US Copyright Office Deposit Copy Transfer, Registration and Recordation Program and Records Management Section: Timely Retrieval, Security, and Efficiency

Office of Policy and Analysis Smithsonian Institution

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Acronyms

CO Copyright Office

COB Copyright Office bin (barcoded)

COBox Copyright Office storage box (barcoded)

COS Copyright Office shelf (barcoded)
COT Copyright Office tub (barcoded)

COW Copyright Office workstation (barcoded)
CRM Customer Relationship Management

DCSU Deposit Copies Storage Unit

I&RD Information and Records DivisionIBAL Item Barcode Accession Label

LC Library of Congress collections destinations

MP Motion Pictures team (RRP)

OP&A Office of Policy and Analysis (Smithsonian Institution)

PA Performing Arts Division (RRP)
RAC Receipt Analysis & Control Division

RMS Records Management Section

RR&C Records, Research & Certification Section RRP Registration and Recordation Program

TX Literary Division (RRP)

VA Visual Arts and Recordation Division (RRP)

Definitions

Bin The smallest container, generally white, into which deposits are

placed throughout the processing of a registration claim (also called a

tote).

Box The barcoded cardboard box into which DCSU wands and places

deposits and which, when full, is wanded to and placed on a shelf at

DCSU (also called a bin).

COB A bin with a barcode that allows it to be tracked.

COBox An invented OP&A study team term to refer to the barcoded

cardboard boxes used for storing deposits on COSs at DCSU (called

boxes or bins within DCSU).

COS A barcoded shelf to which COBs and COBoxes can be tracked.

COT A tub with a barcode that allows it to be tracked.

COW A workstation that is barcoded and to which deposits, COBs, and COTs

can be tracked.

Deposit A copy, called a "deposit copy," of the work whose copyright the

creator applies to register with the Copyright Office.

Disposition The intended destination of a deposit (typically DCSU or a division in

the Library of Congress) and its categorization, where needed, as either published or unpublished; the disposition is entered into the

"Dispatch/Selection" field of Siebel.

Phantom deposit A deposit that is recorded in Siebel electronically as being at a

location, but is not physically at that location. Phantom deposits are created when the physical movement of a deposit is not also recorded

electronically.

Tub A large wheeled plastic or canvas-sided container with a lockable lid

into which bins and COBs of deposits are loaded for transport (also

called a hamper at the CO).

Wanding

A process that involves scanning barcodes to create or update a location record for a deposit in Siebel (RRP and RMS staff use the terms "scanning" and "wanding" interchangeably).

About This Study

Purpose

In the spring of 2010 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) conduct a review of the processes and workflows for moving deposit copies¹ (called "deposits" in this report) of copyrighted materials from the Registration and Recordation Program (RRP) in Washington, DC, to the CO's Deposit Copies Storage Unit (DCSU) in Landover, Maryland. The reason for requesting the review was instances in which deposits sent to DCSU could not be located in timely manner or at all. While these instances have been infrequent, eliminating their occurrence is a high priority because typically the deposits are needed quickly for litigation, such as copyright infringement suits.

The objectives of the study were to analyze the process for moving deposits from the Madison Building in Washington, DC, to DCSU and to develop recommendations for improvement. More specifically, the CO wanted to eliminate the "black hole" into which deposits fall on their way to a shelf at DCSU by having a process that allows timely location of deposits no matter where they are between the workstation of a RRP registration specialist and a shelf at DCSU. In general timely location is essential to the deposit retrieval service offered by the CO, but is particularly important when the request is made because of litigation such as infringement suits, where speed is critical. Two other desired improvements were better security of deposits in transit and enhanced operational efficiency.

Methodology

The OP&A study team collected information through observation of practices within RRP and the Records Management Section (RMS), which receives, maintains, and preserves records of registrations and recordations and which manages DCSU. The study team also interviewed staff of the CO's Information & Records Division, under which RMS falls, and in RRP and RMS, and corresponded by email with a representative of the Library of Congress's US and Publisher Liaison Division, which oversees receipt and processing of a large number of deposits of published works from the CO that the Library wants for its

 $^{^{1}}$ Required copies of the works for which an applicant is seeking to register a copyright. They may be submitted in electronic or physical formats. This report deals only with physical copies.

various collections.² Following data collection, the study team analyzed the information, generated conclusions and recommendations, and prepared this report.

Terminology

The study team found very inconsistent use of terms across interviewees, which made an already complex deposit transfer process more difficult to decipher. For purposes of this report, the study team used the following terms and definitions:

- A bin (also called a tote within the CO) is the smallest container, generally white, into which deposits are placed throughout the processing of a registration claim.
 According to an interviewee, 90% of the bins the CO is using belong to the US Postal Service.
- A *COB* is a bin with a barcode that allows it to be tracked.
- A COBox is a term the study team used to refer to the barcoded cardboard boxes used for storing deposits on a COS at DCSU (also called a box, bin, or COB within DCSU).
- A COS is a barcoded shelf, such as those at DCSU.
- A *COT* is a tub with a barcode that allows it to be tracked.
- A COW refers to a workstation that is barcoded and to which deposits, COBs, and COTs can be tracked.
- A *tub* is a large, wheeled plastic or canvas-sided container into which bins and COBs of deposits are loaded for transport to different locations, primarily DCSU and different divisions of the Library of Congress.
- *LC* is used in this report to refer to all Library of Congress destinations collectively; these destinations include the general Library collection, Law Library, music collection, serial collection, and gifts and exchanges office.
- Wanding is the act of scanning barcodes to create or update a location record in Siebel (RRP and RMS staff use the term "scanning" and "wanding" interchangeably).

² There are several Library destinations, such as the Cataloging in Publication Program (CIP, and in this report referring to the Library's general collection), (Motion Pictures Broadcast and Recorded Sound (MPRS) in Culpeper, Virginia (for motion pictures), and the Law Library. The bulk of the deposits for LC go to CIP.

 A disposition is the intended destination of a deposit and its categorization as either published or unpublished, which is entered into the "Dispatch/Selection" field of Siebel.

Background

A deposit's journey to DCSU (and to LC destinations) effectively begins when a RRP registration specialist approves or rejects a copyright registration claim and enters a disposition for the related deposit(s). Broadly speaking, both DCSU and LC get published deposits, while DCSU, one of the two main storage facilities of the CO, also gets all unpublished deposits. This study focused on deposits designated for DCSU. After a RRP specialist enters a disposition for a deposit into Siebel, the deposit will eventually move on to RMS, which has responsibility for getting it to a shelf in DCSU. Under current policy the CO retains published deposits for 20 years and unpublished ones for the lifetime of the author plus 70 years.³

RRP. Three divisions within RRP handle the examination and approval or rejection of registration claims, and make dispositions for deposits:

- *Literary (TX)*, which is responsible for "nondramatic textual works with or without illustrations. They may be published or unpublished. Computer programs and databases also are considered literary works."⁴ As of September 13, 2010, TX was divided into seven teams that collectively had 7 supervisory registration specialists, 47 registration specialists, 3 problem resolution specialists, 7 copyright technicians, 3 serial recorders, and 6 support assistants.⁵
- *Visual Arts and Recordation (VA)*, which handles "pictorial, graphic, or sculptural works, including two- and three-dimensional works of fine, graphic, and applied art." Examples are photographs, original prints, technical and mechanical drawings, and fabrics.⁶ As of September 13, 2010, VA was divided into four teams that collectively had 4 supervisory registration specialists, 28 registration specialists, and 3 support assistants.⁷ At the division level, VA also had 3 problem resolution specialists, 1 support assistant, and 1 technical support person.

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³ A subcategory of published deposits called "full-term" is retained for the full term of their copyright life. Recently, the fee to acquire full-term status for photographs was eliminated, and such requests have become more numerous. These deposits are boxed following the process described later, but are stored in their own section at DCSU.

⁴ http://www.copyright.gov/register/tx-examples.html.

⁵ "As-Is List for Registration and Recordation Program," provided for each RRP division.

⁶ http://www.copyright.gov/fls/fl115.html.

⁷ See fn. 5.

• *Performing Arts (PA)*, which is responsible for "works prepared for the purpose of being 'performed' directly before an audience or indirectly 'by means of any device or process.' Works of the performing arts include: (1) musical works, including any accompanying words; (2) dramatic works, including any accompanying music; (3) pantomimes and choreographic works; and (4) motion pictures and other audiovisual works."8 Staff are divided into five teams, one of which is Motion Pictures (MP). As of September 13, 2010, the PA teams exclusive of MP collectively had 4 supervisory registration specialists, 40 registration specialists, 1 copyright technician, and 4 support assistants. MP had 1 supervisory registration specialist, 7 registration specialists, 3 copyright technicians, and 2 support assistants.⁹ At the division level, PA also had 2 problem resolution specialists and 1 temporary support assistant.

RMS. Two units of RMS are involved in the movement and storage of deposits:

- *Dispatch*, which receives deposits from RRP, performs some limited quality control checks, puts COBs/bins of deposits into tubs, and moves them according to the intended dispositions. As of September 13, 2010, staff consisted of 2 processing support clerks/deposit dispatchers.
- *DCSU*, which maintains a leased 50,000-cubic foot storage facility in Landover, MD (staff call this facility DCSU). Currently, the facility it is filled to capacity. To make room for new material, staff transfer several thousand linear feet of deposits at a time, generally older ones, to Iron Mountain, ¹⁰ a privately owned offsite storage facility. As of September 13, 2010, staff working at DCSU consisted of 1 supervisory deposit copies storage clerk/supervisor, 1 supervisory deposit copies storage clerk/assistant supervisor, 1 RMS and 1 contract materials handler (the term of the contract materials handler ends in December 2010), and 2 deposit copies storage clerks. Vacant positions included 1 RMS materials handler, 2 deposit copies storage clerks/senior, and 1 deposit copies storage clerk.

Copyright Office Reengineering Project. Before describing the process by which deposits move from the RRP registration specialist's workstation to a shelf at DCSU, it is important to touch briefly on aspects of the CO Reengineering Project that bear on the movement of deposits to DCSU. A major element of the reengineering project was implementation of a new CO technology system—Oracle's Siebel Customer Relationship Management (CRM) application—selected in part to manage copyright registration claims

⁸ http://www.copyright.gov/forms/formpai.pdf.

⁹ See fn. 5.

¹⁰ The CO is planning to move its deposits from Iron Mountain to a storage facility of the National Archives and Records Administration.

and other records, including deposits, and to enhance their security by allowing deposits to be tracked from the time the CO creates a Service Record during ingestion¹¹ for as long as the deposits remain under the care of the CO. Deposits being transferred from RRP to be stored at DCSU were to be tracked throughout the transfer process by wanding the barcodes on a deposit, COB, COT, COS, or COBox to enter the location into Siebel and thereby allow it to be found easily no matter where in the transfer process the deposit was. However, the introduction of Siebel led to a backlog in the examination of registration claims, and the CO chose not to implement the tracking system fully because it slowed the workflow.

¹¹ Ingestion refers to the process in which the Receipt Analysis & Control Division (RAC) creates a Service Record within Siebel for each physical copyright registration claim the CO receives. As part of the process, RAC affixes an Item Barcode Accession Label (IBAL) to the application and each hard-copy element of the claim, including the deposit(s), and scans the IBALs into Siebel to electronically link all the elements to the Service Record.

Findings

The Path of Routine Deposits from RRP to DCSU

RRP. The copyright law requires that people who submit claims to register their copyrights to provide two copies of published works and one copy of unpublished works (with some exceptions not pertinent to this report). The CO's Receipt Analysis & Control Division (RAC) receives the claim applications and accompanying deposits and processes (ingests) them, creating a record in Siebel. One step in ingestion is to affix an identifying Item Barcode Accession Label (IBAL) to each deposit, which allows Siebel to link the deposit to the record for the claim. The CO can thereafter use the IBAL to pull up the claim record in Siebel and track the deposit within the CO. RAC then sorts the processed deposits by RRP division and wands them into COBs, thereby recording the new location in Siebel. The COBs move from RAC into RRP, where they are wanded to COSs, again recording the new location for the deposit in Siebel. The exception is that TX deposits are strapped together in manageable bundles identifiable by a barcode affixed to a sheet of paper and attached to the bundle, which is wanded to COSs in a TX shelving area. To all intents and purposes, the bundles are treated like COBs and in this report they are treated as COBs.

Typically, RRP registration specialists retrieve one or more COBs from the COSs, take them to their workstations (called a COW), and electronically transfer the COB's location in Siebel from the COS to the COW. This is done by wanding barcodes as follows. Using a sheet of paper called "barcode functions," on which are printed the barcodes corresponding to various procedures RRP and RMS need to undertake for purposes of registration claim examinations, transfers of deposits or COBs from one place to another, and other tasks, the specialist wands the barcode MFIND¹² and then the barcode on the COB, which electronically moves the COB to the specialist's COW in Siebel. Thus, someone looking for a deposit in Siebel would know that it is associated with a particular COB and that that COB was moved to the COW of a particular specialist.

To begin the examination of a registration claim, the specialist removes a deposit from its COB and wands it to the COW, a process that changes that deposit's location in Siebel from the COB to the COW. It also pulls up the claim record in Siebel, allowing the specialist to update the record during the examination. If the applicant submitted two or more deposit copies of the copyrighted work, the specialist does not wand the other copies and may leave them in the COB for the time being. As such, one deposit shows its location as the COW, and the other as the COB at the COW.

 $^{^{12}}$ The study team observed some staff using MBIN instead of MFIND, which accomplishes the same task but requires an additional wanding.

The OP&A study team learned that not every specialist follows the same procedure when retrieving deposits from a COS. Some remove an entire COB from the COS but do not wand it to their COW, so that there is no record of the transfer until they wand individual deposits to their COW. Other specialists take only some of the deposits in a COB to their desk, roughly the amount they believe they can complete before the end of the day. There is no record of this transfer in Siebel until the specialist wands the individual deposits to his or her COW, a process that also removes them electronically from the COB.

As noted, after completing and approving or rejecting a claim, the registration specialist enters a disposition into Siebel to which the deposit(s) is to be sent.¹³ In the case of TX, they also attach white selection sheets (red in the case of the LC Law Library) to the deposits. The specialists then put the examined deposits into bins corresponding to the dispositions. They do not wand the deposits to those bins, so that the location showing in Siebel will either be the specialist's COW or a COB at the specialist's COW (assuming the COB was wanded to the COW).

At this point, the divisions have somewhat different systems for processing and moving deposits to Dispatch. As described below, the most significant variations is the extent to which the divisions wand deposits to COBs, with some doing no wanding and the MP team wanding all deposits before the turnover to Dispatch.

• TX. TX noted that because there is a weight restriction of 15 pounds per bin to protect the specialists from injury, most bins have only 5-10 books in them. The registration specialists take the bins of examined deposits sorted by disposition and either place the deposits directly into tubs corresponding to the dispositions or place bins of deposits into corresponding tubs. In either case, they make sure that four empty bins are at the bottom of the tub before they place anything into it so as not to be lowering the heavy bins to the bottom of the tub. The specialists may move examined deposits to the tubs at any time during the day, sometimes waiting until a bin at their desk is full. The tubs are located in a passage in the TX work area. If the support assistant who closes the tubs when they are full sees LC-bound deposits in DCSU-bound tubs, they move them to the correct tub. However, that will happen only if the LC-bound deposit is at the top of the tub. The support assistant closes the lid, puts the disposition on the lid, and snaps the latches closed, and moves the DCSU-bound tubs into room 449, where they are held pending transfer to DCSU.

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¹³ In the case of MP deposits, a MP liaison from the Library will have reviewed and indicated which deposits it wants for its collection, and that will be the disposition for those deposits.

- VA. VA registration specialists place full bins of deposits, sorted by disposition, in the passage just outside their workstations; according to one interviewee, it can take a week to fill a bin. VA problem resolution specialists typically collect the bins daily, regardless of whether the bin is full. The problem resolution specialists take the bins into the VA dispatch room, where they confirm that all the deposits in each bin have the same disposition—e.g., DCSU published, DCSU unpublished, or LC destination. They then place the bins into corresponding tubs, including DCSU published and DCSU unpublished, which remain in the room until Dispatch retrieves them (see below).
- PA. PA registration specialists other than those dealing with MP deposits move examined deposits to a common area of shelves on which there are bins for the different dispositions, including DCSU published and DCSU unpublished. Some specialists take examined deposits to the bins over the course of the day; others move them only when they have filled a bin at their desk and then place the entire bin on the shelves. A PA support assistant collects the bins from the PA shelving area periodically—typically two to three times a week—and takes them to his/her workstation. There he/she wands LC and DCSU published deposits into COBs and put unpublished deposits into bins. Next he/she moves the COBs/bins to the RMS Dispatch room and places them on shelves, wanding the COB to COSs.

The MP team follows slightly different procedures from the rest of PA. The registration specialists put full bins of published and unpublished deposits into MP cubicles in two dispatch collection areas. The MP support assistant collects the bins from the cubicles and wands all the deposits into COBs with corresponding dispositions, moves the COBs to a locked MP dispatch area, places them on COSs, and wands the COBs to COSs.

Dispatch

Dispatch is responsible for preparing and moving tubs of DCSU-bound deposits from the fourth floor to the loading dock of the Madison Building for transport by truck to DCSU. Pickup from the loading dock and delivery to DCSU typically occurs every Wednesday, although occasionally it may be delayed to Thursday. The truck can hold 14 tubs; if more than that are ready for transport, Dispatch will hold them on the fourth floor until the following week. Typically, 12-14 tubs go to DCSU each week, generally on a first-in first-out basis.

The process Dispatch follows in preparing the tubs for pickup varies based on how each RRP division has processed its deposits.

- **TX.** Dispatch locks the TX tubs in room 449 without doing any check to verify that the dispositions of deposits and the tub designations match.
- **VA.** Dispatch periodically checks the VA dispatch room for full tubs, which they then close, lock, and wheel to room 449 to await transport to DCSU.
- **PA.** Dispatch moves the COBs of published and bins of unpublished deposits from shelves in the RMS Dispatch room into tubs corresponding to the dispositions of the materials in the COBs/bins. In the case of the published deposits, they do an informal visual check to see that they match the disposition of the COB, and then they put the COBs into tubs. One thing they check is that the CDs are actually there. When a tub is full, Dispatch closes and locks it, and wheels it to a secure holding area, not accessible to the public, to await transfer to DCSU.

In the case of MP deposits, Dispatch takes the COBs from the COSs in the MP dispatch room, scans each COB to pull up a Siebel screen that lists the dispositions of each of the deposits within the COB, and verifies that they all have the same disposition. It also does a rough check to see if the number of deposits in the COB appears to be the same as the number recorded in Siebel. Dispatch does not actually count the number of deposits but simply looks for obvious discrepancies, such as Siebel showing a number of items that would fill the COB, whereas the COB is only a third full. If either type of error is found, Dispatch prints the Siebel screen, attaches it to the COB with a note identifying the problem, and returns the COB to the COS for a MP support assistant to rectify. As MP support assistants bring new COBs to the COSs, they retrieve problem bins and take them to a computer. They check to see who made the mistake and take the bin to that person, who fixes the error and puts the bin back in the dispatch room. The Support Assistant says there are usually one or two bins with errors per week.¹⁴ They look, correct the issues, and return and re-scan the corrected COB to the COS. In the case of COBs in which all deposits seem to have the same disposition, Dispatch prints and places manifests (also called batch sheets) of the contents on top of the COBs and puts the COBs into corresponding tubs, 15 including DCSU published and DCSU unpublished. 16 When it fills a tub, it closes and locks it, and wheels it to room 449 to await transport to DCSU.

¹⁴ At the time the study team contacted MP, they were told that one bin had a deposit that should have been going to LC instead of Landover, and another bin had one deposit that should have going to LC instead of Landover and another deposit with no disposition at all. On average, MP has one or two bins with errors per week.

¹⁵ For deposits going to one LC destination, MP uses lockable carts rather than tubs, a distinction that is not important to the study.

¹⁶ MP is the only RRP division for which Dispatch prints manifests.

Dispatch checks the deposits with a LC Other disposition—these deposits are designated for gifts and exchanges—for deposits of computer source codes, which must be stored at DCSU. LC Other deposits are put into a separate tub and transferred to a drop-off room in the basement for pickup.

If at any point Dispatch finds an error in a COB or bin from a RRP division other than MP, it typically returns the entire container to the responsible RRP division to correct.

It should be noted that following the implementation of reengineering and the Siebel system, Dispatch conducted more thorough checks of the material being sent to Landover. It would move COBs wanded to COSs in the division Dispatch rooms to the Dispatch workstations, wand them to verify that they contained what they were supposed to, and put them into tubs. It stopped doing so when the RRP divisions cut back on wanding deposits to COBs because of the backlog. In addition, Dispatch was finding a fairly large number of errors in the COBs, which it then sent back to RRP to correct. Fixing the incorrect wandings took even more of the specialists' time and contributed to the decision to cut back on the amount of wanding. Dispatch is finding that with the cutback in quality control, it is getting a lot more problem deposits back from DCSU: rather than catching errors early in the transfer process, they are now being moved along to DCSU. At no point were the tubs barcoded as planned by the Reengineering.

The truck driver lets Dispatch know about the intended pickup, and Dispatch moves up to 14 tubs from room 449 to the loading dock. The truck driver loads the DCSU-bound tubs and takes them to DCSU, a trip of about a half hour to 45 minutes depending on traffic. Dispatch will have notified DCSU of what is coming on the truck. When the truck returns to the Madison Building from DCSU, it brings back problem deposits identified by DCSU (see below), as well as empty COBs, bins, tubs, and other supplies requested from DCSU. Dispatch comes to the loading dock to retrieve the problem deposits (see below) and supplies.

DSCU. The truck typically arrives at DCSU Wednesday afternoon. DCSU staff unload the tubs and move them to a holding area near the staff workstations. DCSU's responsibility now is to process the deposits into barcoded cardboard boxes (for purposes of this report, COBoxes) and to place the COBoxes on COSs, wanding both the COBox and COS numbers into Siebel.¹⁷

deposits from Iron Mountain.

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¹⁷ The main additional responsibilities of non-supervisory DCSU staff are retrieving requested deposits, refiling retrieved deposits when they are returned to DCSU, and moving boxes of deposits off shelves for transport to the Iron Mountain storage facility. The supervisory staff also have management and supervision responsibilities, and the assistant supervisor takes care of full-term deposits and retrievals and refilings of

Each DCSU staff member has a work area with a table (interviewees said longer tables would afford a far better and more efficient work space and increase security by reducing the potential of misplacing a deposit) and a computer and wand with access to Siebel. The staff divide the tubs equally among themselves. The process followed at this point varies according to staff member preferences. Some take an entire tub to their workstation and unload the contents of all the COBs/bins in the tub onto their table. They then sort the deposits by size and media for boxing so as to make best use of the space in the COBox. Other staff handle one COB/bin at a time. In the process of sorting, staff identify "problem deposits" (discussed below).

COBoxing the deposits. COBoxing of deposits involves assembling cardboard boxes, affixing barcode labels to them, and wanding the deposits to the barcoded boxes. To carry out this last step, staff wand MFIND on the sheet of paper with the barcode functions and then the COBox barcode, which enters the COBox number into Siebel. Next they wand the MASSDPSTV (Mass Deposit Move) on the sheet of paper with the barcodes and the COBox barcode to tell Siebel that they are going to move multiple deposits into the COBox. They then wand each deposit to the COBox, which shows as the new location within Siebel. This is the first directly trackable location for all unpublished deposits and for TX published deposits since the RRP specialist wanded them or the COB in which they were located to his or her COW. For other published deposits, it is the first directly trackable location since a COB was wanded to a COS in a dispatch room. Once staff fill a COBox, they print out a manifest of the contents, put it in the COBox, and close it. They repeat this process until all the deposits are COBoxed.

Shelving the COBoxes. Once all the deposits are COBoxed, staff assign the COBoxes to empty COSs at DCSU. They start by scanning MBIN on the sheet of paper of barcodes to signal Siebel that they are wanding a COBox to a COS. Next they scan the COBox barcode and then the COS barcode; this process transfers the location of the deposit, because of its association with the COBox, to a specific COS at DCSU. Staff have to follow this sequence for each COBox individually because Siebel is currently not programmed to allow mass wanding of COBoxes to COSs.

Some staff transfer the COBoxes to the COSs after they have filled all the COBoxes and wanded them to the COSs; others wait to the end of the week to wand and move whatever has been wanded to a COS. This does not constitute a problem as far as finding a deposit,

¹⁸ Interviewees said that the tubs typically contain a mix of deposits from different divisions (each tub, however, has only published or unpublished deposits unless an error was made). The study team was uncertain whether the contents of the tubs were mixed, as the process which RRP and Dispatch staff described suggested that the tubs reaching room 449 were each filled with deposits from a single division. It is possible that DCSU staff were referring to a mix of media among the deposits of a single division. DCSU staff did say that it did not matter to them if the tubs contained deposits from different divisions, as they COBoxed them based on like size or media.

because the COBox with which a deposit is associated will be in only one of two places: the COW of the staff member who created the COBox or the COS to which it has been assigned.

Staff mentioned an additional problem with Siebel that they would like addressed. They cannot easily confirm that the COBoxes were successfully wanded to a particular COS because they cannot wand a COS to pull up a list of the COBoxes wanded to it. Nor does Siebel indicate when a wanding is successful, e.g., by making a certain noise whose absence would indicate an unsuccessful wanding.

Workflow. DCSU was not able to estimate the amount of time it spends boxing each week. Interviewees said that as a team they can usually process 14 tubs in 5 business days or fill roughly 25 COBoxes per person per week. Per month, they said they fill and shelve about 300-360 COBoxes. Different types of deposits take very different amounts of time to COBox. Staff reported that it takes 1-2 hours to COBox a tub of bulky items (such as large books) but much longer to do tubs containing individual sheets of paper/photographs and CDs/DVDs. For example, it can take 2-3 days to COBox a tub with 10 COBs/bins of sheet music. The reason is that there are far more deposits in a tub of sheet music than in one of books, and the sheet music comes to DCSU in plastic envelopes from which each sheet must be removed for processing. In the case of CD/DVDs, the process is even more involved and therefore takes still longer: the lyric sheets must be removed from the plastic envelopes, wanded along with the related CD/DVD, and then folded and attached to the CD/DVD with a rubber band. Batches of these lyric sheet/CD/DVD deposits are then secured together with rubber bands and put into accordion files for storage in the COBoxes. The number of CD/DVD deposits per COBox is around 400.

The Path of Non-Routine Deposits from RRP to DCSU

Certain categories of deposits are discussed separately here because they do not follow the typical transfer path. The reasons are several: the claimant requested special handling (expedited examination); the claim was rejected ("red file"); the RRP specialist made an error in selecting the disposition and it went to the wrong location; the deposit was placed in the wrong bin/COB/tub by mistake, ended up at the wrong place, and had to be sent back to Dispatch; or DCSU could not process the deposit because it had no IBAL or the IBAL was damaged and could not be scanned.¹⁹

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¹⁹ The study team asked each division if having color-coded bins/COBs would help reduce the error rate. All said not, except one person thought it might be useful to have the bins/COBs for special handling bound for DCSU be a distinct color because sometimes it has been hard to find these.

Special handling. Special handling deposits are to be examined ahead of regular claims in order for claimants to receive their copyright certificate sooner.²⁰ After examination, they are wrapped with a paper that labels them as special handling, put into their own a bin, and placed into a tub of deposits with the same disposition. They are moved to DCSU in the same manner as other COBs/bins, except that they remain labeled as special handling and in a separate bin. When they get to DCSU, they are COBoxed and shelved along with the routine deposits.

Red files. The ultimate disposition for red files is DCSU. However, after examination they go to designated locations within the responsible RRP division in anticipation of an appeal of the rejection decision. PA red files other than MP's are logged into a COB in the PA Chief's office and held for six months to one year. MP assigns its red file to COB 000655 and puts them in the Division Chief's office. MP also does not close rejected claims immediately as the rest of PA and other divisions do; it keeps the claims open, giving claimants time to respond, which they usually do. TX holds the red files outside or inside a supervisor's office for at least three months. VA stores red files in a specific room in its area and holds them for one year. At some unspecified point after the hold time has elapsed, the RRP division moves the red file deposits into a red file bin and then to Dispatch, which transfers them to DCSU. In the case of TX, a supervisor moves the red files to Dispatch, wanding them to a red file COB.

Problem deposits identified by DCSU. As noted, as DCSU staff sort the deposits, they identify "problem" ones—deposits without IBALs, deposits with IBALs that do not scan, deposits for which Siebel indicates a LC disposition, and CO Other, which consist of deposits the CO does not want to keep and that should have been discarded following examination. DCSU staff sort the problem deposits into bins by problem type (therefore the bins contain material for more than one division) and, when ready to move them back to the Madison Building, place the bins into a tub and load it on the truck for the return trip to the Madison Building. DCSU alerts Dispatch that a tub with problem deposits is coming, and Dispatch retrieves it from the loading dock and takes it to the Chief of VA or a supervisor in TX,²¹ who in turn distributes the deposits to the appropriate divisions. There the records are corrected, and the deposits re-enter the transfer process as if they were newly examined deposits. In PA, for example, the problem deposits go to a specialist or the specialist's supervisor to correct in Siebel, and then get moved back into the transfer process. The number of problem deposits identified per week varies. On Wednesday, September 22, 2010, 243 came back to DCSU.

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²⁰ Registration claimants may request (and pay a fee for) special handling because they intend to enter into litigation, for which they need a registered copyright. As such, CO keeps a deposit copy in DCSU for a period of time to ensure that a registered copy can be produced, even if both copies will ultimately end up at the LC. ²¹ Interviewees gave different accounts of which person the problem deposits go to.

DCSU deposits erroneously sent to LC (including the Culpeper facility). The LC destinations occasionally receive deposits intended for another location, such as DCSU, or receive deposits designated for them that they do not want. Typically, they put those items back into the tubs and put the tubs in the hallway for pickup by Dispatch.²² Dispatch counts and records the number of returned deposits and tries to decide where they go. If they know, they redirect the deposit to that place. If they are not sure, they put the deposits on the table in the RMS Dispatch room for someone from RRP to review and assign to a location. It appears that these items would be very hard to track until they reenter the transfer process again, which occurs when a RRP staff member re-wands them to correct the disposition, or they are placed in the correct bin or tub. In either case DCSU-bound ones will not be trackable until they get to DCSU and are wanded to a COBox.

Retrieved deposits from DCSU. When DCSU receives a request from another part of the CO to retrieve a deposit, it looks in Siebel to find the COBox and COS where the deposit is located. It then pulls the COBox, pulls the deposit, and returns the COB to the COS. The request attached to the deposit has all the necessary information on it to relocate the COB when the deposit is returned. The primary requestor of deposit copies is the Records, Research & Certification Section (RR&C). RR&C has its own internal procedures and database in which it accounts for the date it sent the request for retrieval and closes out the request when it returns the deposit. This information is not recorded in Siebel.

Phantom deposits. The study team heard several times about "phantom deposits"—deposits that have been physically removed from a COB but are not showing up in Siebel as having been removed. This can happen if a deposit is not wanded to another container or location, e.g., a COW or COBox, when it is moved. One interviewee said that phantom deposits occurred in the first two years after Siebel was implemented because only one copy of a deposit would get wanded to the COW; the other will still show as being in the COB. Phantom deposits can also happen if Siebel fails to record a wanding, which interviewees said does happen and they have no way of knowing. In either case, the deposit will show up in Siebel as still being in a COB. It was unclear to the study team to what extent phantom deposits are an issue now that there is less wanding to barcoded containers. The one specialist who does regularly wand COBs for phantom deposits had not encountered any. MP said it routinely wands COBs, using the barcode CLEAR, to be sure they are electronically empty before returning the COBs to RAC. It seems, however, that most staff in RRP and RMS do not clear the COBs electronically. An interviewee

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²² The study team was not aware of any system for assuring that this always happens. It also heard that LC may choose to keep an erroneous deposit. This could happen if a DCSU-bound published copy went to LC by mistake and LC took both copies, as it has no way of knowing one was supposed to be for DCSU. In such a case it is unlikely the CO would know the LC took the deposit because LC does not use Siebel. Nor does Siebel have a flagging system to indicate that a deposit intended for a particular destination failed to arrive by a certain time.

commented that with adequate quality control over what goes into the COBs, there should be no phantom deposits, and for that reason, this person's division fills COBs and checks their content carefully. Another person pointed out that deposits bound for LC will never get removed from the COB unless someone wands the COB empty on its return to the CO. An unanswered question with respect to phantom deposits is what steps, if any, are taken to determine where a phantom deposit actually is when one is detected.

Overall Time from RRP to DCSU

The time elapsed between completion of the examination to shelving at DCSU varies based on a number of factors. One is how quickly examined deposits are moved through each stage of the process, as there is no standard at present. A COB of deposits might sit at a specialist's COW for several days before being emptied or moved, and examined deposits may sit in bins on COWs or shelves for several days before being moved onto the next stage, where they might sit for one or more days before arriving in room 449. Tubs of deposits wheeled to room 449 on a Thursday will not move to DCSU until the following Wednesday. If more than 14 tubs are ready to go, those that do not fit on the truck will need to be held for transport to DCSU until the next Wednesday, unless there are enough tubs to justify a second run to DCSU. The study team was told that the elapsed time from arrival in Dispatch to a COBox on a COS at DCSU averages 2-4 weeks. One interviewee thought that if Dispatch did the COBoxing, that timeframe could be significantly reduced. To the current 2-4 weeks from disposition to COS at DCSU must be added the time from entry of a disposition into Siebel to arrival at Dispatch. From what the study team heard and observed, it estimates that period of time to be several days to a week.

Conclusions

When the CO planned the reengineering project, enhanced security of deposits, including the ability to locate deposits in a timely manner, was a foremost objective. The Siebel CRM system was selected in part because it offered the potential to track deposits fully as they flowed from ingestion to a shelf at DCSU and thereby to locate the deposits easily, a key element in security. The tracking system for deposits that the CO initially implemented following examination of a registration claim offered more complete coverage of the path deposits traveled than the current one does but still did not track them fully. Even that incomplete system was largely abandoned by the CO when the examination backlog developed. The CO did so not because it concluded that tracking was unnecessary, but because the RRP divisions complained that wanding deposits' to locations, a key element of the tracking, slowed the examination process. Two other factors contributed to the cutback in tracking and checking: a feeling that it didn't make sense to do the initial tracking when nothing was tracked from Dispatch on until the COBoxing at DCSU; and RRP found itself spending a lot of time correcting errors that specialists made wanding and sorting examined deposits to COBs. Nevertheless, as described, two divisions, PA, particularly its MP Team, and VA still carry out limited wanding and checks to try to ensure deposits get where they are supposed to go, but use support staff instead of registration specialists.

The OP&A study team understands the rationale for cutting back on tracking in the context of the backlog, but believes it represents a lessening of quality assurance and the security of deposits that copyright holders and public alike have a right to expect. It is also inconsistent with a high standard of customer service, which should include adequate protection of deposits while under the control of the CO and a capability for timely retrieval of deposits, which hinges on being able to find them quickly.

The OP&A study team concludes that the CO needs to put into place a process for the transfer of deposits from RRP post-examination to a DCSU COS, and for retrieval, delivery to the requestor, and refiling of deposits at DCSU, that allows both published and unpublished deposits to be located in timely manner no matter where they are within the CO. While technically not part of the transfer process to DCSU, which begins post-examination, the study team believes that tracking needs to begin with the wanding of all COBs to specialists' COWs for the best quality control over deposits. The current transfer process offers a good starting point but needs to be extended to all deposits, both routine and non-routine published and unpublished, and to their movement from the time they become the responsibility of RRP and RMS to the point that responsibility transfers to another unit. Moreover, there needs to be greater quality control over the process to minimize deposits going to the wrong locations or getting lost altogether. Finally, CO

management needs to make clear that a timely and secure deposit transfer process to DCSU (and to other destinations) is an integral element of high-quality customer service and efficient operations.

Problems with the Current Transfer Process

The study team reviewed the current transfer process from four perspectives: timeliness of locating deposits; security of deposits; efficiency of the system; and quality control. (The study team did not single out the reliability of the process, as that characteristic is embedded in the four aspects.) Within that context, it identified the following weaknesses in the existing process for moving deposits from a RRP registration specialist's work area to a COBox and COS at DCSU.

Timely location of a deposit. This study was instigated by instances in which DCSU-bound deposits could not be located in timely manner or at all. The OP&A study team identified a number of features of the current transfer process that make locating DCSU-bound deposits difficult, and in the case of non-routine deposits, impossible.

- There is no clearly defined set of procedures or time standards for getting examined deposits from a specialist's desk to a COB and the COB onto a COS. The how and where of moving a deposit to Dispatch appear to have evolved on the basis of what individuals deemed easiest, and then to have become loosely applied practices for the rest of their division. One norm, for example, is to wait until containers are full before moving them on to the next stage, which can take more than a week or two for deposits with certain dispositions.
- Tracking is partial at best and non-existent at worst. No division other than the MP team in PA tracks unpublished deposits (other than special handling), and only PA tracks published deposits. VA carries out what can be characterized as an informal check to try to ensure deposits get into the right bins; TX does not even do that. Dispatch also does only informal checks.

Even during the portion of the path to DCSU when VA and PA published deposits are tracked, the process is loose. There is, for example, no prescribed timeframe or procedure for holding and then moving examined deposits from specialists' COWs to the next stage of the process. Examined deposits may sit in bins and shelves for several hours up to days before support staff wand them into a COB and the COB onto a COS. In fact, the timeframe for moving deposits seems to be dictated mostly by a norm of waiting until containers (bins/COBs/tubs) are full before moving them on, and the once-a-week truck run from the Madison Building to DCSU. No matter

what tracking of published deposits occurs in the early part of the transfer process, it ceases for all deposits once Dispatch places them in tubs.

In the case of unpublished deposits and VA and TX published, if there is a request for retrieval of a deposit, often the only information a searcher has until it is COBoxed at DCSU is the disposition entered into Siebel, when it was entered, and who the examiner was; there is nothing that says where it currently is in the process. Staff guesstimate based on average timeframes for deposits getting to different points in the process, but those timeframes are highly variable, with an overall elapsed time of up to four weeks and not infrequently longer. Someone likely has to search through a number of containers at a number of different locations to locate the deposit, a time-consuming and labor-intensive process.

- Registration specialists do not all follow the same procedures. For example, some do not wand to their COWs the COBs taken from the COSs where they are placed after ingestion. Some do not take entire COBs back to their desks but instead take part of the contents. In both cases, that means the recorded location for the deposits is the COB on a COS until the specialist wands them individually to the COW to begin the examination, and any amount of time could elapse before that occurs.
- The system envisioned by the reengineering called for Dispatch to perform a quality control check to ensure that the COBs transferred to them contained deposits with like dispositions. Dispatch was then to maintain the trackability of the COBs by wanding them into COTs. In practice:
 - o Barcodes were never affixed to the tubs, so this element of the tracking system could not be implemented. As such, once a COB reaches a tub, the location of a particular deposit cannot be ascertained without manually going through all the COBs in all the tubs until located, or until DCSU wands the deposits into COBoxes. The most that Dispatch can do now is a rudimentary check of the homogeneity of the contents of COBs/bins/tubs.
 - Tubs themselves cannot be located easily as they are not wanded out of or into the different holding spaces or DCSU. They can be anywhere from a RRP corridor, one of several dispatch rooms, the holding room for completed, locked tubs, the loading dock, the truck, or DSCU.

- Once the tubs of deposits reach DCSU, there is no easy or timely way to find an item until, as noted, it is COBoxed:
 - O In the case of deposits in COBs, although the deposit can be tracked to the COB, there is no way to know which tub it is in, as COBs aren't wanded to tubs. Unpublished deposits reside in untrackable bins. Thus DCSU has to search each tub corresponding to the disposition of the requested deposit until it finds the right COB/bin or until the deposit has been COBoxed. Errors in putting COBs/bins into the right tub can necessitate looking through both published and unpublished tubs.
 - As noted, if the staff are wanding published deposits and have set that field in Siebel, and by mistake an unpublished deposit is in the COB/bin, the system does not reject the unpublished deposit but changes its disposition and that of any succeeding deposits if the mistake is not caught. The reverse is also true. That means an unpublished deposit could be disposed of well before the lifetime of the author plus 100 years, and a published deposit kept far longer than intended.
 - As DSCU staff work through the tubs, they come across problem deposits that they set aside in bins to be sent back to the Madison Building. No changes are made at DCSU in the Siebel record when possible to show the deposits are returning to the Madison Building from DCSU, so the last recorded location shows as the last point at the Madison Building where they were tracked. Another problem is that there is no time standard for getting these deposits back into the hands of a RRP specialist. Sometimes the bins are held until they are full before being sent back to Dispatch.²³
- The handling of non-routine deposits appears to be the loosest in some respects.
 - It is not clear how rigorously red file deposits that reach their hold time are being moved on to Dispatch and how formal a transfer process is followed with these deposits. Once at DCSU, the red file bins are put into a tub that is set off to the side and processed as time is available.
 - Special handling deposits are placed in their own bins at RRP, but these bins are then mixed in with routine deposit COBs/bins and processed along with everything else. That is, there is no longer any special handling with respect

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²³ The study team heard three different versions of what happens to the bins: they are returned weekly, they are held until full and returned, and they are returned monthly.

- to the transfer from RRP after the examination to a COS at DCSU, other than being placed in a separate COB/bin.
- O Deposits transferred to LC are not wanded at the time they actually leave Dispatch, and there is no record of their receipt by LC because it uses another system. Thus, DCSU-bound deposits that mistakenly go to LC, or deposits that LC decides it does not want and intends to return to the CO that might need to go to DCSU, cannot be tracked until they get back to the CO and a RRP staff member puts them into the right container or changes their records in Siebel to a DCSU disposition. Unpublished deposits erroneously put into a container for a LC destination are not tracked as having left the CO and could be the subject of a CO search, even though the deposit is with the Library. It is also possible that the LC does not always return erroneous deposits, and there would be no way for the CO to know, as Siebel does not flag a deposit that has not arrived at its intended destination within a certain time.
- From the information provided to the study team, it appears that deposits retrieved from DCSU are not adequately tracked through Siebel to permit them to be located easily from the time they are removed from the COB on a COS at DCSU to their return to that location.
- Problem deposits returned by DCSU are not tracked until the problem is resolved in Siebel by RRP.
- There does not seem to be a clearly defined system to ensure that COBs and COTs have no phantom deposits before they re-enter the deposit transfer process. While this does not seem to be a problem at present, the study team is concerned that if the CO implements full tracking, which involves regular wanding of all deposits to barcoded containers, phantom deposits could become an issue again. The study team also is concerned that there seems to be no system for determining what happened to the actual deposit represented by the phantom.
- It should be noted that two categories of problem deposits are not trackable by the proposed system (or presumably any system)—deposits with no IBAL and those with damaged IBALs that cannot be scanned to Siebel.

Security. The study team identified two main weaknesses in security: the CO does not, as noted, know where a deposit is at all times while under its care because of incomplete tracking and poor quality control; and deposits with the possible exception of MP's are being held in spaces in the Madison Building from which they could easily be removed

intentionally or unintentionally.²⁴ Tubs of deposits can sit in unsecure hallways within RRP for several hours up to days before being moved to the next location. Red files are stacked on open shelves or stacked on the floor in hallways where a person could easily knock one off without knowing. Library staff from some units pick up their deposits from Dispatch, rather than having Dispatch deliver them. The study team wondered if the Library collections staff could inadvertently take a bin or tub of deposits intended for another destination. If something were removed, the many holes in recordkeeping would make it hard to detect. When DCSU wands a published deposit into Siebel when it is set for unpublished, or vice versa, Siebel changes the disposition of that and succeeding deposits, until the problem is identified. This means that an unpublished deposit could be discarded prematurely.

Room 449, which is intended to be a secure storage area for tubs ready to go to DCSU and has to be entered with a coded badge, is also a primary thoroughfare between RRP work space and the fourth floor corridor, and the doors remain open long enough before closing that a non-staff person could enter undetected. The study team did not hear of unauthorized removals of deposits except for some small deposits like CDs from room 449—a weakness that was addressed by moving these deposits to locked storage containers. Nevertheless, it brings the matter to the CO's attention for review and determination if it is a situation that warrants attention. Likely, implementation of rigorous tracking and quality control systems and faster transfers of deposits to COSs at DCSU will themselves lessen this security issue.

Efficiency. As noted, finding a deposit that is not at the beginning or end point of the transfer process can be time-consuming and labor-intensive. There are additional inefficiencies in the current transfer process:

- Tracking depends on wanding deposits to containers and locations. Unfortunately, Siebel is cumbersome in this regard, requiring two to three wandings to carry out certain procedures within a system that is generally characterized as slow.²⁵
- Siebel is not programmed to reject (and clearly notify the user that it is rejecting)
 attempts to wand deposits into COBs that do not correspond to the disposition of
 the deposit. Not having that capability leaves greater potential for errors that have
 to be corrected later. If increased tracking to COBs and COTs is implemented, this
 inefficiency will be exacerbated.

²⁴ The study team did not address security issues related to environmental hazards, pests, etc.

²⁵ Siebel was recently upgraded to 8.1. According to interviewees, it is too soon to tell if the upgrade has improved the system's speed. On the day one OP&A staff member was observing the beginning of the examination process, Siebel crashed five times. Of the 45 minutes spent at the specialist's work area, about 5 were spent waiting for Siebel to reboot and perform the desired procedure.

- While Siebel is programmed to permit mass wanding of deposits into a COB/COBox, this capacity does not extend to mass wanding of COBs/COBoxes to a COS.
- Some of the work space at DCSU is cramped. Longer work tables would enable staff to work more efficiently.

A final point relates to having the COBoxing take place at DCSU in Landover, rather than at the Madison Building. The current system results in three sessions of placing deposits into containers—the first in RRP (deposits into COBs/bins), the second in Dispatch (COBs into tubs), and the third at DCSU (deposits into COBoxes). With COBoxing at the Madison Building, the second placement would be into COBoxes, which would then be put into COTs for transport to DCSU for shelving.

Another inefficiency under the current system is that many errors do not get detected until DCSU, at which point the problem deposits have to be sorted into bins, transferred back to the Madison Building, and moved to RRP for sorting and correction. Aside from the extra time and effort this process requires, it leaves the problem deposits in limbo until they are corrected in Siebel. If COBoxing were done at the Madison Building, the errors would be detected early in the process and could be corrected and re-enter the transfer process far faster.

Quality control. Underlying the above issues is the almost total absence of a quality control system from beginning to end of the transfer process. The lack of quality control is evidenced by the number of errors being identified at DCSU, and some interviewees thought more were going undetected. The study team did not see evidence of a defined transfer process with set tracking points and checks on the accuracy of the sorting into containers at key transition points. If such a process exists, not all staff are aware of it or see a need to follow it. Although the errors constitute only a small percentage of the deposits that move to DCSU, they represent a significant number of customers whom the CO is not serving adequately.

Criteria for an Improved Transfer Process

The study team concluded that a DCSU-bound deposit in the correct COBox on a COS at DCSU can be located the most quickly and efficiently and, assuming control over access to the shelves, is also the most secure. Therefore, achieving that status for a deposit as quickly as possible is the logical goal of the transfer process. The study team also concluded that the transfer process needs to be underpinned by two core standards:

- 1. An ability to locate a deposit under the CO's care within 24 hours of receipt of a request for retrieval, no matter where it is in the transfer path from RRP specialist to DCSU shelf.²⁶
- 2. Placement of a deposit in a COBox on a COS at DCSU within 10 business days. This will require more frequent transfers of deposits to DCSU, which would have the added advantage of reducing the space requirements at the Madison Building for COBs, COSs, and tubs. The actual frequency of deliveries to DCSU is, however, a decision best left to the CO.

Given the above overarching goal and two core standards, the OP&A study team determined that the transfer process for DCSU-bound deposits needs to meet the following criteria:

- All DCSU-bound deposits are tracked fully, meaning that
 - To the extent possible, and as soon in the process as practicable without disrupting the flow of registration claim examinations, deposits are wanded into trackable COBs and the COBs onto COSs and/or into COTs
 - Tracking points are established such that they delimit areas that can be reasonably, quickly, and easily searched
 - Within those areas deposits are held at only a small number of designated locations to facilitate a search
 - At each critical transition point between a registration specialist's COW and a COBox on a COS at DCSU, a deposit's location is recorded in Siebel
- Each deposit is subject to two quality control checks to verify that it is in the correct COB and the COB in the correct COT
- Phantom deposits are eliminated before a COB/COT re-enters the deposit transfer process
- CO has a sufficient number of dedicated COBs/COTs to maintain the controlled transfer of deposits in barcoded (trackable) containers

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²⁶ The study team limited itself to locating a deposit and did not address getting the deposit into the hands of the requestor, as that did not fall within the scope of the study. However, it believes the tracking system should be extended to cover RMS's transfer of the deposit to the requestor and the movement of the deposit thereafter up to the time it is returned to RMS for refiling. Doing so would maintain a chain of custody and address a comment the study team heard in an earlier study that the return of deposits to RMS's custody is not always handled in a rigorous and careful manner.

- COBoxing takes place geographically and time-wise as close to the entry of a
 deposit's disposition into Siebel as possible, which ideally is in the Madison Building.
 The study team understands that the CO is actively looking at space on the fourth
 floor near the RRP space and strongly supports this possible change
- The process does not require significant additional resources beyond creating new/upgrading existing space, adding functionalities into Siebel, and increasing the number of runs to DCSU
- There is adequate quality control, including documentation of required procedures and monitoring of their implementation

While not core criteria for easily locating and maintaining the security of deposits, the following would increase the efficiency of the system:

- Improve the speed and ease of the wanding by adding two functionalities into Siebel:
 - Permit mass wanding of COBoxes to COSs (and of COBs into COTS within Dispatch if COTs are implemented)
 - Develop a system in which barcodes for COBs and COTs are designated for DCSU published or DCSU unpublished deposits exclusively, with a functionality in Siebel whereby it rejects the wanding of a deposit to a COB that does not have the same disposition; develop the same functionality for moving COBs to COTs
 - o COBox DCSU-bound deposits at the Madison Building

As noted, there is some variability in how RRP staff carry out their post-examination processing. The study team does not believe that a rigid system is necessary; there are benefits to allowing staff to design the procedures that work most efficiently for them. In fact, it is helpful to have those performing the work help design the system. Ultimately, however, it is the responsibility of management to assess and approve their suggested procedures based on achieving reasonable standards for timely location, security, and efficiency. The starting point in strengthening the CO's process will need to be establishing those standards.

Recommendations

Proposed Deposit Transfer Process

The OP&A study team presents two recommended deposit transfer processes. The second, in which boxing takes place in the Madison Building, is the preferred alternative, but will require some changes in existing space that likely would entail a delay in implementation. The first alternative is one the study team believes can be implemented within the very near term, as it mainly requires procedural changes, the possible addition of some computer/wanding stations and of functionalities into Siebel, barcoding of bins and tubs, and the designation of specific holding areas for bins of examined deposits within each division.

Alternative 1: Current system with revisions

Stage 1: RRP

RRP registration specialists will

- Retrieve *entire* COBs/bundles of deposits from a COS(s) in RRP where they are placed after ingestion and *immediately* wand them to their COWs
- Assign examined deposits a disposition (DCSU published, DCSU unpublished, LC, special handling, red files, etc.) and place them into bins corresponding to the disposition without wanding
- Make the bins of examined deposits available for collection by division support staff
 either outside the workstation, at a designated shelving area for the division, or in
 designated division tubs at least by the end of every day²⁷

RRP support staff will complete the following tasks within two business days

Note: this is the point at which the 10-day target for placement of a deposit on a COS at DCSU begins.

- Collect examined deposits (by taking either the contents of the bins or the bins themselves), and move them to their workstations or processing rooms
- Wand the contents of the bins, including special handling and red file deposits, into
 COBs corresponding to the disposition entered into Siebel

²⁷ The study team does not feel it knows enough about the operations of RRP divisions to say whether there should be a single procedure for where and how often examined deposits should be collected by support staff.

• Print a manifest for each COB, review it to ensure all deposits have the same disposition (quality control check 1), and place the manifest in the COB

Note: if Siebel can be programmed to reject the wanding of deposits whose disposition do not match the COB's designation, that would serve as the first quality control check. Support staff would then either correct erroneous deposits as appropriate (e.g., wand them to the correct COB) or return them to the registration specialist as soon as possible; the specialist would then would wand the deposit back to his or her COW and rectify the error as soon as possible. The deposit then re-enters the transfer process as if it were a newly examined deposit.

- Take the routine and special handling COBs to the RMS Dispatch room and wand them to COSs
- Transfer red files
 - Take the red file COBs to COS(s) in the division red file holding area and wand them to a COS at that location
 - When a red file is ready for transfer to DCSU, move it to Dispatch in a separate COB

Stage 2: Dispatch

Dispatch will complete the following tasks within no more than three business days in order to have COTs ready for transfer to DCSU twice weekly (or more often if the CO decides that is preferable) and to accomplish the target of ten days to placement of a deposit on a COS in DCSU

- Retrieve COBs off the COSs in the RMS Dispatch room, and verify that the deposits in each COB match the disposition of the COB (quality control check 2) by
 - Wanding each COB with VIEWCASE on the sheet with the barcode functions to verify that the contents of the COB match the COB's designation
 - Counting the number of items in each COB and comparing it to the number of items Siebel shows as being in the COB
- Place a special handling notification on top of COBs with those deposits

- Wand COBs with no erroneous deposits to a COT corresponding to the designation
 of the COBs; to fill the COTs more quickly for transport to DCSU, put COBs with the
 same disposition from different divisions into the same COT²⁸
- Place COBs of special handling and red file deposits at the top of a published or unpublished COT, and put notifications in sleeves on the lid of the COT to indicate that it contains these types of COBs

Note: At present DCSU does not process special handling deposits any differently than routine deposits; if there is no reason to COBox and shelve them ahead of routine deposits, then this step can be eliminated for these deposits.

Note: these deposits can be placed in COTs with routine deposits at present as long as there is a notification on the lid of the COT. If, however, the COBs and COTs are designated for only a certain disposition, special handling and red file COBs would need to go into COTs with that designation.

- When a COT is full, print a manifest showing the COBs it holds, verify that the same number of COBs is in the COT as shown on the manifest, place the manifest in a sleeve on the lid of the COT, and lock the COT.
- Move COTs destined for DCSU to a common secure storage on the fourth floor space (currently room 449) to await transport to the loading dock, wanding each COT into the space²⁹
- On the day the truck transports deposits to DCSU, wand the locked COTs out of the holding area, following a first-in first-out procedure, and move them to the loading dock, where the truck driver placed them in the truck³⁰
- Wand LC COBs with no erroneous deposits to a COT corresponding to the LC destination, and transfer to a secure holding area for delivery to LC or to await transfer to the designated location for pickup by LC

²⁸ DCSU staff stated that it did not matter to them if tubs contain deposits from different divisions, since they COBox the deposits based on the size of the deposit and not the divisions. The study team did not identify any reason to keep DCSU-bound deposits sorted by division.

²⁹ The storage space could be near the loading dock if suitable space cannot be assigned on the fourth floor. ³⁰ Inasmuch as the move to the loading dock, onto the truck, and to DCSU takes place in no more than four hours, and the COTs will be wanded into DCSU, the study team did not see a need to wand the COTs to the loading dock and onto the truck, but both steps could easily be added.

- Transfer ownership of the deposits in the LC COTs to LC
 - COTs destined for LC with delivery by Dispatch
 - Wand the COT(s) out of the RMS holding area to record in Siebel that the COT is being transferred to the LC destination in Siebel
 - Deliver the COT(s) to the LC receiving point

Note: Since the Library does not use Siebel, wanding LC-bound COBs/COTs out of the CO serves two functions: it identifies when the CO is turning over ownership to LC, and it electronically moves the COT and its contents to the LC location, thus electronically emptying all the COBs/COTs so that they contain no phantom deposits.

- o COTs destined for LC with pickup by LC staff
 - Wand the COT(s) out of the RMS secure storage space to record in Siebel that the COT is being transferred out of the CO's possession to the LC destination recorded in Siebel
 - Deliver the COT(s) to the designated pickup location
- Retrieve COBs/COTs with returned items (which will only be wanded to the COBs/COTs if they have been replaced in the ones in which they were transported to LC) from all LC locations
 - For deposits that do not require a disposition change in Siebel, wand the deposits to the correct COB/COT, and place in that container
 - For deposits requiring a disposition change, wand the deposit to a COB, and transfer the COB to the designated RRP staff

RRP support staff will, as soon as possible,

- Wand the deposit out of the COB
- Transfer the deposit to a registration specialist for processing
- Return the COB that was corrected to the RMS Dispatch room, and wanding it to a COS, from which it will be handled like a routine COB

The registration specialist will, as soon as possible,

- Wand the deposits to his/her COW
- Correct the disposition in Siebel
- Place the deposit into a bin for that disposition, from which it will be returned to the transfer process as if it were a newly examined deposit

Stage 3: DCSU

DCSU staff will carry out the following tasks such that deposits, including red file and special handling, are COBoxed and placed on a COS within 3 business days, assuming twice weekly deliveries:

- Remove the COTs from the truck, and wand them into the DCSU boxing/shelving area
- Take entire COTs and wand them to their COWs, unless the contents of a COT are of media whose processing requires more than one person in order to meet the time standard for shelving; in this case two staff could split a COT (this will require one person to wand COBs to their COWs so as to remove them electronically from the COT, and once that is done, the other person will wand the COT to his or her COW)
- Wand each deposit to a COBox that corresponds to the disposition and, when full, print a manifest, place it in the COBox, and close the COBox

Note: The study team does not feel qualified to express a preference for COBoxing one COB at a time or placing all COB contents on a table, sorting deposits by size, and mass wanding them to COBoxes, assuming the COBoxing is done expeditiously enough that a deposit can be located within 24 hours. However, some interviewees noted that sometimes the wanding does not successfully enter a change into Siebel and therefore does not remove the deposit from the COB. When this happens, the staff may not be aware of it because Siebel does not indicate the unsuccessful wanding. Such deposits will show up electronically as phantom deposits in the COBs in which they came to DCSU, even though physically they are on the work table or in a recently filled COBox. The location of the COB will be the last recorded location in Siebel, which could be a specialist's COW. To locate the phantom deposit, the DCSU staff would need to manually check every deposit in every COBox just filled. That possibility argues for processing a COB at a time and wanding the COB at the end to ensure it is empty electronically.

Note: The system would have better quality control and be more efficient if the COBox barcodes were specific to published and unpublished and would reject the wanding of a deposit that did not match the COBox designation.

- Verify that each physically empty COB and COT is also electronically empty
- Wand each COBox to a COS

Note: the process of wanding to a COS would take less time and be easier if Siebel were programmed to permit mass scanning of COBoxes to a COS.

- Transfer the COBoxes to a COS
- Process the problem deposits
 - Sort problem deposits into COBs/bins corresponding to LC dispositions, IBAL issues, CO Other
 - Wand the LC deposits to the COB
 - When the truck from the Madison Building is returning there, place the COBs/bins of problem deposits into a COT/tub, lock it, and put a notification in a sleeve on the lid indicated that the COT contains problem deposits
 - Load the COT/tub onto the truck
 - Notify Dispatch that the COT is being sent back to Dispatch

Stage 4: Dispatch/RRP

Dispatch will, within four business hours of receipt of the problem deposits from DCSU,

• Retrieve the COT with the COBs of problem deposits from the loading dock at the Madison Building, and transfer it to the appropriate RRP Division Chief.

The RRP Division Chief will, as soon as possible,

• Distribute the problem deposits to the appropriate person for processing

The person receiving the problem deposit will, as soon as possible,

 Process it consistent with the procedures specified for ingestion in the case of deposits with IBAL problems and with the deposit transfer procedures for already examined deposits in the case of incorrectly processed ones

Alternative 2: Current system with revisions and with boxing carried out at the Madison Building

Stage 1: RRP

RRP registration specialists will

- Retrieve *entire* COBs/bundles of deposits from the COSs in RRP where they are placed after ingestion and *immediately* wand them to their COWs
- Assign examined deposits a disposition (DCSU published, DCSU unpublished, LC, special handling, red files, etc.), and place them into bins corresponding to the disposition without wanding
- Make the bins of examined deposits available for collection by division support staff
 either outside the workstation, at a designated shelving area for the division, or in
 designated division tubs at least by the end of every day³¹

RRP support staff will complete the following tasks within two business days:

Note: this is the point at which the 10-day target for placement of a deposit on a COS at DCSU begins.

- Collect the contents of the bins of examined deposits, and take them to their workstations or processing rooms
- Wand the contents of the bins, including special handling and red file deposits, into COBs corresponding to the disposition entered into Siebel
- Print a manifest for each COB, review it to ensure all deposits have the same disposition (quality control check 1), and place the manifest in the COB

Note: if Siebel can be programmed to reject the wanding of deposits whose disposition do not match the COB's designation, that would serve as the first quality control check. Support staff would then either correct erroneous deposits as appropriate (e.g., wand them to the correct COB) or return them to the registration specialist as soon as possible; the specialist would then would wand the deposit back to his or her COW and rectify the error as soon as possible. The deposit would then re-enter the transfer as if it were a newly examined deposit.

³¹ The study team does not feel it knows enough about the operations of RRP divisions to say whether there should be a single procedure for where and how often examined deposits should be collected by support staff.

- Take the routine and special handling COBs to the RMS Dispatch room and wand them to COSs
- Transfer red files
 - Take the red file COBs to COS(s) in the division red file holding area and wand them to a COS at that location
 - When a red file is ready for transfer to DCSU, move it to Dispatch in a separate COB

Stage 2: Dispatch

Dispatch will complete the following tasks within no more than three business days in order to have COTs ready for transfer to DCSU twice weekly (or more often if the CO decides that is preferable) and to accomplish the target of ten days to placement of a deposit on a COS in DCSU

• Retrieve COBs off the COSs in the RMS Dispatch room

DCSU-bound deposits

• Wand each routine deposit in a COB to a COBox that corresponds to the disposition (quality control check 2), place it into the COBox, and, when full, print a manifest, place it in the COBox, and close the COBox

Note: The system would have better quality control and be more efficient if the COBox barcodes were specific to published and unpublished and Siebel rejects the wanding of a deposit that does not match the COBox barcode.

- Wand empty COBs to verify that they are electronically empty except for the deposits being returned
- Wand each special handling deposit to a COBox that corresponds to the disposition, place it into the COBox, and, when full, print a manifest, place it in the COBox, and close the COBox
- Wand each red file deposit to a COBox that corresponds to the disposition, place it into a red file COBox, and, when full, print a manifest, place it in the COBox, and close the COBox
- Wand problem deposits back into the COBs from which they came, and return the COBs to designated staff in each division

- Wand each COBox to a COT that corresponds to the disposition of the deposits in the COBox
 - Mix COBoxes from different divisions in the same COT in order to fill them more quickly for transport,³² except for red file COBs, which should go into a separate COT with a notification on the lid that it contains red files
 - Place special handling COBoxes in the top of either published or unpublished COTs as appropriate, and insert a notification in a sleeve on the lid of the COT that it contains COBoxes of those types of deposits

Note: At present DCSU does not process special handling deposits any differently than routine deposits; if there is no reason to COBox and shelve them ahead of routine deposits, then this step can be eliminated.

- When a COT is full, print out a manifest showing the COBoxes it holds, place it in a sleeve on the lid of the COT, and lock the COT
- Move locked COTs to a common secure storage space on the fourth floor to await transport to the loading dock, wanding them into the space³³
- Move the locked COTs, following a first-in first-out procedure, to the loading dock and onto the truck, wanding them out of the holding space³⁴

LC-bound deposits

Dispatch staff will complete the following tasks for LC destination-bound deposits:

- Retrieve COBs off the COSs in the RMS Dispatch room, and verify that the deposits in each COB match the LC disposition of the COB (quality control check 2) by
 - Wanding each COB with VIEWCASE on the sheet with the barcode functions to verify that the contents of the COB match the COB's designation
 - Counting the number of items in each COB and comparing it to the number of items Siebel shows as being in the COB

³² DCSU staff stated that it did not matter if COTs/tubs contain deposits from different divisions, since it COBoxes based on size of the deposit and not division. The study team did not identify any reason to keep DCSU-bound deposits sorted by division.

³³ The storage space could be near the loading dock if suitable space cannot be assigned on the fourth floor. ³⁴ Inasmuch as the move to the loading dock, onto the truck, and to DCSU takes place in no more than four hours, and the COTs will be wanded into DCSU, the study team did not see a need to wand the COTs to the loading dock and onto the truck, but both steps could easily be added.

- Wand COBs with no erroneous deposits to COT(s) corresponding to the LC
 designation of the COBs, and transfer to a secure holding area for delivery to LC or
 to await transfer to the designated location for pickup by LC
- Transfer ownership of the deposits in the LC COTs to LC
 - o COTs destined for LC with delivery by Dispatch
 - Wand the COT(s) out of the RMS holding area to record in Siebel that the COT is being transferred to the LC destination in Siebel
 - Deliver the COT(s) to the LC receiving point

Note: Since the Library does not use Siebel, wanding LC-bound COBs/COTs out of the CO serves two functions: it identifies when the CO is turning ownership over to LC, and it electronically moves the COT and its contents to the LC location, thus electronically emptying all the COBs/COTs so that they contain no phantom deposits.

- o COTs destined for LC with pickup by LC staff
 - Wand the COT(s) out of the RMS secure storage space to record in Siebel that the COT is being transferred out of the CO's possession to the LC destination recorded in Siebel
 - Deliver the COT(s) to the designated pickup location
- Retrieve COBs/COTs with returned items (which will only be wanded to the COBs/COTs if they have been replaced in the ones in which they were transported to LC) from all LC locations
 - For deposits that do not require a disposition change, wand the deposits to the correct COB/COT and place in that container
 - For deposits requiring a disposition change, wand the deposit to a COB, and transfer the COB to the designated RRP staff

RRP support staff will, as soon as possible,

- Scan the COB to their COWs
- Wand the deposit out of the COB

- Transfer the deposit to a registration specialist for processing
- Return the COB that was corrected to the RMS Dispatch room, and wanding it to a COS, from which it will be handled like a routine COB

The registration specialist will, as soon as possible,

- Wand the deposits to his/her COW
- Correct the disposition in Siebel
- Place the deposit into a bin for that disposition, from which it will be returned to the transfer process as if it were a newly examined deposit

Stage 3: DCSU

DCSU staff will carry out the following tasks such that COBoxes, including those for red file and special handling deposits, are placed on COSs within 2 business days, assuming twice weekly deliveries:

- Remove the COTs from the truck, and wand them into the DCSU shelving area
- Take entire COTs to their workstations
- Wand the COBoxes to COSs

Note: The process of scanning to a COS would take less time and more efficient if Siebel were programmed to permit mass scanning of the COBoxes to the shelf.

- Verify that each COT is electronically empty
- Transfer the COBoxes to their COSs

Efficiency Measures

- Add the following functionalities to Siebel
 - Designate COB barcodes for published or unpublished deposits exclusively, and program Siebel to reject the wanding of a deposit to a COB that does not match the COB's designation

- Designate COT barcodes for published or unpublished deposits exclusively, and program Siebel to reject the wanding of a COB to a COT that does not match the COT's designation
- Designate COBox barcodes for published or unpublished deposits exclusively, and program Siebel to reject the wanding of a deposit to a COBox that does not match the COBox's designation
- Program Siebel to permit mass scanning of COBoxes to COSs
- Explore the value of programming Siebel to issue an alert if a deposit does not reach its intended destination within a certain amount of time
- Provide longer work tables for COBoxing at DCSU

Quality Control

- Have the CO establish that the deposit transfer process is an integral element of high-quality customer service by the CO
- Define and circulate standards that the revised transfer process needs to meet, including error rates, elapsed time to key tracking points in the transfer process, time elapsed from entry of a disposition into Siebel to placement of a deposit on a COS at DCSU, and time for retrieval of a requested deposit
- Document the revised deposit transfer process, and alert staff to the mandatory elements of the process and to those where staff have discretion to work in the manner most efficient for them
- Implement an effective quality control system whose elements should include at least:
 - Documentation of a process that all RRP and RMS staff must follow rigorously unless it explicitly states that a staff member has some discretion in how to carry out a task in such a manner the procedures comply with standards for quality and timeliness
 - o Regular monitoring and oversight, to include
 - Recording and analyzing the reasons for the problem deposits being identified by Dispatch or DCSU

- Tracking accomplishment of quality standards and elapsed time for transfer of deposits through the different stages of the transfer process
- Tracking the time it takes to locate deposits requested for retrieval
- o Retraining and coaching as needed
- o Management oversight
- Program Siebel so that
 - It alerts staff to a failure of the system to process the entry being made to a deposit's record
 - It cannot change the disposition of a deposit that does not conform to the current setting in Siebel for published or unpublished, and it alerts staff to the problem deposit