

# Annual Report of the Publications Board

*For the Period July 1, 2017 – June 30, 2018*

Submitted by: Jack W. Davidson and Joseph Konstan, co-Chairs

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## I. Strategic Vision & Directions

Publications is one of ACM's largest activities and lines of business. The Publications Board oversees a broad portfolio of activities including publishing journals, magazines, books, and conference and workshop proceedings (both together with ACM's SIGs and directly through the International Conference Proceedings Series); overseeing all publications policies, ethics and plagiarism cases, and author rights; and overseeing the ongoing development of the ACM Digital Library and the broad set of services it provides to scholars, authors, and institutions. The Publications Board is comprised of volunteers from the community and works in partnership with and is supported by ACM's publications staff, and by staff in other ACM units, as their activities relate to publications (e.g., Information Services, SIG Services, and Financial Services).

In all matters, the Publications Board seeks to maintain and strengthen ACM's position as the preferred publisher of computing research and to extend our reach to become a leading provider of advanced level content and services for the broader computing industry. At the same time, the Board takes seriously its responsibility for the sustainability of ACM's publications program, working with ACM staff to ensure that ACM's publications and their related business models and pricing both remain competitive for subscribers and authors and generates sufficient revenue to sustain a responsible publishing operation.

To maintain and strengthen ACM's position as the preferred publisher of computing research, the Publications Board carries out a number of activities including: 1) Developing and launching new publications and content in new, emerging technical areas as well as areas not currently covered by ACM's publication portfolio; 2) Developing and launching new services for our content producers (i.e., authors, reviewers, conferences, and journals), readers, and other users of the Digital Library; and 3) Developing new business models and strategies to ensure the long-term viability of ACM's publication operations and the continued support of ACM's other, important activities.

Looking forward to FY 2019, a major activity will be the transition to a new publishing platform. The Board will work with our content producers (i.e., our many conferences, journals and magazines) and readers (i.e., individual users of the DL, libraries, and research laboratories) to ensure the transition is a smooth process. We will also continue our efforts to develop new publications and to develop strategic business strategies to ensure the long-term stability of ACM's publications program.

## II. Summary of FY 2018 Major Activities and Actions

- In FY18, migration of ACM's Digital Library to a new platform, Literatum, was initiated. This migration is a significant change and effort as ACM's Digital Library has, for the past 20 years, been on an in-house developed platform. Literatum, developed by Atypon, is a comprehensive publishing platform that is used by over 200 publishers worldwide including many scholarly publishers such as the American Chemical Society, IEEE, SIAM, and MIT Press. The move to Literatum will allow ACM to reallocate time previously spent on platform maintenance to developing new services for the ACM community. The initial launch is planned for late Fall 2018.
- In conjunction with the migration to a new platform, new features being developed include: data and code as first-class objects, preprint server in collaboration with ArXiv, UI/UX enhancement, enhanced reporting and security, automatic topic modelling, automatic content extraction/tagging, a recommender engine, expanded content formats, publication web site, and more. In addition, there is work underway to standardize the production publishing workflow: develop a single path for all published works, store full-text content as XML using

JATS/BITS, create HTML5, ePub, and enhanced PDF version of all content, and integration with many submission/review systems as well as the ACM eRights system.

- With the retirement of several members of the Board, the Board leadership worked to reinvigorate and diversify the Board. Eight new members were added in FY18
- In January 2018 the inaugural issue of *ACM Transactions on Human-Robot Interaction* (THRI) was published. THRI was formerly the *Journal of Human-Robot Interaction* and was rebranded as the *ACM Transactions on Human-Robot Interaction* (THRI). THRI is ACM's first Gold Open access journal.
- In May 2018, *ACM Transactions on Architecture and Code Optimization* (TACO) transitioned to be a Gold Open Access journal.
- The Board voted to terminate the publication of *Computers in Entertainment Magazine* after the papers currently in the pipeline are published.
- With the retirements of Karin Breitman and Terry Coatta as chairs of the Practitioner Committee, it was decided to not reconstitute the Practitioner Committee, but rather appoint practitioners to serve on the Board
- The Board approved the following new publications:
  - *ACM Transactions on Data Science*. Editor-in-Chief: Beng Chin Ooi (National University of Singapore).
  - *ACM Transactions on Computing for Healthcare*. Editors-in-Chief: Jack Stankovic (University of Virginia) and Insup Lee (University of Pennsylvania).
  - *Digital Government: Research and Practice*. Editors-in-Chief: Soon Ae Chun (College of Staten Island) and Beth Simone Noveck (New York University).
  - *Proceedings of the ACM on Computer Graphics and Interactive Techniques*.
- The Digital Library Committee organized a workshop a 3<sup>rd</sup> Workshop on *Software, Data, and Reproducibility in Publication* held on December 7–8, 2017 in New York City. The workshop generated a first draft of a Best Practices for Reproducibility in Computing Research.
- Staff initiated a reorganization of the published ACM Publications Policies. A major goal of the reorganization was to separate policy statements from operational details.

### III. Basic Information

#### A. Members of the Publications Board

A list of members of the Publications Board during FY 2018 is given in Table 1. Eight new members were appointed to the Board during FY 2018.

- Phoebe Ayers (MIT). Phoebe is Librarian for Electrical and Computer Science at MIT.
- Edward Fox (Virginia Polytechnic Institute and State University). Ed serves as co-chair of the Digital Library Committee.
- Chris Hankin (Imperial College). Chris serves as co-Chair of the Assessment and Search Committee.
- Sue Bok Moon (Korean Institute of Technology). Sue serves on the Conference Committee.
- Sharon Oviatt (Monash University). Sharon serves as co-Chair of the New Publications Committee.
- Divesh Srivastava (AT&T Research). Divesh serves as co-Chair of the Assessment and Search Committee.
- Robert Walker (Kent State University). Bob serves as co-Chair of the Conference Committee.
- Julie Williamson (University of Glasgow). Julie is a member of the Future of Computing Academy.

There were six retirements in FY2018: Karin Breitman, Terry Coatta, Anne Condon, Nik Dutt, Roch Guerin, Carol Hutchins, Alex Wade, and Keith Webster.

**Table 1. Members of the ACM Publications Board with Roles and Appointment Dates**

Phoebe Ayers (MIT)	Original appointment: 08/01/17 – 07/31/20
Edward Fox (Virginia Tech)	Original appointment: 06/01/2018 – 05/31/2021 Appointed Co-Chair of the Digital Library Committee: 06/01/18–05/31/21
Jack W. Davidson (U. of Virginia)	SGB Liaison: 04/01/07 – 06/30/10 Appointed Co-Chair 07/01/10 – 06/30/13 Reappointed: 07/01/13 – 06/30/16 Reappointed: 07/01/16 – 06/30/19
Chris Hankin (Imperial College)	Original appointment: 07/16/18 – 06/30/20 Appointed co-Chair, Assessment & Search Committee: 07/16/18 – 06/30/21
Xiang-Yang Li (U. of Science and Technology)	Original Appointment: 01/16/18 – 12/31/20
Sue Bok Moon (KAIST School of Computing)	Original Appointment: 01/01/18 – 12/31/20
Yannis Ioannidis (University of Athens)	SGB Liaison: 07/01/14 – 06/30/16 Reappointed: 07/01/16 – 06/30/18
Joseph Konstan (U. of Minnesota)	SGB Liaison: 07/1/10 – 06/30/13 Appointed Co-Chair: 07/1/13 – 06/30/16 Reappointed: 07/01/16 – 06/30/19
Michael Nelson (Old Dominion University)	Original Appointment: 08/01/17 – 07/31/20 Appointed as Co-Chair of the Digital Library Committee: 10-01-17 – 07/31/20
Sharon Oviatt (Monash University)	Original appointment: 10/01/17 – 09/30/20 Appointed Chair of Assessment & Search Committee: 10/01/17 – 09/30/20
Eugene Spafford (Purdue University)	Original appointment: 01/01/17 – 12/31/19 Appointed Chair of Ethics & Plagiarism Committee: 01/01/17 – 12/31/19
Stephen Spencer (U. of Washington)	Original appointment: 09/01/15 – 08/31/18 Appointed co-Chair of Conference Committee: 10/01/17 – 08/31/18
Divesh Srivastava (AT&T Labs)	Original appointment: 07/01/18 – 06/30/21 Appointed co-Chair of Assessment and Search Committee: 07/01/18 – 07/01/18 – 06/30/21
Robert Walker (Kent State University)	Original appointment: 07/01/18 – 06/30/2021 Appointed co-Chair of Conference Committee: 07/01/18 – 06/30/2021
Julie Williamson (U. of Glasgow)	Original appointment: 08/01/17 – 07/31/20

## B. Publications Board Meetings & Operations

In FY18, the Publications Board and HQ staff held three in person meetings (September 2017, February 2018, and June 2018) and nine monthly conference calls.

Highlights of the in-person meetings include:

- A presentation of publication metrics and analytics by Marian Hollingworth of Clarivate Analytics. Marian gave the Board insight on Clarivate’s process for evaluating journals for inclusion in their Journal Citation Reports.

- A presentation by Oya Rieger, Stein Sigurdsson and Erick Peirson on plans and goals for arXiv.
- A presentation by Jeff Spies of the Center for Open Science (COS) Foundation on the services they offer the community to support open and reproducible research.
- A presentation by Eileen McCue and Laura Harvey of Publons. Publons is a platform for tracking, verifying and recognizing peer review and editorial work.
- A presentation by Jeffrey Mackie-Mason of University of California, Berkeley on involving business arrangements between publishers and libraries including “Read and Publish” agreements. Under Read and Publish agreements, libraries and other consortium pay a lump sum that covers the publication costs of all papers published by authors at the institution or consortium. These papers would be freely available (i.e., open access). In addition, institution/consortium members receive free access to all of the publisher’s content.

### III. Committees & Project Updates

#### A. Conference Committee

##### **Mandate**

This Conference Committee considers the ACM’s conference publication activities and policies. Working closely with the SGB and HQ staff, the Conference Committee works to improve the workflows associated with conference paper submission, open access options, reviewing, and conference program organization. The committee also considers policies and procedures for new conference artifacts such as videos of presentations, posters, demonstrations, code, and other supplementary materials.

##### **FY 2018 Activities**

A major effort begun in FY 2018 was the revision of the manuscript template for conference articles to support accessibility and readability on mobile devices. The conference committee is also working closely with HQ staff on streamlining the conference manuscript workflow.

##### **Committee Members**

Donna Cappo, Koen de Bosschere, Jaudelice de Oliveira, Steven Feiner, Lance Fortnow, Mashudda Glencross, Joe Konstan, Crista Lopes, Sue Moon, Stephen Spencer (co-chair), Robert Walker (co-chair).

#### B. New Publications Committee

##### **Mandate**

The New Publications Committee’s primary mandate is to realize the goal of making ACM the preferred publisher in computing through exploration of new publication titles covering the diverse landscape of computing. Towards this goal, the New Publication Committee evaluates submitted proposals for new publications and the Committee proactively seeks to expand ACM’s portfolio by identifying promising new areas and seeking qualified individuals to develop publications in those areas. After development of new title proposals, the committee provides the Publications Board with recommendations and actions regarding the proposal.

##### **FY 2018 Activities**

The New Publications Committee revised the proposal template and developed guidelines for proposers. The goal is to reduce the number of iterations between the committee and the proposers. The Committee also took steps to identify areas for new ACM publications. The Committee organized a brunch at the ACM Awards Ceremony and invited both new and existing ACM Fellows to discuss new emerging areas. The discussion also generated ideas about expanding the scope of some of the existing journals.

The Committee recommended, and the Board approved several new publications:

- *ACM Transactions on Data Science*. Editor-in-Chief: Beng Chin Ooi (National University of Singapore),
- *ACM Transactions on Computing for Healthcare*. Editors-in-Chief: Jack Stankovic (University of Virginia) and Insup Lee (University of Pennsylvania),
- *ACM Transactions on Internet of Things*. Editors-in-Chief: Gian Pietro Picco (University of Trento) and Schahram Dustdar (TU Wien),
- *Digital Government: Research and Practice*. Editors-in-Chief: Soon Ae Chun (College of Staten Island) and Beth Simone Noveck (New York University).

Several proposals are in review and development:

- *ACM Transactions on Communications Design*
- *ACM Transactions on Middleware*
- *Quantum Computing*.

#### **Committee Members**

Jack Davidson, Scott Delman, Nik Dutt (co-chair), Sharon Oviatt (co-chair), Carol Hutchins, Susanne Hambrusch, Joe Konstan, Laura Lander, Xiang-Yang Li, Wendy Mackay, Tulika Mitra, Steve Welch.

### **C. Digital Library Committee**

#### **Mandate**

The Digital Library Committee is charged with developing overall strategic directions for the Digital Library publishing platform including new services and new features.

#### **FY 2018 Activities**

A major activity for FY18 was the organization of a Workshop on Software, Data, and Reproducibility in Publication (the third such workshop organized by the DL committee). The workshop, held on December 7-8, 2017 in New York City generated a first draft of a Best Practices for Reproducibility in Computing Research. A second major activity was the development of a proposal to the Sloan Foundation entitled “E2A-Lite: Connecting Artifact Review and Publication with Repeatable and Reusable Experiments.” The immediate goal of the project was development of prototypes of the services needed to link software, data and systems embodied in repeatable and reusable experiments. The overarching goal is to support dynamic interactivity to support both reproducible experimentation and the ability to repeat, modify, and run entirely new experiments thereby facilitating deeper analysis and more rapid knowledge creation.

#### **Committee Members**

Phoebe Ayers, Jack Davidson, Scott Delman, Nik Dutt, Ed Fox (co-chair), Carol Hutchins, Roch Guerin, Michael Nelson (co-chair), Stephen Spencer, Wayne Graves, Craig Rodkin

### **D. Assessment and Search Committee**

#### **Mandate**

The Assessment and Search Committee members assess journals towards the end of each EIC term and make recommendations to the Publications Board regarding reappointments and new searches. Assessments are based on survey feedback from current EICs, SIG Chairs, Associate Editors and other stakeholders, as well as quantitative data on the journal submission and publication pipeline. When a new search is conducted, the Assessment and Search committee members consult with stakeholders to identify a search committee chair and potential committee members and serve as liaison between the search committee and the Publications Board.

#### **FY 2018 Activities**

In FY18, the Assessment and Search Committee completed assessments and searches for 11 journals. Eight new EiCs were appointed and five existing EiCs were reappointed. One of the new EiCs was actually a replacement co-EiC appointed to work with a reappointed co-EiC.

Also in FY18, the A&S Committee assumed responsibility for appointing EICs for many of ACM's magazines (save CACM and ACM Queue). This is a new venture for the committee and its first magazine EIC search launched in early June.

<b>New EiC Appointments FY'18</b>		
<b>Journal</b>	<b>EiC Name</b>	<b>Term Start</b>
<b>TKDD</b>	Charu Aggarwal, Xindong Yu	10/1/2017
<b>TOSN</b>	Yunhao Liu	12/1/2017
<b>TMIS</b>	Daniel Zeng	9/1/2017
<b>TSAS</b>	Waled Aref	3/31/2018
<b>TOG</b>	Marc Alexa	7/1/2018
<b>JOCCH</b>	Franco Niccolucci	9/1/2018
<b>EiC Reappointments FY'18</b>		
<b>TAP</b>	Vicki Interrante reappointed, Martin Giese newly appointed	1/1/2018
<b>TCPS</b>	Tei-Wei Kuo	3/1/2018
<b>TIST</b>	Yu Zheng	6/1/2018
<b>TALG</b>	Aravind Srinivasan	7/1/2018
<b>TOCL</b>	Orna Kupferman	7/1/2018

#### **Committee Members**

Diane Crawford, Jack Davidson, Scott Delman, Chris Hankin (co-chair), Joe Konstan, Laura Lander, Holly Rushmeier, Divesh Srivastava (co-chair), Adrian Scoica, Mary Lou Soffa, Josh Tenenber.

## **E. Ethics & Plagiarism Committee**

#### **Mandate**

The ACM Publications Board's Ethics and Plagiarism Committee handles all plagiarism cases and issues dealing with professional ethics in publishing including conflicts of interest, authorship, and allegations of research misconduct. The Committee develops policies and practices to ensure the integrity of the scholarly

record. The Committee places the investigation of claims of plagiarism at the highest priority for resolution and action. The basics are outlined here <http://www.acm.org/publications/policies/plagiarism-overview> and specific details of all aspects of reporting and investigating claims, and penalties for plagiarism are [found here](#).

#### **FY 2018 Activities**

In addition to handling numerous plagiarism cases and a case involving an allegation of data fabrication, the Committee is developing a conflict-of-interest policy regarding review and processes.

#### **Committee Members**

Andrew Adams, Amy Bruckman, Jack Davidson, Scott Delman, Simson Garfinkel, Joe Konstan, Michael Kirkpatrick, Eugene Spafford (chair), Victoria Stodden, Julie Williamson.

## **F. Business Working Group**

#### **Mandate**

The Business Working Group's mandate is to ensure the continued financial stability of ACM's Publications program and its continued support of ACM activities. Toward that goal, the Business Working Group advises on strategies related to the financial aspects of ACM's publication program including operational costs, revenue structures, and funding levels of new initiative.

#### **FY 2018 Activities**

The Group has been discussing the ramifications of emerging "Read & Publish" agreements where libraries and other consortium pay a lump sum that covers the publication costs of all papers published by authors at the institution or consortium. These papers would be freely available (i.e., open access). In addition, institution/consortium members receive free access to all of the publisher's content.

#### **Committee Members**

Joe Konstan (chair), Jack Davidson, Joshua Horowitz, Darren Ramdin, Pat Ryan, Scott Delman, Liz Zhang

## **IV. ACM Publications Portfolio**

ACM is currently the publisher of 90 active periodicals, including 54 journals and transactions, 8 magazines, 28 newsletters, and a new series of advanced-level books called *ACM Books*.

During FY 2018, ACM added 697 volumes of conference and related workshop proceedings to its portfolio; this included 247 volumes added to ACM's *International Conference Proceedings Series (ICPS)*, a 16% increase over FY 2017.

ACM Books launched in 2014, with Ebooks available for both institutional and individual purchase, and print-on-demand books available for sale to individuals. ACM Books published three new titles in FY 2018, and signed publishing agreements for 20 additional titles.

## **V. ACM Digital Library**

While ACM continues to print many of its journals and other publications, the ACM Digital Library (DL) continues to be the primary channel for delivering and reading ACM publications worldwide. In FY 2018, there were 17.3 million full-text downloads from the ACM DL.<sup>†</sup> ACM staff estimates between 2-4 million users. During FY 2018, 30,000 full-text articles were added to the ACM DL, bringing ACM's total DL holdings to 482,000 full-text articles. Of the roughly 30,000 full-text articles added to the DL in FY 2018, it is estimated that approximately 11,500 of these are full-length peer reviewed research articles.

ACM's *Guide to Computing Literature* is integrated with the ACM Digital Library, providing an increasingly comprehensive and freely available index to the top-tier literature of computing. During FY 2018, approximately 100,000 works were added to the bibliographic database, bringing the total Guide coverage to 2.80 million works. Capturing article references in the database is important, because these references are necessary to develop robust citation statistics. ACM continues to expand the number of articles in which this data is captured.

Recent growth is as follows:

Year	Total References	Resolved in Guide
2008	6.3M	2.2M
2009	7.8M	2.8M
2010	9.8M	3.4M
2011	13.1M	4.7M
2012	16.8M	6.0M
2013	18.9M	6.7M
2014	20.8M	8.4M
2015	23.5M	9.2M
2016	25.9M	10.4M
2017	28.8M	11.4M
2018	31.6M	12.5M

As one of the leading full-text and bibliographic databases of scholarly information for the computing community, the DL is widely accessible to individuals and institutions around the world. Out of ACM's roughly 100,000 individual members (including students), approximately 30,000 subscribed to the DL in FY 2018.

Institutional subscriptions to the DL continue to be a key source of revenue for ACM. At the close of FY2018, the ACM DL is available at 2,855 institutions from over 89 countries around the world, including 183 government institutions and corporations. The relatively mature academic market in the United States, Europe and East Asia continues to show steady annual growth due to new consortium member participation and annual renewal rate increases, while new subscription business with significant impact in FY 2017 included licenses from Saudi Arabia and Lithuania. Corporate and government markets continue to be a core focus for growth, and FY 2017 showed new subscription licenses from a variety of corporate and government institutions in new sectors such as automotive and television, alongside the more traditional areas of electronics, aerospace, internet, and intellectual property research. Institutional take-up of the ACM Books Collection I (hosted in the DL) continued to build momentum as well.

ACM continues to monitor institutional usage of the DL as it relates to subscription price, most notably in the "cost per full-text article download" metric. In an effort to distribute subscription fees more equitably based on usage, ACM has continued a policy of assessing higher annual renewal rate increases to the more research-intensive subscribers so that the cost per article figure is more uniform worldwide. ACM has also continued an "anti-double-dipping" policy of returning the net revenue from hybrid open access (OA) article processing charges (APCs) from the previous year to those academic libraries renewing their DL subscriptions the following year.

## VI. ACM Magazines

ACM publishes 8 magazine titles. In FY17, content from ACM's magazines continued to generate an enormous number of downloads from the ACM Digital Library. Moreover, all print magazines include a Digital Edition as well as mobile apps that now offer magazine content on a variety of devices.

Foremost among the magazines is ACM's monthly flagship, *Communications of the ACM*. Over 2.5 million *Communications* articles were downloaded in FY18 from the ACM Digital Library, a increase of 25% over last year. *Communication*'s Web presence shares content on a global scale. In FY2018, traffic on [cacm.acm.org](http://cacm.acm.org) grew to 1.026M



users (up 3.24% from 1M in FY17) and to 1.95 million pageviews. Its mobile site recorded almost 200,000 users and 326,914 pageviews.

*Communication*'s Editor-in-Chief Andrew Chien, initiated work on the first of his planned regional special sections as part of a global initiative for ACM's flagship publication. The goal of these sections is to broaden the magazine's coverage and provide *Communication*'s readers with news about developments in computing technology, innovation, and research from around the world. A workshop was held last March at the University of Chicago Center in Beijing to brainstorm articles and writers for a section devoted to the China Region.

At the end of FY18, the Board voted to terminate the publication of *Computers in Entertainment Magazine* after the papers currently in the pipeline are published.

## VII. ACM Books

ACM Books was launched in 2014 to fill a void in the computer science book literature that was created by years of large-scale consolidation in the publishing sector. The result of this consolidation was a very small list of computer science book publishers, which left very few "low priced" and "high quality" book publishing venues available to the CS community. As a result, authors were left with a decision to either publish with a handful of large for-profit publishers or forego publishing books they were interested in authoring.

ACM Books is primarily focused on four kinds of books: graduate-level textbooks, in depth research monographs that provide an overview of established and emerging fields, practitioner-level professional books, and books devoted to the history and social impact of computing. ACM Books provides a new and viable publication channel for various members of the computing community, including researchers, practitioners, educators, and students. In addition, a number of books already published in the Series expose the rich history of computing and the substantial global impact this field commands.

Since 2014, ACM Books has published 19 book titles with 3 additional book titles in production due to be published in October and November of this year, and an additional 20 books under contract with authors. ACM expects to complete the 25<sup>th</sup> and final title in Collection 1 by year-end 2018 with Collection 2 titles entering production in the spring of 2019.

Several of the standout titles in Collection 1 are:

- *The VR Book: Human-Centered Design for Virtual Reality* by Jason Jerald (doi>[10.1145/2792790](https://doi.org/10.1145/2792790))
- *Text Data Management and Analysis* by ChengXiang Zhai and Sean Massung (doi>[10.1145/2915031](https://doi.org/10.1145/2915031))
- *The Handbook of Multimodal-Multisensor Interfaces Volume 1* by Sharon Oviatt, Bjorn Schuller, Philip R. Cohen, Daniel Sonntag, Gerasimos Potamianos, Antonio Kruger (doi>[10.1145/3015783](https://doi.org/10.1145/3015783))

Approximately 150 institutions have purchased access to all titles being published in Collection 1 (25 titles), in addition to individual book title sales via Amazon, Barnes & Noble, and Morgan & Claypool's website.

## VIII. International Conference Proceeding Series (ICPS)

The ACM International Conference Proceedings (ICPS) continues to grow at a steady rate. We have seen an increasing number of repeat applications for conferences, which is a good indicator of the satisfaction of the community with the ICPS service. Currently, ACM is evaluating the ICPS business model to ensure the program is (self-)sustainable and, if necessary, will make necessary adjustments ensure that the program continues to thrive.

In FY 2018, ICPS produced 160 proceedings volumes from 37 countries outside the United States. More than 895K DL downloads, roughly 5.1% of the total DL downloads, were attributed to ICPS published articles. In addition to the 160 published volumes an additional 47 were rejected.