

**Copyright Claims Applications:  
The Role of the In-Processing Section  
of the Copyright Office**

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## Preface

Elizabeth R. Scheffler, Chief of Operations, Copyright Office of the Library of Congress, requested that the Smithsonian Office of Policy and Analysis (OP&A) review the role and operations of the In-processing Section (IPRO) of the Office's Receipt, Analysis, and Control Division. The objective of the study was to help improve the timeliness and quality of copyright services to the public. The study focused specifically on the intake, sorting, and ingestion of basic applications by IPRO.

OP&A staff Lance Costello and David Karns contributed to this study. They were assisted by Richard Serdici, a capable intern who utilized statistical concepts and tools to model and analyze elapsed time from application receipt through the creation of application records in the Copyright Office's electronic eCO database, and by two other capable interns, Kristen Rector and Travis Blalock, who helped with the interviews and background research. The study also benefited significantly from critical thinking, questions and comments, analysis, review, and writing by OP&A staff member Whitney Watriss.

I thank all the interviewees who participated in this study. They helped the researchers to expand, refine, and develop the information.

Finally, I am grateful to Elizabeth Scheffler for asking OP&A to undertake this study and for helping it break down and understand the tasks IPRO carries out. At a time when all of us grapple with a surfeit of data and information, being able to apply a set of well-defined steps to the complex job of processing copyright claim applications and classifying and organizing them for easy searching and retrieval are meaningful skills.

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# Executive Summary

## About the Study

In the summer of 2009 the Chief Operating Officer of the Copyright Office (CO) at the Library of Congress requested that the Smithsonian Institution Office of Policy and Analysis (OP&A) review the work processes of the In-processing Section (IPRO) of the Receipt, Analysis, and Control Division (RAC). The objective was to improve efficiency and customer service. The principal focus was basic copyright claim applications, which account for the bulk of the applications.

Data and information came from observation of IPRO work processes, audits of containers of mail, interviews with staff and internal clients, review of documentation, data from the claims registration database, and interviews with four public and private organizations whose large volumes of mail require handling in ways similar to that of the Copyright Office.

## Issues Identified During the Study

### *Errors in Processing Applications*

The primary errors noted by interviewees and the study team were incorrectly processed applications, including a failure to ingest before transfer to the Registration and Recordation Program (RRP) divisions, trucks/Copyright Office bins (a type of mail container, referred to as COBs) directed to the wrong RRP division, and mis-sorted mail. The study team could not, however, ascertain the frequency of these errors, the impact they had on the timeliness of processing, and whether they constituted a major or minor issue.

Interviewees attributed some errors to unclear processes and ineffective communications. IPRO does not, for example, have a manual of standard operating procedures or other documentation as a point of reference for staff. Changes in processes in response to requests by RRP divisions were not uniformly communicated to all mail assistants. Suggestions to address these problems included common training, regular IPRO-wide meetings, and bulletins announcing changes. Some interviewees also thought training contributed to errors. Staff mainly get on the job training (OJT), rather than formal, structured sessions away from work, and the OJT provided is not always consistent and of the same quality across all trainers.

Aspects of the Copyright Office’s new electronic recordkeeping and data management system, called eCO, also contributed to errors by IPRO ingestors. A principal one involves the process for creating records for different categories of applications. Each category of application has its own set of parameters (called a “session default” within IPRO) for which the equipment must be set. When changing from one category of application to another, the ingestors need to change the “session default.” Because resetting the session defaults is cumbersome and time-consuming, IPRO has tended to process all the applications in one category at a time before moving onto the next one. On occasion, ingestors did not remember to change the default and therefore processed the new category of applications using the wrong default. While a human error, the system’s design, which requires manually navigating through a number of windows to change the session default, contributes to the potential for error.

### *Inefficiencies in the System*

The study team considered efficiency from the perspective of optimal use of resources and conditions that slow processing.

- The excessively slow response time of eCO is a well-documented problem that upgrades currently underway are intended to address. Having eCO on the Library of Congress’s overall server may also be slowing response times.
- Some types of applications take longer to ingest than others, so that the distribution of types of applications received affects the person-days required for IPRO processing—the larger the share of online applications, the fewer the person-days needed.
- The practice of retaining COBs of ingested applications until sufficiently full (for which there is no definition) delays transfer to the RRP divisions.
- Irradiation delays receipt of applications undergoing that process by 2-3 days and sometimes damages applications to the point that they cannot be scanned or even processed and require replacement copies. Not all Copyright Office mail, however, is irradiated; in particular, mail sent to the special Copyright Office PO Boxes only requires the screening for contaminants at the two facilities—Capitol Heights and the Congressional Courier Acceptance Site (CCAS)—operated by a contractor, Pitney Bowes. The Copyright Office has additional unused PO Boxes that are already designated for specific RRP divisions.
- Screening at the Capitol Heights facility takes longer than the 24-hour turnaround at other Federal agencies such as U.S. Department of Homeland Security (DHS).

- Installation of a wizard interface that would automatically reset the session defaults would eliminate the need for ingestors to manually navigate the windows required to reset the equipment. This change would both speed the process and reduce errors caused by ingestors forgetting the change the default. It is also questionable whether so many session default categories are needed.
- New basic applications currently go through four sorts—two by Pitney Bowes and two by IPRO, a process that is inefficient in terms of time and person-days. It would be possible to streamline the sorting process by making use of the additional PO Boxes already designated for the RRP divisions. If applications were sent to those PO Boxes, Pitney Bowes staff at the loading dock could separate the mail by PO Box, and IPRO staff could deliver cages of like types of applications directly to specialized teams that handle that type of application for immediate ingestion. Other Copyright Office mail, which might include applications without the right PO Box address, could go to another specialized team(s) for sorting, again with immediate ingestion of applications. The study team did not study this alternative in depth, but it sees a number of possible benefits—a small savings in elapsed time to get applications to ingestion, a reduction in the person-days required for sorting, and timelier assignment of service record numbers to applications. It might be possible to work this change out with the contractor, Pitney Bowes, as it is already doing a sort at the loading dock.

Some interviewees thought IPRO has less space than before the Copyright Office reengineering completed in 2008. The study team did not conclude that the amount of space is a problem, but thought the space might be used more effectively. For example, designating holding areas for material pending transfer to RRP and materials returned by RRP to IPRO would ensure better control.

#### *Performance Accountability and Quality Control*

The study found it difficult to obtain consistent, authoritative information on performance accountability for either staff or applications processing by stage and overall. Few interviewees spoke of performance measurement or accountability or, if they did, they provided different information. It was hard to determine what performance standards pertained and how applicable they were to current IPRO operations, whether and how IPRO tracked errors and if it had a standard for accurate processing, whether there had been a thorough assessment of IPRO operations against expectations following the reengineering, what quality control checks were being carried out, etc.

Other issues are that:

- The system within eCO for documenting errors does not permit easy analysis, as the entry is all narrative with no standardized reporting guidelines or language.
- eCO lacks an analytic capability to analyze different aspects of operations; however, the upgraded version of Seibel now being installed in eCO will provide this capability.
- The point of least control over materials occurs between IPRO and RRP, where there seem to be no formalized procedures for formal turnover and tracking of materials. A service window attached to Room LM 434 is available to oversee these transfers, but has not been used.

#### *Customer Service*

Superior customer service is a Copyright Office priority. The study team assumed that customers should be able to expect that IPRO would: process their applications in the date order received; maintain control over their applications while in its custody; and notify applicants of the service record number so that they can easily track the status online. Against these assumptions, there are some lapses in customer service. For the most part the primary and secondary sorts apply FIFO, but ingestion does not. While a non-FIFO ingestion process may increase efficiency, it is arguably inequitable from the customers' perspective. It is also evident that IPRO does not have full control over the applications at all times, for example, at the point of transfer between IPRO and RRP. Finally, applicants using Form CO and paper applications have to call the Public Information Office to get their service record numbers and ascertain the status of their applications.

The RRP divisions are IPRO's main internal customer, and IPRO tries to accommodate how they want ingestion handled. Doing so has, however, complicated IPRO's work and contributed to processing errors, about which RRP has complained. The study team notes that if RRP follows a FIFO process, its current complaints pertain to applications processed before the introduction of eCO. The requested changes would therefore relate to a system no longer in use and might even undercut current processes.

#### **Conclusions**

It is clear that the reengineering and implementation of eCO have improved the processing times for all three types of applications—all showed a steady decrease in times, particularly online ones. IPRO processed 91.1% of *online* applications through

ingestion within 1 day and 99.6% within 2 days. For *paper* applications, the figure was 91% within 4 weeks and 99% within 5 weeks, and for *Form COs* the figure was 96% within about 5 weeks. The study team believes the time required to process Form COs is actually less because there is a delay in starting the actual ingestion of Form COs. Absent data, the study team could not quantify the duration of the delay.

The study team concluded that the timeliness of IPRO's processing of applications is reasonable when viewed against performance standards and that IPRO is providing RRP with a timely flow of ingested applications. Further reductions in IPRO processing times will be marginal under current IPRO operations.

That said, it might be possible, by implementing some of the changes in IPRO operations recommended below, to shave some time off its processing time and the pre-IPRO mail handling time. More in-depth study would be needed, however, to determine how much time could be saved and whether it would be worth the investment. Moreover, time savings within IPRO are unlikely to significantly improve the time elapsed to award or denial of a certificate, since the RRP examinations consume the bulk of the overall application processing time. Beyond time savings, however, the recommended changes might reduce the resources, particularly human, IPRO requires to process applications, thereby allowing their redirection to other areas of need. That, too, would require further study.

In addition to increased efficiency, the study team believes three other areas merit attention: implementation of a rigorous performance accountability system; increased security; and enhanced customer service.

#### *Increasing Efficiency*

Clear, standardized operating procedures, documented in a manual and effectively communicated to all staff, would enhance the efficiency of IPRO's operations. First, however, the Copyright Office would need to define some key policies, procedures, and performance standards, such as what error rates are acceptable at different stages of the process; the extent to which IPRO should apply FIFO; how long COBs that are not completely full should be retained following ingestion; and clear performance standards for staff and IPRO as a whole, validated against optimal operations and staff performance. Again, attention will need to be paid to the tradeoffs among efficiency, accuracy, and exceptional customer service.

OJT has not proved an effective means of training staff, and having mail assistants provide the OJT is not a good use of their time. Specialized trainers and formal training

away from work would offer better and more consistent training, with follow-up through OJT that is supported by increased supervision.

The study team sees no justification for continuing to irradiate USPS flat mail. Using the PO Boxes already designated for the RRP divisions would eliminate irradiation, facilitate sorting, and save two to three days on average in the pre-IPRO mail handling phase.

Redesign of the mail sorts would allow applications to move to ingestion more quickly and reduce the number of person-days used for sorting. A possible alternative configuration is to use the PO Boxes designated for each RRP division/subdivision and have the Pitney Bowes' staff at the loading dock sort the applications by PO Box, placing them in separate cages. IPRO mail assistants would then transfer the cages for immediate ingestion by teams of mail assistants who specialize in specific types of applications. Other mail would go to another IPRO team(s) for sorting and immediate ingestion of the applications that were not addressed to a PO Box.

The Copyright Office could make further use of technology to streamline processing. Installing a wizard interface would reduce the problems with changing session defaults. Increased use of the more efficient online applications might be promoted by requiring frequent applicants to submit online, including deposits wherever possible, and to pay through deposit accounts. Another possibility is to explore further increases in the fees for paper and Form CO applications relative to the fee for online applications.

To further promote online applications, the Copyright Office could develop a single, simplified paper form (see below), available only by request from the Public Information Office, and refuse to accept the old forms. The study team also wonders if there is a need for both Form COs and paper applications, which seem redundant. Particularly if the Copyright Office wants to increase use of Form COs (whose processing time may be less than IPRO calculates), it will probably need to do away with the competing paper forms. A hard-copy Form CO could be offered to applicants lacking access to a computer; the information would have to be ingested manually, since the barcodes would not be operative. Alternatively, the Copyright Office might do away with the Form CO and stay with the apparently more popular paper forms.

Whichever forms are retained, they need to be more user- and ingestion-friendly. The five paper forms likely could be integrated into a single universal form, as was done with the Form CO, and designed to facilitate scanning. Adhesive or pre-printed mailing labels with the RRP-specific PO Box numbers could accompany the paper applications, thus facilitating the sorting. Similarly, the study team believes it is worth examining whether the Form CO can be simplified by reducing the number of pages and addressing other aspects that cause applicants difficulty.

### *Strengthening Performance Accountability*

IPRO is taking commendable steps to improve quality control and accountability. Some continuing gaps merit attention, however. Completing the standard operating procedures manual needs to be a priority, as does development and communication of performance standards with respect to the number of applications to be processed within a set timeframe by IPRO staff, by stage and by type of application. Given that the eCO system and its use are works in progress, regular review and revision of performance standards based on actual times and practice will be necessary. Another priority is design and implementation of a capability to track the movement of applications through IPRO. Key tracking points include receipt of applications by IPRO, date of arrival at ingestion, start and completion of ingestion, transfer to and acceptance by RRP, and return of material by RRP to IPRO. Similarly, a robust capability to determine time elapsed to reach and complete the different stages of application processing would improve accountability.

### *Enhancing Security*

The study team was not aware of any policy or standard related to security and what level of control IPRO believes it should have over applications in its custody. The study team considers the misplacement of containers of which it heard to be a security concern. Policy and standards are needed in this area. The streamlined sorting process would move forward the point at which applications receive service record numbers, which would permit tracking at an earlier point in the process.

### *Improving Customer Service*

The study team believes that IPRO should notify applicants who submitted Form CO and paper applications of the associated service record numbers so that they can track the status of their applications online. The Copyright Office might investigate whether eCO can be programmed to automatically notify applicants of their service record numbers by robo-call, email, letter, or other means.

## **Recommendations**

The following recommendations focus on what the OP&A study team saw as the main areas of opportunity to strengthen IPRO's operations: performance accountability and quality control; efficiency; upgrades of eCO; and customer service. It should be noted that while the recommendations are placed within the area to which they seem most relevant, many support improvements in the other areas.

### *Performance Management and Quality Control*

- Move rapidly to prepare an IPRO process and procedures manual, to include: a full set of performance standards for staff and IPRO as a whole and how IPRO will measure work against standards.
- Establish standardized means of communications between supervisors and staff.
- Institute a quality control and accountability system that: addresses the points in the process where control is weakest; tracks the movement of mail through IPRO overall and by stage; identifies patterns of errors and calculates error rates; and specifies routine audits of the mail to assess the accuracy of sorts, ingestion, and the content of COBs being transferred to RRP.
- Strengthen IPRO training by providing both formal, structured training based on the operations manual and OJT by peers, with greater support and supervision of OJT to ensure consistency and quality.
- With respect to ingested materials, place COBs with ingested materials in a secure holding area at the end of the day for review by supervisors, and provide a secure designated location for holding ingested materials pending transfer to RRP and return by RRP to IPRO. The latter should be combined with staffing the service window in Room LM 434 to formalize the turnover of material between IPRO and RRP (and other units).

### *Efficiency*

- Streamline pre-IPRO mail handling by using available PO Boxes assigned to specific RRP divisions to bypass irradiation and facilitate sorting. Applicants would be required to send applications to the appropriate PO Box.
- Explore use of either Form COs or paper applications, rather than using both, and/or simplification of both types of forms, including consolidation of the paper forms into a single, universal one.
- Provide with all forms adhesive or pre-printed address labels with the PO Box designated for the different RRP divisions.
- Take additional steps to promote greater use of online applications by increasing the fee differential for Form CO and paper applications relative to online ones, and creating a new paper application available only from the Copyright Office.

- Streamline IPRO's pre-ingestion processing by having the mail service contractor sort by RRP division PO Box and transfer applications with the same PO Boxes to specialized teams for immediate ingestion. Other mail should go to another specialized team(s) for sorting and immediate ingestion in the case of applications.
- Consider renegotiating the Pitney Bowes contract to require 24-hour turnarounds from its screening facilities.
- To maximize the output of the RRP-specific ingestion teams, establish specialized teams to process applications with problems that prevent routine ingestion.

#### *Upgrades of eCO*

- Develop a capability within the eCO system to support and facilitate quality control and accountability measures, including bringing the new analytics capability online as soon as possible and developing a set of standardized reports.
- Install a wizard interface in the eCO system to eliminate the cumbersome process of manually changing the session defaults.

#### *Customer Service*

- Test all changes to application forms with users to maximize both user-friendliness and likelihood of accurate completion, and continue soliciting feedback from customers as the application system is improved and new customer service features are introduced.
- Inform non-online applicants of their service record number.
- Institute measures to ensure control over and security of applications while in the custody of IPRO.

# About the Study

## Purpose

In the summer of 2009 the Chief Operating Officer of the Copyright Office at the Library of Congress requested that the Smithsonian Institution Office of Policy and Analysis (OP&A) conduct a review of the work processes performed in the mail intake, sorting, and processing functions of the Receipt, Analysis, and Control (RAC) Division's In-processing Section (IPRO). The objective of the study was to improve mail workflow efficiency to better support Outcome 1 of the Copyright Office's Public Services strategic goal, "Increased use and timeliness of copyright services to the public."

## Scope

This study looked specifically at the In-processing Section and whether its operations effectively serve its internal clients and further the Copyright Office's goal of high-quality, timely customer service. More specifically, the study focused on the processing of basic copyright claim applications, which account for the bulk of applications.

## Methodology

As part of this study, the study team collected information through:

- Observation of current practices within IPRO;
- Interviews with IPRO staff and internal clients;
- Review of secondary literature;
- Requests for data from the Copyright Information Technology Office claims registration database required to analyze the elapsed time from the receipt of applications through creation of application records in the database;
- Reviews of technologies and processes at four public and private organizations that receive large volumes of mail that must be distributed to multiple offices and require handling in ways similar to the mail of the Copyright Office.

The study team analyzed the data, generated conclusions and recommendations; and prepared this report.

# Background

## Copyright Protection and Registration

When a person creates a work such as a book, motion picture, or sound recording, copyright protection is automatically conferred. The creator of the work does not need to apply for copyright registration. However, according to copyright law, doing so is helpful, as “Registration establishes a public record of the copyright claim” and “is necessary for works of U.S. origin before an infringement suit may be filed in court.”<sup>1</sup> Further, the date on which the application is filed can have important legal ramifications with regard to damages and legal fees.

The first recorded copyright was *The Philadelphia Spelling Book* by John Barry, registered on June 9, 1790. Prior to 1870, the local district courts registered copyright claims. In 1870 the Library of Congress took over the function and in 1897 established the Copyright Office. In addition to handling copyright registrations and maintenance, the Office also receives and transfers copies of unregistered, copyright-protected materials (books, CDs, etc.) to the Library of Congress under the mandatory deposit provision of the copyright law (section 407) (these items are called mandatory deposits), and registered copyright materials under the voluntary registration provision (section 408). Currently, the Library of Congress holds nearly 142 million books, recordings, photographs, maps, and manuscripts.

Copyright claims include registration of “basic” claims related to literary works, visual arts works, performing arts works, sound recordings, motion pictures, and single issues of serials. These claims account for 90% of the current total number of claims received in the Copyright Office. The remaining 10% consist of the less common non-basic claims, which include renewals of copyrights, corrections to copyright applications, and groups of materials (serial issues, newspaper/newsletter issues, database updates, and contributions to periodicals).

## The Copyright Office

The Copyright Office’s mission is “to promote creativity by administering and sustaining an effective national copyright system.” Among its functions are administering copyright law; creating and maintaining a public record through the registration of claims and

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<sup>1</sup> Circular 1: Copyright Basics (1.1008), available at <http://www.copyright.gov/circs>.

recording of documents; providing technological assistance to Congress; providing information services to the public; and consulting on copyright issues internationally.<sup>2</sup>

Since the Copyright Office's creation, it has registered over 33 million claims; the number in fiscal year 2007 was 526,378. Also in fiscal year 2007, the Office recorded 11,534 documents covering more than 500,000 titles of works<sup>3</sup> and transferred over one million mandatory deposits to the Library of Congress, valued at more than \$45 million. All copyrights registered since January 1, 1978 can be accessed online in a searchable database that contains more than 16 million entries. In recent years the Office has received around a half million new claims applications annually.<sup>4</sup>

In fiscal year 2007, the Library of Congress operated with a budget authority of \$600,417,000 and a permanent staff of 3,691 employees.<sup>5</sup> The Copyright Office's budget authority was \$52,816,000, with a staff ceiling of 517 employees.

#### *Copyright Office Reengineering Project*

In 2000, the Copyright Office embarked on a reengineering project whose main goals were "to reduce processing times for registration and other services, create more timely public records, improve response times for public requests, enhance the security of all copyright materials, contain operational costs, and use staff and space more efficiently."<sup>6</sup>

A major element of the reengineering was implementation within the Copyright Office of a new technology system—Oracle's Siebel Customer Relationship Management (CRM) application—to eliminate duplicate data entry, enhance search capabilities, and allow the exchange of data with other Library of Congress systems. The new system, called eCO, would include an online application system for copyright claim registration.<sup>7</sup> The reengineering was also to involve a reorganization of processes around outcomes, and, in turn, realignment of the various divisions of the Copyright Office around the processes so as "to promote accountability for end products and services."

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<sup>2</sup> "United States Copyright Office: A Brief Introduction and History," <http://www.copyright.gov/circs/circ1a.html>, accessed August 3, 2009.

<sup>3</sup> United States Copyright Office, *Annual Report*, Library of Congress, 2007, <http://www.copyright.gov/about.html>.

<sup>4</sup> "United States Copyright Office: A Brief Introduction and History," <http://www.copyright.gov/circs/circ1a.html>, accessed August 3, 2009.

<sup>5</sup> The Library of Congress, *Annual Report*, Fiscal Year 2007, <http://www.loc.gov/about/reports/annualreports/index.html>.

<sup>6</sup> "Reengineering Work Moves Forward," *ReNews: Copyright Office Reengineering Update*, United States Copyright Office, The Library of Congress, April 2002, p. 1.

<sup>7</sup> *Ibid.*

The reengineering effort was to have been fully implemented in fall 2004 but experienced various delays.<sup>8</sup> The Library of Congress did not approve the Copyright Office's reorganization—the culmination of more than six years of work and involving over 200 new position descriptions—until March 2007. The Office did not publicly launch the web-based eCO online copyright claim application system until July 1, 2008, and the downloadable PDF Form CO (discussed later) came online two months later.

Implementation of the eCO system initially slowed the processing of new copyright claim applications as staff needed time to become familiar with it. The Copyright Office had always had a number of claims applications that were in process for an excessive amount of time, but the backlog increased rapidly following the re-engineering. A September 2008 report by The Library of Congress Inspector General's Office concluded that "this steadily increasing backlog will have a serious impact on the U.S. copyright system by delaying the registration of copyright claims, negatively impact the Library's ability to provide researchers with current materials in a timely manner, and present the Library with a growing space and security of collections issue."<sup>9</sup> In May 2009, *The Washington Post* ran a story on the delays at the Copyright Office that garnered national attention.<sup>10</sup> As of September 2009, the backlog was around 550,000 claims, approximately the number of new claims applications the Office received annually.

A recent Inspector General's report noted that the Copyright Office was taking appropriate steps to clear up the backlog: "The progress that has been made since our September 2008 report is encouraging. We expect that Copyright will continue to refine its systems and processes and soon begin decreasing the accumulated backlog."<sup>11</sup> The Inspector General's office commended "Copyright for already strongly addressing all of the findings in our 2008 report."<sup>12</sup> The report, however, pointed out areas of continued concern, such as the persistence of the excessively slow eCO response times (although acknowledging that ongoing upgrades to eCO are intended to improve the situation) and the continuing difficulty that users were having with eCO and the online application process.

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<sup>8</sup> Ibid.

<sup>9</sup> Karl W. Schornagel, Memorandum to James H. Billington, "Conditions in the Processing of Copyright Claims," Office of the Inspector General, The Library of Congress, September 3, 2008, p. 1.

<sup>10</sup> Lyndsey Layton, "2009? Wishful Thinking, Perhaps, as Backlog Mounts," *The Washington Post*, May 19, 2009.

<sup>11</sup> Office of the Inspector General, The Library of Congress, "Copyright Office, Follow-up Review of Copyright Claims Processing," Report No. 2001-IT-304, Washington, D.C., September 2009, p. 12.

<sup>12</sup> Ibid., p. 2.

### *Current Organizational Structure of the Copyright Office*

The Copyright Office consists of a number of central executive and administrative offices, one of which is the Register for Registration and Recordation. It is responsible for the Registration and Recordation Program (RRP), which examines all copyright claims applications and issues or denies copyright certificates. Three divisions within the Register's office handle examination, cataloging, certification, and disposition of the deposit copies (the electronic or hard copies of the works for which an applicant is seeking a copyright) involved in copyright claims in their respective subject areas: Literary (TX) handles most written works such as books and single serial issues (SE); Performing Arts (PA) is responsible for material such as sound recordings (SR); and Visual Arts and Recordation (VA) addresses mainly motion pictures (MP) and the recordation of certain documents (DA).<sup>13</sup>

Four programmatic divisions report to the Copyright Office's Chief Operating Officer:

- *Copyright Acquisitions*, which handles the mandatory and voluntary deposits specified under sections 407 and 408 of the copyright law, respectively.
- *Information and Records*, which is responsible for answering requests for information or materials, conducting copyright searches, providing additional copyright certificates and certified or non-certified copies of copyrights, and finding recorded copyrights.
- *Licensing*, which administers the compulsory and statutory licenses under copyright law.
- *Receipt, Analysis, and Control (RAC)*, which handles the receipt and initial processing of certain categories of incoming mail to the Copyright Office. RAC has three sections:
  - Primary responsibilities of the *In-processing Section (IPRO)* include sorting incoming Copyright Office mail, labeling new copyright claim applications with tracking numbers, creating electronic records of the applications in eCO, forwarding application fee payments to the Accounts Section, and transferring processed claims to appropriate RRP divisions. IPRO has 58 employees consisting of a GS-301-11 section head; six GS-305-9 supervisory mail clerks; four GS-305-7 lead mail assistants; and 47 GS-305-6 mail assistants. Staff other than the section head are divided

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<sup>13</sup> For example, legal agreements about the ownership of copyright material.

into six teams, each with a supervisor. Team supervisors assign the mail assistants under them to any of a number of mail and claims processing tasks based on variations in the flow of mail, workload at any point in the processing system, and, in general, what is needed to process the material expeditiously. Except for the section head, all IPRO staff are members of AFSCME Local 2477.

- The *Accounts Section* handles all financial transactions, including payments of fees made electronically and by check and cash.
- The *Out-processing Section* takes care of items requiring special handling, applicant responses to inquiries and requests from RAC related to incomplete claims, triage for damaged mail, and inquiries and replies.

#### *The Copyright Claim Application Process*

To register a basic copyright claim, applicants must submit three correctly completed elements:

- An application form
- A nonrefundable filing fee
- A nonreturnable deposit of the work to be copyrighted.

The Copyright Office will not recognize an application until it receives all three elements, each meeting the filing requirements.

Since the reengineering, there are three ways to apply to register a copyright claim: online using the web-based eCO process; using the hybrid electronic/paper Form CO; and through the pre-reengineering fully paper process. The first two came into play following introduction of the eCO system. As discussed later, the Copyright Office has taken steps to encourage applicants to file online or through Form CO.

The *application forms* are as follows:

**eCO.** Applicants can use the online eCO system to file their application electronically, including fee payment. They can pay by credit or debit card, electronic check, or Copyright Office deposit account.<sup>14</sup> They may transmit some

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<sup>14</sup> Applicants who apply for copyrights frequently, such as publishers, can establish a deposit account with the Copyright Office. When they submit new claims, the Office deducts the fees from the deposit account, which the applicant replenishes as needed.

work(s) electronically with the online application (the submitted work is called a deposit); otherwise the applicant prints out a deposit ticket, attaches it to the physical deposit, and transmits the ticket and associated deposit to the designated Copyright Office address.<sup>15</sup>

**Form CO.** Applicants may pull up a seven-page PDF “Registration with Fill-In Form CO” on the Copyright Office website, complete it online, and print it out (completed forms cannot be saved online). Each page of the completed Form CO has a series of barcodes (called 2-D barcodes) that contain the required information the applicant has entered into the Form CO; the barcodes are intended to facilitate processing by the Copyright Office. The applicant transmits the Form CO and associated work(s) to the designated Copyright Office address.

**Paper Forms (TX, VA, PA, SR, and SE).** Applicants may complete the separate paper application forms in use before the introduction of eCO; there is a separate form for each type of work being submitted (e.g., Form TX covers literary works). The Copyright Office does not provide these forms on its website, but will mail them to an applicant upon request. Applicants also photocopy old forms in their possession from earlier claims or obtain them at public libraries or through internet searches.<sup>16</sup> (The new Form CO can be used in place of all these paper forms.) Applicants must submit the necessary payment or reference a deposit account and provide a physical deposit of the work (if required) along with the form.

With respect to the *application fee*, until the end of August 2009 the filing fee for all three types of basic claim applications was \$35. To encourage applicants to submit their applications electronically, on September 1, 2009, during the course of this study, the Copyright Office increased the fee for Form COs to \$50 and for the old paper forms to \$65.

#### *Measures to Encourage the Use of Electronic Applications*

The Copyright Office encourages applicants to use the web-based online eCO application system through the fee changes described above and by not providing the old paper forms on its website. The way it lists and describes the filing methods on its website is intended to steer applicants away from paper: on the application information page (<http://www.copyright.gov/forms>), the eCO application system appears first and is

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<sup>15</sup> Unpublished works; works published only electronically; published works for which the deposit requirement is identifying material; and published works for which there are special agreements requiring physical deposits to be sent separately to the Library of Congress may be registered with electronic deposits. Physical copies are required for all other classes of works.

<sup>16</sup> In addition, several commercial companies will handle the entire copyright application process for a fee. The Copyright Office has no affiliation with these companies.

described as having “the fastest processing time, online status tracking, secure payment by credit or debit card, electronic check, or Copyright Office deposit account, and the ability to upload certain categories of deposits directly into eCO as electronic files.” Form CO is listed second as the “next best option.” When the Copyright Office mails out paper forms upon request, it includes information about the online application system to promote electronic filing.

There has been a steady shift toward use of the online application system. In the week of July 27, 2008, nine weeks after it became publicly available, the split between applications received electronically and by other means was roughly 50%-50%.<sup>17</sup> By August 2009, just before the fee changes, the split was 64% online, 30% paper, and 6% CO (Table 1). The Copyright Office anticipates that the fee changes and general trend toward doing business electronically will lead to a further increase in the share of electronic applications. It would like to reach at least 85% online applications.

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<sup>17</sup> There were 8,644 paper and 8,592 online applications.

**Table 1. Distribution of Processed Copyright Applications by Type of Claim,  
FY 2008 and FY 2009**

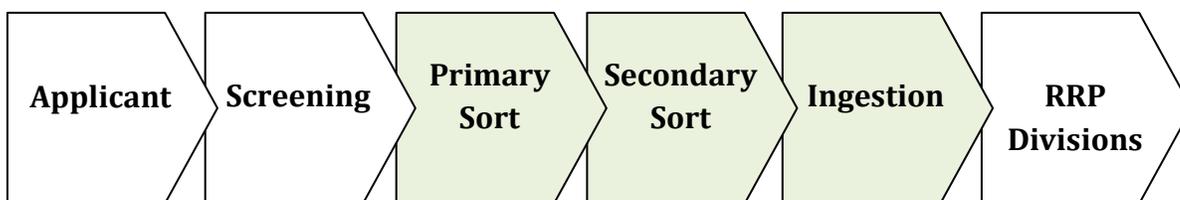
Quarter	Total Claims	Paper		Online		Form CO	
		Total	% of Total Claims	Total	% of Total Claims	Total	% of Total Claims
4Q FY08	148,317	88,167	59	58,964	40	1,186	1
Q1 FY09	118,779	45,969	39	66,277	56	6,533	6
2Q FY09	122,374	44,794	37	71,116	58	6,464	5
3Q FY09	132,985	42,885	32	76,356	57	13,744	10
4Q FY09	116,498	31,052	27	76,887	66	8,559	7

*Source:* Compiled by OP&A from the Copyright Office eCO database.

## The In-processing Section

Consistent with the scope of this study, the balance of this report looks specifically at the In-processing Section of RAC, with the focus, as stated, on the processing of new basic claim applications. However, the handling of mail prior to arriving at the Copyright Office is reviewed first because it significantly affects the workflow within IPRO. Figure 1 shows the flow of an application from the applicant through transfer to RRP, the end of the IPRO process.

**Figure 1. Flow of Copyright Claim Applications from the Applicant to Transfer to the Registration Examination Divisions**



### Transmittal and Receipt of Paper Applications

Applicants using Form CO and the paper application forms, as well as those submitting a physical deposit to accompany an online eCO application, can use a variety of methods to get their applications to the Copyright Office: US Postal Service (USPS) non-express mail; private carriers (e.g., FedEx and United Parcel Service [UPS]) and USPS Express Mail; courier; and hand delivery by the applicant. The Copyright Office established several PO Boxes to expedite the handling of certain types of mail. Of those, PO Box 71380 is used for applicant responses to inquiries and requests from RAC related to incomplete applications (e.g., missing payments); mail to this PO Box is handled by the Out-Processing Section. PO Box 71680 is used for responses to inquiries and requests from the RRP divisions; IPRO sorts and processes this mail. The Copyright Office lists several other PO Boxes in its brochure “Copyright Basics” but currently is not using them.

Since the anthrax attacks in 2001, all mail sent to the U.S. Congress address, including the Copyright Office, must, by Congressional policy, be screened for biological and chemical contaminants. How that happens depends on the method of transmittal.

1. USPS non-express mail addressed to the Library of Congress street address: USPS takes all flat mail from Washington, D.C. to its irradiation facility in New Jersey,<sup>18</sup> irradiates, returns it to Washington, D.C., and then delivers it to a Capitol Heights screening facility operated by Pitney Bowes.<sup>19</sup> There the mail is opened and screened again using a gas filtration process. Once cleared, Pitney Bowes sorts the Library of Congress mail by defined routes, including the Copyright Office. Staff put the USPS mail into clear plastic bags and write the date received at the Capitol Heights facility on the outside of the bags. That date becomes the effective date of receipt for purposes of copyright registration.<sup>20</sup> At this point the mail is delivered to the Library of Congress's loading dock at the James Madison Building. The USPS irradiation process (including transportation to New Jersey and back) typically takes two to three days and the Capitol Heights screening, sorting, and delivery process another two to three days.
2. Private carriers and USPS Express mail: mail transmitted by private carriers and USPS Express Mail goes directly to the Capitol Heights facility, where it is opened and subjected to the gas filtration screening. Items transmitted in these ways are called "accountable mail" since the carriers require a signature upon delivery. In the case of accountable mail received at the Capitol Heights facility or Congressional Courier Acceptance Site (CCAS), Pitney Bowes staff sign for it, enter tracking information into the Pitney Bowes' proprietary "Arrival" system, and affix a date sticker to the package. Pitney Bowes can now track the mail through the Arrival system. The date Pitney Bowes assigns to the item, not the date of receipt by the carrier, becomes the effective date of registration of the application (see fn 20 for the date of receipt in the case of incomplete applications).
3. Couriers: couriers deliver mail for the Copyright Office to CCAS, where it follows the same process as mail sent to the special PO Boxes.
4. Hand delivery: individuals may deliver unsealed claims applications in person to the Copyright Office's Public Information Office at the Library of Congress's Madison

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<sup>18</sup> According to a USPS release on January 31, 2002, "Currently, the only mail being irradiated is destined for specific government offices in ZIP Codes 202, 203, 204 and 205" ([http://www.usps.com/news/facts/lfu\\_013102.htm](http://www.usps.com/news/facts/lfu_013102.htm)). The recent Library of Congress Inspector General's report incorrectly implied that Pitney Bowes is involved in the irradiation (Office of the Inspector General, The Library of Congress, "Copyright Office, Follow-up Review of Copyright Claims Processing," Report No. 2001-IT-304, September 2009, p. 7).

<sup>19</sup> USPS does not irradiate large-size mail (called boxes) but instead transfers it directly to the Capitol Heights facility for gas filtration screening. In the case of the special PO Boxes, mail up to a certain size is taken by a Library of Congress contractor (not Pitney Bowes) to the Congressional Courier Acceptance Site (CCAS), another facility operated by Pitney Bowes. CCAS opens the mail and screens it using a streamlined process. Larger mail goes to the Capitol Heights facility.

<sup>20</sup> Note that the facility does not verify that the application is complete. As described later, IPRO will change the receipt date of incomplete applications to the date on which it receives the completed application.

Building on Independence Avenue, SE in Washington, D.C. The office screens those applications visually.

### **Delivery to the Copyright Office**

The Capitol Heights facility delivers screened mail to the Madison Building loading dock every business day, usually between 2 pm and 3 pm. Pitney Bowes staff at the loading dock do a fine sort of the mail by Library of Congress destination. Copyright Office mail goes into all-purpose cages, which are generally filled with either flats or boxes, and marked with the type of mail and date on which it arrived at the loading dock.

### **I PRO Mail Processing**

The Copyright Office receives about 5,000 pieces of mail per day, or approximately 1,300,000 pieces a year. Less than half of this mail consists of new claims for copyright registration using either the Form CO or old paper application forms, and physical deposits of works associated with online eCO applications. The other mail includes mandatory deposits of published materials destined for the Library of Congress, replies to Copyright Office correspondence regarding applications in process, and routine Copyright Office mail.

The following sections detail how I PRO processes new basic copyright registration applications.

#### *Receipt of Mail by I PRO and Primary Sort*

Each workday afternoon, mail assistants assigned to I PRO's primary sort collect the cages from the loading dock and deliver them to designated, secure sorting rooms. The following day, the mail assistants conduct the primary sort of the cages, separating new applications and deposits associated with eCO applications from the other mail based upon addresses. Items marked for special handling are set aside for transfer to Out-processing. Staff return the new copyright claims applications to the cages in which they were delivered and re-label the cages with the date of receipt that the Capitol Heights facility staff stamped on the cage; they also designate the cage as "F" for flats or "B" for boxes. Following the primary sort, the cages are taken to the rooms where the two types of mail are sorted. Both sets of cages are placed in a queue in date order to await the secondary sort. The cages normally enter the queue within one day of arrival at the loading dock.

### *Secondary Sort*

A small group of IPRO mail assistants performs the secondary sort, working on the cages of flat or box mail in sequential date order, beginning with the earliest date. That is, they follow a first in-first out (FIFO) process. The staff open and rapidly inspect each piece of mail to determine its contents, first identifying it as a new claim, deposit related to an online application, or other mail that may have been mis-sorted during the primary sort (this mail goes into bins for re-delivery elsewhere). The IPRO mail assistants then separate the new claims by the “session default” categories<sup>21</sup> (Table 2) used in the eCO system during ingestion (see the next section). These categories were established in part to accommodate requests from RRP divisions intended to facilitate their examinations. For example, the Literary Division wanted a sort that included payment type, because it believed that applications with checks were more likely than deposit accounts to contain application errors, as remitters using deposit accounts are usually more familiar with the copyright registration process. Other divisions did not have this particular need. The categories reflect three characteristics of a basic application:

1. Type of application (old paper application, Form CO, or eCO deposit ticket)
2. Subject area of the claim
3. Payment type (check or deposit account).

Staff place applications belonging in each category into hampers labeled with the type of application and receipt date stamped by the Capitol Heights facility. Once the cages for a date are sorted, staff close, seal, and move the hampers into a queue for ingestion, the next stage in the process. They do not begin work on the cages from the next date until they have completed all cages with an earlier date.

### *Ingestion*

Ingestion is the point at which IPRO creates an electronic record of the applications in eCO. The team supervisors select the hampers for their mail assistants (called ingestors in this section) from the queues created by the secondary sort. Usually they make the selection based on which types of applications have more hampers awaiting ingestion or which session default the equipment is currently set at. The reason for the latter practice is that changing the session default is time-consuming and cumbersome and creates a potential for error. Therefore IPRO has adopted a procedure of ingesting all the mail in one category, e.g., Form COs using deposit accounts for payment, before moving on to

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<sup>21</sup> Each category of application has a specific parameters, called a “session default” within IPRO.

another category, e.g., sound recording applications with checks. When the ingestors move onto a new category, they must change to the session default setting for the new category.<sup>22</sup> One result of assigning hampers in this way is that the applications do not necessarily get ingested according to FIFO. Interviewees said that the ingestors get to most hampers within a few weeks.

**Table 2. Categories Used for the Secondary Sort**

TX	PA	VA	MP (Motion Pictures)	Documents
New claims cash	New claims cash	New claims cash	New claims cash	Documents cash
New claims DA	New claims DA	New claims DA	New claims DA	Documents DA
New claims Serials		New claims Serials	New claims Serials	
Groups Serials				
New claims Form CO cash	New claims Form CO cash	New claims Form CO cash	New claims Form CO cash	
New claims Form CO DA	New claims Form CO DA	New claims Form CO DA	New claims Form CO DA	
Replies	Replies	Replies	Replies	
Deposit Tickets (eService)	Deposit Tickets (eService)	Deposit Tickets (eService)	Deposit Tickets (eService)	
Form CAs	Form CAs	Form CAs	Form CAs	
	Renewals (including Renewal Addendum)			
				Mask Works
				OSPs (Online Service Providers)
				D-VH (Design – Vessel Hull)
<p><i>Notes:</i> CA = Document applications with payment by check; DA = Document applications with payment by deposit account; Mask works = 3-dimensional patterns fixed on a semiconductor chip; OSP = companies that provide products used online, such as games; TX = literary applications; PA = performing arts applications; VA = visual arts applications.</p>				

<sup>22</sup> Teams 5 and 6 usually get box mail because a conveyor belt runs between their cubicles. A few other ingestors consistently get certain types of applications—for example, ingestors who have the scanners necessary to read the 2-D barcodes on Form COs get those applications.

The first step in ingestion is for the ingestors to create a service record in the eCO database, with each Form CO and paper application form getting a unique identifying service record number. The ingestors do this by affixing a unique adhesive paper barcode, IBAL (commonly pronounced “eyeball”) to the application form, and other barcodes to each associated physical deposit and check (if applicable). Those latter barcodes are linked in the system to the number in the IBAL barcode affixed to the application form. The ingestors then scan all the barcodes into the eCO system. This is the first point in the processing of a claim at which the Copyright Office can track an individual claim and the material associated with it. The ingestors also scan the application form itself to create an electronic image within eCO. The deposit tickets used to transmit hard-copy deposits associated with applications submitted online are also scanned into the system, thereby linking the deposit to the online application record through the number on the deposit ticket. In the case of Form COs, the ingestors scan all seven pages, and the system picks up the information recorded in the barcodes. Throughout the day the ingestors collect the application forms after they are scanned and send them to storage.<sup>23</sup>

The ingestors also enter the payment amount into the eCO system. If it is less than required, the system will notify Accounts, whose staff will in turn notify the applicant. Although the claim is still transferred to the appropriate RRP division after ingestion, the division will not examine it until the fee is paid. Checks are collected in batches and submitted to supervisors at the end of each day, or when an ingestor has accumulated a substantial number of them. One of the last steps in ingestion is to affix a security device, usually a magnetic strip, to physical deposits; these devices will beep if someone tries to leave the building with a deposit.

Current performance requirements for ingestion state that each ingestor should create 75 service records per day for paper application forms, 55 for Form COs, and 70 for deposit tickets. These requirements are adjusted to reflect the portion of a day that a staff member spends on duties other than ingestion. Form COs have the lowest number of records per day for two main reasons. Applicants may use printers that do not print machine-readable barcodes, may place staples where they interfere with reading the barcodes, or add additional handwritten information in a manner that obscures parts of the barcodes, although the directions warn applicants about writing over the barcodes. The ingestor has to review each Form CO to ensure it has the necessary barcodes and the barcodes are not bent or creased and are clear of handwriting. If there is a problem, the

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<sup>23</sup> The exception is that the Literary Division has requested the application forms along with the associated deposits, in order to expedite examinations.

ingestor has to enter the information manually.<sup>24</sup> In addition, as noted, Form COs require scanning seven pages. As discussed later, analysis by the OP&A study team based on recent data indicate that in fact Form CO and paper applications now take about the same time for actual ingestion.

Deposit tickets have the next lowest target for number of service records created per day because often the applicant puts multiple deposits on the same ticket, although they are not supposed to. The ingestor then has to search the system to locate the eCO application record with which the deposit should be associated.

#### *Transfer of Applications from IPRO to RRP*

The ingestors place ingested deposits of works (along with the application forms in the case of the Literary Division) in a Copyright Office bin (COB) marked with the date of receipt of the applications at the Capitol Heights facility it contains. Each COB should contain only items for one RRP division and one type of application within that division. Each COB has a barcode strip that is scanned into the eCO system so that its location (and the applications it holds) can be tracked. Once a bin is full, the ingestor puts it on a truck (a rolling cart) designated for the RRP division that handles that type of claim. IPRO staff transfer the trucks to a location (generally within a RRP division) to await pickup by RRP staff. The next date entered into eCO is the date on which the RRP division actually places the COB on a shelf for storage. Sometimes a RRP division has no storage space and can't accommodate a truck, in which case it will stay within IPRO in the interim. In the event that a truck or hampers on it are sent to the wrong RRP division, or individual applications were put into the wrong hamper, a staff member from RRP returns the misdirected COB or applications to IPRO. There are no specific procedures and tracking systems for transfers of COBs from IPRO to RRP, holding COBs within IPRO pending acceptance by RRP (or a designated holding area for the COBs), and return of mis-sorted applications from RRP to IPRO.

Occasionally, an ingestor will not process enough of one type of claim to fill a COB in one day, and the ingestor will hold the COB until it is full. The COB may remain at an ingestor's work station for several days or more and when full will likely contain items from different dates. Several interviewees from divisions in RRP claimed to have experienced delays in deliveries following ingestion. One interviewee said, "We suspect things are sitting in RAC. We can see it's received in Seibel, but we don't have it." The

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<sup>24</sup> According to the recent Inspector General's report, a "small percentage of [Form CO] ... require manual data entry." (Office of the Inspector General, The Library of Congress, "Copyright Office, Follow-up Review of Copyright Claims Processing," Report No. 2001-IT-304, September 2009, p. i.)

study team found a COB that included a range of dates, with the oldest item recorded as the date on the COB and at least one item recorded closer to the delivery date.

### *Current Processing Times*

According to the Copyright Office website, the current estimated turnaround from receipt of an online eCO application to issuance or denial of a copyright certificate is 4.5 months when the deposit is also filed electronically, and 7.5 months when a physical deposit is submitted. For Form COs and paper forms, the time is estimated at 20 months.<sup>25</sup>

To determine what the elapsed time by type of application has been in practice, the study team analyzed the recorded dates for various types of claims using data from the eCO system database (the system does not yet have this analytics capability, but it is now being installed as part of an upgrade to the next generation of Seibel). Using Oracle SQL inquiries, the study team compared April and May 2008 dates with April through August 2009 dates.<sup>26</sup>

The OP&A analysis made clear that the reengineering and implementation of eCO have improved the timeliness of application processing through ingestion, particularly in the case of online applications. By August 2009, IPRO moved the average basic application, regardless of type, from receipt at the Capitol Heights facility through ingestion faster than it had in 2008. The changes in times by type of application are discussed below (see also Figures 2 through 5).

As Figure 2 shows, IPRO processed nearly all *online* applications—91.1%—within one day, and 99.6% within two days.<sup>27</sup> The remaining 1% took up to 75 weeks.<sup>28</sup> The upward movement of the tails to the right shows a steady decrease in the percentage of applications taking longer than one day.

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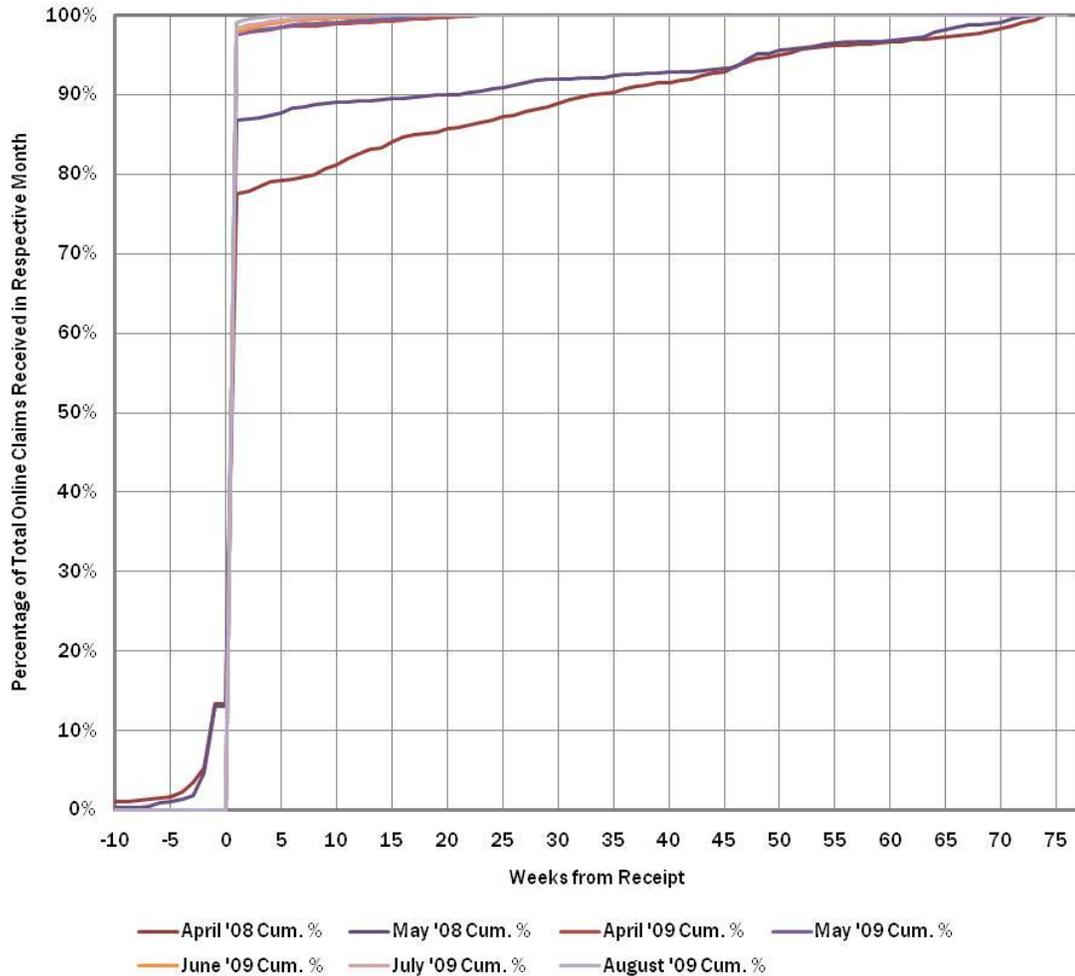
<sup>25</sup> <http://www.copyright.gov/help/faq/faq-what.html#certificate>.

<sup>26</sup> The data analyzed by the study team covered claims identified in eCO as “regular, priority 3, claims”; these constitute the bulk of the applications.

<sup>27</sup> This does not include the RRP examination and registration process. As stated, online eCO applications may require submission of a physical copy for examination.

<sup>28</sup> The study team did not attempt to ascertain the causes of the delays with this 1%.

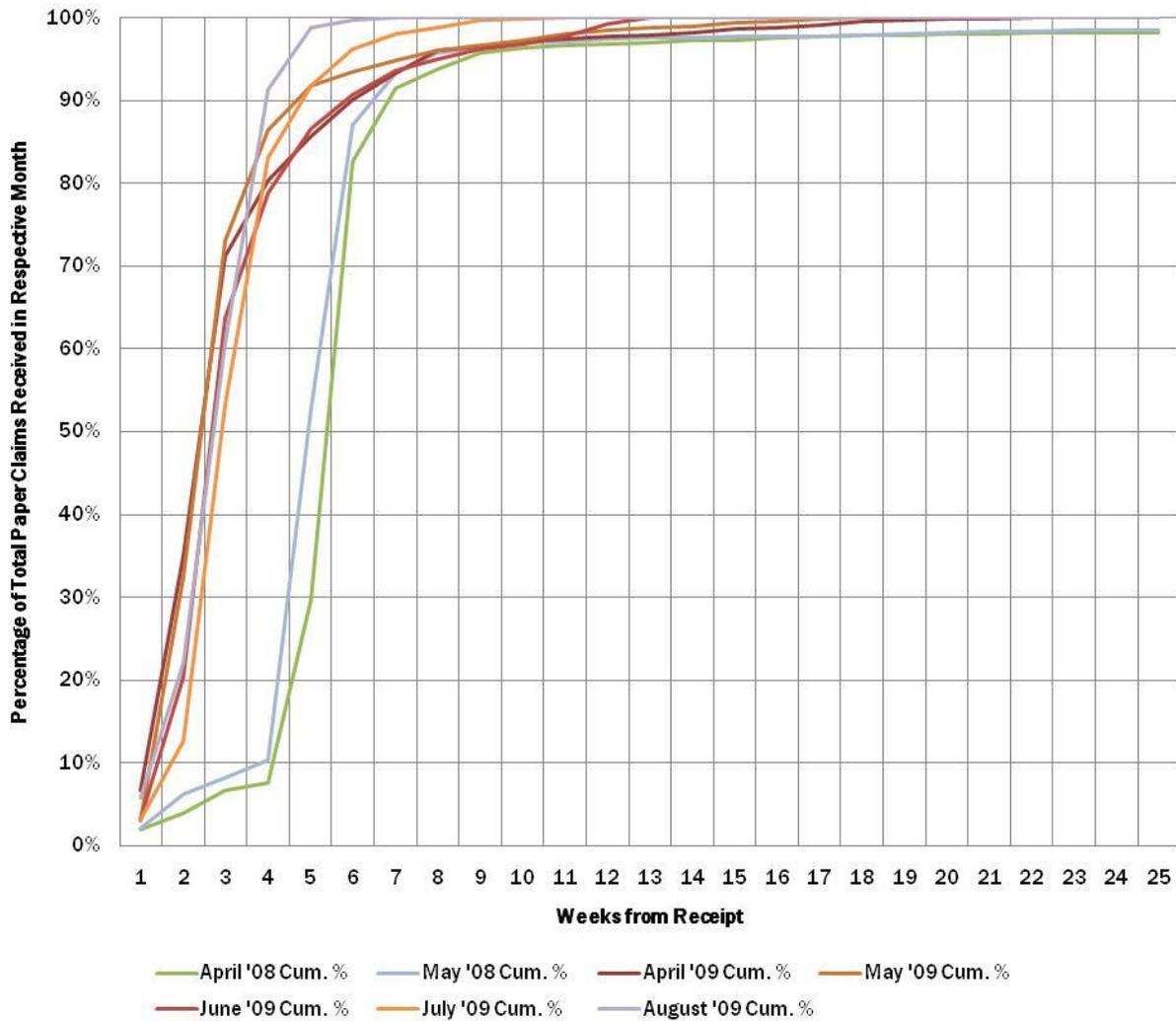
**Figure 2. Online Copyright Application Processing Times  
from Receipt Through Ingestion  
(cumulative percentages)**



*Note:* A tail to the left indicating negative times between receipt of an application through ingestion represents incomplete applications. As noted, when the Copyright Office receives the completed application, it enters that date into eCO, overriding the original receipt date established by Pitney Bowes.

*Paper* applications showed a similar pattern (Figure 3): whereas in April and May 2008, IPRO ingested 90% and 94% of paper applications within 7 weeks, respectively,<sup>29</sup> in August 2009 it ingested 91% of applications within 4 weeks and 99% within 5 weeks.

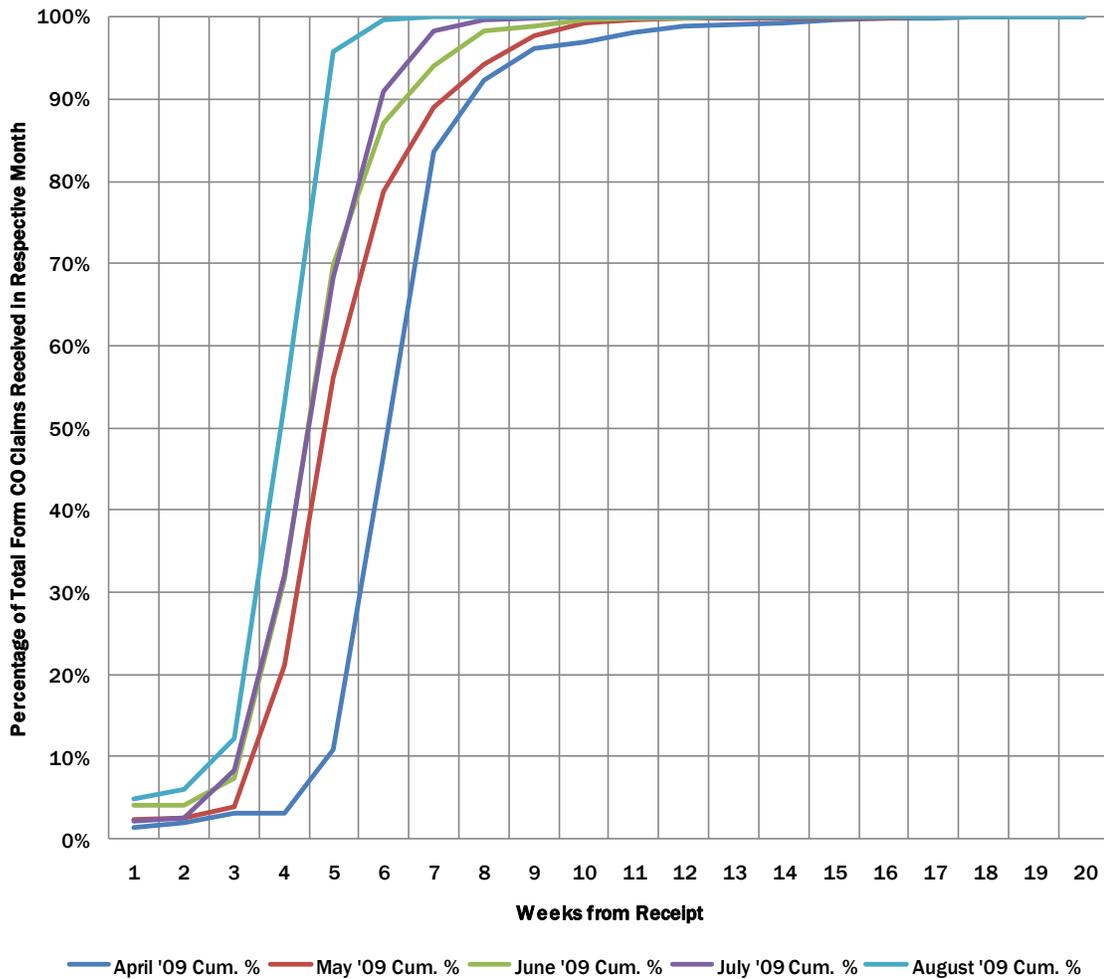
**Figure 3. Paper Copyright Application Processing Times from Receipt Through Ingestion**  
(cumulative percentages)



<sup>29</sup> The study team calculated the time between receipt and ingestion as the ingestion date minus the receipt date in days. For ease of presentation, the figures show calendar weeks, which include non-work days (e.g., weekends and holidays). Thus the actual number of working days between receipt and ingestion is less than the number of weeks may suggest. In addition, the elapsed time includes the three days between the day the Capitol Heights facility receives the applications and delivery of the cages to IPRO, as well as the USPS irradiation time where applicable.

As with the other two types of applications, increasing experience with ingesting Form COs resulted in improved performance each month, although it took longer for Form CO applications to show an upward curve in all the months studied, especially April 2009 (Figure 4).<sup>30</sup> In that month, about 10% of applications made it through in 5 weeks,

**Figure 4. Form CO Copyright Application Processing Times from Receipt Through Ingestion**  
(cumulative percentages)



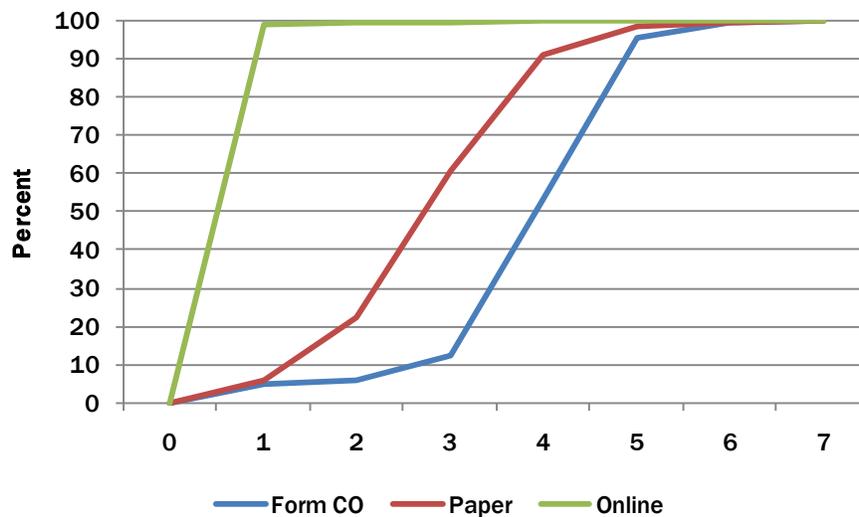
<sup>30</sup> There are no data for April and May 2008 because Form CO applications were not available until September 2008.

whereas in May 2009 it took about 3 weeks.<sup>31</sup> By August 2009, 96% of the applications were processed within 5 weeks. Broken down, 13% of Form COs were processed within 3 weeks, about 83% within 3-5 weeks, and about 4% within more than 5 weeks.

The study team often noticed that Form CO hampers were awaiting ingestion in the designated storage area. That delay in beginning ingestion may be due to the way supervisors select the hampers for ingestion, rather than following a FIFO process and, as discussed later, may be prolonging the duration of the processing time.

By far the longest stage of application processing within IPRO is ingestion. Based on the study team’s September 2009 audit of cages, it took the median item 3 working days (5 calendar days) to get through the primary sort from the date of receipt at the Capitol Heights facility, followed by 4 working days (7 calendar days) to get through the secondary sort, for a total of 7 working days (12 calendar days) before it was available for ingestion, or 1.5 calendar weeks. Because of the weight of ingestion in the processing times, the study team decided to compare the actual ingestion times in August 2009 for paper and Form CO applications. As Figure 5 shows, the time for actual ingestion of paper and Form CO applications was similar. Thus the longer elapsed time it takes Form COs to get through ingestion likely has to do with the failure of supervisors to select and assign those hampers on the basis of FIFO. Unfortunately, no data are available to determine how long Form CO hampers await selection.

**Figure 5. Comparison of Ingestion Times by Type of Application, August 2009**  
(cumulative percentages)



<sup>31</sup> Again, this timeframe includes the two or three days between the Capitol Heights facility receiving an item and delivering it to IPRO, as well as the USPS irradiation time where applicable.

## Issues Identified During the Study

Interviewee comments and the study team's observations and analysis identified a number of issues, the key ones being:

- Errors in the processing of new basic claims
- Inefficiencies in the processing system
- Inadequate control, or security, over applications while in IPRO
- Potential for improving customer service
- Absence of a robust performance accountability system

These issues are discussed below. It should be noted at the outset that the categories are not discreet. For example, security is an issue in its own right, but also relates to the quality of customer service.

### **Errors in Processing Applications**

Interviewees noted a variety of errors that arose in IPRO's processing of applications and what they believed were the causes. For example, "Sometimes [RRP's] stuff is processed inaccurately; sometimes we get stuff that hasn't even been ingested." On occasion IPRO incorrectly recorded in the eCO system the location of materials. The study team observed delivery of COBs to the Performing Arts Division that should have gone to the Visual Arts and Serials Divisions,<sup>32</sup> and it also observed and took pictures of trucks with applications received at the Capitol Heights facility up to six months earlier that were just showing up at the RRP division. When the study team audited trucks in a RRP division, it found one with two COBs that did not belong in that RRP division.

### *Unclear Processes*

Interviewees also attributed some errors to unclear processes. They noted the not infrequent requests for process changes by RRP divisions to facilitate their examinations. These requests generally went to a single supervisor, who would notify the staff in his or her team but not necessarily those in the other teams. Given that members of the different teams often performed the same tasks, not knowing about a change meant that claims were being processed differently until someone realized what was happening.

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<sup>32</sup> In some cases it is unclear which division should get an application because it falls into more than one area—is a picture book a Literary or Visual Arts item? The decision ultimately rests with the RRP examiner.

The study team asked to see a manual on standard operating procedures to understand what they were and as a reference point against which to check its observations. It was told that a manual was being developed, but was not shown any drafts or other process- and procedure-related reference materials.

Some interviewees pointed to training as an issue. Rather than being a specialized function within IPRO, staff training is essentially provided on the job (OJT), with more experienced mail assistants supported by supervisors providing it to less experienced mail assistants. The Performance Plan for a Mail Assistant GS-305-06 lists as a major duty “Monitors the status and progress of training activities among the team,” and a performance requirement of mail assistants is “Conscientiously provides training and review of lower level staff’s work, as assigned.” Despite these job requirements, IPRO has no standardized training based on an operations manual or other written materials. According to interviewees, the OJT has been inconsistent across trainers, in turn leading to inconsistent processing of claims. One reason cited for the slowdown in IPRO’s processing of new claims following introduction of the eCO system is that it was rolled out primarily with OJT.

#### *Ineffective Communications*

Many interviewees noted lapses in communications within IPRO and between IPRO and the RRP divisions. In particular, as noted, changes in procedures were not always communicated to all staff or in a timely manner. Interviewees suggested some remedies for this situation, such as having common training, regular IPRO-wide meetings, and bulletins announcing changes.

#### *Cumbersome Session Defaults*

The session default set-up also contributed to errors, according to interviewees. The process for changing the defaults is, as noted, cumbersome, and staff did not always remember to change to a new default for a mis-sorted claim and then change back to the original default. It appears that only one division prefers the detailed breakdown now being used to categorize claims, and some interviewees questioned if even that division really needed additional categories.

#### **Inefficiencies**

The study team considered the matter of efficiency from the perspective of optimal use of resources and conditions that result in slowing application processing.

### *Excessively Slow eCO Response Times*

The study team heard from interviewees that the eCO system was excessively slow, cutting into productivity. One interviewee, for example, spoke of an experienced ingestor whose personal best in the case of applications involving serials where applicants paid by deposit accounts was 158 in one day, a day when there was the “perfect storm”—the eCO system was responsive and worked the entire day. The study team does not know to what extent this problem pertains. The slowness of the system may be the result of eCO being on the Library of Congress’s overall server; large networks tend to operate more slowly than smaller ones.

### *Mix of Types of Applications*

The study team attempted to estimate the total work effort spent on ingesting claims during FY 2009, assuming the mix of application types found in September 2009 and using the performance standards provided by IPRO (see the next section). The study team projected that it took 4,835 person-days to ingest the 490,636 FY 2009 new basic applications. Online applications required the least ingestion time since about half had electronic deposits and required no intervention by IPRO. The other half required IPRO to ingest the deposit tickets and handle the physical deposits.

The study team next assessed, using the same parameters as above, what the person-day requirements would be with different mixes of applications:

- If all applications were paper, processing would require 6,542 person-days, a 35% increase over the FY 2009 figure.
- If only online and Form CO applications were available, and using IPRO’s Form CO performance standard, which is lower than that for paper applications, the figure would be 5,634 person-days, a 17% increase.<sup>33</sup>
- If only online and paper applications were used (that is, eliminating Form CO applications), and calculating those person-days using IPRO’s performance standard, the level of effort would be 4,664 person-days, or a 4% decrease.
- Increasing the share of online applications, particularly those with electronic deposits and payment through a deposit account, would significantly reduce the person-days required for ingestion. Assuming 85% of applicants submitted their claims online (and the current distribution of 52% electronic deposits and 48%

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<sup>33</sup> Again, the study team’s analysis suggests that IPRO’s Form CO performance standard may be low.

physical deposits pertains), and with the remaining 15% of applications being paper, the number of person-days drops to 3,848, a decrease of 20%.

#### *Delays in Transferring Ingested Applications to RRP*

One source of delays in getting ingested applications to the RRP divisions is the retention of COBs until they are full or nearly full of items of the same type. If only a small number of a particular item comes through ingestion in a given day, the COB could sit in IPRO for an excessive period of time. Compounding the problem is that often the mail assistants store the partially filled COBs under their desks until they are sufficiently full to move out of IPRO. This storage location makes it difficult for supervisors to identify where the COBs are and whether they are being delayed in moving to RRP.

#### *Irradiation and Screening*

Interviewees noted that irradiation can damage the applications to the point that they need to be referred to Triage for special handling and sometimes to Out-processing to request that the applicant submit a replacement application. In addition, the irradiation process takes 2-3 days. Similarly, the Capitol Heights facility seems to take longer to complete its screen for toxins than happens at other Federal agencies. For example, the U.S. Department of Homeland Security (DHS) gets a 24-hour turnaround from its contractor, a standard that is written into the contract.

#### *Technology*

A major purpose of the reengineering was to introduce new technology, including an online application system, to make mail processing more efficient and to permit better record-keeping, tracking of mail, and quality control. Not all problems have yet been fully addressed. For example, the recent Inspector General's report cited continuing technical issues that hamper eCO's usability, including slow response times and applicant difficulties with the online application system.<sup>34</sup>

The cumbersome eCO session default process, which has a user interface designed with a number of windows that have to be navigated during processing, rather than having a single window with a "wizard" interface to facilitate usability, is a significant problem. As noted, the way work is assigned during ingestion is intended to minimize the need to change the session defaults, but also contributes to errors and may not be the best

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<sup>34</sup> Office of the Inspector General, The Library of Congress, "Copyright Office, Follow-up Review of Copyright Claims Processing," Report No. 2001-IT-304, September 2009, pp. 3-4.

process. Normally, the design of a system is intended to support a desired process, not cause its redesign.

#### *Mail Handling Before Receipt by IPRO*

Some interviewees mentioned two issues relating to the pre-IPRO mail handling: the irradiation by USPS and the timeliness of deliveries from the Capitol Heights facility. As noted, irradiation sometimes damages the material<sup>35</sup> to the point that it needs to be resubmitted or is time-consuming to ingest. Aside from the potential for damage to the mail, the irradiation process takes 2-3 days from the time the Washington, D.C. post office receives the mail to delivery to the Capitol Heights facility. The study team wondered about the need for any irradiation of Copyright Office mail. As it is, several categories of Copyright Office mail—accountable mail, applications in boxes, and mail sent to the special PO Boxes—do not get irradiated, receiving only the screening for toxins at the Capitol Heights or CCAS facilities. Other agencies such as the National Gallery of Art, U.S. Patent and Trademark Office (USPTO), and DHS have established mail-receiving facilities outside Washington, D.C., to avoid USPS irradiation, and USPTO switched to a commercial zip code that is not subject to mandatory irradiation. Other agencies have emphasized the use of accountable mail to reduce the incidence of irradiation.

With respect to screening at the Capitol Heights facility, some interviewees felt that Pitney Bowes was not always delivering the mail, particularly flat mail, in timely fashion, observing that there seemed to be days when the Copyright Office did not receive this type of mail. When asked, the contractor stated this was not the case. To attempt to determine if delays occurred, over several days the study team audited items in the cages awaiting the secondary sort. It found that all accountable mail had closely clustered shipping dates and the same receipt date provided at the Capitol Heights facility. At the same time, OP&A study team interviews with other Federal agencies and one mail contractor revealed that the turnaround for mail sent to contractor facilities was 24 hours, a performance standard written into the contracts and closely monitored, versus the 2-3 day Capitol Heights facility turnaround time. Further, USPTO now screens its own mail onsite using non-invasive X-ray technology and has achieved a turnaround time of a few hours. DHS constructed its own state-of-the-art screening facility, which provides services to other agencies for a fee.

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<sup>35</sup> As noted in the Office of the Inspector General, The Library of Congress, “Copyright Office, Follow-up Review of Copyright Claims Processing,” Report No. 2001-IT-304, September 2009, p. 7.

### *An Inefficient Mail Sorting Process*

Copyright claims applications currently go through four sorts—the two conducted by the contractor, Pitney Bowes (the first at the Capitol Heights facility and the second at the Copyright Office loading dock)—and the two within IPRO. An interviewee suggested that this number of sorts is inefficient in terms of time and required person-days. If the Copyright Office were to institute use of the other RRP division-specific zip codes to avoid irradiation, then it would be feasible for the Pitney Bowes staff at the Library of Congress loading dock to fine sort the Copyright Office mail by PO Box and other addresses. IPRO staff could then transfer the cages of mail with the same PO Boxes directly to the ingestion stage. The study team did not study this alternative in depth, but it sees a number of potential benefits—a small savings in elapsed time to get applications to ingestion, a reduction in the person-days required for sorting, and more timely assignment of service record numbers to applications.

### *Questions Raised About the Work Space*

Some interviewees said that IPRO has less space than before the reengineering and building renovation, contrary to what it expected. The study team did not observe problems with the amount of IPRO's space. However, it is possible the space might be used more effectively. For example, while there were designated areas for holding different types of work (e.g., deposit tickets and Form COs), the study team did not believe adequate attention had been paid to designating space specifically for holding COBs awaiting transfer to RRP and returned COBs of misdirected applications.

Beyond the delay in the examination and notification of acceptance or denial of claims by RRP, the backlog has had another consequence. As noted, the reengineering included reconfiguring and increasing IPRO's space to streamline the movement of materials transferred from one stage of the IPRO process to the next, including transfer to RRP. However, the amount of space occupied by the backlogged claims in RRP has sometimes meant that the transfer from IPRO to RRP could not be carried out, and some COBs have ended up sitting in a sort of limbo between the two units.

### **Performance Accountability**

Study team observation of IPRO's operations and, to a lesser extent, comments made by interviewees raised questions about accountability over IPRO's operations at both the unit and staff levels. The study team was interested in learning what the performance standards were for the different stages of application processing and total time taken to process the different types of application; what they were for the different categories of

staff, but particularly the mail assistants; what procedures were followed to audit the flow of mail against standards; if and how errors were tracked and what steps were taken to address them; and whether, over 1.5 years from completion of the reengineering and a year or so out from implementing eCO, there had been a detailed evaluation to determine how IPRO functions relative to expectations.

Overall, the study found it difficult to obtain consistent, authoritative information on performance accountability for either staff or the system as a whole. There was no single source of information; much of what the study team learned came from interviewees, whose accounts differed. It also noted how infrequently the matter of accountability came up during the study as an issue unless the study team raised it. In contrast, some of the outside agencies that the OP&A study team interviewed discussed formal accountability measures they have instituted. USPTO, for example, routinely pulls a sample of processed applications to review the dates and quality of the work. It also carefully tracks the processing of claims against targets for processing a set percentage of claims within a set period of time. When the Trademark Division simplified its forms a few years ago, it tracked the impact. Many Federal government mail contractors, such as the National Institute for Severely Handicapped (NISH), have specific performance standards written into contracts to cover virtually the entire mail processing system. NISH cited the Internal Revenue Service and DHS, whose state-of-the-art mail handling facility serves seven Federal agencies, as two examples.

#### *Staff Accountability*

The study team came away with only sketchy information on staff accountability. It was not fully aware, for example, what performance standards there were and how up-to-date they were relative to processing times one year-plus out from the reengineering, what metrics were being used to measure the productivity of staff and quality of their work, how IPRO identified patterns of problems and followed up with staff, whether IPRO tracked elapsed time for processing through the different stages, and what quality control checks it carried out.

With respect to individual performance standards, the study team uncovered the following:

- In response to a request for information on standards for mail assistants, the study team learned that they do not have a single standard because much of the time they perform different tasks, sometimes on the same day. The current daily performance standards for a GS-305-06 mail assistant are:

- Create in eCO a minimum of 75 paper application service records per day, as assigned.
  - Create in eCO a minimum of 55 Form CO service records per day, as assigned.
  - Ingest 70 deposit tickets per day, as assigned.
  - Ingest 60 replies to correspondence per day, as assigned.
  - Process 200 mandatory deposit books per day, as assigned.
- One interviewee said the overall goal for ingestors was about 80 claims per day. The interviewee implied that this standard led to errors because staff focused more on the number than on quality. Although the study team cannot verify it, it appears that that standard was based on how many claims needed to be processed in order to get through the daily flow of mail, rather than the time required to process a claim accurately.
  - Some mail assistants said that their supervisors mentioned numbers during appraisals, but their understanding of their performance standards seemed cursory.
  - The number of claims processed per day varied, an interviewee said, because some types of claims take longer to process than others—and because the eCO system may or may not be performing properly. As the above standards indicate and as discussed earlier, different types of mail require different amounts of time to process. According to an interviewee, “Form CO takes much longer than the old [paper] forms do.<sup>36</sup> They are a minimum of seven pages, and we have found that the barcodes are very sensitive. If the application is creased or bent, they may not read properly—hence the need sometimes to photocopy before scanning. They also have to be reviewed for handwriting or missing barcodes before scanning. Some end up being ingested as old forms because they don’t meet the requirements for the lower fee, etc. As for deposit tickets, they generally don’t take as long to process as regular claims.” However, an interviewee also told the study team that a deposit ticket often covers several works, or “a handwritten deposit ticket (with no barcode) or some other ‘violation’ means the staff have to search the system to locate the record before ingesting.”

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<sup>36</sup> The study team’s analysis showed, as noted, that actual rate of ingestion of Form COs appears to be similar to that for paper applications. This interviewee’s comment may reflect the pre-eCO period.

### *System Accountability*

Again, it was unclear to the study team whether RAC has carried out an assessment of how the reengineering is working against expectations so that it can identify where the system needs tweaking. While this study did some of that, it was not a stated goal.

With respect to performance standards for the volume of copyright claim applications IPRO should complete overall and by type, the study team found some target standards in the reengineering report, but does not know if they are still pertinent to current operations. The study team was not aware of key system-level performance standards, such as processing X percent of applications within a designated time or acceptable error rates.

### *Absence of a Rigorous Tracking Capability*

The eCO system has an Asset Management feature for tracking applications. Whether because of the nature of that feature or IPRO's failure to fully exploit it, IPRO at present cannot accurately track how long it takes a paper or Form CO application or deposit ticket associated with an online application to get through the different stages of processing, nor where an individual item is within IPRO at any point in time. By way of example, the study team was told about a recent instance where someone observed a truck with Performing Arts Division deposits parked in a basement room in the Madison Building. Apparently it was later moved to another unknown location, and at last word, the truck had not been located. Other issues noted by interviewees involved claims or deposits incorrectly stored in one RRP division, but recorded in eCO as stored in another division, that did not surface as incorrect until examination months later by examiners in the division to which it was delivered.

Following are the primary tracking issues:

- As noted, not until ingestion do applications receive a service record number that permits the application/deposit ticket to be tracked. From the loading dock to that point neither the Copyright Office nor the applicant knows if the application was received or where it is. In addition, there is no way to record when items arrive at ingestion so that IPRO can ascertain how long it takes the item to get ingested. For example, the study team believes that the Copyright Office was not aware that the longer time it took to get Form COs through ingestion compared with paper applications was likely attributable not to the actual ingestion but to the lag in selecting Form CO bins for ingestion.

- IPRO does not track the transfer of ownership of applications between IPRO and RRP divisions. The first record of a transfer of ownership occurs when RRP creates an electronic record of the shelf on which the COB is placed (the record covers the entire bin and not individual items). As noted, several points in the movement of applications between the two units are not recorded: the transfer from ingestion to the holding area; the pickup/delivery by the RRP division; and return of any containers/items to IPRO and where they are left, as well as the specific individual to whom they were turned over. Such records would not only allow the movement of applications to be tracked—a security matter—but also afford an opportunity for entering error information into eCO. The reengineering included creation of a service window attached to Room LM 434 that was to be used to handle and track transactions between IPRO and other units, including RRP. That window has not been used.
- The way in which the eCO system handles the receipt date in the case of applications that were incomplete impedes tracking the timeline for the movement of these applications. As noted, when the Copyright Office has the completed application, it enters a new receipt date into eCO that overrides the original one. Because the original receipt date is not preserved anywhere in the system, IPRO can no longer accurately calculate the actual time it took to get the application through.
- The Copyright Office could not provide the study team with a time analysis of application processing. The study team was able to manipulate data from eCO to do so, but the process was unnecessarily difficult and time-consuming. As noted, the Copyright Office is installing an upgraded version of Seibel that is capable of producing pre-programmed reports and charts that will allow easy monitoring of the processing of claims.

*Lack of an Analytic Capability to Identify and Assess Problems*

The study team found generally that when it became aware of problems, it could not determine their exact nature and frequency so as to conclude whether they were major or minor issues. For example, the study team could not ascertain what the error rate was in processing new applications, how many problems were attributable to IPRO's work and how many to incorrect completion of forms by applicants, and whether the changes in processes requested by the RRP divisions were justified, particularly since, if the divisions were following a FIFO process, their requests likely related to applications processed before the new system was implemented. The study team understands that a part of eCO is available for documenting problems in the processing of applications.

However, instead of being able to select and mark a problem from a list, with further commentary in an open-ended box, staff have to describe the problem in an open-ended comment box, with no standardized reporting language. This makes it difficult and time-consuming to identify patterns of problems, where and why they occurred, and what the error rates are. In turn, it is hard to fashion an appropriate solution, such as refresher training for staff or education for applicants.

### **Customer Service**

One of the purposes of the reengineering and goals of the Copyright Office is superior customer service. In looking at this goal, the study team made certain assumptions about what customers should be able to expect IPRO to do (unless there are specific policies to the contrary about which customers are notified):

- Process their applications in the date order received;
- Maintain the security of their applications within IPRO; and
- Notify applicants of the service record number for their applications so that they can easily track the status online.

These assumptions are based on the typical customer service standards in use in the private sector and many Federal agencies. The study team's observations identified some issues relative to these standards.

#### *Order in Which Claims Are Processed*

As noted, the processing of applications within IPRO is supposed to be FIFO. Interviewees noted that FIFO was not always followed, for example, in ingestion, and some questioned the accuracy of some of the receipt dates stamped at the Capitol Heights facility. The study team found that the primary and secondary sorts did follow FIFO for the most part. In the case of ingestion, as discussed, the problems with changing the session defaults led to adoption of a process to maximize efficiency but that abandoned FIFO to some extent. While the change in procedure does appear to make ingestion more efficient,<sup>37</sup> it can be argued from the customers' perspective that it is inequitable not to process the mail in order of receipt.

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<sup>37</sup> While the study team was observing the sorting processes, IPRO put in overtime on a Saturday to clear a backlog. The items were mixed, rather than separated by type, to make sure that everyone had material to work on. Ingestors changed defaults as needed. The study team was not told of any issues resulting from processing mixed items.

### *Lack of Notification of Applicants of Application Status*

The Copyright Office does not inform paper and Form CO applicants either of their application service record number or application status unless there is a problem with the application (insufficient funds, deposit copy damaged by the mail processing, etc.). Rather, it is up to the applicant to contact the Copyright Office Public Information Office to make an inquiry. However, applicants using the online process receive the service record number immediately following submission.

### *Security*

The study team identified some issues with respect to the security of applications under IPRO's custody. Interviewees talked of times when an RRP division returned a COB received in error to Room LM-434 in IPRO (IPRO doors are often open) with no notice to an IPRO supervisor, so that IPRO was not aware the bin had been returned. In one instance, it was uncovered only when a mail assistant wondered what the bin was doing there. This situation means that mail is not under the control of IPRO or RRP at all times and could be lost or stolen. Moreover, it means a delay in the examination process, as the mail needs to be redirected back to the right RRP division. There is an apparent absence of any formal process for handling misdirected mail, or, if there is one, it is not always implemented. Instead, the situation is handled informally. A further security problem is that no electronic record is entered into the system when trucks actually move to RRP, and there is no formal handoff of ownership between IPRO and the divisions.

As noted, the service window in Room LM-434 could serve as the location for formal transfers of ownership between IPRO and the RRP divisions for both outgoing COBs and items being returned by an RRP division, and it could be used as a secure, designated location for holding COBs and mail items in transition. Equipment could be placed there for recording transfers and stored materials in eCO.

The free movement through some points of entrance and egress of IPRO space raises potential security issues, although the study team did not learn of any problems with theft. IPRO's doors are typically open, and, even when closed, many require no identification or use of a Copyright Office proximity ID. The door into the corridor from Room LM-434, for example, is unlocked. The door into the mail processing facility is, however, accessible only with a Copyright Office proximity ID card. Even where doors require proximity cards, they remain open long enough for non-IPRO staff to enter.

A more important security issue, in the opinion of the study team, is IPRO's inability to track the status and location of containers of mail or individual items at all times. As discussed, there is no record for new paper and Form CO applications until ingestion;

even accountable mail (mail that was signed for upon receipt) cannot be tracked once the envelope is removed. Most of the time only a container can be tracked, and not individual mail items. Even here, there is no electronic system in place that tracks at what point a container should be moving forward to the next stage and red-flags it when the container is overdue. Such a process would at least alert supervisors to a problem.

*Complaints by the RRP Divisions*

The RRP divisions are IPRO's main internal customer. IPRO says that it tries to accommodate requests by RRP for changes in procedures. It appears that doing so has, however, complicated IPRO's work and contributed to errors in some cases where the changes were not disseminated to all IPRO staff. A larger question, however, is whether making a change was appropriate. Assuming RRP follows a FIFO process, its complaints pertain to applications processed before the introduction of eCO. The requested process changes would therefore be based on a system that is no longer operable and might undercut current processes.

## Conclusions

The OP&A study team believes that the timeliness of IPRO's processing of new basic copyright claim applications is reasonable when viewed against processing performance from the time applications are received through ingestion. Over the past two years, IPRO has successfully decreased the time it takes to move an application from receipt through ingestion. It appears, based on the calculations presented earlier, and the steepness of the curves in Figures 2 through 4 showing processing times, that further reductions in processing times will be incremental. Because there will always be problem applications, it is impossible to completely eliminate the tail shown in the figures. The greatest potential for reducing the time required to process new claims within IPRO is a continued shift to online applications. It is not clear, however, to what extent time savings within IPRO will affect the time elapsed to award or denial of a certificate, since the bulk of application processing occurs within RRP. The study team notes that a detailed review of RRP's operations was beyond the scope of this study.

The study team also believes that the flow of applications from IPRO to RRP is fast enough so as not to delay its examinations, despite some complaints by RRP examiners to the contrary. In any event, those complaints appear to be few in number and assuming RRP is following FIFO, relate to claims ingested more than a year ago. Therefore the study team concludes that IPRO is, at worst, a very minor contributor to the large backlog in copyright claims processing.

It might be possible, by implementing some of the changes in IPRO operations recommended below, to shave some time off its processing time, as well as reduce the pre-IPRO mail handling time. However, more in-depth study is needed to determine how much time could be saved and whether it would be worth the investment. Again, and more important, it is unlikely the time saved will have a significant impact on reducing the time elapsed to award or denial of a copyright claim. On the other hand, the changes might reduce the resources, particularly human, IPRO requires to process applications, thereby allowing their redirection to other areas of need. That, too, would require further study.

The areas up to the point of transfer to RRP where there might be gains in efficiency, as discussed below, are:

- Eliminating the irradiation of USPS flat mail and speeding up the Capitol Heights toxin screen
- Streamlining the sorting process leading up to ingestion

- Clarifying and standardizing IPRO operations to reduce processing errors
- Making more use of technology.

In addition to increasing efficiency, the study team believes two other areas merit attention:

- Implementation of a more rigorous performance accountability system
- Enhanced customer service, particularly as relates to tracking the status of applications and improved security.

### **Increasing Efficiency**

The efficiency of IPRO's operations would be enhanced by clear, standardized operating procedures, documented in a manual of standard operating procedures and effectively communicated to all staff. Before a manual can be completed, however, the Copyright Office will need to define some key policies, procedures, and performance standards, for example:

- What error rates are acceptable for different stages of the system and types of applications
- To what extent IPRO should follow a FIFO process, as doing so might conflict with efficient applications processing
- Specific performance standards for IPRO as a whole, validated against operations when carried out in an optimal manner (which will be affected by other possible efficiency measures, discussed below). Currently, staff do not seem uniformly aware what the standards are, or they provided the study team with different ones. Current standards are set on the basis of the time it takes most mail assistants to complete a task; assessment of the ability of staff to achieve the higher rates of processing attained by some staff is warranted.

Again, in establishing policies and procedures, attention will need to be paid to the tradeoffs among efficiency, accuracy of processing, and exceptional customer service.

The predominant use of OJT provided by peers does not seem to be an effective approach to training or a good use of the mail assistants' time. Having specialized trainers would ensure more consistent training and allow the mail assistants to devote full time to their work. Improving the training will be particularly important as the Copyright Office makes changes to the eCO system.

The procedure of waiting until COBs are completely or nearly full unnecessarily delays the transfer of ingested applications to RRP. It would be better to move all ingested applications out of IPRO by the end of the day or first thing the next morning. Doing so would mean that ingestors could no longer store COBs under desks until they are full. Rather, the COBs are best located in a designated, secure space where supervisors can determine their status. Even if the Copyright Office decided to hold bins until they were filled to some established level, it would be a good idea to set a maximum time beyond which they could not be retained within IPRO.

The study team sees no justification for continuing to have USPS flat mail irradiated. Certain categories of Copyright Office mail already bypass irradiation, such as parcels and mail sent to the special PO Boxes, and there is ample precedent at other Federal agencies to eliminate or use alternative mail-handling methods. In addition, the Copyright Office has a number of unused PO Boxes with zip codes that do not trigger irradiation. Completely eliminating irradiation of USPS flat mail would reduce the number of damaged claims requiring special treatment and shorten the time for delivery of mail to IPRO by two to three days. It would also reduce the number of applications that have to be referred to Triage for special handling, as well, perhaps, the time spent by Out-processing asking applicants to provide a replacement copy.

The study team considered the need for IPRO to conduct two sorts of copyright applications. It believes that redesign of the flow of applications might speed the process and reduce the person-hours now spent on sorting. An alternative configuration of the process would be to (Figure 6):

- i. Require that applicants send their applications to the PO Boxes designated for specific RRP division/subdivision.
- ii. Have the contractor (currently Pitney Bowes) sort the applications according to those PO Boxes/RRP divisions.
- iii. Upon delivery of the mail to the Copyright Office loading dock, transfer the cages of items with the same PO Box to specialized IPRO teams for immediate ingestion. An added benefit of this approach would be to increase application of the FIFO process. All other mail, including applications without the RRP PO Boxes, would go to another specialized IPRO team(s) for sorting; this team would also ingest applications that were not captured in the original PO Box sort.

The eCO system has improved the efficiency of applications processing, particularly those submitted online. However, the Copyright Office could make still further use of technology to streamline processing:

- i. The session defaults are cumbersome and time-consuming to work with, and they increase the potential for errors. Installing a wizard interface would simplify the work of IPRO mail assistants.
- ii. Increasing the percentage of online applications to 85% could, as noted, reduce the person-days required for application processing by 20%, according to preliminary calculations by the study team. More online submissions would also reduce the error rate, thereby lessening processing delays. To increase the use of online applications, the Copyright Office might consider requiring frequent applicants to use online applications and submit deposits electronically wherever possible, and to pay through deposit accounts. USPTO has taken this approach, and the IRS is pilot testing mandatory filing of returns online.<sup>38</sup> An added advantage is that online applications can be tracked from the time of submission.
- iii. The study team wonders whether the differential in the fees for Form CO and paper applications relative to online submissions is sufficiently great to encourage the latter, or to offset some of the differences in processing costs. The Copyright Office might explore increasing the cost of paper and Form CO applications. USPTO reviews its fees annually and adjusts them as needed, in part to reflect the additional labor costs involved in processing paper applications. The Copyright Office could also make the paper forms more difficult to obtain by having them available only on request to the Public Information Office and by refusing to accept old forms.
- iv. The study team questions the need for both Form COs and paper applications, because the extra type of application makes the process more complicated. If the Copyright Office wants to promote the use of Form COs, which now account for a very small share of applications, then it will probably need to do away with the paper forms. Alternatively, since the time to process Form COs and paper applications is virtually the same, it might consider doing away with the Form CO (assuming the processing time for Form COs does not continue to decline).

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<sup>38</sup> However, the main reason for increasing online filings is to facilitate audits.



Whichever forms are retained, the study team believes that they can be redesigned to be more user- and ingestion-friendly. The paper forms likely could be integrated into one universal form designed to facilitate scanning, with printed mailing labels with the RRP division PO Boxes. Similarly, the study team wonders if the Form CO can be simplified to reduce the potential for errors by applicants and lessen the number of pages to be scanned during ingestion. USPTO had excellent results from the simplification of the trademark application forms.

### **Strengthening Performance Accountability**

The study team was made aware of accountability measures IPRO is taking to reduce errors and improve quality control. Nevertheless, the study team never felt that it had a clear picture of how performance accountability is exercised within IPRO. It was struck by how infrequently accountability came up in the interviews unless prompted, and noted a lack of awareness or misinformation about performance standards. At present, IPRO still does not appear to have an adequate capability to routinely track the receipt, status, and location of applications from the time of arrival through the transfer to RRP, or to identify the occurrence and patterns of errors in processing. The OP&A study team believes there are significant breaches of security and control over applications, such as the COB that was misplaced. The study team was not aware of performance standards for IPRO as a whole against which to measure performance. The lack of a quality standard for accurate processing made it difficult for the study team to determine whether the issues raised were major or minor, and it presumes management would have the same problem. Finally, as interviewees described their work, it seemed there was a level of idiosyncratic, individual interpretation of procedures. The study team concluded that there is room for further strengthening of performance accountability.

Specific elements of a robust performance accountability system would include:

- A manual of standard operating procedures and formal, structured training of staff on those procedures. Completion of the manual needs to be a priority of the Copyright Office. The manual would address specific problem areas identified in this study, such as the lack of standardized procedures for the transfer of ingested applications from IPRO to RRP, for handling misdirected mail returned to IPRO, and for the transfer of “ownership” to RRP and return of material to IPRO.
- Development and communication of performance standards with respect to the number of applications to be processed by IPRO staff by stage and type of application, to be included in the standard operating procedures manual and

communicated to all staff. Given that the eCO system and its use for processing applications are works in progress, regular review and revision of performance standards based on actual times and observation of operations will be necessary.

- Implementation of a capability to track:
  - The movement of applications through IPRO and their location at any time. Key tracking points include receipt of applications by IPRO, exit from IPRO following ingestion, and receipt by RRP.
  - The time it takes applications to move from receipt by IPRO to receipt by RRP, as well as the time elapsed in each stage of the process. This capability is needed to determine if IPRO is meeting its standards for time spent on applications processing and if they require adjustment. Further, an additional date field is needed for the date on which incomplete applications are finalized so that entry of the new date does not override the initial date of receipt. That date is needed to track time elapsed to receipt or denial of a copyright certificate. Fields could also be added to record the tracking numbers from accountable mail and the date of transfer from IPRO to RRP.
- Implementation of the analytics capability within eCO, with programming of standard reports. Supervisors might benefit from training on reviewing and following up on findings from the data and reports.

### **Enhancing Security**

- As noted, the study team did not hear of complaints about the security of the applications while in the custody of IPRO. However, it considers the misplacement of containers a security issue, inasmuch as it means that for some period of time IPRO cannot account for material in its custody. This area requires development of a policy that defines what level of security the Copyright Office wants to maintain and the steps needed to implement it.
- Likewise, the study team is concerned about the delay in assigning a service record number to an application, as until that time IPRO cannot be said to have control over it. This is both a security and a customer service issue that could be addressed by transferring the main sorting function to the mail contractor (via PO Boxes) and creating service record numbers as items are ingested immediately after receipt by IPRO.

### **Improved Customer Service**

- In the case of copyright claim applicants, the study team believes that they should receive notification of the service record number and be able to track the status of their applications online (which would also reduce the workload of the Public Information Office). It is probably feasible for eCO to be programmed to automatically generate an email, robo-call, or letter to paper and Form CO applicants notifying them of the service record number for their application and to implement an online system for tracking the status of all applications.

## Recommendations

The following recommendations focus on what the OP&A study team saw as the main areas of opportunity to strengthen IPRO's operations: performance accountability and quality control; efficiency; upgrades of eCO; and customer service. It should be noted that while the recommendations are placed within the area to which they seem most relevant, many support improvements in the other areas.

### Performance Management and Quality Control

- Move rapidly to prepare an IPRO process and procedures manual, to include:
  - Performance standards for staff and for IPRO as a whole, with standards for time (e.g., 99% of items correctly ingested within three days) and accuracy of processing overall and by stage. These standards should be reassessed regularly as eCO is upgraded and greater familiarity with the system leads to increased productivity. The standards should include the methods by which they will be measured.
  - Policies and standardized procedures for application of FIFO, transfer of ingested applications to RRP, return of misdirected mail to IPRO, selection of materials for ingestion, and handling of COBs with respect to how long they can be retained at IPRO before being transferred to RRP.
  - Standardized means of communications between supervisors and staff.
- Institute a quality control and accountability system that includes:
  - Establishing key points of accountability in the movement of mail through IPRO.
  - Tracking mail, particularly applications, as it moves through the different stages of processing.
  - Identifying errors and their patterns, and calculating error rates.
  - Doing regular sample audits of the accuracy of sorts, ingestion, and contents of the COBs being transferred to RRP.

- In the case of incomplete applications, retaining in eCO both the original receipt date established by the mail service contractor and the new date established by IPRO upon receipt of a completed application.
- Strengthen IPRO training by providing both formal, structured training based on the operations manual and OJT by peers, and support and supervise OJT to ensure consistency and quality.
- With respect to ingested materials,
  - At the end of the business day, place all COBs with ingested materials in a secure holding area for review by supervisors to ensure that the materials move forward to RRP in a timely manner (the exception would be work stations handling special types of mail).
  - Retain ingested materials under the control of IPRO in a secure location until the appropriate RRP division accepts transfer under a defined procedure that includes noting the actual transfer in eCO.
  - Use the service window in Room LM-434 as the control point for transfer of ingested materials to RRP divisions and returns from RRP divisions to IPRO, and institute a system of recording the date and time of transactions and location of returned materials in eCO. Also use the service window as the point where all Copyright Office mail misdirected to other Library of Congress units is returned.

### **Efficiency**

- Improve paper copyright claim application forms:
  - Consider using only the Form CO, for which hard copies could be requested from the Copyright Office for applicants with no access to computers.
  - Simplify the Form CO, particularly reducing the number of pages, and/or create a single, universal paper application form, based on a detailed, cognitive redesign such as the Census Bureau and other Federal agencies have used to improve their paper forms.
  - Provide with all forms adhesive or pre-printed address labels with the PO Box designated for the different RRP divisions.

- Take additional steps to promote greater use of online applications by:
  - Increasing the fees for Form CO and paper applications, with the fee based in part on the increased cost of processing these applications;
  - Creating a new paper application, available only on request to the Copyright Office, and refusing to accept old forms.
  
- Revisit the performance standards for mail assistants to accurately assess the optimal amount of time required to process various types of transactions.
  - Streamline the pre-IPRO mail handling phase by eliminating irradiation of USPS first-class flat mail by using the RRP-designated PO Boxes or an offsite mail-receiving operation similar to that at other Federal agencies.
  - Consider renegotiating the Pitney Bowes contract to require 24-hour turnarounds from its screening facilities.
  
- Streamline the IPRO pre-ingestion stages of mail handling by:
  - Requiring applicants to use the RRP-designated PO Boxes.
  - Having the mail service contractor staff at the Library of Congress loading dock fine sort Copyright Office mail by RRP division PO Box and place mail for each PO Box into a separate cage.
  - Having IPRO mail assistants transfer the cages sorted by PO Box directly from the loading dock to specialized ingestion teams assigned to work on items for a specific RRP division for immediate ingestion.
  - Transferring other mail to a specialized team(s) for sorting and, in the case of copyright claim applications, immediate ingestion.
  - To maximize the output of the RRP-specific ingestion teams, establish specialized teams to process applications with problems that prevent routine ingestion; and have these teams regularly pick up the problem applications from the other teams, who would deposit them into labeled bins.
  
- Investigate whether the Copyright Office should operate eCO as its own system, separate from the general Library of Congress computer system, to increase eCO operating response times.

### **Upgrades of eCO**

- Develop a capability within the eCO system to support and facilitate quality control and accountability measures, including bringing the new analytics capability online as soon as possible and developing a set of standardized reports.
- Install a wizard interface in the eCO system to simplify processing of the different categories of applications.

### **Customer Service**

- Test all changes to application forms with users to maximize both user-friendliness and likelihood of accurate completion, and continue soliciting feedback from customers as the application system is improved and new customer service features are introduced.
- Develop a capability within eCO to generate emails, robo-calls, or letters informing non-online applicants of their service record number, status of their application, and directions on tracking the status online.
- Continue soliciting feedback from customers as the application system is improved and new customer service features are introduced.
- Institute measures to ensure control over and security of applications while in the custody of IPRO, particularly providing service record numbers as early in the process as possible (this would be effected by the streamlined sort) and retaining containers of mail in designated, secure locations.