

The logo features the word "AES" in blue with a grey swoosh above it, followed by "VISION" in black. Below this, the year "2020" is written in large, bold, black digits.

**AES VISION
2020**

Publications Smart Objectives

April 27, 2018

Renaissance Oklahoma City

Publications

3-Year Goals

- Reduce the average submission-to-publication delay for the AES Transactions to nine months
- Achieve an average submission rate of twelve articles per month for the AES Systems magazine
- Reduce the cost of the AES Systems Magazine
- Increase the contributions to AES publications from industry by two articles per month
- Increase Impact Factor of Transactions to 2.0
- Increase Impact Factor of Systems magazine to 1.0
- Increase readership (opens) of QEB by 25%
- Increase visits to IEEE AESS website by 25%
- Create a new Transactions on Radar Systems

Transactions on AES

EiC: Michael Rice

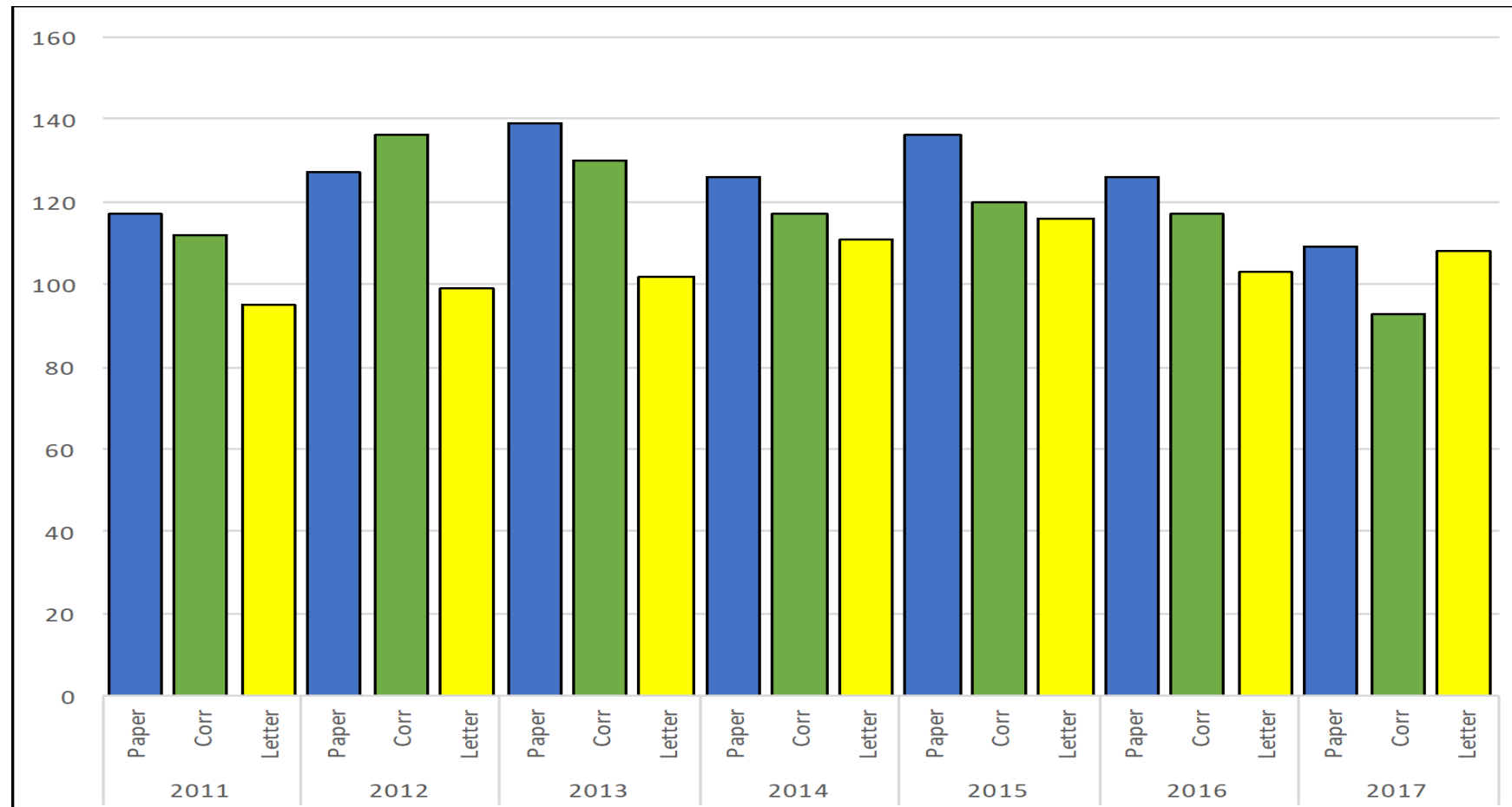
AEiCs: Stefano Coraluppi,

Piefrancesco Lombardo

Term limit

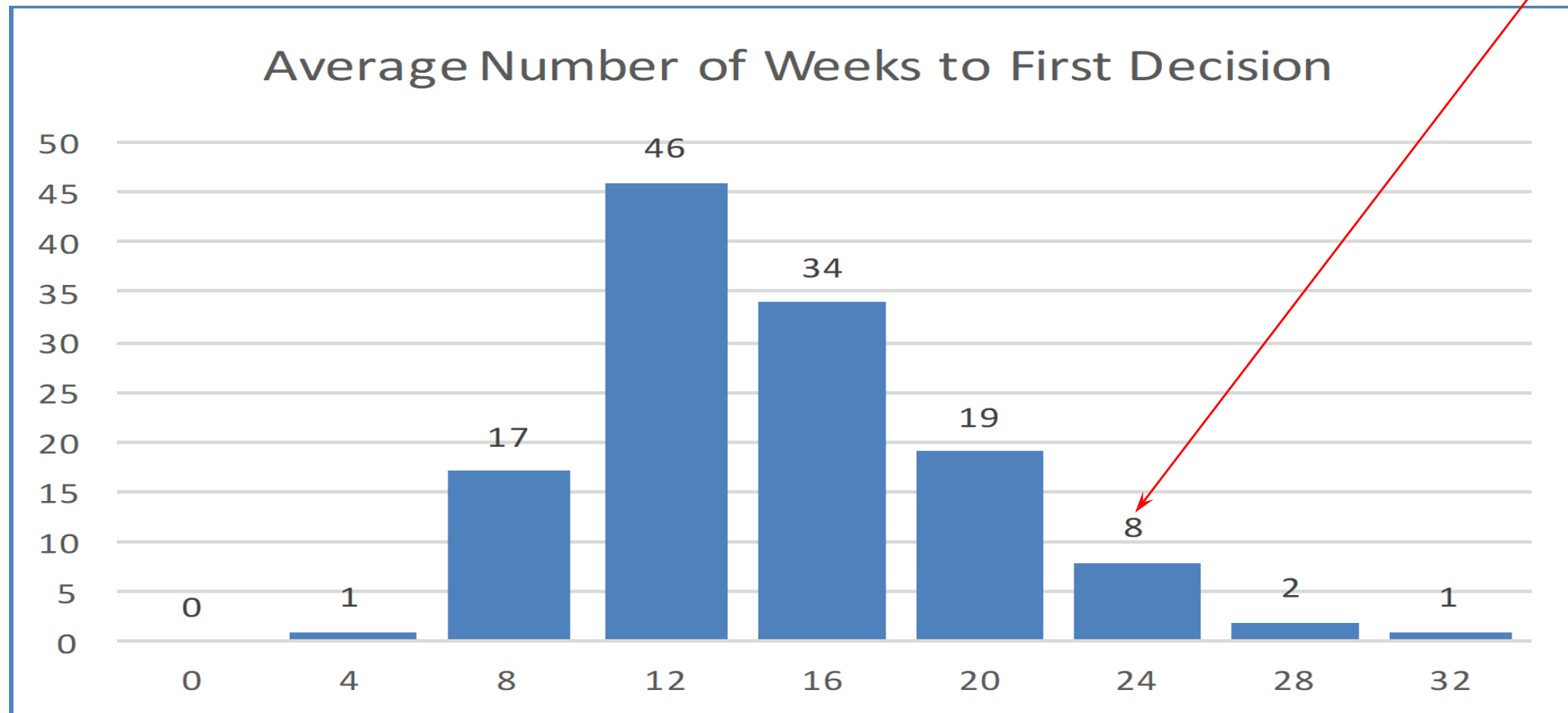
- Introduce the term limit for the Transactions AEs
- New roster
- Assigned to: Michael Rice & myself
- Reduce the average submission-to-publication time for the AES Transactions to nine months (first decision to 12 weeks)
- Time period for performance: 2018-19

Days to First Decisions for T-AES



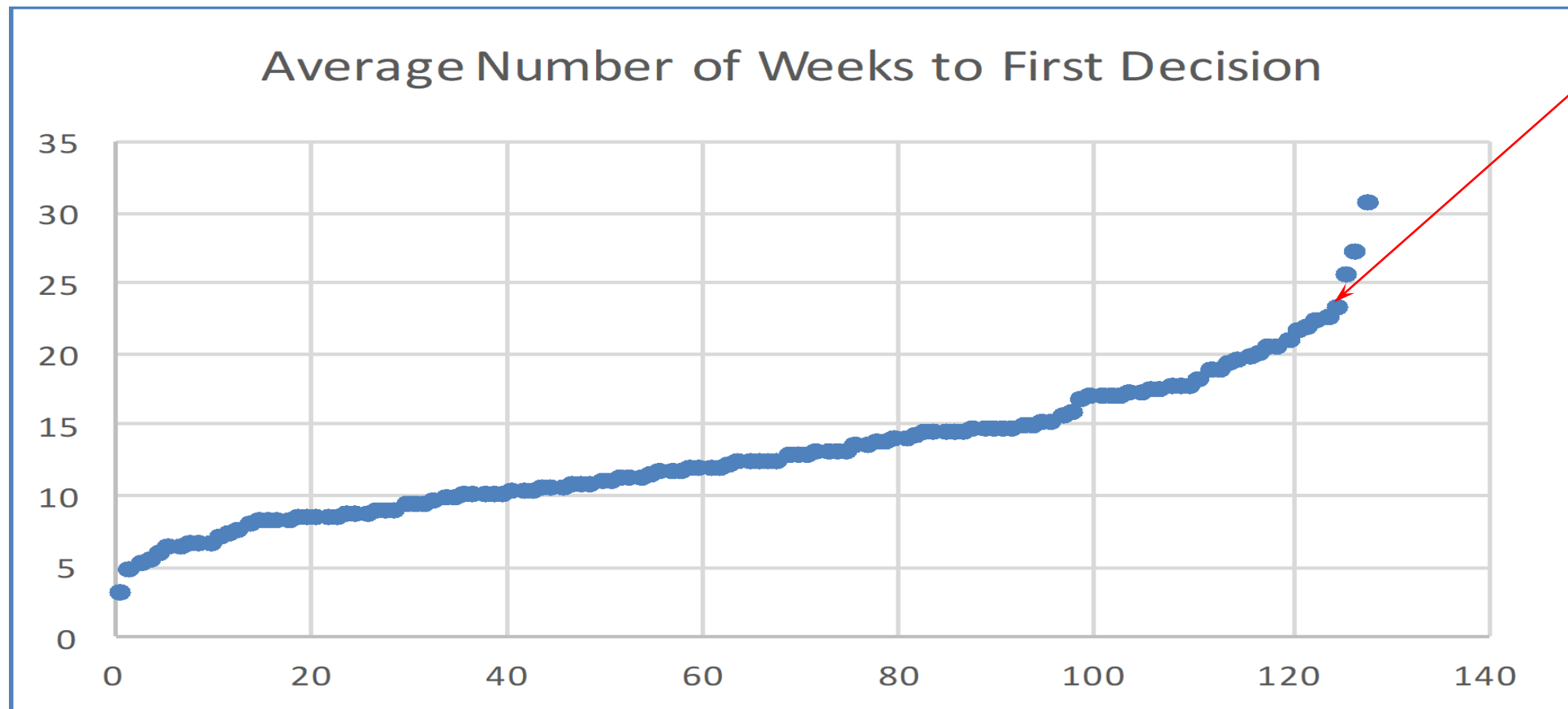
First Decision: TAES vs. IEEE

TAES = 22.9



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TAES = 22.9



- IEEE Xplore postings:
 - June 2017 issue posted on 8 June 2017
 - August 2017 issue posted on 8 Aug 2017
 - October 2017 issue posted on 10 Oct 2017
 - December 2017 issue posted on 5 Dec 2017
 - February 2018 issue posted on 7 Feb 2018
 - April 2018 issue posted on 11 April 2018
- Special Sections:
 - Spectrum Sharing Systems (27 papers)

Editors and Admin Support

- New AEiC Appointees
 - Stephano Coraluppi (TE, Target Tracking)
 - Pierfrancesco Lombardo (TE, Radar)
- New AE Appointees
 - Mahendra Mallick (Target Tracking, Jan. 2018)
 - Juan Blanch (Navigation, Feb. 2018)
 - Samer Khanafseh (Navigation, Feb. 2018)
 - Okuary Osechas (Navigation, Feb. 2018)
 - Róbert Fónod (Fault Tolerant Systems, March 2018)
 - Marcus Holzinger (Space Systems, April 2018)
 - Qinglei Hu (Space Systems, April 2018)
 - Roberto Armellin (Space Systems, April 2018)
- Conference Catalysts Support
 - Lindy Harp replaced Jamie Zink in March 2018
 - Lindy to provide admin support of final files and sending reminders to the AEs
 - Jamie Zink replaced Mehak Chopra in July 2017

Technical Editor Term Updates

- Mathieu Joerger replaced Jade Morton on 1 Jan 2018
- Kainam Thomas Wong (2nd 3-year term began on 1 Jan 2018)
- Stefano Coraluppi (2nd 3-year term began on 1 Jan 2018)
- Gokhan Inahlan replaced Sertac Karaman on 1 Jan 2018
- Jonathan Nichols replaced Heesung Kwon on 1 Jan 2018.

T-AES Page Charges Income – 2017-2018

2017

Overlength Page Charges: Actual = \$204,393

Overlength Page Charges: Budget = \$140,000

Bad Debt = \$37,599

Open access: Actual = \$ 36,666

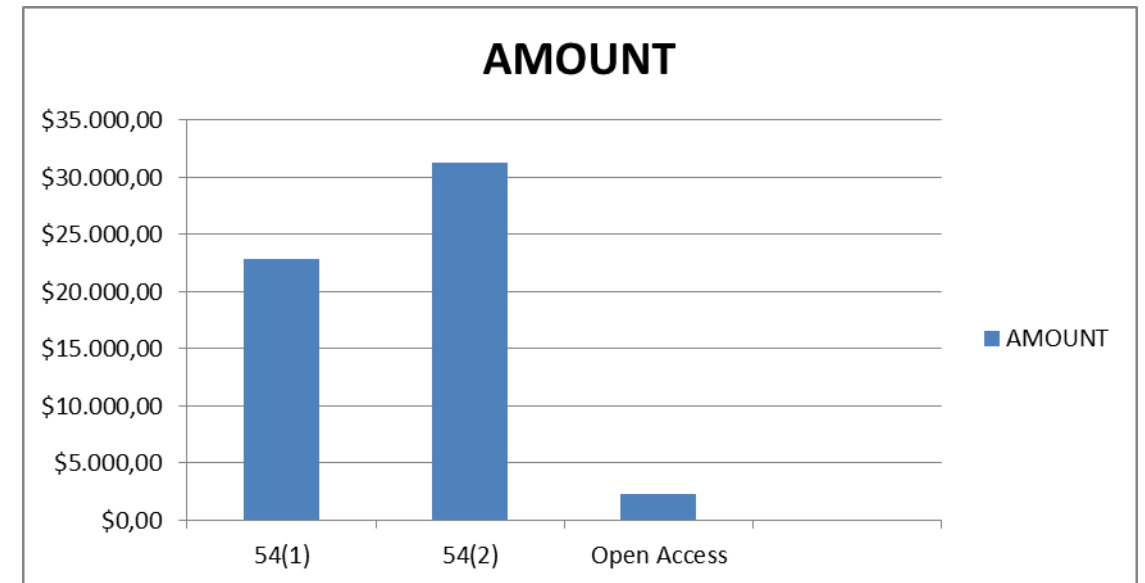
Open access: Actual = \$ 9,460

2018 (March 31)

Overlength Page Charges: Actual = \$56,300

Overlength Page Charges: Budget = \$37,000

Bad Debt = \$2,200



T-AES Page Charges Income - 2018

Volume 54, No. 1 - \$ 22,800 (open access payments not included)

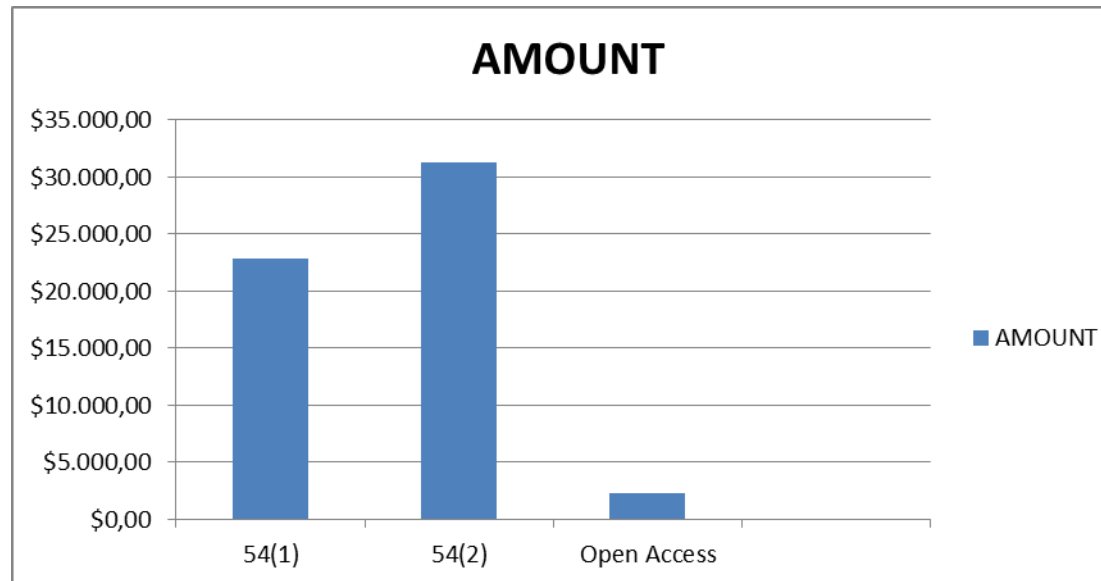
Volume 54, No. 2 - \$ 31,230 (Estimated amount based on TAB data)

2018 Total to Date = \$ 56,330

Bad Debt = \$2,200

Overlength Page Charges: Actual = \$56,300

Overlength Page Charges: Budget = \$37,000



Systems Magazine

EiC: Peter Willett

AEiC: David Crouse

Cost efficiency of the Magazine

- Review all the expense sources for the Magazine.
- It depends on the outcomes of the review.
 - Possible bimonthly publication (12 to 6 with similar annual page budget).
 - New contract with Allen Press or new vendor
 - Over length charge
 - Advertisement
- Assigned to: Peter Willett & myself
- **Reduce the cost of the AES Systems Magazine**
- Time period for performance: 2018-2019

Issue: Turnover

- unfortunately Bill & Susanne Walsh are no longer involved with AESS, and their loss is keenly felt in Publications
 - Bill helped out the Magazine and Transactions with business matters
 - tracked costs, budgets and income
 - led re-bid contracting and proposal efforts
 - the VP Pubs will need to take the lead now, with help from EICs and VP Finances
 - Susanne helped out the Magazine with administrative matters
 - Conference Catalysts has taken over administrative editor responsibilities (April 1st)
 - temporarily this is Judy Scharmann

Issue: Advertising

- Bill Walsh arranged a lunchtime meeting in Orlando in February 2018 with Mark David, who heads IEEE advertising. Judy was also able to attend.
- IEEE recently “farmed out” all their advertising work to GlobalSpec
 - Albany subsidiary of IEEE
 - there are about 40 "reps" in GlobalSpec
 - aside from Mark David, everyone previously dealing with us at IEEE is gone
- IEEE has underperformed with respect to AESS Magazine.
 - Mark agrees that our aerospace & industry flavor ought to go over well with deep-pocketed advertisers
 - not clear that GlobalSpec is thinking much about us right now
 - need to “telemet” to get us acquainted
 - we attempted to get this to happen and followed up
 - unfortunately so far there has been little result
- not much concern about changing the look-and-feel of the magazine
- would be good to link print ads with QEB & website ads
- Allen Press does offer an advertising service
 - it may be a good idea to seek that as part of our next round of bids

Issue: New Contract with Vendor

- costs associated with the Magazine have been reduced sharply over the last 5 years
 - well in excess of \$400k per year under previous vendors
 - well under \$300k per year under Allen Press in 2014
- *Systems* is the only physical product that is actually given to our members in return for their membership
 - by mail, in their hands, once per month
 - steadily improving product, many special issues, backlog
- authors increasingly submitting to *Systems* because what they write is actually read by several thousand (influential) people
- if options other than monthly are to be explored, this year is the time to consider them
 - last year of 3-year Allen Press contract, hence re-bid due
 - bimonthly? lighter paper?

1. Navigation and Positioning Systems

1. GEs: Michael Braasch, Andrew Dempster
2. August 2017, 5 published papers

2. HF surface wave and skywave radars

1. GEs: Dan O'Hagan, Joe Fabrizio, Gordon Frazer, Stuart Anderson
2. Planned December 2017+March 2018 (12 papers)

3. Cyber Security in Aerospace Systems

1. GEs: Kathleen Kramer, Erik Theunissen, Bill Walsh
2. Planned November 2017+February 2018 (5 papers)

4. Integrated Navigation, Sensing and Communications for Solving Problems in Society

1. GEs: Leo Ligthart and Marina Ruggieri
2. Planned April+May 2018 (double-bound issue)

5. Metrology for Aerospace Systems

1. GEs: P. Daponte, Stefano Debei, Maria Riccio
2. Planned August 2018 (4 accepted papers)

6. Exploration Mission-1 and Deep Scale CubeSats (delayed deadline September 2018)

1. GEs: Faramaz Davarian, Yang Gao, Peter Kinman
2. Planned February 2019, probably pushed back

7. Selected Methods and Techniques for Intelligent Systems for Space (deadline July 2018)

1. GEs: Maria Moreno, Brian Duncan, Larry Bergman
2. Planned Spring 2019

8. Wireless Sensor Networks and Remote Sensing for Environmental Applications (deadline September 2018)

1. GEs: Olfa Kanoun, Marco Carminati, Salvo Marcuccio, Silvia Ullo
2. Planned Spring 2019

Special issues for AES-M

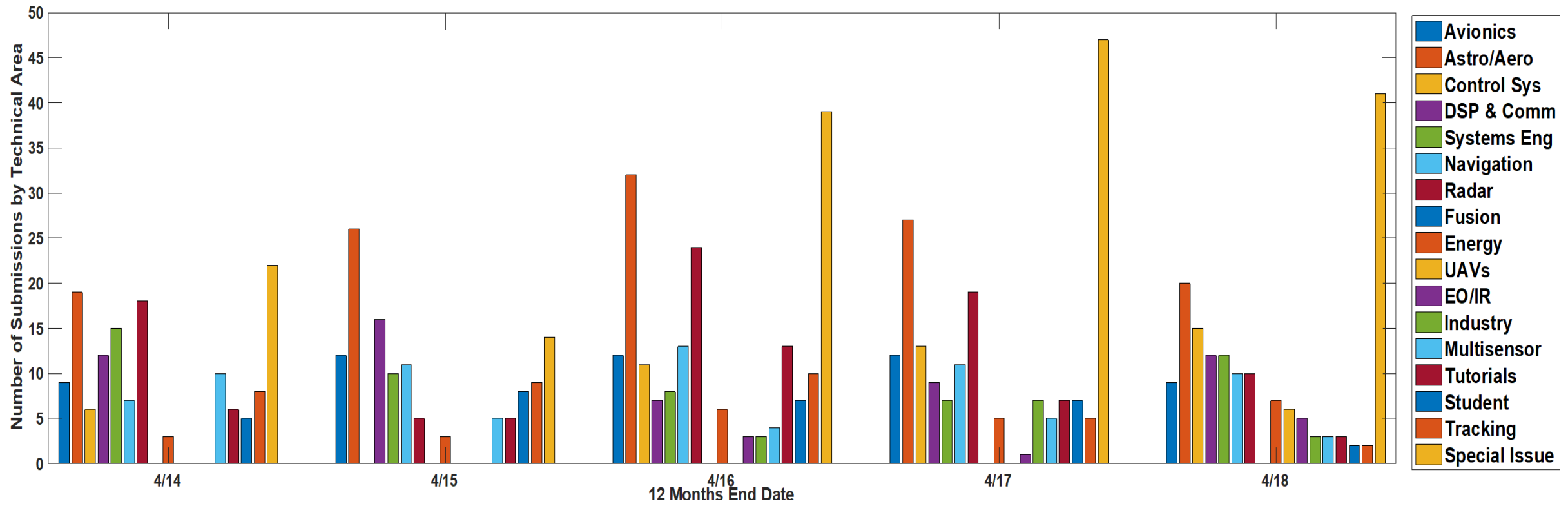
9. Cognitive Radars (deadline January 2019)

1. GEs: Stefan Brüggewirth, Albert Huizing, Alexander B. Charlish
2. Planned mid-2019

10. Security Technology (expressed interest)

1. GEs: Gordon Thomas, Javier Ortega-Garcia
2. Planned 2019

Proportion of Submitted Papers Per Area (2013-18) – AES-M



We seem to be getting a good balance of papers from the various technical areas.

AESS QEB

EiC: Fabiola Colone

Adm Ed: Judy Scharmann

QEB contents

- Improve contents of QEB.
- New column for Young Professionals and/or Industry members
- Assigned to: F. Colone & myself
- **Increase readership (opens) of QEB by 25%**
- Time period for performance: 2018

QEB Opens

Campaign Name	# Sent to	# Opened Email	% opened	# Bounced	# Unsubscribed	# Unique Clickers
AES Newsletter 3rd Qtr 2015 - 090315	4288	1326	31%	76	2	177
Dec 2015 newsletter was not sent						
AES Newsletter 1st Qtr 2016 010416	4387	1439	33%	77	2	17
AES Newsletter 2nd Qtr 2016 040516	3831	1260	33%	8	1	177
AES Newsletter 3rd Qtr 2016 070616	4120	1313	32%	56	3	120
AES Newsletter 4th Qtr 2016 100316	4261	1291	30%	61	1	126
AES Newsletter 1st Qtr 2017 010317	4332	1467	34%	60	4	166
AES Newsletter 2nd Qtr 2017 040417	3889	1303	34%	69	0	129
AES Newsletter 3rd Qtr 2017 070517	4157	1315	32%	67	1	108
AES Newsletter 4th Qtr 2017 100317	4200	1411	34%	66	4	97
AES Newsletter 1st Qtr 2018 010318	4142	1397	34%	29	3	119
AES Newsletter 2nd Qtr 2018 040418	3489	1097	31%	21	2	106

QEB Initiatives

Initiatives are being implemented to improve the QEB and increase readership:

1. New section entitled "**The story behind a success**", dedicated to young AESS members that have been recently awarded or recognized by the Society:

- Dr. Bo Li (recipient of the 2017 *Robert T. Hill Best Dissertation Award*) invited for the first article.
- Next article: recipient of the Best Student Paper award at the Radar Conference 2018 ? Other conferences? Recipient of the 2018 Fred Nathanson Award?

The Story Behind a Success



As the recipient of the 2017 Robert T. Hill Best Dissertation Award, it is my great pleasure to share my stories of the dissertation journey with the AESS community. I would like to take this opportunity to thank my advisor Professor Athina Petropulu. Without her encouragement and support, this dissertation cannot be finished. My sincere thanks and appreciation go to my co-author Professor Wade Trappe, and my dissertation committee members Professor Waheed Bajwa, Professor Vishal Patel, and Professor Hongbin Li, for their invaluable input.

In my dissertation, entitled "Topics in MIMO Radars: Sparse Sensing and Spectrum Sharing," two fundamental research problems related to multi-input-multi-output (MIMO) radars are investigated. The first is sparse sensing, which is aimed to substantially reduce the amount of data that need to be collected by MIMO radar systems, while ensuring high target detection and estimation performance. Professor Petropulu, my advisor, and alumni from our group are pioneers in successfully applying compressed sensing to MIMO radars. I was lucky to join the group at the cutting edge of the field. Professor Petropulu had a clear view on the next big thing, MIMO radars with sparse sensing. All members of our group had great passion in that particular topic. We had countless rounds of whiteboard discussions and sometimes even debates. Some ideas were proposed, discussed, refined and finally published, while many others were discarded. My dissertation developed a theoretical framework based on compressed sensing, and established results on performance guarantees and low-complexity signal recovery approaches for MIMO radar with co-located or distributed antennas. The work pushed the envelope in sparse sensing based MIMO radars further by standing on the shoulders of giants.

The second problem considers cooperative spectrum sharing between radar and wireless communication systems using advanced MIMO techniques. The work needed a reasonable radar-communication co-existence model. To achieve this, I reached out to Professor Trappe, who is a distinguished researcher in wireless communication and spectrum management also from Rutgers University. Professor Trappe gave us invaluable input from a practical perspective, based on which my work on radar-communication spectrum sharing was founded. After our work was published and presented at the annual Radar Conference, we received many good comments and advice, which helped us improve the proposed framework to its current shape.



To summarize, I would attribute the success of my dissertation to two aspects: cooperation with my advisor and group mates and proactive outreach to colleagues in the community. Hopefully, the share of my two cents could shed some light for students and young researchers and engineers on the same journey.



QEB Initiatives

2. Including advertisements of open positions:

- In 2018, ARRC will run the ad in the QEB at each quarter (offered as a package deal with ads in the Systems Magazine).
- Creating a regular 'ads space' or a 'bulletin board' populated by job opportunities could stimulate QEB openings by young members.

3. New section to be created including contributions from BoG officers (or committee chairs) to cyclically update the readers on new initiatives and/or events.

- Joe's message in the last edition
- Next article: VP Education? VP Publications? It might depend on the next important deadlines and events...

New Initiatives

New Transactions

- Study the option of creating new Transactions on Radar Systems.
- Report on utility and feasibility analysis
- Assigned to: myself & F.Colone
- **Create a new Transactions on Radar Systems**
- Time period for performance: 2018 (for the report)