyedited
7. Art is sized
8. Text is typeset and pages are laid out with graphics according to approved journal template
9. Pages are proofread for compliance with style points
10. First page proofs are prepared and delivered to the Managing Editor
11. Managing Editor send proofs to author
12. Author sends corrections to Managing Editor
13. Managing Editor transfers corrections to clean proof
14. Managing Editor submits corrections article by article to typesetter
15. Managing Editor sends revised proofs to author
16. Managing Editor prepares an issue makeup with author approved articles
   a. Article order is established
   b. Minor final corrections are included on articles
   c. Table of contents is prepared
17. Managing Editor sends the final issue makeup to the typesetter
18. Proof readers check final proofs
19. Final Files are delivered to IEEE Xplore for online publication
20. Managing Editor provides author addresses for author billing