NOAA - NATIONAL ARCHIVES JOINT IMAGING PROJECT

IMAGER'S MANUAL

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1. Contact Information

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2. History and Goals of the Joint Imaging Project

A. History

This collaborative Project between the National Oceanic and Atmospheric Administration (NOAA) and the National Archives and Records Administration (NARA) began in 2012. Scientists and staff of the University of Washington, Joint Institute for the Study of the Atmosphere and Ocean (JISAO) – a NOAA Cooperative Institute – support the Project. It was set up to provide high-resolution digital images of historical ship's logbooks held by the National Archives. These are used for two purposes: 1) enhanced access to the public; and 2) to make it possible to extract weather and environmental data via our online citizen-science project <u>Old Weather</u> (www.oldweather.org).

B. Goals

The overarching goal of the Project is to digitize and then transcribe these logbooks to gather the weather data they contain. The data transcribed by volunteers on Old Weather is used to drive sophisticated large-scale retrospective analysis (reanalysis) systems in order to advance our understanding of past climate conditions and to improve future model projections. In addition to being useful to climate scientists, the information collected from these logbooks will also appeal to a wide array of researchers in other fields, such as history, anthropology, maritime studies, and other fields within the humanities. The digitized logbooks will be available to these researchers via NARA's online catalog.

The goal of the imagers for the Project is to produce the best possible images, organized in the most logical manner, which can then be packaged and sent to Old Weather for transcription and to NARA to be uploaded for public access.

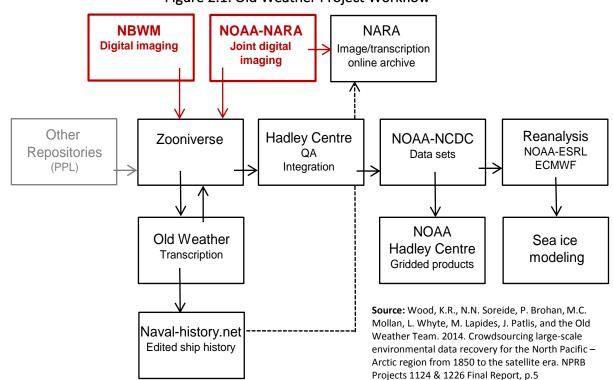


Figure 2.1: Old Weather Project Workflow

3. NOAA-NARA Workflow Process

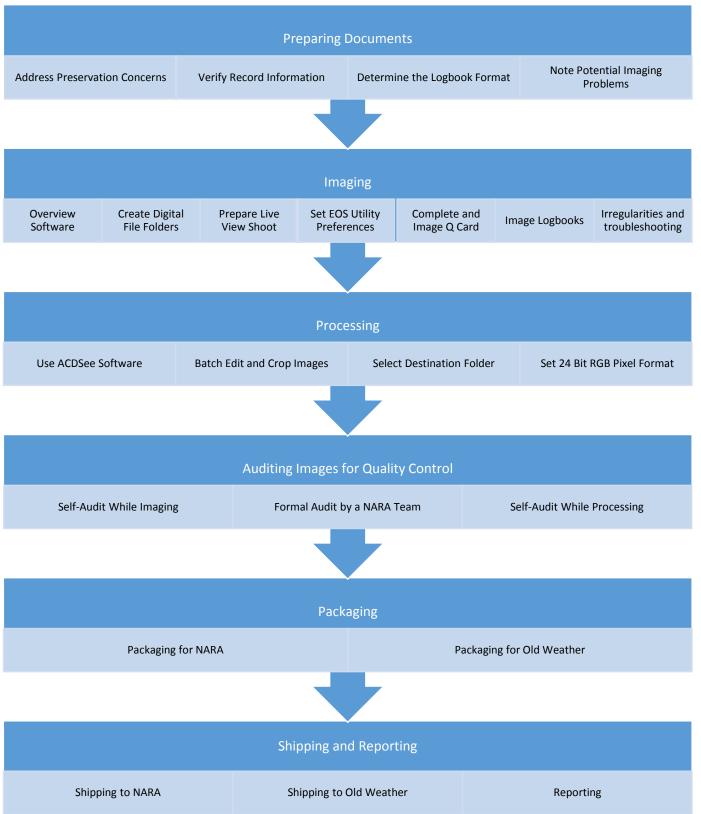
A. General Workflow

At NARA, the workflow for the Project is divided among a team of NARA and NOAA employees, interns, and volunteers. The plan, beginning in March 2015, is for a NARA team to prepare logbooks for imaging and perform quality control on processed images, while a NOAA imaging team digitizes the prepared logbooks, processes images, and packages and ships images to NARA for uploading to NARA's online catalog and to Zooniverse for uploading to www.oldweather.org (OW).

Most of the imaging, processing and packaging by the NOAA team at NARA takes place in the Digital Imaging Center (DIC) on the 18th floor of the West wing of the building in Washington, DC (A1), and in Room 6050 at College Park, MD (A2). In both locations, staff share workspace with other volunteers, interns, and employees from other organizations working on other digitization projects. All work must be done under the supervision of a monitor or another member of NARA's staff and must adhere to all NARA security guidelines (see Appendix A).

Figure 3.1 on the following page outlines the overall process of producing, processing, and packaging the best possible images for citizen scientist transcribers at Old Weather and the general public at the NARA website.

Figure 3.1: NOAA-NARA Workflow Process



B. Daily Workflow

On a daily basis, the processes in Figure 3.1 on page 4 are not necessarily sequential, and may occur simultaneously or on different days. For example, imaging one set of logbook pages may occur at the same time another computer is being used to process previously captured images. Packaging to meet a shipment deadline may take priority over imaging for a period of time. However, staff should be flexible and multi-task to ensure all images go through the overall process from their initial capture to auditing and packaging.

Follow all NARA training and guidelines for handling original records (Appendix B) at all times. Figure 3.2 below outlines the typical daily routine of a NOAA-NARA digital imager.

Figure 3.2: Daily Routine of a NOAA-NARA Digital Imager

Beginning of Day				
Turn on equipment				
Primary computer Secondary computer (if needed) Monitor(s)	Camera Zeutschel Table ("Z-table") Lights			
Dust the imaging area				
Check the Z-table glass top to make sure it is dust free. If not, wipe it with the solution and				

Begin imaging process

Follow instructions for imaging logbooks

Throughout the Day

paper towel stored in the shared supply cabinet at A1 and at the monitor station in Room 6050 at A2.

Record issues

Use the Currently Imaging Spreadsheet (Appendix D) to record any issues that will affect the quality of the images or that may cause confusion

Report any needs

Report any lack of materials or equipment problems that may occur to Gina, Mark, or Jackie

Maintain workspace

Keep workspace clean and organized. Be aware of where materials are kept and resources filed.

Lunch must be taken from 12:00 to 12:30 pm

Leave the Z-table open at approximately a 45 degree angle Turn off lights
Turn off monitors or put the computer in sleep mode
Sign in and return the box you were working on

End of Day

Fill out Stats Spreadsheet (Appendix C)

The purpose of this spreadsheet is to keep a record of your individual imaging statistics and record your daily activities

Turn off all equipment

Camera Monitor(s)
Lights Hard drive (if applicable)
Computer(s) Z-table (leave glass open)

Clean area and sign in box

Fill out volunteer/intern log or timesheet

4. Preparing Documents

After checking out a box or volume, take a few minutes to inspect the pages to be imaged. **Note**: This may be done by another member of the team ahead of time.

A. Address Preservation Concerns

Assess the condition of logbook pages for issues such as pages glued together or mold. Follow the guidelines on page 7 for removing staples, paper clips and other hardware. For any initial preservation concerns, look in Appendices K through O for answers. If you are still unsure what to do, consult with Mark. If a solution is not readily obvious or available, Mark may ask you to contact Amy Lubick for further assistance.

Mold

If you suspect mold, DO NOT image the logbook. Immediately contact Mark and place the box or volume back on the shelf.

Figure 4.1: Preservation Form

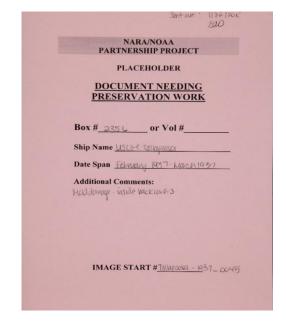
1. Fill out **two** copies of the pink Preservation Form (Fig. 4.1), found in the NOAA file box. Include the date when the form is filled out and the imager's initials on the top of the documents. You

may also simply photocopy the form to produce a second copy.

 Image one copy of the form in place of the logbook pages. Mark the digital folder with "+" as a reminder to insert the page(s) when they return from Conservation.

Example: v513 (1892-04-27_1892-10-11)+

- Place one copy in the NOAA file for reference.
- 4. Place the second copy on the box to be sent, and secure with paper clips.
- Inform Mark where the box may be found.



6. When the logbook returns, **delete** the image of the pink preservation sheet from the digital folder and the "+" from the digital folder name, then image the returned pages.

Glue

If pages or attachments are glued together, the type of information obscured by the glue will determine whether the logbook should be sent to preservation.

Scenario A: *Glue is covering unique information*

(i.e. weather data, large amounts of text)

Solution: Follow preservation steps 1-6 on page 6.

Scenario B: *Glue is not covering unique information*

(i.e. column titles, words or phrases that appear more than once or are otherwise comprehensible)

Solution: Do your best to use weights to image the document (see Appendix L) and use the slug for "Best Possible Image" or "All unique information in the document is visible in this image" (p. 8) if needed.

Staples/Paper Clips/Brads

Staples should only be removed if they are rusty, damaging the record, obscuring unique information, or may cause damage during imaging (i.e., if the staples will cause creases or folds to occur when the page is imaged with the hinged glass top).

When staples are removed, they are replaced with stainless steel paper clips and Permalife paper barrier strips where appropriate. Old paper clips should always be removed and replaced when possible. If the paper is fragile or damaged, a Permalife folder should be used in the place of a stainless steel paper clip and Permalife paper barrier strip. See Appendix K for more information and illustrations.

Documents with Tears

If you find a torn document that remains in one piece, place it in a polyester L sleeve in accordance with Appendix N. If a document is torn into two or more pieces, place it in a Permalife folder for conservation attention as instructed in Appendix N and follow steps 1-6 on page 6.

B. Verify Record Information

Browse through the first few pages of the first and last logs of a box or volume and compare them against information on the box.

- 1. Check first and last date
- 2. Check for missing pages
- 3. Check briefly for obviously incorrect or missing days of the week, months, or dates
- 4. Check RG (Record Group) and Entry Numbers
- 5. Verify the spelling of the vessel name
- 6. Note any inconsistencies in the Currently Imaging Spreadsheet (Appendix D)

C. Determine Logbook Format

You may encounter the following four logbook formats. If you have more than one type of log covering the same time period, image all of them for delivery to NARA. However, note this information in the Currently Imaging Spreadsheet so that only the best copy is selected for packaging and shipment to Old Weather.

Logbook Formats		
Rough log: First copy of log	Transcript: Typed copy of log	
Smooth log: Rewritten copy of log	Carbon Copy: Copy of transcript page (usually darker ink)	

D. Note Potential Imaging Problems

Take notes in the Stats Spreadsheet as a reminder of any issues that you will need to address as you image.

- Discrepancies in chronology that will also need to be recorded in the Currently Imaging Spreadsheet
- 2. Pages that will require weights to lift inserts.
- 3. Pages with blurry or unclear text, or text which is partially obscured by the binding or by inserts. These will require slugs later.

What is a slug?

- A slug is a marker placed on top of the glass that indicates to viewers that there was a problem affecting the readability of the document.
- Slugs may be found in the NOAA supply box next to the camera. Use the slug most appropriate to the type of issue.

Figure 4.2: Slugs

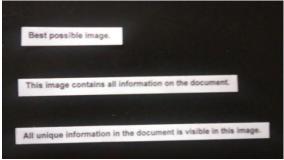


Figure 4.3: Using Slugs

Slug	When to Use
"Best possible image"	If the image is blurry or unclear for reasons beyond the imager's control
"This image contains all information in the document"	If the page is too large and there is no black border around the image
"All unique information in the document is visible in this image"	If inserts or attachments obscure a part of the document that can be determined from other similar pages, such as column headers.

5. Imaging

A. Imaging Equipment

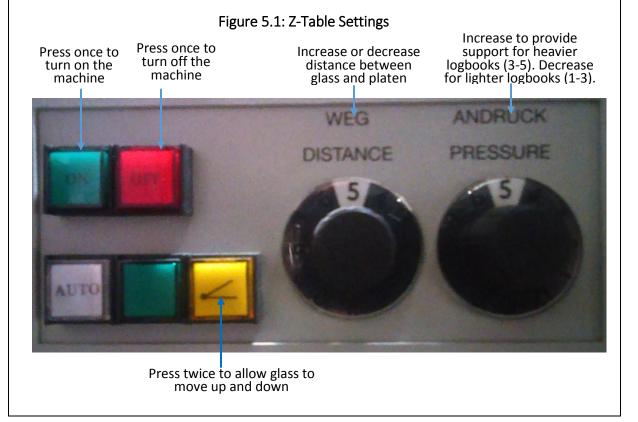
Zeutschel Table

The Zeutschel Table is operated by using two foot pedals to raise and lower the glass to meet the platen where the logbook rests. The platen is divided along the center and each side may be moved apart to leave space for the binding of a thick logbook.

In general, the gap in the platen should be approximately equal to the width of the binding. Separate the sides by lifting the front of the platen and shifting it away from the center. Make sure that the notch below the platen is fitted into a groove before placing any logbooks on top of the platen.

The space underneath the platen should be vacuumed regularly to remove debris. Donnie Johnson from A2 maintains the Z-table on a regular basis and can repair and replace parts. The most common cause of Z-table malfunctions is a fuse burning out. If you encounter any problem with the Z-table, contact Jackie and she will arrange for Donnie to do the repair.

Z-Table settings may be adjusted to accommodate differently sized logbooks, as shown below.



Canon EOS 5D Mark II Camera

Turning on the camera automatically starts EOS Utility System on the desktop, which allows the user to operate the camera on the computer. Use the dial to zoom in or out on logbooks, always allowing enough black space around logbook pages to make it clear that the entire page has been captured. Figure 5.2 shows the location of basic camera functions.

Figure 5.2: Operating the Camera

Turn camera lever forward to turn on camera. It should click in place and the display will turn on.

Turn dial to zoom in or out



Lights and Curtains

The lights can be adjusted in any direction to ensure that images are clear and well-lit. Be aware of over-exposure and/or glare, which can occur if an object (such as a wire or the imager's hand) is reflected in the glass.

Do not leave documents under the light for more than a few minutes, unless open pages are covered with acid-free paper.

If the light bulbs are visible in an image, make sure that they can be cropped out when the images are processed. Lights should never appear in processed images.

Curtains can be adjusted to allow for the position of the imager, and should be vacuumed on a regular basis to remove dust and debris.

B. Software Overview

The following software is used in the imaging process.

EOS Utility Window

•Displays camera functions, including the shoot button

Live View Shoot

- •Opens from EOS Utility Window
- Displays live camera feed to position document before shooting

Quick Preview

- Displays image just shot
- •Keep window open on screen as a quick way to judge image quality

Digital Photo Professional

- Window appears after first shoot
- •Similar functions as ACDSee, but rarely used except for deleting images, if preferred.
- Minimize window during shooting.

ACDSee

- Opens from desktop
- •Used for creating folders, viewing and processing images
- Automatically populates with images as you shoot

C. Steps to Capturing Logbook Images

1. Create Digital Folders

After preparing the logbooks, you must create digital folders. The most often-used method is through ACDSee, but sometimes it may be easier to simply create the folders directly on the hard drive, or through the EOS Utility by selecting "New Folder" rather than choosing one that has already been created.

- a. Determine which hard drive will be used to store the raw and original JPG images. Connect the hard drive to the primary computer. Turn it on if necessary.
- b. Open ACDSee and find the hard drive on the left-hand window.
- c. Create a folder for your images by following the hierarchy indicated on the box.

 To add a folder in ACDSee, right click on the higher folder, select New, select Folder, and then name the new folder with the box or volume number followed by the date range (Fig. 5.3).

Example Box or Volume folder title: b102 (1942-05-01_1942-04-30)

If a box or volume is currently in Preservation, indicate this in the folder title by adding a "+" at the end of the folder title.

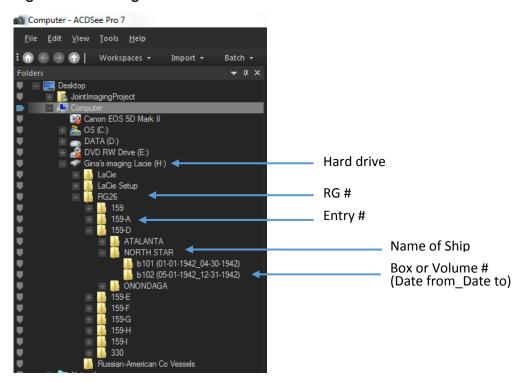


Figure 5.3: Creating Folders in ACDSee

2. Turn on Camera

The EOS Utility window should appear on the desktop. (Fig. 5.4)

EOS 5D Mark II Click to change document ONE SHOT rotation Capture/shoot image Pictures Shutter speed Double-click to control settings such as ISO and White balance 2 aperture RAW + L Ŏ Select the types of images to be Shooting menu captured Picture Style Standard Detail set. Register User Defined style WB SHIFT Peripheral illumin. correct. Click to open Live View Live View shoot. ... Shoot window Other Functions... Test shots Click to open Preferences Main Window. Preferences...

Figure 5.4: EOS Utility Settings and Preferences

3. Prepare Live View Shoot

- a. In EOS Utility, click "Live View Shoot" at the bottom of the window, as shown in Fig. 5.4.
- b. Click the triple lines to collapse the right hand window.
- c. Click the grid display icon on the bottom of the window.
- d. Rotate the image clockwise twice.

This will cause the direction of movement on screen to be the same as the physical movement of the document.

e. Turn on the Auto Focus Frame if it is not already open.

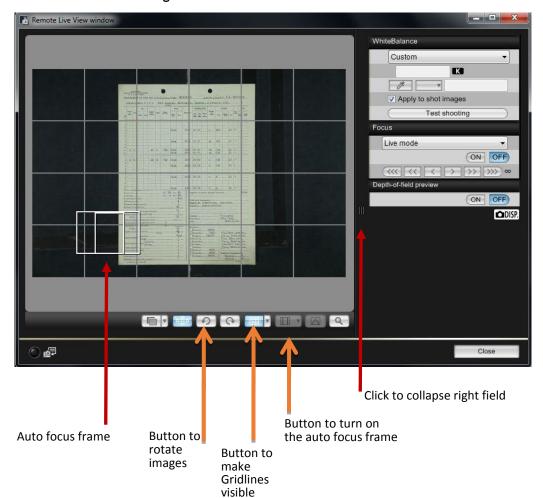


Figure 5.5: Live View Shoot Window

4. Set EOS Utility Settings

Settings such as white balance and exposure may be adjusted either at this point or during processing. Producing a better quality image at the moment it is captured, however, will expedite processing later.

You may adjust settings before capturing images in two locations:

a. EOS Utility (p.13, Fig 5.4)

You can take a test shot by selecting "Other Functions" in the EOS Utility Window and then clicking the white square in the top right corner of the window. Images captured here will not be stored on the hard drive, but can be used to adjust settings.

b. Live View Shoot Window (p.14, Fig. 5.5)

You can also take a test shot here by selecting "Test Shooting" in the right hand panel before collapsing it.

5. Select folder to send images

Click "Preferences" in the EOS Utility Window. A tabbed window will appear. Change preferences in the following tabs: Destination Folder, File Name, and Remote Shooting.

Destination Folder Click "Browse" and select the box or volume folder you created earlier in the Imaging Drive or create a new folder now. Figure 5.6: Destination Folder ΣS Preferences Basic Settings | Destination Folder | File Name | Download Images | Remote Shooting | L + + Destination Folder F:\RG26\159-A\McCULLOCH\v459 (10-01-1913_11-30-1913) A subfolder into which the image will be saved will automatically be created in this folder. Create subfolder next time this function is used. Download Images Remote Shooting Monitor Folder Customize... Shooting Date F:\RG26\159-A\McCULLOCH\v459 (10-01-1913_11-30-1913) <u>- 2015_03_16</u> About. Cancel

File Name

In the field "File Prefix", use only lowercase letters to name images as follows:

ship name-box or volume number

Example: mcculloch-v441

If the ship's hull number is available, name the file as follows:

ship name-hull number-box or volume number

Example: bear-ag-29-v321

In the field "Start", begin with "0" to name the Q Card. Each image after that will continue in numerical order.

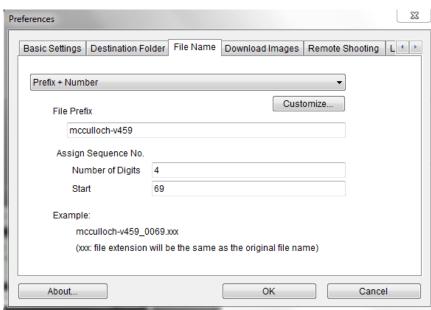
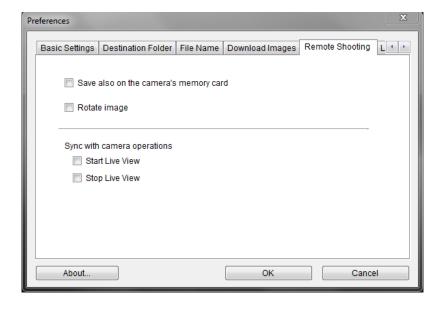


Figure 5.7: File Name

Remote Shooting

Select "Rotate Image" only if you are imaging single pages. This box must be checked in order to change the document rotation in EOS Utility (Fig. 5.4)

Figure 5.8: Remote Shooting

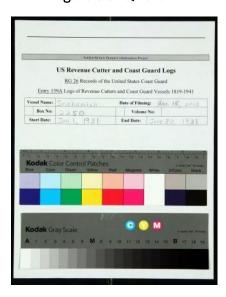


6. Complete and Image Q Card

The Q card is always image "0" in the box or volume folder. It gives control information about the images to anyone viewing the images in the folder.

- a. Find the folder labeled "Q Cards" in the NOAA file.
- b. Remove a blank sheet with the appropriate RG and Entry Number. There are blanks you can fill in on your own.
- Fill out the Q Card using the information on the box or volume, and note any other logbook irregularities below the Start/End Dates that a viewer would want to know (i.e. Rough and Smooth logs)
- d. Place Color Control Patches and Gray Scale cards on the bottom half of the card. Make sure they are not obscuring written information.
- e. Bring the platen up to the glass using the foot pedals.

Figure 5.9: Q Card



f. Place the Q card on top of the glass, in the orientation you will be imaging the records. (Fig. 5.10)

A Costs



Figure 5.10: Orientation of Q Card

Bound logbooks: Vertical, upside-down, aligned left

Single-page logbooks: Horizontal, pointed right

● ■ の ○ ■ ·

- g. Ensure that there is black space around the Q Card. Twist the upper wheel on the camera to adjust zoom. It is best if you can adjust the camera zoom to the approximate distance you will use for the logbooks.
- h. Drag the Auto-Focus Frame over the text and double-click to focus the image. The Frame will turn green to indicate it is ready.
- i. Click the Capture button.
- j. If this is the first image you have captured since turning on the camera, two windows will pop up: Quick Preview and Digital Photo Professional (see Software Overview, p. 11)
 - i. Minimize Digital Photo Professional.
 - ii. Adjust the window size of Quick Preview so that you can briefly review the quality of your images as you continue.

7. Image Logbooks

Note that when you shoot a page, **two** files are created and appear in ACDSee: RAW and JPG. Check image quality and adjust settings and lighting as you proceed (pgs. 13-14) by looking at Quick Preview and ACDSee. Use the grid to position the page on the platen.

- a. Check Preferences (see step 5) to make sure that the Q card is "0" and that each box or volume starts at image 1.
- b. Depending on the weight and size of the logbook, adjust Z-table pressure and distance (see p. 9) to apply the least amount of pressure necessary to handle it.

Bound logbooks

- c. Open Z-table using pedal and place logbook under glass.
- d. Image cover and subsequent pages upside-down, spine centered.

Single-page logbooks

- c. Make sure glass is horizontal and place logbook on top of glass.
- d. Image pages horizontally, centered, facing the right.



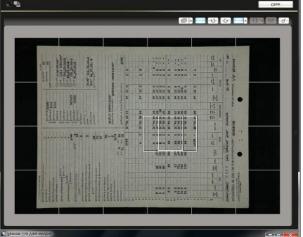


Figure 5.11: Orientation of Bound Logbook

Figure 5.12: Orientation of Single-Page Logbook

- e. Adjust lighting as needed to make writing as clear as possible.
- f. Zoom in or out on the camera by moving the ring to the left or right. Be sure that there is black space around the image.
- g. Focus the image by double clicking the auto-focus frame. Always double click on text, especially text that may be unclear.
- h. Click the capture button to shoot the image.
- i. Turn the page carefully (for bound logbooks, lift glass and lower it again), and continue imaging the logbook.
- j. If there are blank pages at the end, you only need to image one blank page to indicate the end of the logbook.
- k. Make sure that there is no unique information at the of the logbook;
- I. Fill out the Currently Imaging Spreadsheet (Appendix D) and sign in the box when you are done.

During Imaging Process

- follow preservation guidelines for handling and scanning records (Appendix P)
- self-audit images in ACDSee to ensure image quality and check for imaging errors
- check to ensure that there are no missing dates
- temporarily remove any paperclips you may have used while you were preparing the documents
- · carefully unfold any inserts or creases
- use the board strips provided by the Conservation Office to hold down any curled edges or difficult-to-manage pages before lowering the platen glass on the Z-table
- use the equipment and tools provided by the Conservation Office to prevent any damage to logbooks (e.g., if a logbook cannot be opened 180 degrees, use a book cradle)
- note any missing or incorrect dates, missing pages, duplications, or other information in the Currently Imaging Spreadsheet so it can be passed on to the forum moderators on Old Weather
- remember to return all loose pages to their original order

What to Image

- any page that has a page number
- any page with unique writing
- one blank page at the end of the logbook
- blank preprinted forms (except multiple blank pages at the end of the logbook)

What Not to Image

- more than one blank pages at the end of the logbook
- back cover
- non-original inserts or bookmarks

D. Irregularities and Troubleshooting

The standard daily logbook format consists of two preprinted pages, with the weather data appearing on the left side of a bound volume and the "Record" or "Remarks" of the day appearing on the right.

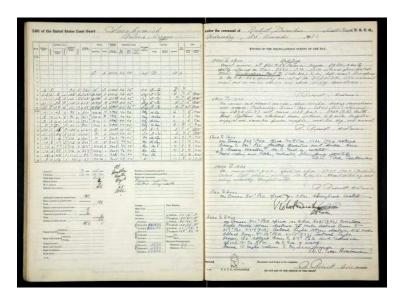


Figure 5.13: Standard Format Logbook Pages

Occasionally, however, one preprinted page for the daily "Record" or "Remarks" was not enough, and an additional page was used to finish recording the events of the day. These additional pages often received different handling, depending on who was maintaining the logbook at the time; this is the main source of recurring irregularities in logbooks. Other recurring irregularities include incorrect pagination, incorrect dates, incorrect days of the week, and missing weather data.

You should always be aware of original mistakes, and check for mistakes on the imager's part by looking at ACDSee. Sometimes you will need to insert a skipped page or replace an unsatisfactory image. The following page charts common irregularities and troubleshooting that may occur during the imaging process.

Remember that since you have two files for every image, any adjustments made to one image must be made to that image in both the RAW and JPG files.*

* UPDATE: Beginning March 15, 2015 – following a consultation with Michelle Farnsworth (NARA imager at A1) – the NOAA-NARA Project will no longer capture RAW images. Therefore, the above statement applies only to images captured prior to March 15, 2015.

Common Logbook Irregularities

Common Logocok in equiumics
Page numbers are not in chronological order
Shoot pages in chronological order, disregarding pagination.
Logbooks contain additional pages
Image pages in the order they would be read by an online researcher, even if page numbers will not be correct.
Text is unreadable
Place a slug on top of the glass to indicate either: "Best possible image" "This image contains all information in the document" "All unique information in the document is visible in this image"
Loose attachments are inserted in the logbook
Image it as if you were turning a page. Keeping the attachment in the logbook, image one side, then flip it onto the opposing page to capture the reverse.
Attachments are glued into the logbook
Use weights to gently lift attachments away from unique text (Appendix K).
Do not bring glass down on weighted attachments.
Use a slug if necessary.

Basic Editing Functions in ACDSee

Selecting multiple consecutive images

- 1. Select the first of the images you need by clicking on it so it is highlighted.
- 2. Hold down the Shift key.
- 3. Click on the last image in the series you need.
- 4. All images between the first and last you chose should be highlighted.

Selecting multiple non-consecutive images

- 1. Select one of the images you need by clicking on it so it is highlighted.
- 2. Hold down the Ctrl key.
- 3. Click on the other images you need.
- 4. Each image should be highlighted.

Renaming one image

- 1. Right click on the file name underneath the thumbnail of the desired image.
- 2. Select "Rename" from the dropdown menu.
- 3. Enter new file name.

Renaming multiple images (Batch Rename)

- 1. Select a batch of images to rename.
- 2. Click "Batch" in the toolbar at the top of ACDSee.

Click to <u>File Edit View Tools Help</u> open Batch ₹ 🔐 🕒 💮 🕥 | Workspaces 🕶 Import -Batch -Create ▼ Send -Slideshow ▼ External Editors **Functions** Set rename options Use * to insert the original file name into the Template field.
Use # to specify positions used by numeric or alphanumeric enumerator Preview Template Search and Replace Advanced Options Previews new Current Name New Name ✓ Use Template to rename files file names for rush-v514_0132.JPG rush-v514_0001.JPG Template: rush-v514 0133.JPG rush-v514 0002.JPG renamed rush-v514_### rush-v514 0134.JPG rush-v514 0003.JPG images Clear Templates Use numbers to replace #'s O Use letters to replace #'s Start at Changes Fixed value number of first Insert metadata at the cursor position: Insert Metadata... selected image No change Start Rename Cancel Help

Figure 5.14: Batch Rename

- 3. In the "Fixed Value" field, enter the number you would like the images to begin with.
- 4. Click "Start Rename."
- 5. If you are continuing to image, go to the "File Name" tab under "Preferences" in EOS Utility and make sure the next image begins with the correct number.

Correcting Imaging Errors

The following examples demonstrate how to correct typical imaging errors.

Assume there are ten logbook images numbered 1 to 10 as follows:

 Image
 Image

Refer to page 23 for instructions on how to select and rename images.

Example 1: Image 5 is unsatisfactory and must be reshot

- Delete Image 5.
- Click to open Preferences in the EOS Utility, make sure you are in the correct digital folder and change the number in the "Start" field to 5.
- Reshoot the logbook page and it will show up as new Image 5.

Example 2: Image 5 is a duplicate and must be deleted

- Delete Image 5.
- Select Images 6 to 10 and rename them as Images 5 to 9.

Example 3: Need to insert an image between Images 5 and 6

Method One

- Select Images 6 to 10 and rename them as Images 7 to 11.
- Click to open Preferences in the EOS Utility, make sure you are in the correct digital folder and change the number in the "Start" field to 6.
- Capture the missing logbook image and it will show up as new Image 6.

Method Two

- Click to open Preferences in the EOS Utility, make sure you are in the correct digital folder and change the number in the "Start" field to 5.
- Capture the missing logbook image and it will show up as Image 5_1.
- Select Images 5 1 to 10 and rename them as Images 6 to 11

Example 4: Need to insert two images between 5 and 6

- Select Images 6 to 10 and rename them as Images 8 to 12.
- Click to open Preferences in the EOS Utility, make sure you are in the correct digital folder and change the number in the "Start" field to 6.
- Capture the two missing logbook images and they will show up as new Images 6 and 7.

6. Processing

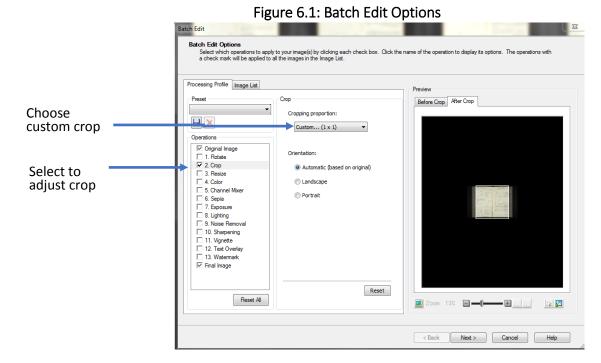
Processing is the act of cropping and adjusting image variables (such as exposure) that will improve image quality. Note that unprocessed, or raw, images are not deleted from the imaging drive, but kept as backup. The processed image is stored on a separate processing drive. Note that although you have both RAW and JPG images, only JPG images are processed.

Processing can be done at any time, but usually occurs after imaging a group of boxes or volumes. Use the secondary computer so that you can connect a temporary hard drive to the primary computer and continue imaging while you wait for images to process. Processing time can vary widely depending on the number and size of the files you are processing.

Once an image is processed, do not make any changes to the processed image. If you would like to make other alterations, you must delete the processed image and re-process the JPG.

Eight steps to Batch Edit images using ACDSee:

- 1. Turn on the secondary computer and bring up ACDSee.
- 2. Connect both imaging and processing drives to the secondary computer.
- 3. Use shift to select the images you would like to process on the imaging drive. **Only select the JPG images.**
- 4. Select "Batch" (p. 23, Fig. 5.14), and from the dropdown menu, select "Edit."
- 5. In the Edit Window, you may select any number of Operations to improve the quality of the image (Fig. 6.1). Click "Next" when done.



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Standard-size logbooks are often optimized at the following crop settings:

a. Bound logbooks: 135 x 100

b. Single transcription pages: 85 x 100

This is only a guideline; you may have non-standard logbooks or pages that require different settings. If you adjusted settings in the EOS Utility, this will affect the settings you use in processing. Although the Preview window allows you to view adjustments, it is recommended that you follow through and process an image and view the final result to determine whether the settings were appropriate.

Process the Q card as you would the logbook pages you are selecting. If the camera zoom was the same, the crop should be appropriate.

6. Under "Destination Folder", click "Browse" (Fig. 6.2). Use this window to create and select a folder for the processed images to be sent. Make sure you select the Processing drive and click "New Folder" to create a folder in the same hierarchy, with the same name as you did in the Imaging drive. Click "OK" when you are done.

Note that although you can create the same folder directly in ACDSee, doing so at this point will ensure that you know which folders have been processed by looking at the processing drive.

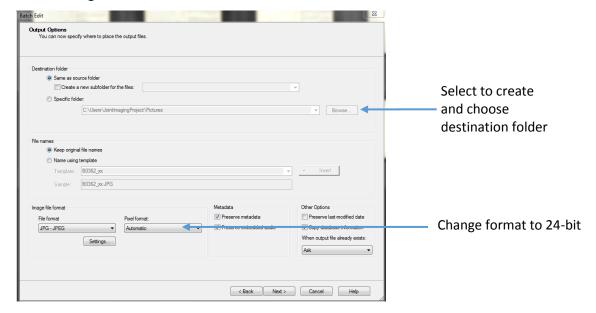


Figure 6.2: Batch Edit Destination Folder

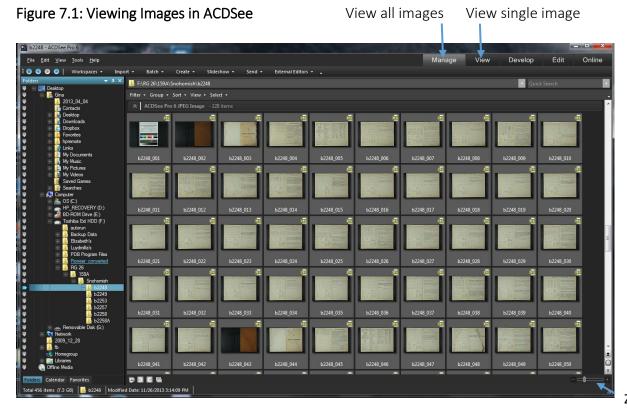
- 7. Under "Pixel Format," select "24-bit RGB." All other settings should remain the same. Click "Next" when you are done.
- 8. You will see an estimated time of completion, which may fluctuate. When the images are done processing, you will see a window noting any errors or conflicts. Click "OK" and verify that the images have been processed correctly and are in the folder you created in the Processing drive in ACDSee.

7. Auditing Images for Quality Control

Auditing processed images ensures that NARA and Old Weather receive only high-quality images and that there are no file naming errors or missing pages. Imagers should self-audit throughout the imaging process (p. 28) and after processing is complete. Before sending images, however, formal auditing must be done for quality control purposes by a NARA employee or another member of the NOAA-NARA team. Formal auditing may be done at any point in the imaging process, but is typically done upon completion of an entire vessel's logs to prepare images for shipping.

Any changes in file names or additional images at this point also need to be changed in the RAW and JPEG images on the Imaging Drive. If any changes need to be made to image quality, such as exposure or crop, delete the processed image and re-process the JPG. Do not make any alterations to the processed image.

See Appendix G for instructions on how to perform a formal audit. Otherwise, follow guidelines below for viewing images in ACDSee and self-auditing images.



Zoom images

Self-Auditing: Quick Checks

Image quality

 Open several images in different folders and make sure that there are no image problems such as glare, objects obscuring text, insufficient blackspace around the image, or any other issues affecting image quality.

Image numbers are consecutive

- Open a box or volume folder.
- Locate the Zoom bar in the bottom right corner of ACDSee.
- Zoom out until you can see ten images per row.
- Check the rightmost image in each row to ensure images are consecutive.

File names are correct

• On the left hand taskbar, check that all box or volume folders are named correctly.

No skipped pages

- Open a box or volume folder. Use logbook covers or image numbers to estimate where you should see the beginning and end of a month.
- Without opening images, count dates and pick several images at random to check to ensure that the date of the logbook page is consistent with your expectation.
- If appropriate, use logbook covers as a guide to look for the beginning and end of months.

8. Packaging

When all logbooks for a particular vessel have been imaged, processed, and audited for quality control, they must be packaged to be shipped to Old Weather and NARA. Packaging means copying processed, audited images to new folders and renaming them to facilitate their uploading.

Because NARA and Old Weather have different goals and processes, images must be packaged twice using different folder structures for each institution. It is helpful to fill out the Shipping Spreadsheet as you complete each box or volume, to keep track of your progress. You may use the Currently Imaging Spreadsheet to help complete the Shipping Spreadsheet and to determine how to arrange images in folders.

A. Packaging for NARA

Images for NARA need to be divided by month if they are images of modern Navy logbooks from A2. The rest of the images from A2 and all of the logbook images from A1 can be packaged by their box or volume numbers, or in annual batches if there are too many images in one box. Fill out the NARA Shipment Spreadsheet (see Appendix E) as you package each volume or box. All images should be packaged, including any with duplicate logbook pages or other original errors.

- 1. Determine which drive you will use to create folders for packaged images.
- 2. Create the necessary folder structure. Fig. 8.1 shows how monthly folders are created. The top level folder should indicate "NARA Shipment in Progress" or another similar title, then RG number, then the Vessel name. The lowest level folders the ones actually holding the images should be divided by month and named "vessel-hull number (if available)-year-month." Always indicate months using two digits (e.g., aivik-1943-01). Note that this structure does not include folders for box or volume numbers.

A non-monthly digital folder may have one of the following names: (1) "Ship name-hull number (if available)-box or volume number"; or (2) "Ship name-hull number (if available)-(start year-start month_end year-end month)"; or (3) "Ship name-hull number (if available)-year."

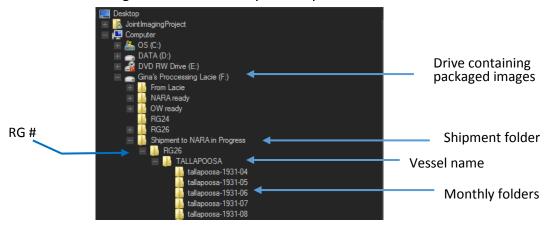
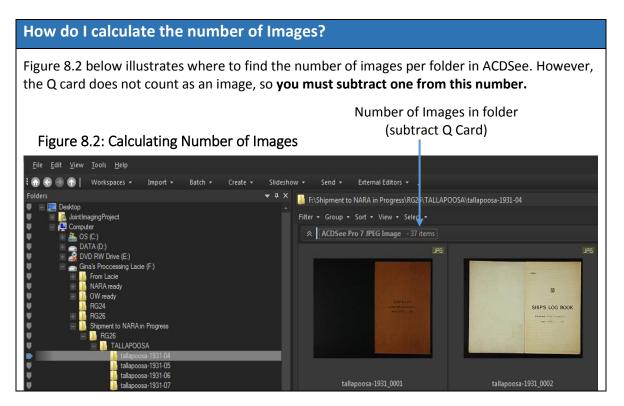


Figure 8.1: NARA-Ready Monthly Folders

- 3. Duplicate the applicable structure (monthly or non-monthly) in the NARA Shipment Spreadsheet.
- 4. Select correct batches of processed images from the processing drive. Do not package the Q card.
- 5. Right click to copy images.
- 6. Right click on monthly or non-monthly folder to paste images into folders.
- 7. When you have completed packaging all images for the vessel, review each folder and, using any notes in the Currently Imaging Spreadsheet, verify that all images are present and in the correct order.
- 8. Batch rename all images in each folder starting with image number 1 as follows, where # represents the image number.

Monthly folders	vessel name-hull number-year-month_####
Non-monthly	vessel name-hull number-box or volume number_####
folders	or
	vessel name-hull number-year_####
	(for boxes containing large numbers of transcript pages)

9. Complete the NARA Shipment Spreadsheet by entering the number of images. Note any missing months or days in the column labeled "Notes".



How do I calculate the number of pages?

Single Sheets

The number of pages should be the same as number of images, since each image is of a single page.

Bound Logbooks

The number of pages should be twice the number of images, minus every blank side where there is no page (for example, when an image is taken of the cover of a logbook).

B. Packaging for Old Weather

OW images need to be packaged by year. Whereas NARA packaging contains all images, OW folders should only contain the clearest and most complete information in chronological order. This means that if there are duplicate pages (such as transcripts, rough and smooth logs), only package the clearest copy for each duplicated date range. Remember that citizen scientists will be transcribing the data on these pages, so note any possible areas of confusion or missing pages in the OW Shipment Spreadsheet so that the information can be communicated to moderators on the website.

Creating OW Folders

- 1. Determine which theme and/or sub-theme the vessel falls under (see Appendix H). Consult historical sources (e.g., http://www.history.navy.mil or www.uscg.mil/history/) to determine the dates the vessel may have transitioned from one patrol or duty to another. Use these themes to roughly begin to fill out the OW Shipment Spreadsheet (Appendix F).
- 2. Determine whether the images are of bound logbooks or single sheets. Before posting online, Old Weather splits bound logbook pages by dividing images in half along the center line. When creating folder names and completing the spreadsheet, be aware of logbooks that may alternate between bound and single-pages.
- 3. Locate the drive you will use for packaging images. If a folder for the current OW Shipment in Progress does not exist, create one. Then, create sub-folders for the RG number, Theme, Coast Guard/Navy/Geodetic Survey, and Vessel name. Finally, create folders by year (Fig. 8.3). Note that if the vessel falls under more than one theme, create folders under the appropriate themes. This may mean that you will have to package the same year in different folders and name the different parts (see p. 32 for detailed naming conventions).

Shipment to OW in Progress

Cold Science
The Arctic Frontier
Coast Guard

Atalanta
Tallapoosa Tallapoosa-1931-split
tallapoosa-1932-split
tallapoosa-1933-split
tallapoosa-1935-split
Tallapoosa-1936-split
Tallapoosa-1936-split
Tallapoosa-1936-split

Figure 8.3: Yearly Folders for OW

Naming OW Folders

General Rule: OW folders must contain only images of *either* bound logbooks (two pages per image) *or* single pages, not both. Every folder containing bound logbooks should end with the word "split" in its folder name to remind the Zooniverse staff that the images in the folder must be split before being posted on the OW website. Therefore, if a year includes both single pages and bound logbooks, you need to segregate the images in different folders and name them as pt1, pt2, etc. as shown in Fig. 8.4. Whenever the vessel's hull number is known, include it right after the vessel name.

Figure 8.4: Examples Illustrating OW Folder Naming Convention

Logbook Format	OW Folder Name
Example 1: All of the logs for USS ALBATROSS in 1916 are loose pages.	albatross-1916
Example 2: All of the logs for USS ALBATROSS in 1918 are in bound logbooks.	albatross-1918-split
Example 3: The logs for USS ALBATROSS in 1919 are in bound logbooks for the first half of the year and are loose pages for the rest of year.	albatross-1919-pt1-split albatross-1919-pt2
Example 4: The logs for USS IDAHO (Hull Number BB-42) in 1942 first appear as loose pages, then in bound logbooks, and then again as loose pages.	idaho-bb-42-1942-pt1 idaho-bb-42-1942-pt2-split idaho-bb-42-1942-pt3

Note: You may also use this convention to separate a single year that falls under different themes, as these will need to be in different folders.

Copying OW Images

- 1. Consult the Currently Imaging Spreadsheet to note duplicate logbook dates.
- 2. Copy images into yearly folders, ensuring that the images are separated into different folders if they are bound or single-pages.
 - Choose the *clearest* copy of a particular date range to package if there are duplicate logs. Do not copy the Q card
- 3. Batch rename images in each folder, starting with image 1, following the format of the folder name, plus the image number (e.g., albatross-1916-####)
- 4. Complete the OW Shipment Spreadsheet.

9. Shipping and Reporting

A. Shipping to NARA

After all of the logbooks of a vessel have been imaged, processed, audited and packaged, follow the steps below to transfer the images to NARA.

NARA Shipment Drive

- 1. Check the NARA shipment spreadsheet to make sure it is complete and correct.
- 2. Copy all packaged images to a designated NARA shipment drive.
- 3. Change the file name from "in Progress" to "Ready" (or a similar designation) to indicate that the images are ready to be shipped.
- 4. Deliver the NARA shipment drive to Roo Zemlan at A1. He will convert the images into PDF files and transfer them to Gary Stern at A2 to be uploaded to NARA's online catalog.

B. Shipping to Old Weather

At the end of every Quarter or whenever the images of several vessels are ready, ask Kevin Wood when the next OW shipment should be sent to Zooniverse. Follow steps 1-8 below in making OW shipments.

Old Weather Shipment Drive

- 1. Check the Old Weather shipment spreadsheet to make sure that it is complete and correct.
- 2. Copy all packaged images to a designated Old Weather shipment drive.
- 3. Email Kevin Wood (kevin.r.wood@noaa.gov) and request a shipping label for the following address, mentioning the weight and the size of the box you will use. You will receive the label as an email attachment.
- 4. Package the shipment drive carefully in a small box with padding. Make sure to ship all parts with the drive, including the USB connector cable and a power source.
- 5. Attach the shipping label to the box and seal it.
- 6. If at NARA, ask Mark to show you the UPS pick-up spot within the building on Floor 1.
- 7. Send Randi at least two consecutive pages of each weather data format for each ship being sent to Zooniverse. The most efficient way to let Randi have access to these images is by uploading them to Google Drive. If you send the images by email, you may have to send multiple emails because of the size of the images. These images will be used to create sample templates for transcribers.

8. Send a group email to Kevin, Philip, Gordon, Janet, Randi, and Mark letting them know that a shipment has been made. Include in the email each ship name and the date range. (e.g., Albatross 1855-1905).

C. Reporting

Prepare and distribute the following three types of reports at the times indicated.

Quarterly Report

At the end of each quarter, prepare a report summarizing the imaging work completed in that quarter, including the names of the vessels, the entry numbers, the box and volume numbers, and the total number of images and pages for the quarter (see Appendix I), and email the report to the following NARA personnel: Mark Mollan, Sarah Herman and Vernon Smith.

End of Ea	ach Quarter
1 st Quarter	December 31
2 nd Quarter	March 31
3 rd Quarter	June 30
4 th Quarter	September 30

Annual Report

At the end of June each year, provide Kevin Wood with an annual update summarizing the digitization work performed at A1 and A2. Include in the report the Project's statistics for the year as well as the statistics since the start of the Project in 2012, including the number of boxes and volumes digitized, the number of ships, the number of images and the number of pages.

Metadata Report

Maintain and continuously update the existing metadata spreadsheet (Appendix Q) for the Project's digitization work, including all URLs from NARA's online catalog for the images produced from this project. This report will be submitted to the National Pacific Research Board at the end of the Project's grant cycle.

Appendix A: NARA Security Guidelines

Records Security Guidelines for This Workroom

Workroom hours: 8:30 a.m. to 5 p.m. Closed for lunch: 12 - 12:30 p.m.

All personal belongings must be stored in the lockers provided outside the workroom.

- This includes briefcases, bags, backpacks, purses, medicines, notebooks (except training manuals stored here), coats and jackets.
- If you are bringing a blazer or sweater to wear for warmth, you must be wearing it while working. It cannot be stored on the back of your chair.
- You (i.e. any pockets in your clothing) are subject to inspection before you leave at staff discretion.
- Personal cell phones and magnifiers are permitted.

No food or drink is permitted in the workroom including gum and hard candy.

You may keep a capped bottle of water in your locker outside the workroom. Only water (not food) can be consumed in the workroom lobby or restrooms. Open cups of water are not permitted. Smoking is strictly prohibited in the building.

No piggy-backing is allowed as you enter the room - each person must swipe their badge at the reader each and every time.

Always complete the log book when you take possession of a box from the shelves and when it is returned to the shelves.

- Work with only one box at a time. A box should be returned to the shelves during extended breaks with the time recorded in the log book.
- It is best to complete work on a single file before taking a break.

Records may not be removed from the workroom except by staff.

This is a processing room which observes a "no visitor" policy except when approved by the Archivist or the custodial unit branch chief.

Additional Guidelines for Digital Imaging Center Contractors

- Your badge must be worn and visible at all times while in the building.
- You are responsible for always carrying and protecting your locker key. Please attach it to something that is <u>always</u> on your person (lanyard or personal key ring).
- Individual earphones are required for listening to audio in the space. Camera operators may not watch video while working with original records.
- Please notify me if you are not planning to be at work. Advance notice is helpful if possible. You may send an email. Please also mark it on the "sign-out" calendar in the DIC.
- You are welcome to make select photo copies of original records that interest you. For security purposes, Jackie or a NARA staff member must stamp each page before you can take the photo copies out of the building.
- You are responsible for cleaning your own work station. Please adopt a regular schedule for this. NARA's conservation division provides some approved supplies. Your company must supply other equipment and materials, all of which must be preapproved to use near original records or for surfaces that records will come in contact with during the workflow. Please ask Jackie before purchasing supplies.
- Please remember to always lock the door while in use. The bathroom near the DIC-West on the 18th tier is a women's restroom. The nearest men's restroom is located on the 16th floor.



National Archives and Records Administration

8601 Adelphi Road College Park, Maryland 20740-6001

Prep Guidelines for NARA/NOAA Project

Handling Bound Materials

- Carefully handle damaged or broken bindings and textblocks with missing or separated covers.
- Properly support covers to minimize stress on the binding. Layers of acid-free board may be used (see Figures 1 and 2) under the front or back covers.





Figure 1 Support boards under front cover

Figure 2 Support boards under back cover

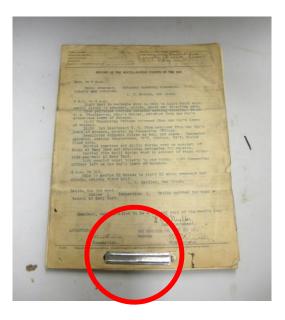
• If a volume opens well, supports may not be needed when viewing pages at the center of the textblock (see Figure 3).



Figure 3
No supports needed toward center of volume

Fasteners and Ribbons

- Some records are fastened with large metal fasteners or ribbons (see Figures 4 and 5). Remove these fasteners and ribbons prior to imaging. The loose records will be easier to handle at the camera and won't introduce creases to the documents when the hinged glass is lowered for imaging. Place each grouping of loose records in individual Permalife subfolders. Recycle folders and replace fasteners (if necessary) post imaging.
- If fasteners are embedded, rusted or difficult to remove, please tab for conservation to remove.



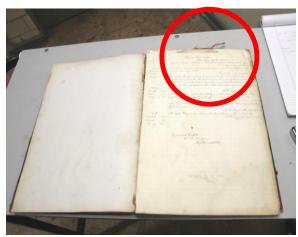


Figure 4 Metal fasteners

Figure 5 Ribbon

Mold

• If a volume or container has mold or suspected mold (see Figures 6 and 7), wrap the entire volume or container in plastic and seal with tape for shipment to Archives II. Tape a green label to the plastic identifying the container or volume as containing mold.





Figure 6 Figure 7
Mold damaged volume

Folded Records

- Unfold folded records using light finger pressure along the "hills" on the back side of a fold. Do not back fold the documents in an attempt to flatten them.
- Remove and discard fasteners such as straight pins, pronged fasteners, and brass clips that are not embedded in the paper.
- Retain any type of sewing through the fold on simple bound structures.
- Remove red tape securing documents together if keeping the tape in place will make imaging the records difficult (for example- rolling back the sheets will cause tearing where the tape enters and exits the paper or if it is believed the paper is brittle and will tear or crack when the hinged glass is lowered on it) or will obscure unique information that needs to be captured.
- For silk ribbons and embedded fasteners (such as grommets), test to see if the sheets can be rolled back making all unique information visible. If the paper is in danger of being damaged or if all info cannot be imaged, please tab for conservation. Conservation will remove the ribbons and embedded fasteners.
- If the paper is flexible and can be rolled (not folded) back to reveal text below, adhesive removal is not necessary. If the paper is brittle and may crack if flexed back, tab the document for conservation attention. If the adhesive attachment is large and will extend beyond the platen or be outside of camera range when flexed back, tab for conservation attention. Such items will be sent to the NARA conservation lab to be separated.
- Place a sheet of legal Permalife paper in between each grouping of unfolded records. Place the group of documents in a legal-sized file folder, keeping them in the same order as found in the box. Place a small stack of file folders into provided boxes. Cover a small stack of folders (no more than 5 high) with a sheet of acrylic to weight the stack overnight. This will help to somewhat compress and flatten the documents and make it easier to handle them for scanning the next day.

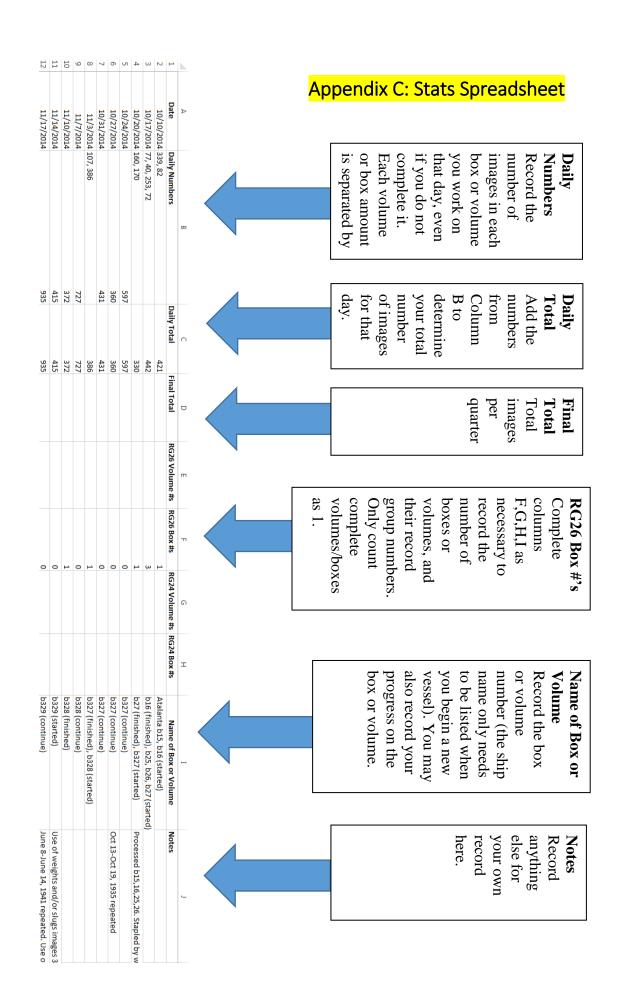
Tabbing Items for Conservation

- Records need conservation treatment when:
 - o Tears cannot be stabilized by sleeving in polyester, or text remains misaligned within the sleeve.
 - o Damage has resulted in segmented/fragmented documents.
 - Pressure sensitive tapes obscure information, or cause adjacent sheets to stick together.

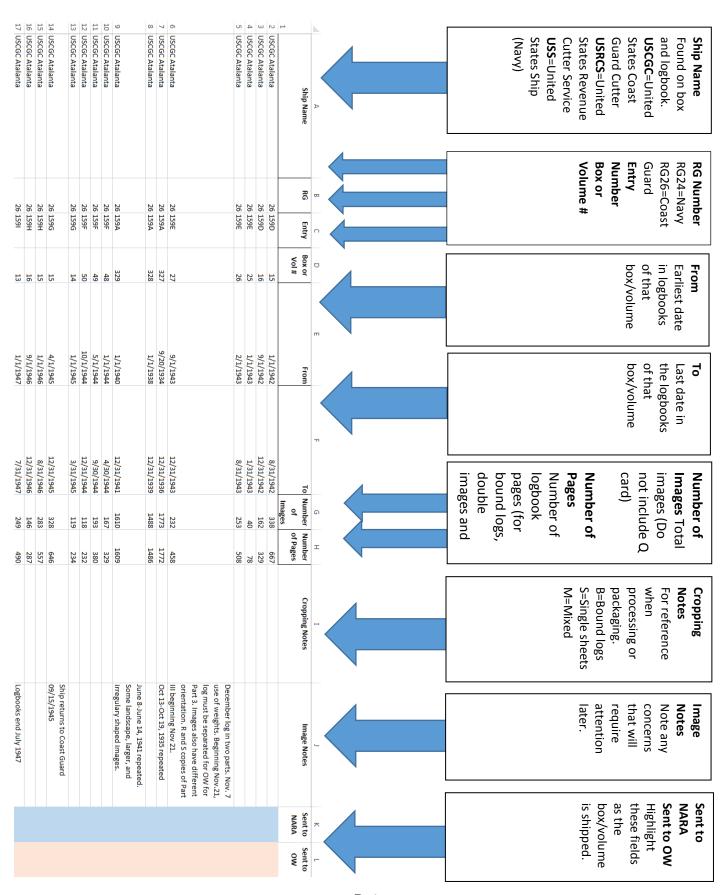
- Embedded fasteners are present such as grommets, and must be removed to permit access to the information.
- Creases and/or folds obscure text and do not remain relaxed within a sleeve, or will not relax with gentle hand manipulation.
- o Severe distortions make the document unsafe to handle.
- o Torn oversize records are too large for a legal sleeve.
- o There is concern that the item cannot be safely imaged.
- Place a tab around the item (in a container) or page (in a volume) in need of conservation attention and fill out a pink placeholder for each item. Fold the pink placeholder and paper clip to the outside of the container or slip the placeholder in the volume so it is readily visible.
- Items requiring routine conservation treatment will be sent to the conservation lab at Archives I.

Rehousing/Boxing

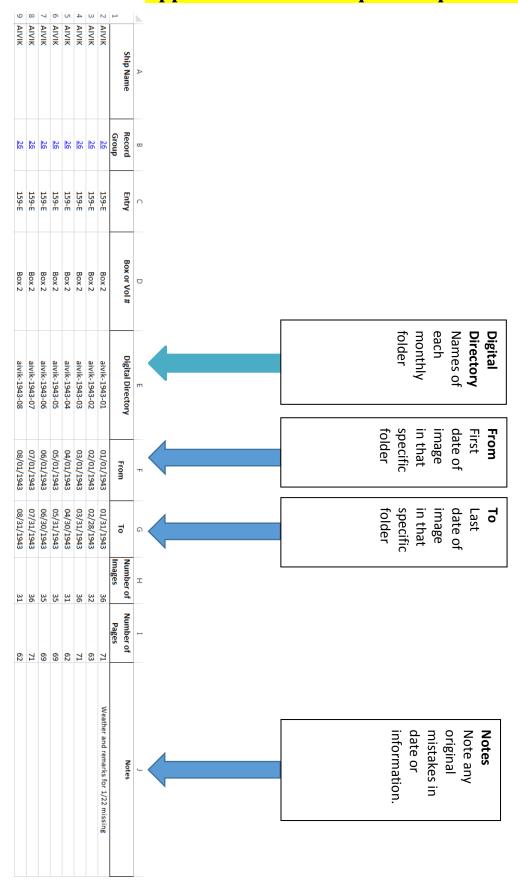
• Paper clip a tab to a volume tab if a custom box is needed. These items will be measured for boxing in the Archives I conservation lab.



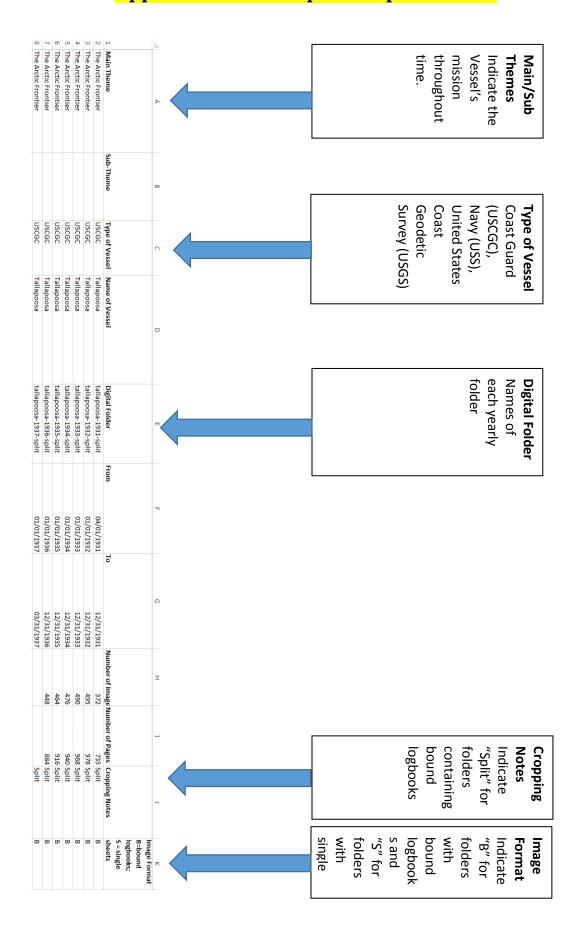
Appendix D: Currently Imaging Spreadsheet



Appendix E: NARA Shipment Spreadsheet



Appendix F: OW Shipment Spreadsheet



Appendix G: Auditing Guidelines for NOAA-NARA Project

The NOAA/NARA/Old Weather project (the "Old Weather project") is subject to the same overarching principles and requirements contained in the auditing guidelines NARA established for other digitization partner projects. However, because the Old Weather project is involved with digitizing bound logbooks as well as loose logbook pages (whereas other partner projects work with only loose textual materials), it is necessary to have additional auditing guidelines for the Old Weather project.

Accordingly, when auditing the images produced by the Old Weather project, auditors should follow the guidelines set forth below (the "Old Weather guidelines"), in addition to NARA's more general guidelines applicable to all projects. In case of a discrepancy between NARA's general guidelines and the Old Weather guidelines, auditors should follow the Old Weather guidelines.

What should be imaged?

- All logbook pages, including cover pages and any underlying pages obscured by attachments, that have any printing, writing or other markings on them (e.g., letters, numbers, drawings, charts, stamps)
- An otherwise blank page that has a page number
- One blank page, if available, at the end of a logbook as an indication that the logbook is finished

What should not be imaged?

- A completely blank page
- Any artifacts from the imaging process anywhere in the image, such as images of fingers, hands, or reflections from light bulbs or other sources

Qualities and characteristics of the images

Auditors should check for the following:

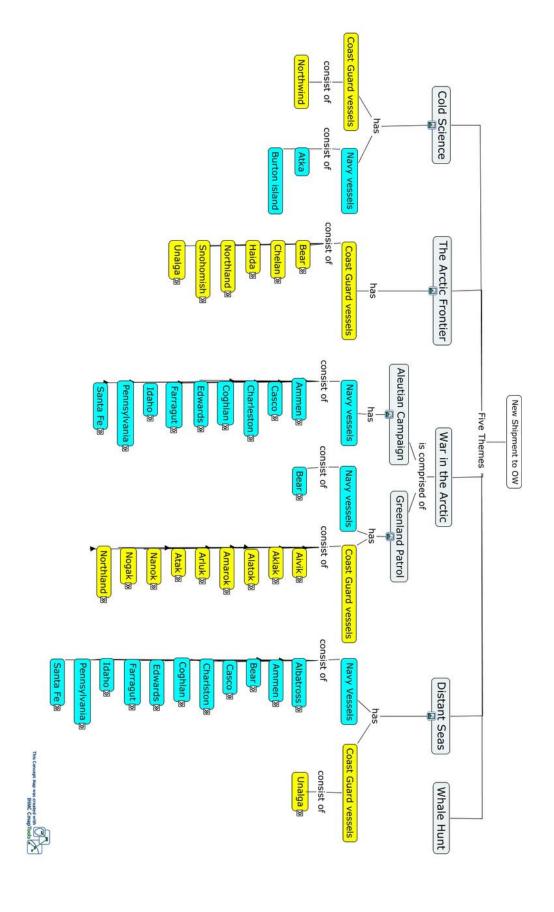
- All four black borders visible around the document (if not, include a slug)
- Correct orientation
- Centered and straight (except for logbook covers, which should be imaged to one side)
- Exposure level: Not too dark or light
- Color balance: Closely matches the color of the document
- Bound logbooks: Two pages per image, except for cover pages

Correct imaging sequence for loose logbook pages

When there is an additional "Remarks" page or pages for a particular day, auditors should look for the following imaging sequence for that day even if this order does not match the logbook's pagination.

- The weather data page
- The initial "Remarks" page
- The first additional "Remarks" page, followed by any preprinted form on the reverse side
- Any additional "Remarks" pages for that day, followed by any preprinted form on the reverse side

Appendix H: Themes and Sub-Themes



Appendix I: Sample Quarterly Report

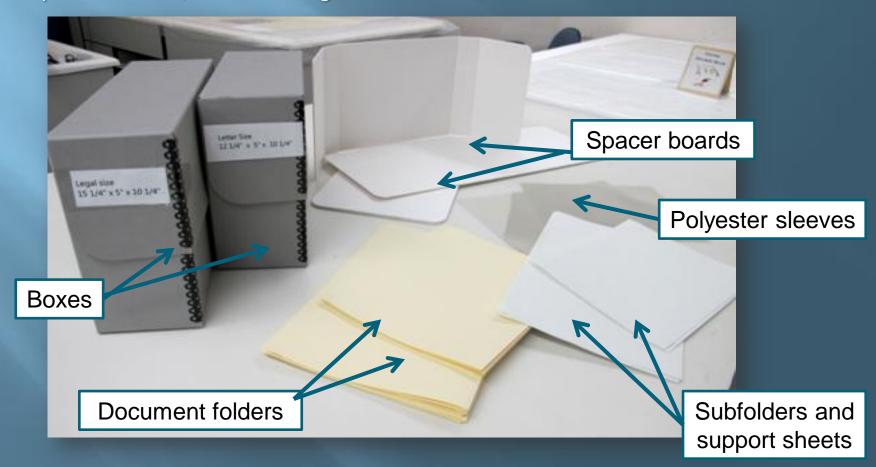
12968							
	8973	Total=		Total number of boxes = 22	al number o	Tota	
441	224	3/31/1934	10/1/1933	2350	159A	26	USCGC Tallapoosa
491	249	9/30/1933	4/1/1933	2349	159A	26	USCGC Tallapoosa
509	258	3/31/1933	10/1/1932	2348	159A	26	USCGC Tallapoosa
485	246	9/30/1932	4/1/1932	2347	159A	26	USCGC Tallapoosa
493	250	3/31/1932	10/1/1931	2346	159A	26	USCGC Tallapoosa
487	247	9/30/1931	4/1/1931	2345	159A	26	USCGC Tallapoosa
490	249	7/31/1947	1/1/1947	13	1591	26	USCGC Atalanta
287	146	12/31/1946	9/1/1946	16	159H	26	USCGC Atalanta
557	283	8/31/1946	1/1/1946	15	159H	26	USCGC Atalanta
646	328	12/31/1945	4/1/1945	15	159G	26	USCGC Atalanta
234	119	3/31/1945	1/1/1945	14	159G	26	USCGC Atalanta
232	118	12/31/1944	10/1/1944	50	159F	26	USCGC Atalanta
380	193	9/30/1944	5/1/1944	49	159F	26	USCGC Atalanta
329	167	4/30/1944	1/1/1944	48	159F	26	USCGC Atalanta
458	232	12/31/1943	9/1/1943	27	159E	26	USCGC Atalanta
508	253	8/31/1943	2/1/1943	26	159E	26	USCGC Atalanta
78	40	1/31/1943	1/1/1943	25	159E	26	USCGC Atalanta
329	162	12/31/1942	9/1/1942	16	159D	26	USCGC Atalanta
667	338	8/31/1942	1/1/1942	15	159D	26	USCGC Atalanta
1609	1610	12/31/1941	1/1/1940	329	159A	26	USCGC Atalanta
1486	1488	12/31/1939	1/1/1938	328	159A	26	USCGC Atalanta
1772	1773	12/31/1936	9/20/1934	327	159A	26	USCGC Atalanta
Pages	Images						
Number of	Number of	То	From	Box or Volume #	Entry	RG	Ship Name
/2014)	14 - 12/31,	• (10/01/20	th Van Winkle	1st Quarter Report of Logbooks Imaged by Edith Van Winkle (10/01/2014 - 12/31/2014)	of Logboo	Report o	1st Quarter

<u>-</u>-1

NARA Holdings Maintenance Supplies:

- Document boxes, letter and legal
- Folders, letter and legal
- Polyester L-sleeves, letter and legal
- Permalife® paper sub-folders, letter and legal
- · Permalife® paper support sheets, letter and legal
- · Spacer boards, letter and legal





Research Room Supplies (continued):

- Microspatulas
- Polyester squares
- Permalife® paper barrier strips
- Stainless steel paper clips
- Discarded fasteners container
- Heavy duty staple extractor



Heavy duty
staple extractor

Polyester squares
(2 ½" x 2 ½")

Permalife® paper barrier strips

Stainless steel paper clips

Discarded fasteners container

Discarded Fasteners

Supplies (continued):

- Weights (bean bag, drapery and cube)
- Book supports
- Cotton twill tape
- Cotton gloves
- Acrylic sheeting
- Cleaning supplies, dust cloths, dusting brushes and water/alcohol
- J-Lar® pressure-sensitive tape for box repair



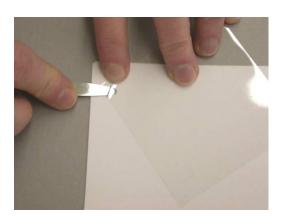


Appendix K **Staple Removal and Paper Clip Replacement**

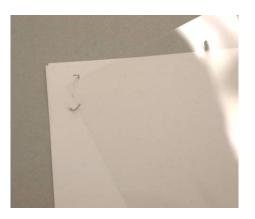
(1) Staple to be removed



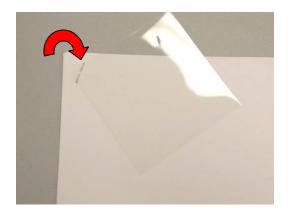
(3) Use pointed microspatula to lift one prong while anchoring the other prong with your finger



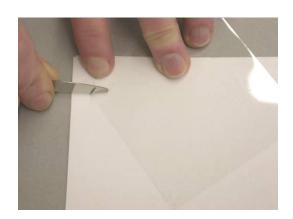
(5) Straightened prongs



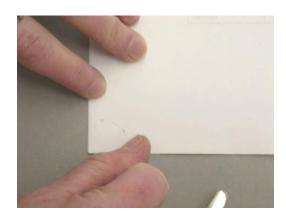
(2) Place polyester film beneath staple prongs



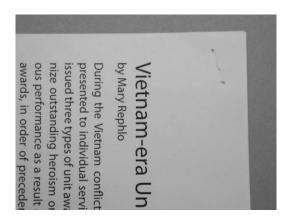
(4) Then similarly, lift the second prong



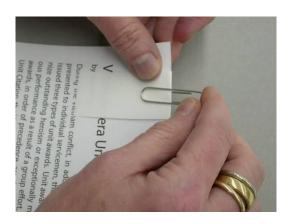
(6) Exit holes gently sealed to prevent running tears



(7) Staple successfully removed



(8) Staple replaced with stainless steel paper clip and Permalife® paper barrier strip



Use only supplies provided by RXC – room 1600 All and B-1 Al (microspatula, stainless steel paper clips and Permalife® paper barrier strips)

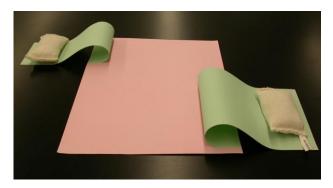


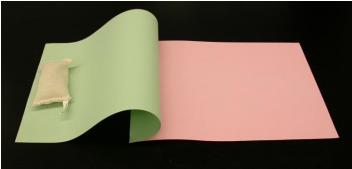


Appendix L

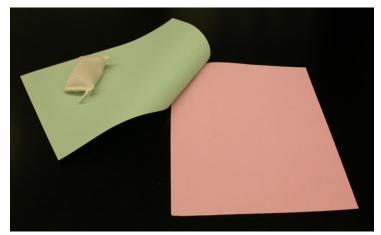
Guidelines for Using Soft Weights and Drapery Weights during Imaging

- **Do** carefully turn attachments back and place a soft weight gently on the paper to reveal text.
- Do not place unnecessary stress on the paper in order to reveal information.
 Note the weight is usually best placed at the far end of the attachment, creating a soft bend in the paper.





• If unique text remains obscured beneath the soft bend in the paper using this method of gentle restraint, tab the item for conservation attention.



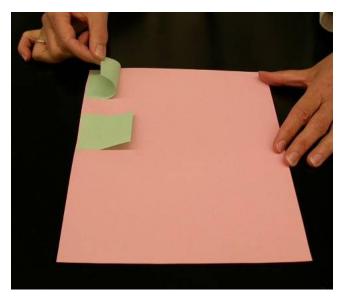


• **Don't** crease or fold the paper with the soft weight. Placing the weight on top of the soft bend or too close to where the attachment is adhered will cause damage to the document.

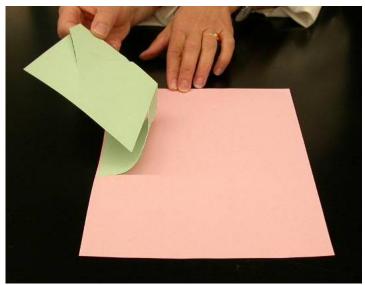




- Don't place weights on attachments that are too small to bend and restrain.
- Don't place weights on attachments that are torn, brittle or breaking.



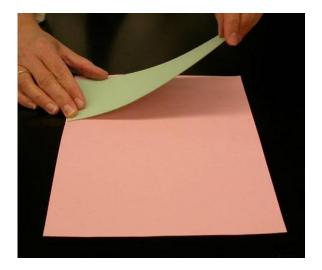
Small attachments too small to weight



Torn attachment too fragile to weight

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• **Don't** weight attachments that are inflexible and stiff. Forcing inflexible items to bend will damage the paper by forming permanent creases and distortions.

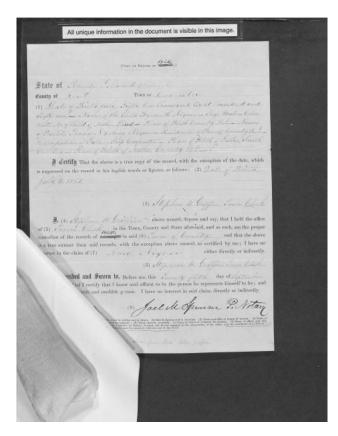


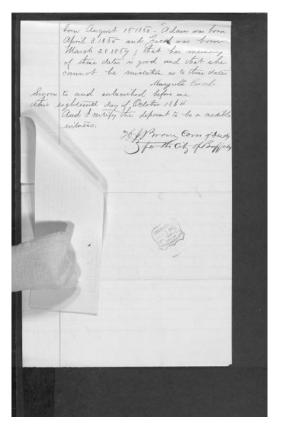




New crease from forcing back stiff attachment

• Actual Images taken by FamilySearch Volunteers showing use of soft weights.

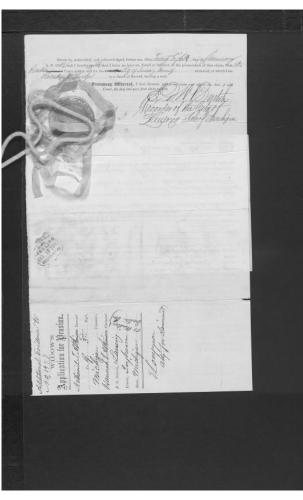




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 Actual Images taken by FamilySearch Volunteers showing appropriate use of drapery weights and a soft weight. Please note that ribbons are often extremely fragile. This technique should only be used with ribbons that are able to withstand the weight and pressure exerted by the drapery weights.





• Change covers on soft weights when soiled.

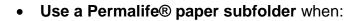
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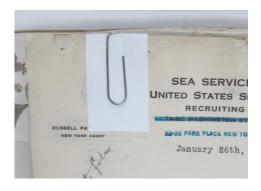
Appendix M

Fasteners: Deciding when to use Paper Clips or Permalife® Paper Subfolders

- Use a stainless steel paper clip with a Permalife® paper barrier strip to refasten documents when:
 - Grouping contains items in L-sleeves
 - Grouping contains photos or newspaper clippings
 - Grouping contains envelopes
 - Documents contain ribbons or seals
 - Documents are made of heavy card stock
 - Grouping contains folded documents
 - Grouping contains folios
 - Grouping contains parchment documents



- Documents are too fragile or brittle for a staple or paper clip
- Large groupings of records are too thick to staple or paper clip
- Documents need conservation attention





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Appendix N



NARA Guidelines for Using Polyester L-sleeves and Permalife® Paper Subfolders

- When is it appropriate to use a polyester L sleeve and what should be placed in a polyester L sleeve?
 - A single photo or newspaper clipping
 - A single document that is very fragile or brittle (use a Permalife® paper support sheet if necessary)
 - o A single document with tears that remains in one piece
 - A single small document that may be "lost" among other records in the folder
- What should not be placed in a sleeve?
 - Any document that requires conservation treatment including a record that is torn into two or more pieces (see Image 1)
 - Any multi-page document with attachments or fasteners
 - Creased documents where text is obscured (see Image 2)
 - A document or photo larger than the sleeve
 - Folded documents (with the exception of a folio that does not have text inside)
 - o Pages in a volume

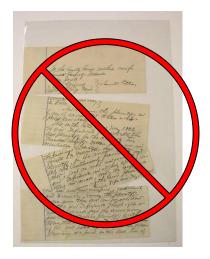


Image 1
Do not sleeve a document that is in multiple pieces

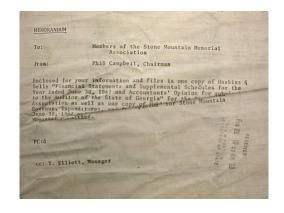


Image 2
Do not sleeve a creased document

- What should be placed in a Permalife® paper subfolder?
 - Documents in need of conservation attention
 - A large group of documents that has had a fastener removed, but remains too thick for a stainless steel paper clip or stainless steel staple
 - Folded newspapers
 - Documents with flaking or powdery media
 - Several small documents that may get "lost" in a file

^{*}Please note the L sleeve or subfolder should be the same size as the container and file folder it will be housed in (for example, use a legal size sleeve or subfolder if you have a legal size file folder and container).



Appendix O

Guidelines for Folding and Using Spacer Boards

How to Assemble a Spacer Board:

If records need additional support inside an underfilled box, a spacer board may be used.





Fig. 1: Spacer board with pre-scored creases

Fig. 2: Assembled spacer board

A spacer board has pre-scored creases in order to be folded to fit the document boxes (Fig. 1). These creases are 1 inch apart. When examined, the pre-scored creases in the spacer board are concave (shaped like a cave) on one side and convex (shaped like a hill) on the other side (Fig. 3). Do fold the spacer board toward the concave sides of the creases (Figs. 4-5). This avoids excess material in the interior of the fold. Do not fold the spacer board toward the convex side of the creases (Fig. 6).

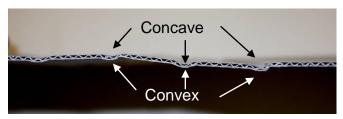


Fig. 3: View of pre-scored creases, on end

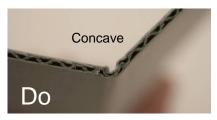


Fig. 4: Fold toward concave side

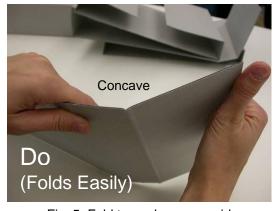


Fig. 5: Fold toward concave side



Fig. 6: Do not fold away from concave side

• To assemble the spacer board, make an initial fold at crease 1 on one side and crease 2 on the other side as shown in the figures below (Figs. 7-9). This distance corresponds to the width of the box.

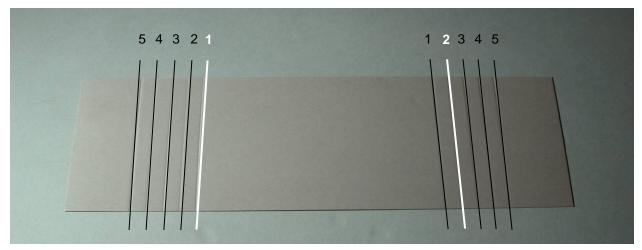


Fig. 7: Spacer board with pre-scored creases, creases 1 and 2 highlighted







Fig. 9: Second fold

Next determine the thickness required to fill the box. Tip the box forward to gauge the space
present in the back of the box, as shown in the figure below (Fig. 10). Choose the suitable prescored crease from creases 2-5. The distance between the chosen crease and the initial
crease should correspond to the space in the back of the box.



Fig. 10: Gauging the proper spacer size

 Once the necessary thickness has been determined, make an additional fold on each side at the chosen crease. The figures below (Figs. 11-13) demonstrate this step using creases 3 and 4 to assemble a spacer with a thickness of 2 inches.

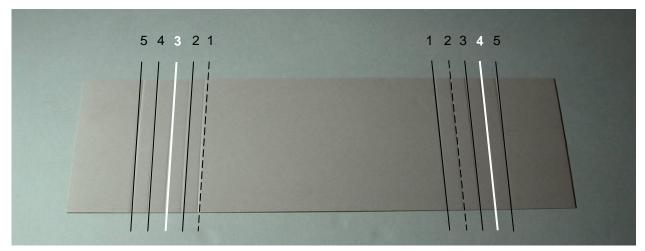


Fig. 11: Spacer board with pre-scored creases, creases 3 and 4 highlighted







Fig. 13: Fourth fold

 Lastly, insert the assembled spacer board into the back of the box with the flat side facing the records (Fig. 14).



Fig. 14: Inserting assembled spacer board

Special Notes:

- Do make sure to use legal size spacer boards in legal size document boxes and letter size spacer boards in letter size boxes. Using the right size spacer is important for providing maximum support. Custom size spacers are available. Please contact Conservation for more information.
- Records are sufficiently supported if they are kept upright, are prevented from "slumping" inside the box, and still have enough room to be removed easily (Figs. 15-16).



Fig. 15: Unfilled box



Fig. 16: Unfilled box with spacer board

NOTE: The support board in front of the records is an additional support, preventing them from falling forward.

• **Do** fold <u>each end</u> of the spacer board to the <u>same thickness</u>, forming a rectangle when viewed from above (Fig. 17). **Do not** fold the ends to different thicknesses, forming a wedge when viewed from above (Fig. 18). A rectangular shape provides even support to the records, while a wedge shape does not.

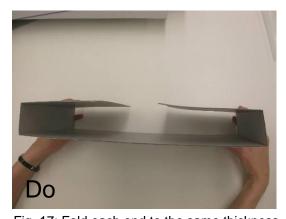


Fig. 17: Fold each end to the same thickness

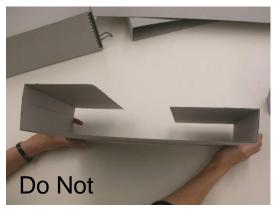


Fig. 18: Do not fold to different thicknesses

- Do fold the ends of the spacer board to a thickness equal to or less than the space needed to be filled inside the box. Do not fold the spacer board to a thickness larger than this space, which places undo pressure on the records. If additional support is needed, add support boards (such as those placed in front of the records) in front of the spacer board to make up the difference.
- **Do** fold the spacer board <u>crisply</u> (Fig. 19). This ensures the final structure will be sturdy. Sloppy folds (Fig. 20) will not provide sufficient support to the records.

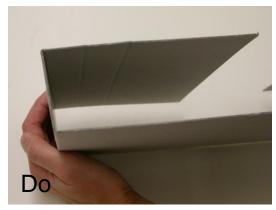






Fig. 20: Sloppy folds

• If a mistake is made or an adjustment is needed, **do** use a <u>new spacer board</u>. **Do not** alter the incorrectly folded spacer board, because it will no longer provide sufficient support to the records.

NATIONAL ARCHIVES PRESERVATION PROGRAMS

Appendix P

NATIONAL ARCHIVES PRESERVATION GUIDELINES FOR HANDLING AND SCANNING RECORDS

The following instructions provide general guidance on the proper handling of documents that NARA will make available for scanning at partner work stations. In addition, specific written guidelines will cover procedures developed for each individual body of records. Preservation training based on these guidelines and procedures will be provided before partner staff begin to work with NARA records.

I. General Requirements

- A. No records may be removed by partner staff from the work room.
- B. Return all records, whether scanned or not, to NARA staff at the end of each work day.
- C. Smoking, drinking, and eating are not permitted in the room where the work stations are located. No food, chewing gum, candy or liquids are permitted in the work space.
- D. Only pencils may be used near records or records containers (such as boxes, folders, sleeves). Ballpoint pens, felt tip pens, markers, and similar items are not permitted.
- E. Do not write on records or their containers with pencils or any other implements.
- F. Do not place self-stick notes (such as Post-it® Notes) on records or their containers.
- G. Do not apply pressure-sensitive adhesive tapes (such as Scotch® tapes) to records or records containers.
- H. Nothing may be placed on top of records or their containers. This includes but is not limited to such objects as cameras and other equipment, notebooks, place holder sheets, pencils, cords from cell phones and portable audio players, etc.
- I. Do not rest, lean, or otherwise exert pressure on records or their containers. Avoid having hanging identification badges and dangling jewelry come into contact with records.
- J. Do not move or drag records across other records or against surfaces (such as tables or equipment) that might abrade them or cause them to break.
- K. Do not place records or their containers on the floor or on chairs. Place records and their containers on tables, carts, or work surfaces.
- L. Keep records in their original order and return to their original folders or containers after scanning. Remove only one item at a time from its folder or container.

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- M. Keep records covered or in closed boxes or folders at all times except when being actively worked on or scanned. Use empty file folders or sheets of acid-free Permalife® paper to cover records during short breaks (5 minutes or less). Return all records to their folders and containers during lunch and longer breaks.
- N. Do not remove items from polyester L-sleeves for scanning. Sleeving is a protective preservation measure for fragile documents.
- O. Carefully align records on top of one another in a folder so that edges of documents do not stick out but are fully supported. Also make sure that edges of documents do not extend beyond the folder. Please do not tap or jog documents on end to align them.
- P. Records may not overhang work surfaces. Keep records at least 3" from the edges of tables and copy boards.
- Q. Keep all pull or tracking slips with the records, their folders and/or containers.

II. Handling Individual Records

- A. Report any items that cannot be safely scanned and seek further guidance from NARA staff. These include brittle or breaking items, warped or distorted objects, items that start to crack or break along weakened fold lines, rolled records, and oversized materials.
- B. Keep hands clean and free from any substance that could stain or damage records or their containers. This includes food, ink, toner, tobacco, hand lotion, hand sanitizer and Tacky Finger fingertip moistener or similar products.
- C. Handle records carefully as they are removed from boxes, folders, envelopes, and other records containers. Rest the container or enclosure on a flat work surface, and then open to remove the record.
- D. Small groups of records from a single folder that are being actively worked on may be stacked on top of one another, as long as the height of the stack does not put records in jeopardy of falling.
- E. Make available a clear and clean "landing surface" (table or work surface) as records are being handled and moved about at the work station. The table must be larger than the records.
- F. Do not use a book cart or equipment cart as a work surface for records.
- G. Support records underneath with two hands, folder stock, or paperboard provided by NARA. Do not grasp items by one hand or lift by one edge or corner.

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- H. Always wear gloves when handling photographs that are not sleeved in clear plastic.
- I. Do not backroll, backfold or "pop" creases in records in attempts to open and flatten them.
- J. Handle bound volumes carefully. They shall not be forced open or subjected to pressure that will damage bindings and textblocks. Volumes shall be properly supported during imaging. If the volume does not lay flat at the designated opening, a cradle or support should be used on one or both sides. Fold outs should be supported underneath with heavyweight paper or fold stock supplied by Conservation.
- K. Stainless steel paper clips and Permalife® paper barrier strips may be removed from documents prior to imaging. Be sure to replace the stainless steel paper clip and Permalife® paper barrier strip after imaging.
- L. Records that are glued together (including wafers and seals) or sewed together with historic lacings and ribbons may not be separated, pulled apart, or back-folded unless by Conservation staff.

III. Equipment

- A. Equipment shall have platens or copy boards upon which records are supported over their entire surface. No portion of the record is allowed to drape off the side or edge of the scanning platen. Tab oversize items that do not fit on the platen for scanning by NARA staff. No part of the equipment shall come in contact with records in a manner that causes friction, abrasion, or that otherwise crush or damage records.
- B. Do not allow pressure-sensitive adhesive tape or any other adhesive substance to come in contact with any part of a record.
- C. Do not allow light sources to raise the surface temperature of the record being copied. Use a blank piece of paper or a non-record photocopy to make camera and equipment adjustments.
- D. Keep records covered except during scanning to limit the exposure of records to excessive light exposure. Limit the amount of time the record is uncovered to approximately 30 seconds.
- E. Keep all equipment surfaces clean and dry. Cleaning and equipment maintenance activities may not take place when records are present.
- F. Do not use aerosols or ammonia-containing cleaning solutions. Do not use dusting cloths that contain oily substances to trap dirt.

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G. All cleaning materials will either be provided by or approved by Conservation.

IV. Inspection and Training

- A. NARA staff shall have the right to inspect, without notice, work stations and scanning procedures, and to be present at all times when records are being utilized. Consult NARA staff for clarification of these procedures or when any difficulties or problems arise.
- B. NARA will provide training on handling records for partner staff. Only trained partner staff will be permitted to handle records; NARA will maintain a list of such individuals. Additional training will be provided as needed.
- C. These preservation guidelines will be revised as necessary by NARA.

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Appendix Q: Metadata Spreadsheet Acceptable to NPRB

