

# Saving the Moving Images of World War I

By Criss Kovac



**W**ith the 100th anniversary of the United States' entry into World War I just three years away, the National Archives has begun a massive project to digitize the largest collection of motion picture footage from that war.

Already, the index to the agency's Army Signal Corps moving picture holdings has been organized and rehoused, and certain deteriorating video copies of the film are no longer used. The videotapes were digitized for immediate low-resolution access in NARA's online catalog. These low-resolution files will be replaced with higher-resolution files as the film scanning project is completed.

Phase three of the three-year project has begun in the Motion Picture Preservation Lab, as the lab assesses, repairs, and preserves the entire U.S. Army Signal Corps Historical Collection (111 H). The lab will then scan the films in high definition with a new scanner and staff funded by a generous gift from an anonymous donor.

The specific goal of the donation is to provide greater online accessibility to the National Archives' World War I and World War II film collections. This goal fits well with one of the agency's four strategic goals for 2014–2018: "Make Access Happen."

Already, researchers and documentary filmmakers are seeking footage of conflicts in Europe from the start of the war, and the National Archives has seen an incredible increase in demand for World War I footage in all formats.

Certain items or titles will receive full digital restorations including removing dirt and scratches, making gamma corrections, and returning to original frame rates. The lab will then load the content onto the Archives' YouTube channel, where the public will have the ability to tag and add additional information to increase description and improve access.

### WWI Moving Image Collections

#### Focus on Lives of Troops

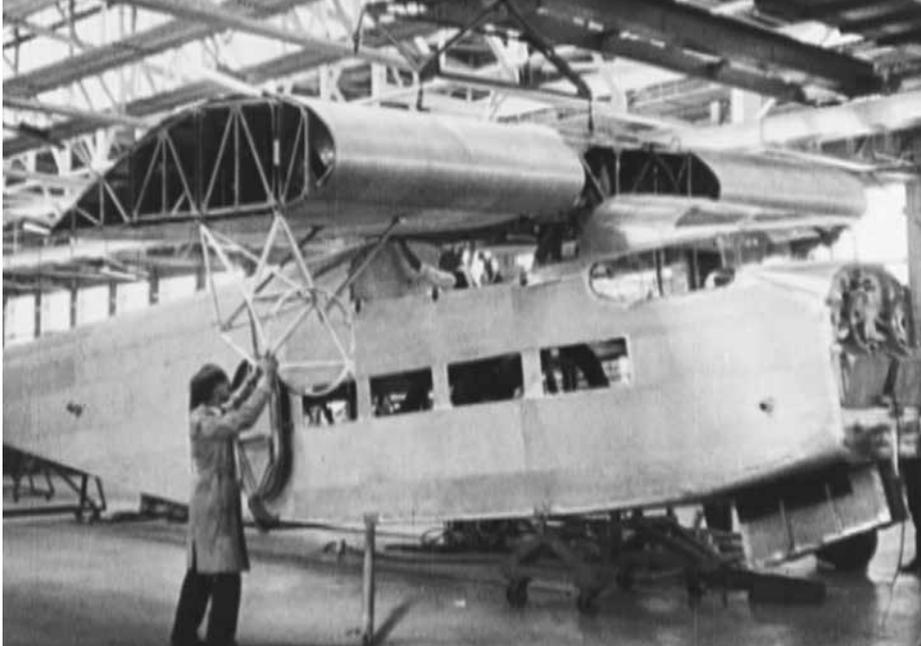
The National Archives is the largest repository of World War I material in the United States. The moving image materials are scattered throughout multiple collections, with the majority of the content held in four record groups.

The U.S. Army Signal Corps Historical Collection contains approximately 473 unique titles (871 reels), and the CBS World War I Collection contains approximately 663 unique titles (751 reels). These collections each contain more than one million linear feet (or 390 miles) of motion picture film dedicated to documenting "The Great War," inclusive of all aspects of U.S. military activities as well as materials from foreign sources.

The Signal Corps and CBS film collections focus on training soldiers (stateside and abroad), combat activities, life in military camps, troop inspections, and significant U.S. and foreign personalities (for example, high-ranking officers, heads of state). They also include early newsreel coverage of activities across Europe.

The Ford Film Collection contains a great deal of World War I coverage, including

*Opposite top: Training Activities at Fort Lewis, Washington. Opposite bottom: President Wilson addresses the naval personnel aboard the USS George Washington docked in New York Harbor after returning from the Paris Peace Conference in France, July 8, 1919.*



Above: Ford manufactured Liberty engines and tested them in various aircraft at their Dearborn, Michigan airfield. Below: German civilians, held as spy suspects at Fort Oglethorpe in Georgia, are sent back to Germany with their families. Bottom: Theodore Roosevelt reviews a military parade in New York City. "Teddy Says They Will Do ALL and MORE Than Is Asked of Them—And They WILL."



activities related to airplane manufacturing, the Red Cross, Armistice Day celebrations, awards ceremonies, troop movements, trucks and other mechanical equipment, and public announcements regarding Liberty Loan Drives, raw materials rationing, and anti-Bolshevik campaigns.

The Durborough War Pictures contain 13 unique reels of the combined surviving early World War I footage shot by Wilbur H. Durborough. He was an American press photographer, and the footage documents his journeys across Europe observing the military conflict prior to U.S. involvement.

### Military Footage Given To Archives in 1939

The U.S. Army Signal Corps Historical Collection is a good example of the complexity of the collections.

The Army War College, Department of War, Army Signal Corps transferred more than a million feet of original negatives, negative copies, and prints to the National Archives in December 1939. The majority of the content was shot in France (68 percent) and in the United States (23 percent), while the remainder of the footage was taken "in other places where military operations were carried on."

The film was accompanied by 850 folders containing the original shooting scripts and title sheets sent in from the field along with about 130,000 3-by-5-inch index cards, which have already been reorganized and re-housed. The cards give a detailed description of each scene, when and where the footage was shot, and the name of the cameraman. The cards were further cross-referenced by names of officers, enlisted men, persons of importance, and Army Service Division down to the smallest unit level (e.g., First Trench Mortar Battery).

The index cards had been stored in 77 deteriorating cardboard boxes; they were then organized into Hollinger boxes clearly stating the headings and subheadings for each index card range. Finding aids were created

to match the scene numbers at the top of the index cards that correlate to the compiled Army Edited Footage (AEF number), which further references the item/reel-level number.

Until recently, the vast majority of accessible research room material was on 270 failing ¾-inch U-matic video and VHS videotapes. In phase two of the project, the U-matic videos were digitized in the Audio/Video Preservation Laboratory. Access copies were made available on hard drives in the research room, and lower-resolution files will eventually be uploaded into the Online Public Access (OPA) catalog on *Archives.gov*.

Before the United States entered World War I in 1917, the Signal Corps spent between \$2 million and \$3 million (\$36.5 million to \$54.8 million today) gearing up to document activities at home and abroad relating to the conflict. Nearly a thousand employees were trained under government supervision to shoot, develop, edit, and print the reels, and a considerable investment was made in equipment and raw film stock.

After World War I, the Department of War continued to put money into storage, personnel, and reprinting the collection. In 1935 Congress appropriated \$35,000, and the Department of War spent an additional \$15,000 (\$768,000 today) on reediting some of the content.

It is unclear when, or why, but based on notes made by John G. Bradley, the National Archives' chief of motion pictures, the overall collection "dwindled from an estimated 6,000,000 feet to its present footage" prior to its transfer to the Archives.

According to Bradley, the Department of War wanted to deposit the film with the National Archives in 1939 because of the "present international unrest [and] the



Above: A boxing competition is staged for President and Mrs. Wilson aboard the USS *George Washington* on July 8, 1919. Below: Training activities at Fort Lewis, Washington.



Department of War has indicated that it wants to be relieved of further custodial responsibility for this film and has asked that The National Archives take it over and perpetuate it."

At the time of the accession, the edited films' condition was noted to be fair, but the

unedited content was assessed as "none too good." In October 1939 Bradley wrote:

[P]reliminary study of this film on the basis of its physical condition indicates that perhaps 75% of the total footage is approximately twenty years old and has reached an age, therefore,



### To learn more about

- The most requested documents relating to World War I, go to [www.archives.gov/research/military/ww1/](http://www.archives.gov/research/military/ww1/).
- How the art world contributed to the World War I effort by coming up with camouflage to protect U.S. troops, go to [www.archives.gov/publications/prologue/2012/spring/](http://www.archives.gov/publications/prologue/2012/spring/).
- An overview of National Archives film holdings of World War I, go to [www.archives.gov/publications/prologue/2008/summer/](http://www.archives.gov/publications/prologue/2008/summer/).



Above: The SAMMA automated robot systematically digitizes 44 ¼-inch U-matic videotapes at a time. Left: Audrey Amidon, motion picture preservation specialist, inspects 35mm film to prepare for preservation and access of moving image collections.

events in the 1960s and early 1990s. The films have been printed and reprinted over the decades, and any surviving nitrate material was reformatted after a 1978 fire in the nitrate vaults. Most of the preservation and master elements are now on polyester film stock, with only the Durborough Collection surviving on nitrate deposited with the Library of Congress.

Much like Bradley, current Archives staff will continue to struggle with the volume of material, condition, and future storage options for the amount of digital data that will be produced as part of this project.

History is bound to repeat itself—even film preservation history. **P**



#### Author

**Criss Kovac** is the head of the Motion Picture Preservation Lab at the National Archives. For the last decade she has overseen preservation projects including *Nine From Little Rock* and *With the Marines at Tarawa*, and digital restoration projects including *Let There Be Light* and *The True Glory*. She is an active participant in moving image professional organizations and in creating technical guidelines for archives, libraries, and museums. She holds degrees from Oberlin College, Nottingham Trent University, and the L. Jeffrey Selznick School of Film Preservation.

when normal losses may be expected unless the necessary corrective measures are taken . . . considerable duplication work will be necessary. . . [W]e will have to do the necessary inspecting, reviewing, evaluating, indexing, and vaulting work, together with the corresponding statistical and paper work on the entire collection—all of which indicates the need for additional personnel and equipment.

Bradley went on to note that accepting this collection would mean that the Archives would be forced to intermingle its nitrate and acetate collections. In addition, the World War I collection “would occupy

approximately 100 percent of our present available storage space. . . . Finally, it is recommended that every reasonable effort be made to expedite the installation of an air-conditioning system, so that this film and other film in our custody may be given adequate protection.” Given that film archiving was a fledgling concept in 1939, Bradley was ahead of his time.

After the collection was deposited at the Archives, how the film was stored long term or if Bradley received the additional equipment and staff needed to properly process the collection remains unclear.

Over the past 75 years, the films have been used heavily, particularly during anniversary