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Uncovering local history: 16mm TV news film remaining in U.S. television stations

Rob Jason Fain

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Running head: TV NEWS FILM COLLECTIONS

THE ROCHESTER INSTITUTE OF TECHNOLOGY
DEPARTMENT OF COMMUNICATION

UNCOVERING LOCAL HISTORY: 16 MM TV NEWS FILM REMAINING IN U.S.
TELEVISION STATIONS

By

ROB JASON FAIN

A paper submitted
in partial fulfillment of the Master of Science degree
in Communication & Media Technologies

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To my family, present and past

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Abstract

Beginning in the 1940s, the U.S. television news industry used 16 millimeter film to gather daily local field footage. By 1980 videotape pushed news film aside. Though historians and others would later find value in the film, many TV stations had by then disposed of their film. Reported here are results of a survey that determines which U.S. TV stations still have their news film and its current physical condition. A six-page survey was mailed to chief engineers and operations managers at more than 600 commercial TV stations that went on the air prior to January 1, 1977. The response rate was 26%. One-quarter of the stations returning surveys report some news film in their stations and some responses revealed some film was transferred to videotape. Most respondents that reported film collections also provided information on its frequency of use, re-licensing policies for the film, working status of film playback equipment and current film storage conditions.

Keywords: television, news, 16mm film, film archives, TV news film collections

Uncovering Local History:

16 mm TV News Film Remaining in U.S. Television Stations

For nearly 60 years Americans have used television as a source of entertainment and information. The small screen in the living room has been the frame through which millions of viewers received their daily news. Americans have viewed milestones of history “live” as the events occurred, such as the funeral of assassinated President John F. Kennedy, Neil Armstrong’s moon landing, and the attacks of September 11, 2001. Recordings of those events on film and videotape allow us to see the moving images again and again to be informed, inspired or saddened. Television news cameras recorded countless other national and local news events in the last six decades. However, though the cameras rolled and the footage aired, not all the footage was saved.

Prior to the diffusion of portable videotape equipment in the 1970s, 16 millimeter film was used to gather field footage for news broadcasts (Lewis, 1997). From the late 1940s to about the late 1970s television news film camera operators would roll on fires, floods, parades and protests daily in hundreds of U.S. cities and towns. They rushed to develop and edit the footage to make the evening news deadline, air the film once or twice and then file the edited footage on a shelf, probably never using it again. Each reel was a one-of-a-kind daily record of local history (Davidson & Lukow, 1997; Murphy, 1997b).

The value of filmic moving images as a record of America’s political and cultural history is well established (Davidson & Lukow, 1997; McGreevey & Yeck, 1997; Murphy 1997b; O’Connor, 1988; Slide, 1992b). Television news film is a part of this moving picture heritage,

recognized as such by the Library of Congress and through the American Television and Radio Archives Act of 1976 (2 U.S.C. 170).

What one author calls the “videotape revolution” (Slide, 1992a) pushed aside 16 millimeter television news film as a medium for gathering local field footage. Local television stations began purchasing portable videotape systems in about 1974, and by 1980 nearly 90% of U.S. stations used videotape instead of film for gathering local field footage (Stone, cited in Allen, 2001). Videotape could be re-used. It was more economical than film. The equipment necessary to develop, edit and air film “could not be easily integrated into the ENG [electronic news gathering] process” (Murphy, 1997b, p. 113).

The Library of Congress conducted hearings on the state of television programming and news footage preservation in 1996. According to testimony offered at those hearings, less than 10 % of U.S. TV news film had been donated by broadcasters to colleges, universities and historical societies (Murphy, 1997a). Murphy (1997a) stated that the rest “was mostly destroyed” (p. 88). Only one scientific study (Vogel, 1986) was cited; the rest of the testimony on TV news film was based on anecdotal information and hearsay.

When Vogel (1986) conducted a telephone survey of the oldest 107 U.S. television stations, 69 stations reported at least some of their news film remained. Hundreds of U.S. television stations that might have saved their news film were not included in that study. Nor has the condition of extant TV news film in those stations been assessed. This gap in film history research invited the present study to determine which U.S. television stations still have 16 mm news film, the size of their film collections, and the physical condition of their film. More formally, three research questions were posed:

RQ1: Which U.S. broadcast television stations report having collections of 16 mm television news film?

RQ2: What do U.S. broadcast television stations report is the time period covered by their archival news film collection?

RQ3: What do U.S. television stations report is the physical condition of the oldest film in their collection?

Rationale

Despite real or perceived shortcomings, 16 mm television news film is a moving image record of local history. Media producers have found value in TV news film as primary source material for historical documentaries such as *Eyes on the Prize* and *The Kennedys* (DeVinney, 1997). Barnouw, quoted in Jones (1979), argued for the preservation of all television product: “what we consider junk may be formative” (p. 78). Gregory Lukow, chief of the Motion Picture, Broadcasting and Recorded Sound Division of the Library of Congress, stated that archivists “do not make the decisions on what is important or not. [Archivists] try to save the heritage” (personal communication, February 1, 2007). The Society of American Archivists state that the importance or potential usefulness of a document might “not be revealed for an extended period of time, and as time passes new uses for old records may emerge” (Description and brief history...¶ 4). Uncovering extant collections of 16 mm TV news film collections could lead to a renewed interest in preserving the film.

Taves (1999) wrote “there are whole areas...in which archives have substantial holdings that have been relatively ignored by academics” (p. 79). Television news film is one of them. The present study contributes an updated index of U.S. stations willing to provide access to their

archives to researchers, and could lead academia and historians to reconsider or consider for the first time these visual records of local history. Local TV news film collections are “our contemporary media and communications heritage” (Taylor, 1996, p. 420). Moving images offer nuances of communication that a printed document can not. As well, local TV news film can sometimes provide fresh perspectives on national historic events that were local history for the cities and towns in which they occurred.

Literature Review

Television news film is a cultural artifact. Pearce (1992) explained that objects saved as material culture can acquire a history all their own, and some are more special than others because humans decide so. Earlier, Pearce (1990) wrote that artifacts from long ago preserved in museum displays have “a quality which moves and excite[s] us” (p. 20). In the museum business, she wrote, that “quality” is called “the power of the real thing” (p. 20). According to Kammen (1986), to study local history is to consider the “political, social...economic...and religious and intellectual history, too” of a geographic region (p. 5). Green (1940) also urged anyone studying local history to “supplement the antiquarian sources with a great variety of other materials” (p. 280). TV news film from local stations is one of those other materials.

Muller, Feith and Fruin (1898/1968) proclaimed that any archive should be composed only of official documents from a government. The invention of motion pictures provided another means of storing historical information besides written or printed documents. Thomas Edison’s assistant William Dickson (cited in Leab, 1996) wrote in 1894 that “instead of dry and misleading accounts”, motion pictures would enrich archives with “the vitalized pictures of great national scenes” (p. 5). In 1894 paper copies of the images from motion pictures were first

deposited for copyright in the United States Library of Congress (Cooper, 1996). Only since 1935 has the American government considered film, as a record of history, worth saving in the National Archives (McCoy, 1978).

The early 20th century movie business did not believe films were worth saving. Goerke (1912/1996) stated early in the silent film era that movies were considered a disposable commodity. In 1912 he wrote that “they are briefly on screen and then disappear. ...In most cases...the film cannot be found, the negatives may be lost. ...And why? Because new subjects are already in the marketplace” (p. 9). Also, the nitrate film stock used until the early 1950s was flammable and dangerous to store, it was often recycled for its silver content, and some producers would destroy movie prints to avoid pirating (Gracy, 1999). McGreevey and Yeck (1997) estimate that fewer than 10% of all films created between 1894 and 1935 remain.

Television and motion pictures are similar in some ways. Both technologies rely on persistence of vision to create the illusion of a moving image. Abramson charted the parallel developments of the two technologies in *Electronic Motion Pictures* (1955). Some television program production techniques derive from cinematic film techniques. Television’s early program developers realized the medium would have to look like movies to succeed commercially (Barker, 1991). Dorté (1947) used cinematic film terms to explain television’s communication capabilities and its production techniques. Butterfield (1940) also used film terms to describe television’s ability to bring news and events “live” to viewers. He called it “the new newsreel” (p. 197). Bottomore (1998) wrote that “actualities”--films of parades, wars, coronations and natural disasters--thrilled the first motion picture audiences from about 1894 to about 1906. Television news film is similar to those earliest actualities. TV news film reduced

time and space by its ability to play back events that sometimes happened far away from the audience's physical location. Before U.S. television stations showed film of local news and events, movie theater audiences sometimes watched themselves and their community events on the movie screen in local newsreels (McBain & Gomes, 1998). Those local films were usually actualities with no narration and no title cards. McBain and Gomes (1998) write that few of those local newsreels remain. Mould (1984) explained that the earliest television news film was a direct descendant of the theatrical newsreel in style and substance, and deserved much of the same criticism given to newsreels.

There was no tradition of film preservation when a new genre of motion picture recording, the television news film, came into being in the late 1940s. Not until the late 1970s did Hollywood producers realize more profit could be generated if their cinematic films were preserved for second theatrical releases and television distribution (McGreevey & Yeck, 1997). But there was no such profit to be made off 16 mm TV news film. Davidson (2002), writing about the early days of local television, stated "there were doubts and questions about television's value in the scheme of things" and that local television news film at that time "was seen as ephemeral and not important enough to save" (¶ 5). Edward Lentz, an archivist with the Ohio Historical Society and cited in Zimmerman (1979), stated near the end of the TV news film era that television station management did not see themselves as keepers of archives. Sherman and Benjamin (1997), promoting television news film preservation, also noted that television news film was a recording of history filtered through the editorial decisions of the camera operator and the film editor. Murray (1999) wrote that broadcast archives are not trusted by

traditional historians and that “distortion of facts has occurred within the media, on occasion, for the sake of dramatic effect and profit” (p. 9).

Shortly after 16 mm film was replaced by portable videotape for recording TV news field footage, a preservation movement began to emerge to save what was left of the news film. Literature on television news film began to appear at about the same time. Swerdlow (1979) wrote that TV news film archives were a resource for both valuable and frivolous historical research. He noted TV news film was being saved “haphazardly by individual stations and archives” (p. 8). Kula (1981) wrote that archivists around the world were running out of space due in part to the amount of “actualities” produced, and that the archivists faced difficult decisions about what to save. According to De Stefano (2003) libraries that contain moving image archives face a number of challenges that include: maintenance of playback equipment for obsolete formats such as film, adequate storage space, and staff trained in the proper preservation techniques. Johansen (2002) also considered issues of adequate space, difficult choices of what to save and what to discard, and ensuring the archival material is accessible to the public.

Surveys have been conducted to compile lists of moving image archives in the U.S. These surveys have been published and include the amount or number of films or videotapes in a collection, its physical location, the condition of the archived materials and who is allowed access to the materials. Callenbach’s (1962) survey named major repositories of cinematic film such as the Museum of Modern Art, the Library of Congress and the Eastman House as “resources for scholarship” (p. 34). Callenbach (1962) commented that “...our major university libraries are the envy of the world. Our film archives, by comparison, are less than stepchildren” (p. 34). Schwartz (1973) reported on a survey conducted by the National Television Library at

the University of California (Los Angeles), to learn which colleges and universities were saving television programming for scholarly research. The response rate was 70% from 174 mailed surveys. Thirty-four institutions had saved varying numbers of TV programs. Their access policies for scholars and the public varied.

A 1981 listing of mainly network news film and program archives also had a “partial list” of local television news film collections donated to universities or historical societies. “Television news resources...” (1981) listed eleven sources for TV news film. The survey method used to identify those sources was not mentioned.

Gong (1987) surveyed public archives on their film and videotape holdings for the Film and Television Archives Advisory Committee. The United States Postal Service-mailed survey was intended to be the “first in a series of ongoing efforts to determine storage conditions” in the field of video and film preservation (p. 127). Television stations were excluded. The survey asked for news film, news video tape, cinematic films and television programming amounts in number of feet for film and number of tapes for video. Results from a total of 31 organizations were published. A majority of those organizations reported their archives kept materials at a non-optimal temperature and relative humidity. Gong (1987) concluded storage conditions for film and videotape at public archives “can best be characterized as substandard and inadequate” (p. 134).

Vogel (1986) conducted a phone survey of the 107 oldest U.S. television stations to learn which still held their 16 mm TV news film. The telephone survey was conducted for the National Center for Film and Video Preservation at the American Film Institute. A total of 69 stations reported having at least one year’s worth of news film left. Vogel (1986) did not report exact

dates for oldest and most recent film. Stations were asked to report “the range of years covered by the station’s news film collection” (p. 2). The average number of year’s worth of film reported by the stations in Vogel’s study was 14.4. Table 1 shows Vogel’s results.

Stations in the Vogel (1986) study reported their news archives were most complete for the period 1976-1985. However, stations included videotape for those years. Only eight stations reported any film amounts, and Vogel stated he was skeptical of those results. Asked for their indexing methods, 84% of respondents reported using a date index to find film. Nearly half--45%--reported their film was indexed on a computer. Only 21% of the stations reported they made their news film available to outside users.

Prelinger and Hoffnar (1989) listed approximately one dozen U.S. television stations holding news film, among thousands of companies and organizations, in a collection guide for stock footage. Prelinger and Hoffnar (1989) claimed the guide was the result of the first “systematic survey of North American film and video sources” (p. A-7). Their survey method was a combination of questionnaires, telephone interviews and personal visits.

In 2001 and 2002 the ad-hoc Local Television Task Force of the Association of Moving Image Archivists conducted a survey of U.S. television stations. The survey was part of a project to raise awareness of “the urgency to preserve local television among industry leaders” (Cariani & Wilson, 2004, ¶ 6) and to create a “database of local television collections” (¶ 7). The survey method used the United States Postal Service, e-mails linking to a survey on a website, and convenience samplings of attendants at two conventions. The survey instrument had two questions: “Do you or have you produced television programming primarily intended for local use?” and “Do you have in your possession (sic) television programming primarily intended for

local use?" (Local Television Project Survey, 2001) A total of 373 television stations, historical societies, universities and production companies responded. Only six U.S. television stations reported they still had TV news film. The survey results were not published.

Method

Participants

The present study replicated some methods used by Gong (1987) and Vogel (1986). The survey population was 630 commercial broadcast television stations operating on a regular schedule in the U.S, 523 more than Vogel's (1986) survey population. Any commercial station that signed on before January 1, 1977 was eligible for inclusion, with the exception of stations listed as commercial "satellite" stations, "pay TV authorization", "subscription TV", stations with all religious programming or commercial stations which gave no sign-on date. Eligible stations were identified by their sign-on date given in the 1981 *Broadcasting & Cable Yearbook* (Taishoff, 1981), the earliest edition available from the publisher. January 1, 1977 was chosen for a cutoff date because numerous electronics manufacturers were selling portable videotape systems for gathering field footage by 1974 (Abramson, 2003). A portable video camera intended to match film camera performance and that required no backpack processing unit, the RCA TK-76, was introduced in July 1975 and experienced a surge in sales in 1976 (Abramson, 2003; Inglis, 1990).

Call letters and addresses of stations were updated using the *Broadcasting & Cable Yearbook 2007* (2006). Three commercial stations on the air before January 1, 1977 were removed from the survey population because they had gone out of business. Other stations were

removed from the survey population because they had erratic broadcast histories in which they were off the air for many years at a time, as indicated in their histories published on the internet.

Station entries in the *Broadcasting & Cable Yearbook 2007* (2006) were used to identify survey recipients. Chief Engineers or station employees with comparable titles such as Director of Engineering were the 'first choice' to receive surveys. They are most often responsible for facilities management and information technologies at broadcast stations (Murray, 1999). If no chief engineer was listed, the Operations Manager was designated to receive the survey. Operations Managers or employees with comparable titles such as Operations Director can also be responsible for management of broadcast facilities (Murray, 1999). If there was no listing for either, a telephone call was made to that station to obtain the chief engineer's name.

Survey instrument

The survey consisted of 21 close-, open-, combination close-ended open-ended and ordered answer choice questions (Dillman, 1978). The survey was printed on the front and back of three sheets of 8 ½" x 11" paper stapled together (see Appendix C). Results relied on self-reported data from the person filling out the survey. Though the surveys were mailed to chief engineers or operations managers, recipients were instructed on the survey to give it to another person in the station for completion if they believed that another person was better suited to complete the survey.

Question 2 on the survey operationalized research question 1, "which U.S. broadcast television stations report currently having collections of 16 mm television news film?" This question was a combination close-ended and open-ended format. The respondent was asked to report the number of archived news tapes and 16 mm news film boxes or film canisters stored at

the station. Eleven formats could be chosen –3/4” video tape, 16 mm film, beta video tape, etc.– and/or an open-ended option for “other”. The station was designated as having 16 mm TV news film if the respondent entered any amount of boxes or canisters or reels of film, or an amount in footage of film, or span of years, or placed an “X” or check mark in the space next to “16 mm film” in question 2.

Question 15 on the survey operationalized research question 2, “What do U.S. broadcast television stations report is the time period covered by their archival news film collection?” The question asked the respondent to record the earliest and latest date seen on boxes of film stored in their building.

Questions 17 and 18 operationalized research question 3, “What do U.S. television stations report is the physical condition of the oldest film in their collection?” These two questions asked the respondent to test for the presence of the “vinegar syndrome” in the film by using two basic indicators. Both questions used close-ended “yes-or-no” formats. Question 17 asked the respondent if he or she could detect a vinegar odor by their sense of smell when opening a box or canister of the oldest film in the collection. Question 18 asked the respondent to handle the oldest film in the collection in an attempt to detect the degree to which it has become brittle. Either of these two conditions can be an indication of the “vinegar syndrome” setting in (Reilly, 1993).

Procedure

A total of 631 surveys were mailed on May 12, 2007. Dillman’s (1978) “total design method” was followed for most of the survey mailing process. Each envelope mailed contained a cover letter, a survey and a postage-paid envelope addressed to the Communication Department

at the Rochester Institute of Technology for return of the survey. Each survey had an Arabic numeral written in red ink in the upper right hand corner. These numbers, 1 through 631, corresponded to that station's entry in a spreadsheet.

Postcards reminding recipients to complete the survey were mailed on May 18, 2007. Approximately 560 more surveys with cover letters and return envelopes were mailed on June 3 to recipients who had not returned completed surveys. The third and final mailing did not follow Dillman's method. Instead, approximately 20 envelopes containing a survey, a cover letter and a postage-paid return envelope were mailed to the researcher's friends and acquaintances at television stations across the United States. August 31, 2007 was the deadline for stations to return surveys.

Results and Discussion

A total of 166 surveys were returned. One survey was disqualified because, it was later learned, the station signed on after January 1, 1977. Four stations responded in emails. The rest were mailed back to R.I.T. for a total of 165 surveys, and a response rate of 26%.

In this report, first the research questions will be answered. Then results of other survey questions will be presented, followed by a discussion of those results.

RQ1: Which U.S. broadcast television stations report having collections of 16 mm television news film? Twenty-five percent, or 41 stations surveyed, report having some 16 mm TV news film in their building. The amount of film reported varied from as little as 2 reels to as many as 10,000. A list of stations that reported currently having film is in appendix A.

RQ2: What do U.S. broadcast television stations report is the time period covered by their archival news film collection? The longest time period covered by any collection is 30

years. That was reported by three stations. The shortest span reported was “1980s”, from a station that had five reels of film. The earliest date reported was August 1947. The latest date reported was 1985. The mean span of years covered by a film collection was 19. The median year among the film collections was 1966.

Not every station reporting film answered this question. Thirteen respondents left it blank, wrote question marks in the spaces provided or wrote vague responses that did not indicate a span of years.

RQ3: What do U.S. television stations report is the physical condition of the oldest film in their collection? Nine stations with film reported their oldest film has a vinegar odor. Fourteen reported their oldest film feels brittle. Five stations reported both conditions in their oldest film. Out of a total of 41 stations with film, 18 stations—44%--have film that shows symptoms of the “vinegar syndrome”.

Which U.S. TV stations still have film, which do not, and why

Our survey population of U.S. television stations was divided into three categories of market size: large, medium and small. The market size, or rank, is based on the number of television households in a geographic area designated by the Nielsen Market Research firm (Nielsen Market Research, 2007). Markets 1-60 are “large”, markets 61-125 are “medium”, and markets 126-210 are “small” (Elliot, personal correspondence, 2007). Stations were divided into market size categories after the surveys were returned only for a comparative analysis of survey responses. Table 2 shows the breakdown of respondents by market size.

Table 3 shows the number of film collections by market rankings. Stations in small markets typically have smaller staffs and fewer resources than those in medium and large

markets (Stephens, 1993). That may be one reason for the small number of film collections reported from small market stations that returned a survey. Three of those small market stations reported small film collections of just 100 or a few hundred reels. One reported only 2 reels. WWNY in Watertown, NY reported 2,000 reels.

Two survey questions elicited information on the size and span of a station's 16 mm TV news film collection. Question 2 used a combination close-ended and open-ended format. It asked the respondent to state the amount stored in the station, in numbers of boxes of tape or film, of 1-inch video tape, 2-inch video tape, 3/4-inch videotape, 16 mm film, 35 mm film, SVHS (super VHS), Hi8 video tape, MII video tape, Beta video tape, Beta SP video tape and digital video tape. The respondent also had the opportunity to specify "other" formats and the amount of those formats in numbers of boxes of tapes or bytes in a separate space. The amount of 16 mm film reported is relevant to the present study; responses provided for the other formats is discussed in appendix B.

Question 15 used an open-ended format. It asked the respondent to write down the earliest and latest dates found in the film collection, either on the film boxes, canisters or the reels themselves. Responses given for the amount of 16 mm TV news film boxes, canisters or reels were quite varied, and not just in terms of amounts. Some stations used only an "x" or a checkmark to indicate the station stored that format. Rather than provide an exact number, some respondents wrote down "lots" or "100s". WCAX in Burlington, VT reported "150-200 hours" of film, rather than provide a box count. KFMB in San Diego, CA wrote "too many to count". Because there were so many vague responses given for the amount of TV news film, a mean amount of boxes or reels of film can not be determined. However, 68% of the stations reporting

news film in this study provided some amount. In contrast, only 12% of the stations responding to Vogel's (1986) survey reported amounts of news film.

Nearly one-third of the collections reach back to at least the 1950s, with two collections reaching back to the late 1940s: at KXAS in Fort Worth and at a large city in eastern Missouri, which would be the start of commercial television in those cities. The mean year for an end date on collections is 1978, a figure derived from 28 stations which reported a firm end date.

In his survey of the first 107 stations to sign on in the U.S., Vogel (1986) took into consideration only the span of years that each station had in its news film collection. Gong (1987) reported his survey results in total film footage only. Combining the span of years a collection covers with the number of boxes in that collection can give us a better picture of the robustness (or fragility) of any given collection. Using both criteria also gives an indication of how much of the collection remains intact from the time it was created. For example, two stations in the present study reported collections of 100 reels, spanning about two decades or about five reels a year. What is not known is the dispersion of news film across the years in those limited collections. In contrast, the film collection reported at WCMH in Columbus, OH, for example, is 2,000 reels spanning 1967 to 1977. That would be an average 500 reels a year—more than one for each day. The largest collection reported in the survey—10,000 reels (likely a guess at an estimate)—covers 30 years, for an average 333 reels a year.

The Vogel survey did not ask stations to report when color film first appeared in their collections. About half of the stations that returned surveys in the present study report that all their film is color, or gave the year in which color film first appeared in their collections. The earliest color TV news film stored in our responding stations is from 1965, in four different

collections. The latest date provided for first appearance of color film in a collection was 1975. Six collections were reported to be all color film; the farthest back any of those collections reached was 1968.

Hearsay or anecdotal information has often been used to explain the disappearance of TV news film collections from local stations (Bashin, 1985; Murphy, 1997a; Newberg, 2004; Swerdlow, 1979). Respondents in the present study were asked to explain why their news film is gone. The most frequently reported reasons were that the film was thrown out or destroyed. Table 4 displays results from respondents who gave a reason for what happened to their station's news film. Some stations reported a combination of circumstances: that they transferred some or all of their 16 mm TV news film to videotape, then threw it out or destroyed the film; that they transferred their film to tape, and still kept some of the film; or transferred some, threw out some, and donated some film to a college, university or a historical society. Of the 165 stations that returned surveys 30, or 18%, reported they never used film to gather local field footage.

Reasons given for having no film were numerous and varied. Some respondents gave just a one or two word response: "destroyed" and "tossed" were common responses. Respondents at six stations wrote that the film was thrown out or destroyed when they moved to new facilities. Examples of other written responses include: "all film either sold to private collectors or disposed" (WICZ, Binghamton, NY); "16 mm was thrown away in the landfill while our film director was on vacation in 1972" (a northern NY station); "WBRE-TV [Scranton, PA] lost all film archive in the flood of '72"; and a large North Carolina station's chief engineer wrote their film was "thrown out and thus destroyed by stupid former employee."

Throwing out or destroying a station's TV news film collection was reported proportionately higher by the small market stations in this study. Small market stations also reported the lowest frequency of donated film collections, as shown in table 5. The options for a station in a small market willing to donate its film may be fewer than in a medium or a large market. Institutions in small markets that could take on collections of a TV station's news film may not have as much space or as many resources to handle a donated film collection, compared to those in medium or large markets. That could account for the small number of small market stations that reported donating their film collection.

A previously unreported form of preservation was revealed in this study: transferring film to videotape or DVD. Twelve percent of stations returning surveys transferred their 16 mm TV news film to tape or DVD. A small number of those stations also still retain the film. Stations reporting transferred or donated news film collections account for 33% of the respondents. This should be good news to historians, media producers and the communities which these stations serve: The celluloid is gone, but the images remain on video tape. This survey instrument did not ask respondents how much was donated or transferred to tape. Nor did the survey ask why a station donated its film to an institution.

As table 6 shows, respondents at the small market stations were least likely to know what happened to their stations film, if it was no longer in the building. Small market stations most frequently reported no knowledge of their news film collection's fate. Because employee turnover in the small markets is typically higher, this could result in a lack of "institutional memory". As with an oral history that is *not* passed along, details of what happened to the film 20 or 30 years ago may be lost when the employees with that knowledge are also long gone from

the station. It is possible that, in cases where no one knows what happened to the film, it was thrown out or destroyed.

Storage, access and use of 16 mm TV news film

The survey of U.S. television stations was an opportunity to learn how stations that still have news film store and access it, and how often they air it.

Respondents were asked to choose or describe how their stations film was stored. The choices were “show reels—daily news stories edited together on one reel for a whole program or day”, “individual stories, not edited together”, “I cannot tell if it falls into either of those categories” and “I do not know”. Respondents were instructed to choose as many options as applied. Table 7 shows the results. The fact that “show reels” was reported most frequently mirrors the common practice in the age of TV news film. Typically each film story was edited separately, then all stories were spliced together in the proper order for a broadcast onto one reel, a “show reel”. The reel was then started and stopped on the projector as needed for the broadcast.

Three stations used the open-ended response option in this question. They each described their storage method as “mess”, “helter skelter” and “random, with no system”.

There were many indexing methods reported for film collections. Question 9 asked how anyone would locate a certain reel or segment of film. Results are listed in table 8. It is noteworthy that 12 stations reported locating film by the date or slug on the box, according to a script. This would indicate that at least those 12 stations still have news scripts going back to the film era. An accompanying script can be considered a decoding system for TV news film. Possessing not just the film but the script that was written for it gives a broadcast context to that particular film segment, if the complete script is intact. A narration script could help to explain

why the film was shot and edited the way it was. As well, the script itself is another record of local history. The oldest scripts reported in these survey results could be at KXAS in Fort Worth, whose collection dates to 1948. The number of stations reporting a film index on a computer is down by about one-third from Vogel's (1986) response of 45%.

The survey asked respondents to state who is charged with maintaining the film collection. This was a combination close-ended and open-ended question. The respondent could choose between "one person" and "more than one person". If it was one person, the individual's title was requested. If it was more than one person, the name of their department was requested.

Answers varied widely. If the film collection maintenance was up to just one person, "no one" was the most common response. Only two stations gave titles that inferred their film collection caretakers had some degree of expertise in archiving or record keeping. KFMB in San Diego reported a "Custodian of Records" for its film collection, and KEZI in Eugene, OR reported an archivist in charge of its 300-reel collection. The other job titles reported are as varied as the personnel roster of any TV station: chief engineer, news director, assistant news director, assignment manager, production manager, chief editor, chief photographer and special projects reporter.

For stations reporting a group of people in charge of film collection maintenance, 10 stations designated the news department. Two stations again reported "no one". One station each reported "news and promotion", "news and production", "news and operations" and "photography staff".

The survey asked respondents in two questions if their station has equipment that would play back 16 mm news film either directly on-air or transfer it to another format and, if so, does

that equipment work. Results are shown in table 9. Less than half the stations reporting film collections have playback systems, working or not. That could contribute to the fact that so few stations report airing the film more than “about once or twice a year”. Less than half of the stations with film collections answered the questions about film playback capabilities.

Using a close-ended question with ordered answers, respondents were asked how often their station uses film in local broadcasts. Results in table 10 indicate film is not used much at all in locally produced programs. Differences in use across market sizes were slight. There was also little difference in frequency of use between stations that do and do not have working film playback systems. Two stations reported “don’t know”, and two stations did not respond.

Film that was transferred to tape or DVD also is not used often. Eight of 11 stations that transferred their film to tape or DVD, or donated it to an institution, reported airing it “rarely/never” or “once or twice a year”. Stations were not asked on the survey why they do or do not air the film.

Many stations with film do not share it. The survey asked respondents if their station re-licenses their film to individuals, groups or companies outside their station. Out of 40 answers, 44% of the stations surveyed reported they do not re-license their film, 29% reported they do, and 20% reported they do not know if they do. A majority of large market stations re-license their film. No small market stations reported they re-license their film. Respondents were not asked to explain on the survey *why* their station does not re-license film footage.

Generally if a station re-licenses any archive there has to be a written policy for granting rights (Rabin, 1997). It could be that the small-market stations that returned surveys have not developed these policies. It could be there is no one in the station designated to find the

requested film and make a copy. The same could be true of *any* station which does not re-license its film.

TV news film storage space attributes

Storage conditions determine how long 16 mm film will last. The 16 mm stock in U.S. television stations is composed of either a cellulose triacetate or polyester base. Polyester-based film is much more stable than cellulose triacetate. It was predicted to last for hundreds of years (Adelstein & McCrea, 1981). But cellulose triacetate, or “acetate” as an abbreviation, has been determined to be impermanent and prone to inevitable decomposition. Edge, Allen, Jewitt, Appleyard and Horie (1988) describe the “vinegar syndrome” as “the release of acetic acid from the film base and plasticized deposits on the film surface”, which can result in loss of the image from the film (p. 199). The best storage condition for cellulose acetate film is an atmosphere of 40° F and 40% relative humidity (Reilly, 1993).

Bigourdan (2006) updated the initial research of the 1980s. Using “accelerated aging” tests, the study detailed how cellulose acetate film stored at room conditions of 20°C and 50% relative humidity could show at least a doubling in acidity over 50 years. Lab data suggest 40-year-old acetate stock could be falling apart now (Bigourdan, 2006). Once begun, the vinegar syndrome can be slowed down, but not reversed (Reilly, 1993). Eighteen stations, or 44% of the stations in this study that have 16 mm TV news film, also report that their oldest film shows one or both symptoms of the vinegar syndrome.

In the current study, TV station respondents were asked four questions to describe the storage areas where their film is kept. The present study duplicated some of Gong’s (1987) methods for determining film storage space. The new questions were adapted from a draft Image

Permanence Institute survey of storage conditions for photographs at U.S. national parks (HFC Media Assets Group, 2007).

More than half the stations returning surveys—54%—report storing all or some film in a room separate from videotape archives, and 30 stations—or 75%—report that those storage rooms for film do not have separate temperature controls.

Stations were asked to describe the temperature of their film storage space from among four choices: “room (around 68°)”, “cool (around 54°)”, “cold (around 40°)”, or “frozen (around 32°)”. Results are shown in table 11. No stations chose “cold” or “frozen”. Other storage room temperatures written in by respondents are included in table 11. KAUZ in Wichita Falls, TX reported the extremes of sub-zero to desert-like temperatures, and both symptoms of the vinegar syndrome present in their attic-stored film. Film at the station that reported “10-15 degrees warmer than outside” could be in a virtual sauna sometimes, since that station is in North Carolina. The respondent there reported no vinegar odor, and did not respond to the embrittlement question. Two stations gave no response to the storage room temperature question.

Stations were asked if their film storage space has separate relative humidity controls. Only two stations chose “yes”: KFMB in San Diego, CA and WCAX in Burlington, VT. Only WCAX could report the winter and summer RH values, both 50%. Both stations also store their film separate from video tape archives in cool (54°) conditions and report no film embrittlement. KFMB reported a vinegar odor in its oldest film.

Table 12 shows the prevalence of embrittlement in the oldest film of the other 39 stations, divided by reported storage area temperatures. Among the stations reporting brittle film stored at room temperature or in cool conditions, the oldest film is from the 1940s and the newest film is

from 1964. Two stations did not provide either a storage area temperature or respond to the question regarding embrittlement.

Table 13 shows the prevalence of a vinegar odor in the oldest film, at stations that do not have separate RH control for their film storage area. A vinegar odor is not as prevalent as embrittlement in room temperature film stored by stations returning surveys in this study. One station did not respond to the questions on film storage area temperature, vinegar odor or embrittlement.

Tables 12 and 13 show nominal data gathered from individuals un-trained in cellulose acetate degradation research. There was no experiment to test any hypothesis suggesting any relationship between these station's film storage conditions and any degree or prevalence of vinegar syndrome in their film. This information goes beyond Gong's (1987) survey, because it was collected from television stations. Gong's study excluded television stations.

Conclusions

According to responses reported here, most stations in this study do not have their 16 mm TV news film. The reasons reported for *not* having film are much more varied than the literature has traditionally stated—that TV stations only threw out or donated their film. Small-market TV stations had the smallest number of film collections, and they most frequently reported they had no knowledge of what happened to their film.

Of the stations in the study that do still have film—25% of the respondents--most use it no more than once or twice a year. The size of a collection can range from two reels to 10,000; a few collections contain film that is about 60 years old. Nearly half of the film at these stations is showing signs of irreversible decay. Some stations have not designated any one to look after

their film, and only 5% indicate their collection is under the care of someone who might have record-keeping or archival experience. Working film playback systems are not very common. And if a media producer, researcher or historian were to contact any of the stations in this study that still have their film, and ask to use some of it in a movie or TV show, he or she stands half a chance of receiving “no” for an answer.

Many television stations with film collections in this study store it in a common fashion: in a room separate from their videotape, at room temperature or a little cooler, without a separate control for relative humidity.

Some of the collections are quite robust, and they exist in TV markets of all sizes across the U.S. It is encouraging news that some local TV news film collections were saved to tape and DVD.

Study Limitations

The survey relied on self-reported information by non-experts. For example, ‘film’ is in the lexicon as a noun and verb that refers to the act of recording *any* moving pictures, whether on celluloid or videotape (Laird, 1974). Follow-up telephone calls made to two stations revealed the respondents answered most of their survey questions based on *videotape*, not film, stored in their buildings. There was no “control check” built into the survey (Reinard, 2003).

The survey instrument could have been more finely tuned. Instructions could have been written in such a way as to elicit more information from respondents. Not all of Dillman’s (1978) ‘total design method’ was followed, because of funding limitations. The United States Postal Service delivered the survey instruments, and some may have been thrown away unopened as

junk mail. There was no incentive offered the recipient to participate. The response rate was 26%, considered relatively low.

Opportunities for Future Research

This survey instrument could be adapted for telephone interviews with TV station personnel to increase the response rate and improve the robustness and validity of the data. An attempt could be made to reach Vogel's (1986) survey population of the first 107 TV stations by telephone, duplicating his method, to compare changes in film collections in just that population.

Stations which reported that they transferred their film to tape could be re-surveyed to learn how much was transferred.

Generally, more granular details could be asked of stations. For example: *Why* does a station keep only 100 reels of film, with no film projector and no re-licensing policy? When a segment of film is used, in what context does it appear? Is it used in commercials, or for a regular weekly feature? Though the survey responses in some cases indicate *what* happened to film when it was removed from a station, the survey did not ask for a description of the reason that led to the removal of the film.

Twenty-three stations that reported film collections also indicated they would participate in a vinegar syndrome test of their film using A-D test strips. The test strips would be mailed to those stations. The test strips are left in a box or can of film overnight. The resulting color of the strip is then compared to a color scale. This will give a more scientific measurement of vinegar syndrome "infection" than a sniff or tactile test.

This was the first study to gather this much detail about a film genre that was an integral part of the "golden age" of television. The intent of this study was not just to answer research

questions but to revive interest in a seldom-studied area of communication history. TV news film is a moving image record of the U.S. and its communities when the nation was at its post-war industrial apex. TV news film is unique in that it can show us how each region and community experienced that era. Each city, town and village is different – just like each reel of TV news film, and Weiss (Television and Video Preservation 1997, 1997) argued that preserving “material from small markets and non-national creators is important if we are to have a sense of ourselves as a multi-faceted society” (p. 84). But, according to the stations that responded to this survey, much of this information resource has been destroyed or is in a landfill. And according to the stations reporting in this study, much of what remains is not accessible to anyone because of a lack of local playback equipment or licensing policies. Nature may rule even more of it inaccessible soon, because of the vinegar syndrome. Preserving this film will become increasingly expensive in coming years; if that effort and expenditure is to be worthwhile, TV news film’s keepers must ensure *access* to these images. Then the film can “earn its keep”, by communicating the past to the present. Meyerson (Television and Video Preservation 1997, 1997) stated in hearings before the Library of Congress that “preservation without access is nothing” (p. 103).

Recommendations

Time is running out for what Callenbach (1962) called our “resources of scholarship” (p. 34). Academia can take a leading role in preserving some collections. Colleges and universities would gain one-of-a-kind sources of community and broadcasting history, and perform a public service by ensuring the collections remain accessible to the public and to researchers. There are many successful models for institutional preservation of TV news film across the U.S. *Local*

Television: A Guide to Saving Our Heritage (Carter, et al., 2004) is intended for television stations that want to donate their film and videotape. *Local Television* includes case studies of television stations that donated their news film collections to local organizations and institutions. *Local Television* is available from the Association of Moving Image Archivists in Hollywood, CA and the National Academy of Television Arts and Sciences in New York City. *The Administration of Television Newsfilm and Videotape Collections: A Curatorial Manual* (1997) aims to aid institutions that have taken custody of film from a television station.

The AMIA, NATAS and American Film Institute would be wise to renew awareness of the value of TV news film collections within the broadcasting community. This could be done at conventions for the National Association of Broadcasters and the Radio/Television News Directors Association, through direct mailings, etc. Station management might be reluctant to reveal what copyrighted material is in their possession (Prelinger & Hoffnar, 1989), so education by AMIA, NATAS, etc. for these stations on re-licensing and copyright issues would be practical. In a time of declining ratings and revenue for most stations, what might be most palatable to station management is a model for re-purposing the old film *that makes money*. At least one U.S. station has attempted such, using TV news film for an hour-long special (*When the stars came out*, 2004). Donating their film collection may represent a tax write-off, and create an image of the station as a beneficent caretaker of the community heritage.

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Appendix A

U.S. TV Stations Reporting TV News Film Collections

Stations (n = 41)					
Call Letters ^a	Market	# of reels or boxes of film	Oldest Film	Newest Film	First Year of Color Film
Anon.	Alabama	NR	NR	NR	Can't tell
Anon.	N. CA	100+	1955	1975	Can't tell
KFMB	San Diego, CA	"too many to count"	1952	1973-74	1965-66
Anon.	Georgia	5	1980s	NR	NR
KGMB	Honolulu, HI	702	NR	NR	Can't tell
Anon.	Idaho	200	?	Aug. 1979	Can't tell
Anon.	Idaho	108	1970	1978	Can't tell
Anon.	Illinois	NR	1970	1981	All color
WBBM	Chicago, IL	NR	NR	1974	NR
Anon.	Indiana	NR	some 60s	70s-80s	Can't tell
Anon.	Indiana	150	1980	1985	All color
KCCI	Des Moines, IA	315	Oct. 1973	Oct. 1979	All Color

U.S. TV Stations Reporting TV News Film Collections (cont'd)

Call Letters	Market	# of reels or boxes of film	Oldest Film	Newest Film	First Year of Color Film
WHAS	Louisville, KY	7,413	Feb. 10, 1950	August 16, 1980	Can't tell
WPSD	Paducah, KY	10	Spring, 1958	Fall, 1976	1969
Anon.	Central MA	200+	1959	1976	1967
WWMT	Kalamazoo, MI	500	1958	1979	Can't tell
Anon.	Michigan	10	NR	NR	NR
Anon.	Missouri	10,000	August, 1947	May, 1977	1965
KTVQ	Billings, MT	300	1964	February, 1981	1965
WRGB	Schenectady, NY	100s	Early 1950s	1980	Can't tell
Anon.	Eastern NY	NR	1960	1979	Can't tell
WHEC	Rochester, NY	1,500	May 21, 1968	April 2, 1977	All color

U.S. TV Stations Reporting TV News Film Collections (cont'd)

Call Letters	Market	# of reels or boxes of film	Oldest Film	Newest Film	First Year of Color Film
WHAM	Rochester, NY	50	1965	1975	Can't tell
WROC	Rochester, NY	8,812	January 1, 1962	August 31, 1977	1966
Anon.	Central NY	500+	1970	1976	All color
WWNY	Watertown, NY	2,000	1961	1979	1968
Anon.	N. Carolina	100	NR	NR	Can't tell
KMOT	Minot, ND	2	NR	NR	NR
WCMH	Columbus, OH	2,000	1967	1977	Can't tell
Anon.	Eastern OH	100+	1954	1977	Can't tell
KJRH	Tulsa, OK	"few"	NR	NR	All color
KEZI	Eugene, OR	300	1960	1981	1975
WTAE	Pittsburgh, PA	NR	Late 1950s	Late 1970s	Can't tell

U.S. TV Stations Reporting TV News Film Collections (cont'd)

Call Letters	Market	# of reels or boxes of film	Oldest Film	Newest Film	First Year of Color Film
WYOU	Scranton, PA	5,000+	1954	August 12, 1984	1968
KELO	Sioux Falls, SD	500	1955	1979	Can't tell
WATE	Knoxville, TN	"lots"	NR	NR	Can't tell
KXAS	Fort Worth, TX	7,000	1948	1977	1965
Anon.	Texas	3,000	1960	1977	Can't tell
KAUZ	Wichita Falls, TX	NR	NR	NR	NR
WCAX	Burlington, VT	150-200 hours	Late 1950s	Late 1970s	1976
Anon.	Virginia	30	NR	NR	NR

^a Some stations requested anonymity. Their region or state is given in place of their Nielsen market.

Appendix B

Visual image storage format data

While the present study focused on amounts of 16 mm TV news film reported by U.S. television stations, data was also gathered on other visual image storage formats. Question 2 on the survey instrument asked respondents to state the amount of each film and videotape format stored in their station.

Though 16 mm was the standard film gauge for TV news field footage (Kodak, 1972), 35 mm was also used in television's early days (Lewis, 1997). WTAE in Pittsburgh and KAUZ in Wichita Falls, TX were the only stations to state outright in their survey responses that they still have 35 mm film. WBBM in Chicago, in an email response, inferred the presence of 35 mm film, when the VP of broadcast operations & engineering wrote "we have everything from 16 mm to XDCAM HD" (personal correspondence, 2007). Whether or not any of the 35 mm at these three stations is news film is not known.

The analog tape format reported most, by 68% of the stations, was ¾" videotape. Some ¾" tape amounts reported were extraordinary. The director of broadcast operations at KCNC in Denver and the editor & media facilitator at WNYT in Albany, NY both reported 7,000 boxes of ¾" tape. The same eastern Missouri station which reported the most film—10,000 boxes—also reported 8,000 boxes of ¾" tape. The director of engineering at WSYX in Columbus, OH reported 20,000 boxes of ¾" tape. The next most popular tape format was beta SP, reported by 47% of the stations. Forty-eight stations, 29 % of those returning surveys, reported beta tapes in their archives.

Only 11 stations reported storing any 2" videotape. One New York City station reported possessing 100 reels of 2" videotape.

A number of digital storage formats were reported, most frequently DVC Pro, Beta SX and DVDs. One station had amassed 7,000 DVC Pro tapes; another reported "1,000s of DVDs". The other formats reported were DAT, Sony XD Cam, SAIT 3 data tapes, SDLT, LT03, JVC D9, Blu Ray DVDs and hard drive data storage.

Appendix C

SURVEY INSTRUMENT

R·I·T**THE AMERICAN TV NEWS FILM SURVEY****ROCHESTER INSTITUTE OF TECHNOLOGY
ROCHESTER, NY**

Thank you for taking the time to complete this survey. You can give it to someone else in the station, if he or she is more familiar with the TV news film archives. Please be sure that person also has the self-addressed, stamped envelope in which to return the completed survey.

We begin with a few general questions about how your station archives news footage.

1. First, which one statement best characterizes your station's local newscast(s) and its use of local field footage? Please place an "X" next to one answer.

___ We produce local newscasts that utilize local field footage

___ We do not produce local news now, but we used to, and we saved the field footage

___ We do not produce local news now, but we used to, and we *did not* save the field footage

___ We have never produced local news, and have no local field footage archive

If your station has NO local news archives, STOP. You don't have to answer any more questions. Please mail the survey back to R.I.T. in the self-addressed stamped envelope provided. Thank you.

2. In the space next to each format, please write the number of tapes, film boxes or film canisters used to store your station's news footage. If your station does not use a format, please write a "0" (zero).

___ 1-inch VT ___ 2-inch VT ___ 3/4" ___ 16 mm film

___ 35 mm film ___ SVHS ___ Hi8 ___ MII

___ Beta ___ Beta SP ___ Digital VT

___ Other(s) (please specify) _____

3. If your station has **no** 16 mm or 35 mm news film in its archives now, *but once did*, we would like to know what happened to it. Please provide details here:

Or you can place an "X" in one of the following choices:

___ Our station never used film to gather local news footage

If you have NO 16 mm film or 35 mm film in your archives, and you answered the first 3 questions, you have finished the survey. Please mail it back to R.I.T. in the self-addressed stamped envelope provided. Thank you.

The remaining survey questions ask about the TV news film in your building: film equipment your station may own, how often the film is used, how the film is stored, and its condition.

4. Next we want to know who is responsible for maintenance of the TV news film archive. Please choose one of the following, and provide details.

___ It is just one person. That person's title is _____.

___ It is more than one person. They work in the following department (s):

5. Does your station still have the equipment necessary to playback 16 mm TV news film that will transfer it to another format, or put it directly on the air? Please place an "X" next to one response only.

___ Yes, we have 16 mm film playback equipment

___ No, we do not have 16 mm film playback equipment

If you answered "no" jump ahead to question no. 7.

6. If your station has 16 mm film playback equipment, is it in working condition?

___ Yes, the 16 mm film playback equipment is in working condition

___ No, the 16 mm film playback equipment is not in working condition

7. Does your station re-license its TV news film to individuals, groups or corporations for their own production purpose? Please place an "X" next to one response only.

___ Yes, we re-license our news film

___ No, we do not re-license our news film

___ I do not know

8. About how often does your station use any of your TV news film in locally produced broadcasts? Please place an "X" next to only one response.

- More than once a week
- About once a week
- About once or twice a month
- About once or twice a year
- Rarely/never
- I do not know

9. How would someone locate a particular segment of film among all the TV news film you have stored in your station? Please place an "X" next to all that apply.

- A computer database
- A card catalog
- Lists on paper
- By the date on the box or reel, according to the script of a broadcast
- By the slug on the box or reel, according to the script of a broadcast
- By the date on the box or the reel only
- By the slug on the box or the reel only
- I do not know
- Other(s) (please specify) _____

The next four questions ask about the space in which the TV news film is stored.

10. Is your TV news film stored in a room separate from videotape archives? Please place an "X" next to "yes" or "no".

- Yes, it is stored in a room separate from videotape archives
- No, it is not stored in a room separate from videotape archives

11. Does your TV news film storage space have its own temperature control? Please place an "X" next to "yes" or "no".

___ Yes, there is a separate temperature control

___ No, there is not a separate temperature control

12. Does your TV news film storage space have its own relative humidity (RH) control? Please place an "X" next to "yes" or "no".

___ Yes, there is RH control

→ **If yes**, please give your average relative humidity readings for:

___ summer months

___ winter months

___ I do not know

___ No, there is no RH control

13. Which best describes the temperature where your TV news film is stored? Please place an "X" next to one answer.

___ Room (around 68°)

___ Cool (around 54°)

___ Cold (around 40°)

___ Frozen (32° or lower)

14. Please choose from the following options to describe how your station's TV news film is stored. Place an "X" next to all that apply.

___ "Show reels"—daily news stories edited together on one reel for a whole program or day

___ Individual news stories, not edited together

___ I cannot tell if it falls in to either of those categories

___ I do not know

___ I can describe the organizational manner of the storage system in this way: (please specify)

Next, to report the time span covered by your station's TV news film, you will need to find the oldest and the newest films.

15. Check the dates that are on the film box or canister. To be accurate please compare the date on the container with the date on the reel itself inside that container. Use the date on the reel, if it differs from that on the box. Write the dates down in the spaces below.

_____ EARLIEST DATE ON A CONTAINER OR REEL OF FILM

_____ LATEST DATE ON A CONTAINER OR REEL OF FILM

16. In what year does color TV news film begin to appear in your archives? Unless "color" or "B & W" are clearly noted on the film box or canister, you will have to take reels out of their containers and examine the footage. Please specify the year, or place an "X" next to another appropriate answer.

_____ (please specify the year)

_____ I cannot tell when our station switched from black and white to color film

_____ I cannot find any color film in our archives

_____ All of the film is color in our archives

The final questions have to do with the physical condition of your TV news film. Research shows cellulose acetate film deterioration can be detected by a vinegar smell and whether the film has become brittle. This could occur to acetate film as little as 40 years old.

17. Open a box or canister of the oldest film in the collection. Do you detect a vinegar odor? Please place an "X" next to "yes" or "no".

_____ Yes, I detect a vinegar odor

_____ No, I do not detect a vinegar odor

Next you will test the “embrittlement” of this same reel of film.

18. Handle the film. Does it no longer flex, as celluloid should? Does it easily shatter with the slightest flexing? Based on those criteria, is there evidence of embrittlement in the oldest film? Please place an “X” next to “yes” or “no”.

Yes, there is evidence of embrittlement

No, I did not find evidence of embrittlement

19. R.I.T. will provide free “test strips” that can measure the degree that your news film has been affected by the “vinegar syndrome”. The paper strips are simply placed in a box or canister of film overnight, and give a color-coded indication of any “vinegar syndrome”. Is your station willing to participate in such a test?

Yes, this station will participate

No, we would not participate

The results of this survey might be published. If that happens, may we publish your call letters with the survey results?

Yes, you may publish our call letters in association with our results.

No, do NOT publish our call letters in association with our results.

Your job title _____
(Your name will NOT appear in ANY results)

Thank you for your time and effort. Please mail the completed survey back in the enclosed envelope.

Copy of Results Requested

Table 1

*Average No. and % of Years of News Film Available in Four
Chronological groups (sic)*

Time periods			
1948-55	1956-65	1966-75	1976-85
Mean # of years of news film			
0.66	1.57	3.75	8.54

Table 2

Survey Response by Market Size

<u>Market Size</u>	<u>Surveys returned</u>	<u>% of total</u>
	Stations (<i>n</i> = 165)	
Large	58	35.2%
Medium	65	39.4%
Small	42	25.5%

Table 3

Stations Reporting Film Collections, by Market Size

<u>Market Size</u>	<u># reporting film</u>	<u>% of total</u>
	Stations (<i>n</i> = 41)	
Large	14	34%
Medium	22	54%
Small	5	12%

Table 4

Reasons Reported for Having No Film

Reason	Frequency	%
	Stations (<i>n</i> = 124)	
Thrown out/destroyed	39	31%
Donated	26	21%
Transferred to tape	15	12%
Don't know	29	23%
Never used film	30	24%

Note: Frequency total is greater than 124, because some stations reported more than one reason.

Table 5

Reasons Given for Having No Film, by Market Size

Reason	Market Size		
	Large	Medium	Small
	% of Stations		
Thrown out/destroyed	24%	23%	29%
Transferred	7%	17%	10%
Donated	22%	22%	7%

Table 6

Stations Reporting "No Known Reason" for Having No Film

	<u>Market Size</u>		
	Large	Medium	Small
	Stations (n = 124)		
stations w/o film	44	43	37
% reporting "don't know"	16%	19%	38%

Table 7

How Film was Stored After a Broadcast

Frequency of		
<u>Storage Format</u>	<u>Response</u>	<u>% of cases</u>
Show Reels	22	59.5%
Individual Stories	15	40.5%
Cant' Tell	5	13.5%
Don't Know	4	10.8%

Note: Total percentage is greater than 100% because respondents could indicate more than one choice.

Table 8

How Would Someone Locate a Segment of Film?

Method	Frequency of response	% of cases
Date on box only	13	31%
Computer Database	12	28.6%
Card Catalog	11	26.2%
Lists on paper	11	26.2%
Date or slug on box, going by script	12	28.5%
Slug on box only	11	26.2%
Don't know	5	11.9%

Note: Total percentage is greater than 100% because respondents could indicate more than one choice.

Table 9

Stations reporting film playback capabilities

Status of playback system	<u>Market Size</u>		
	Large	Medium	Small
	Stations (n = 19)		
Working playback systems	7	7	3
Non-working playback systems	0	2	0

Table 10

Frequency of Film Use in Local Broadcasts

<u>Frequency</u>	<u>Stations (n = 36)</u>
Rarely or never	19
About once or twice a year	12
About once or twice a month	1
About once a week	3
More than once a week	1

Note: KMOT results not used because respondent reported frequency of use for videotape archives.

Table 11

Film Storage Space Temperature

Temperature	Stations ($n = 39$) ^a
Room (around 68°)	29
Cool (around 54°)	6
60°	1
72°	1
10-15° warmer than outside	1
-6° to 150°	1

^a KMOT results were not used because respondent reported videotape storage space temperature. WBBM did not report a film storage space temperature.

Table 12

Prevalence of Brittle Film in Stations With No RH Control

Storage Temperature	Condition of Film		
	Brittle	Not Brittle	NR
	Stations (<i>n</i> = 38)		
Room (around 68°)	7	17	3
Cool (around 54°)	4	2	0
60°	1	0	0
72°	0	1	0
10°-15° warmer than outside	0	0	1
-6° to 150°	1	0	0
NR	0	0	1

Note: Responses from KMOT/Minot, ND were not used because respondent provided videotape, not film, storage conditions.

Table 13

*Prevalence of Film with a Vinegar Odor in Stations With No
RH Control*

Storage Temperature	Condition of Film		
	Vinegar Odor	No Vinegar Odor	NR
	Stations (<i>n</i> = 38)		
Room (around 68°)	4	21	3
Cool (around 54°)	2	3	0
60°	0	1	0
72°	0	1	0
10°-15° warmer than outside	0	1	0
-6° to 150°	1	0	0
NR	0	0	1

Note: Responses from KMOT/Minot, ND were not used because respondent provided videotape, not film, storage conditions.