

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

AN HISTORICAL DOCUMENTARY FILM SCRIPT  
DETAILING THE RESEARCH PROCESS

A thesis submitted in partial satisfaction of the  
requirements for the degree of Master of Arts in

Mass Communications

by

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ABSTRACT

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The documentary film has taken a rightful place as a legitimate form of historical work. One long-practiced form of documentary film is that in which the primary materials used are already-existing film and photographic stills. Compiled, re-filmed and edited in accordance with a written script and narration, such an "archival" documentary film can be a powerful and useful addition to the existing history of any subject.

This thesis details the process and steps by which historical information on a chosen subject is researched, located and selected to illuminate and complement visual material which has gone through the same steps. The result of these efforts, in the case of this thesis, is a script written as a result of the research processes demonstrated.

American aviation history is the chosen subject area of this

thesis, but the research steps are carried out with the intention always of demonstrating how they could be applied to any chosen film subject.

Divided into two basic sections, subject research and materials research, this thesis uses its chosen subject as the example for the application of ordered steps to complete both. Subject research details efforts in books, newspapers and magazines to gather the written material for a script. Materials research follows the same steps through photographic collections and film and newsreel archives for visual material. Particular attention is given to procedures and costs for procuring this visual material should actual production of a film be contemplated.

## INTRODUCTION TO THE PROJECT

Since men and women began recording their history, they have used whatever means and technology available to them for the purpose. And as each new form of technology became available--from soot and red earth on cave walls to images on videotape--it was bent to man's desire for a record of himself, his past and his progress.

With the development of photography in the nineteenth century,<sup>1</sup> a new facet was added to this desire to record history. Now it was possible to record not just an account of an event, but a visual image of it. In the beginnings of photography the images were exclusively of immobile subjects--bridges, buildings and posed portraits--but the potential to record events, or at least the scene or participants, was soon recognized. Mathew Brady, for example, gave the world an account of the Civil War, not with words on paper but with images on photographic emulsion.

With the dawn of the twentieth century there appeared, with the development of motion pictures, perhaps the ultimate technology for capturing a historical event. The event could, for the first time, be viewed again--and again and again--since a permanent record of the event existed, made not by a human witness who would pass on his version, but by a mechanical witness which would pass on the image of the event intact.<sup>2</sup>

This is the area in which this thesis will be operating: the documentary film. Or, perhaps more properly, the historical or second-

generation documentary film.

Although film records an event at the instant it is happening, it becomes in the very next moment history. The event has passed, but the record of it on film, viewed by us in our "present," is now a record of the past. Whether it is viewed the next moment or the next century, it is history.

And now occurs a curious and valuable point. If an event, or a series of events, or a period of history has been sufficiently photographed and filmed, and a sufficient quantity of photographs and film footage exists in the present, what might be called a second-generation documentary film can be created. In other words, a new history, made possible because someone has made historical film records of the subject. Thus the source for the examination of the subject is the same as the technological tool for recording the examination--film.

Simply, making a historical documentary film from existing film sources is doing exactly what historians have always done. It is taking the records of the past, in whatever form they are found, and forming from them a new record, hopefully with some new insights or explanations.

The purpose of this thesis is to demonstrate the processes involved in producing a script for a historical documentary film using as sources all the forms of historical information available on the subject. Those sources will be both written and visual. The written will tell us about our subject; the visual will be the means by which we show what we have learned and want to tell.

The aim of this thesis is to produce a documentary film script,

which will be the final section of this work. However, this is not a thesis on scriptwriting. This is a project which will detail the research and investigative processes involved in identifying, locating and collecting the information and material out of which a script will come.

As with any project, there is no point to it if it has been done before. A search through the literature of documentary film shows that it has not. There are numbers of works on the history of documentary films; there are works examining and analyzing the works of important documentary film makers; there are works on the technical and production processes.<sup>3</sup> But nothing on the research processes involved in preparing the historical documentary film.

Those processes might best be likened to a recovery operation. History has a tendency to soften and slip away unless someone has an interest in preserving it. The historical documentary film is one valid way of accomplishing this.

Some subjects lend themselves to this better than others. War is one, because of historical significance and because the wars of the twentieth century have been heavily and constantly photographed and filmed. Second-generation documentary films that have come out of wartime footage include such notable examples as Victory at Sea, made in the early 1950's, and The World at War, from the 1970's.<sup>4</sup>

Sports and other competitions is another area rich in this kind of documentary film. A recent example, carried on public television stations in this country, was The Olympiad. Films on sports are made possible because the regular, scheduled, recurring nature of the sub-

ject events means that they were well covered photographically, creating excellent sources of film footage.

It is a subject of this type which has been chosen to serve for this thesis on creating a script for what we might begin to characterize as an "archival" documentary film. The subject is the National Air Races, an annual aviation event of historical importance which occurred annually in the United States through most of the first half of the twentieth century. The period to be covered for this work is 1929-1939, when organized air racing in this country reached its peak in terms of both its technological development and its impact on the public consciousness. It is the level of public awareness shown toward air racing during this decade, as demonstrated by the amount of media attention to it, which suggests that this is a socially significant subject for a historical documentary film. It is the types and amounts of that media attention to air racing which will be examined closely in the following sections of this work, and it is the process of that examination which forms the backbone of this thesis.

## INTRODUCTION TO THE SUBJECT

The National Air Races in the United States were a yearly event--usually held on or about Labor Day--of aviation speed, performance and demonstration events. Air racing is as old as airplanes; as with any new technology, people began immediately trying to find out how far they could push it. Sheer speed was a large part of the attraction aviation held for both its practitioners and the public, and racing was the natural outgrowth. If we examine the phenomenon of air racing, one thing becomes apparent: it was from its very beginning an activity of great interest to the media, especially newspapers.<sup>5</sup> In fact, the first air races and the later National Air Races owe much for their very existence to newspapers.

The world's first organized air race was held in Rheims, France in August of 1909. A quarter of a million people attended, including most of the royalty of Europe.<sup>6</sup> The principle event was the Bennett Cup International, sponsored by publisher James Gordon Bennett, Jr. of the New York Herald. Bennett always had an appetite for speed which, when the gasoline engine replaced the horse as a means of locomotion, led him to establish James Gordon Bennett Cup Races for both early airplanes and automobiles. Bennett's fascination with speed survived an automobile accident in which he was severely injured.<sup>7</sup> The Bennett Cup Race at the Rheims event was a closed course race of 20 kilometers and was won by the only American aviator present at the race, Glenn H. Curtiss.

The first air races in the United States were held as part of the California Aerial Exposition at Dominguez Field, near present-day Compton, California, in January of 1910.<sup>8</sup>

Newspapers became involved in air racing at an early stage, not only as chroniclers of the events but in many cases as sponsors. The Harvard-Boston Air Meet, held at Boston Harbor in September of 1910, included a race sponsored by the Boston Globe, which put up a \$10,000 purse for the fastest round trip between Boston Light and Squantum.<sup>9</sup> Earlier that year an air race had been held between London and Manchester in England, which was sponsored by the London Daily Mail.<sup>10</sup>

In October, the 1910 Bennett Cup Race was the premier event of a grand aerial exposition held at Belmont Park, Long Island. The United States had no royalty, but there were plenty of self-made millionaires on hand. The newspapers of the day called it the top society sporting event of the decade.<sup>11</sup>

Newspapers, or at least the publishers, continued on the progress of aviation. In 1911, William Randolph Hearst offered \$50,000 for the first pilot who could fly across the United States. This produced the first transcontinental flight by Calbraith P. Rodgers, who crossed the country by hops and crashes from September 17 to December 10, 1911.<sup>12</sup>

Air races proliferated throughout the second decade of aviation history in every part of the world. Races, distance flights and other events designed to test advances in aviation design and performance continued to be of great interest to the public--the newspaper-buying public.

In 1920, the first of an annual series of air races that was the

precursor of the National Air Races was held, and again it was a newspaper publisher who was responsible, in this case Ralph Pulitzer, son of Joseph and publisher of the New York World. The Pulitzer Trophy Race, which was to be held yearly from 1920 to 1925, was at Mitchel Field, Long Island on Thanksgiving Day, Nov. 27, 1920.<sup>13</sup> Thirty-seven planes started on a 29.02 mile triangular course; 25 finished. Most were military, as the fledgling air branches of the American military services had been quick to recognize air racing as a valuable tool both for proving new designs, and for gaining publicity for their efforts to obtain more funds from an ever-reluctant Congress. Military aircraft would enter and for the most part dominate American air race events until 1929, when a new breed of aircraft--and pilot--would take over.

The Pulitzer Trophy Race continued for five years, being held in the next years at Omaha, Nebraska; Detroit; St. Louis; Dayton, Ohio and Mitchel Field again.

About halfway through the twenties, some of the major air events in America began to be held together, and the term "national air races" began to be used--in a lower case sense. It didn't take long, however, for the title to go upper case in a big way, and by 1925 the National Air Races were an annual, established event. They became a week-long celebration of aviation, with something for everybody. Races of both the closed-course and cross-country variety, stunt flying, precision formation flying, parachute jumps, races restricted to certain types of aircraft, demonstration flights of the newest aircraft and so on. Newspapers continued to be involved; at the 1927 Nationals, held at Spokane, Washington, the main event was the Spokane Spokesman-

### Review Trophy.

The National Air Races moved toward 1929, which would begin what would come to be known as the Golden Age of air racing in America. The decade 1929 to 1939 is the period to be covered in these research efforts, and the year 1929 is a good marker for the beginning for several reasons. First, the military dropped out, because the civilian pilots and planes--both more colorful--began beating them badly and because the conservative upper echelons of the military had never accepted the value of air racing (or, in many cases, of airplanes at all. The courtmartial of the leading advocate of military air power in this country, Billy Mitchell, had occurred just four years before). Second, the races found a more or less permanent home for the decade--Cleveland, Ohio.

It is instructive to describe how the public and the media regarded the races at this point in their history. First, and most importantly for research purposes, they were not seen as sporting events--as is for example auto racing today--but as news events. And front page news at that. They were of great and continuing interest to the general public. More than a half a million persons attended the 1929 National Air Races. The final day of the 1932 events saw fifty thousand spectators on hand, with many more turned away.<sup>15</sup>

The National Air Races were heavily covered by all the media of the period--newspapers, magazines, newsreels and radio--and this coverage continued throughout the decade. For example, during the years 1930 to 1939 the New York Times carried 249 articles specifically about the National Air Races.<sup>16</sup> Disregarding articles on other race

events, the Times averaged 25 articles per year on the National Air Races, with forty articles in 1930 and even twenty-six articles as late as 1938.

Although they were races and exhibitions, they were news rather than sports because aviation in the period 1929-1939 was definitely news. Every year brought a new achievement in speed, distance and endurance. The men who built the aircraft and the pilots who flew them were operating on the forwardmost cutting edge of man's machine technology. The pilots of the racing planes were the fastest humans on earth.<sup>17</sup> They were a part of a rapid acceleration of aviation technology and achievement.

And they were national heroes--media heroes--before anyone knew what that term meant. The newspaper-reading public of the 1930's was as familiar with names such as Turner, Doolittle, Chester and Bayles as a later generation would be with Shepard, Grissom, Glenn and Armstrong. This parallel between racing pilots and astronauts is by no means far-fetched. The parallel holds for both the way the public viewed them and what they did and for how the media attended to them and their exploits. For evidence, let us examine two front-page newspaper headlines, thirty years apart:

Los Angeles Times, September 4, 1937, page 1.

"Bendix Race Winner Sets New Record"

"Fuller of Bay City Flies to Cleveland  
in Less than Eight Hours"

Los Angeles Times, February 20, 1962, page 1.

"Glenn Goes!"

"Capsule Hits Orbit in 13 Min."

In the National Air Races we have an important, interesting and colorful element of twentieth century American history; tied heavily to journalism through sponsorship, development and reporting, and to film as recorded visual history. It is the interest in the events of both the media and the public, an interest that continues to this day,<sup>18</sup> that this thesis starts with.

Which leads us to the next section, in which we shall detail the first steps of the research process undertaken--those steps being subject research.

## SUBJECT RESEARCH

This thesis has already outlined in brief form the history of the National Air Races. Where did the information come from? How and in what form was it found? The how and where of an information search of historical nature is the point of this section on subject research. It is a step-by-step effort, so let us retrace the steps.

A simple, but vital, first step is to assemble what we might call a matrix, or skeleton, of the events we are researching. We need to set down the event or events, when they happened, and where they took place.

### The National Air Races, 1929-39

| <u>Dates</u>         | <u>Location</u> |
|----------------------|-----------------|
| 1929 Aug. 24--Sep. 2 | Cleveland       |
| 1930 Aug. 23--Sep. 1 | Chicago         |
| 1931 Aug. 29--Sep. 7 | Cleveland       |
| 1932 Aug. 27--Sep. 5 | Cleveland       |
| 1933 July 1--July 4  | Los Angeles     |
| 1934 Aug. 31--Sep. 3 | Cleveland       |
| 1935 Aug. 30--Sep. 2 | Cleveland       |
| 1936 Sep. 4--Sep. 7  | Los Angeles     |
| 1937 Sep. 3--Sep. 6  | Cleveland       |
| 1938 Sep. 3--Sep. 5  | Cleveland       |
| 1939 Sep. 2--Sep. 5  | Cleveland       |

While this may seem obvious, it is easy to overlook until one finds himself or herself deep in the microfilm newspaper files of a large library, unable to find or recall on what exact date a particular event occurred, and therefore in what exact issue of the newspaper one should be looking.

With this skeleton of our subject prepared, we are ready to move on to the first area of our subject search.

Let it be said at this point that most documentary research efforts do not start totally in ignorance, in that the decision to undertake it usually means that the person initiating the process does so because he or she already has some interest in the subject or reason to want to know about it. This interest or reason generally means the person has a head start, if only a small one, on the information or where to look for it. This usually stems from some knowledge of the book literature of the subject, which is where the search should be started--with books.

### Books

Before a research task of this sort is finished, an extensive personal library of books on the subject will be acquired.

The search for book information on the National Air Races led to libraries, both university and public; bookstores, new, used and specialized; museums (which comes more under the heading of material research and will be detailed in a subsequent section) and, in the case of this subject, even to hobby shops. Not to mention friends, personal acquaintances, personal collections and even garage sales. The most useful of these efforts, as might be expected, were the many trips to libraries and bookstores.

Libraries were an invaluable source both of basic, original information and of leads for further search. While books on air racing are too specialized for most libraries to carry, they do carry numerous books of general aviation history in which air racing is mentioned or discussed within a chapter or section. Here are some sample titles,

all of which are in the library of California State University, Northridge and supplied either direct information or possible sources of information on air racing--or both.

Conquest of the Air: the History and Future of Aviation, by Hendrik de Leeuw.<sup>19</sup> Aviation: an Historical Survey from its Origins to the End of World War II, by Charles Howard Gibbs-Smith.<sup>20</sup> The Early Birds; The Wonders and Heroics of the First Decades of Flight, by Arch Whitehouse.<sup>21</sup> The Challenging Skies: the Colorful Story of Aviation's Most Exciting Years 1919-1939, by C. R. Roseberry.<sup>22</sup> And do not be fooled by the wording of some of the titles into thinking that these are shallow, popularized "gee-whiz" books. Almost all of these were carefully researched, scholarly examinations of aviation history. The Cal State Northridge library also yielded, after intensive search, the following gem: Aircraft, Engines and Airmen: a Selective Review of the Periodical Literature, 1930-1969, by August Hannibal.<sup>23</sup> This book, worth its weight in gold, will be discussed fully in the area of magazine research further on.

Public libraries yielded a similar pattern of books. None on air racing specifically, but many of use on aviation history.

Bookstores were the next step, and here the subject library began to really grow with books specifically concerning the subject. The bookstores investigated were of three types; new (retail), used, and specialized.

Retail bookstores were the first visited. Two points became apparent: new books are expensive, if the actual purchase of a discovered book is deemed necessary; and two large volumes called Books in Print,

found in every retail bookstore, makes the job a lot easier. Books in Print is exactly what it says--a listing, in two volumes (Subject and Author) of every book presently in print and available in the United States. Thus a visit to even one large, well-stocked retail bookstore, armed with notepad and pencil, can cover the new book field of our topic. If a book is not in stock in their aviation section--most large bookstores have such a specific section--then it is in Books In Print, as a quick search through the Subject volume under Air Racing, Aviation and Airplanes headings will demonstrate. If a useful book is discovered in stock, the decision to purchase or simply take notes from it (hoping for patient and understanding sales personnel) is next.

Aviation books, since they are specialized, often do not stay in print very long due to the low demand. Which leads us to the next step of the book search, used-book stores. Used-book stores can be summed up this way; they are a good source and a better bargain, but be prepared to spend not money but time, and lots of it. While many larger used book stores are every bit as well organized as a new retail bookstore, many smaller ones--every bit as likely to produce something worthwhile--are not. Countless hours were spent combing through unsorted stacks of books in many Los Angeles area used bookstores, but the effort paid off with several useful books which would not have been located by any other means.<sup>24</sup>

By this time a library of the subject should be well on its way to coming together. The researcher soon will find the source possibilities increasing geometrically. Each book will suggest three or four more sources, each of them several more, and so forth.

The third type of bookstore that this search points to is the specialized book store, a type that will exist for some subjects but not for others. A specialty book store is simply one which concentrates on books on one subject. There are bookstores specializing in the occult, in military history, in automobiles, in art, in sports, in religion, in film, in science and industry, in encyclopedias. Others carry books on dogs and horses, children's books, foreign language books, comic books, books on the "Old West," and Americana. Still others specialize in railroad books, first editions, architecture and law. The yellow pages of the phone book are a treasure trove of specialty book stores.<sup>25</sup> In the telephone book for the San Fernando Valley are the following listings:

Ad'Air Bookshop, The  
Aviation Publications, Foreign and Domestic Reference  
Material for the Enthusiastic  
7040 Deering Ave., Canoga Park

Aviation Book Company  
Aeronautical Books and Pilot Supplies  
555 West Glenoaks, Glendale

Flightline Products  
8901 Eton, Canoga Park

And this phone book search for specialty bookstores need not be limited to one's own geographic area. Any large library will carry phone directories of most major cities in the U.S. A check of these directories provided additional, representative specialty bookstores.

Sky Books International  
48 E. 50th Street  
New York, N.Y. 10022

Barnes and Noble Bookstore  
Fifth Avenue and 18th Street  
New York, N.Y. 10003

Smithsonian Bookstore  
National Museum of History and Technology  
14th and Constitution Avenue, N.W.  
Washington, D.C.

These are all exactly as advertised--book stores concerned with aviation. As a subject research source, they are invaluable. Irregardless of the subject of a proposed documentary film, every effort should be made to locate a similar source. As can be seen by the examples given here, almost any subject of enough interest for a film likely will be of enough interest for someone to have opened a bookstore concerned with the subject.

Subject research into books is something like a hunting expedition which must be conducted systematically. Start with the broadest definition of the subject you are researching, then narrow it down as your book search leads you toward your precise area of interest. Begin in libraries, which are catalogued, organized, accessible (and free); then when you have a feeling for the kinds of books published on your subject, move to retail bookstores for particular books and those not carried by the libraries; then, if possible, find a specialized bookstore (or specialized library, or public or private book collection) for the definitive information you want as available in books.

Keep in mind that you are conducting book research as the first step toward a visual product--a film (or film script). Look for books illustrated with photographs, both to get a visual feeling for your subject and as invaluable help as source leads in later material and visual research. Although subject research should for the most part precede materials research, the two will often overlap. For example,

several books on the history of air racing detail the death of well-known air race pilot Lowell Bayles while trying to set a world speed record in 1931. The attempt was filmed by newsreel cameras, and the ensuing crash was recorded on film. For many years after, according to the authors, the crash footage was included in Hollywood feature films whenever the plot involved a fatal airplane crash. Thus on researching our subject, we have found a valuable lead, to be noted and saved, for our subsequent film searches.

The following partial list of books gathered in the course of the book research on the subject, and the comments on the type of book and probable usefulness as documentary film research materials, should give an idea of the type of books to look for when researching a subject for film:

The Great Air Races, by Don Vorderman, Doubleday, 1969.<sup>26</sup> A comprehensive history of air racing from the beginnings to post-WWII. Extensive text, photographs. The most complete history available.

Racing Planes and Air Races, by Reed Kinnert, Aero Publisher.<sup>27</sup> In four volumes, primarily a photographic record of aircraft and pilots 1909-1967. Limited text, but all photographs extensively captioned.

The Art Chester Story, by John W. Caler and John Underwood, John W. Caler Publications, 1968.<sup>28</sup> Biography of racing pilot Art Chester, who competed in many National Air Races. Good photographic source, valuable information on air racing aircraft design and preparation in 1930's.

The National Air Racers in 3-views, by Charles A. Mendenhal, Diane Publishing, 1971.<sup>29</sup> Scale line drawings of every major aircraft

designed for and flown in the National Air Races. Virtually a catalog of visual information on racing aircraft.

They Flew the Bendix Race, by Don Dwiggins, J. B. Lippincott, 1965.<sup>30</sup> A history of the Bendix Trophy race, one of the two premier events--the other being the Thompson Trophy Race--flown at the National Air Races. Extensive text, good photographic source.

The listed books are a few examples of the final reward of the book research; from library to bookstore to specialty bookstore, from works on general aviation history to 1930's aviation history to 1930's National Air Races history. This is what must be accomplished in the book phase of subject research for any proposed subject; a search moving from the general to the specific. These specialty books, because of the narrowness of their interest, will not always be found on the shelves of many libraries, or in many bookstores; but it was libraries and bookstores that provided the leads, guided the search that eventually led to them.

The first stage of our subject research is done. We have researched and collected the history of the subject as preserved and available in books. We have an idea of our subject as seen in historical perspective.

But one aim of a documentary film script is to bring the subject to life again, however briefly; to give an idea of it as it must have been when it was happening. We have researched air racing from our present, through books; the next step is to research it from its own "present," through newspapers of the period, the decade 1929-39.

### Newspapers

Research was undertaken into contemporary newspaper accounts of the 1930's to determine the level of public and media interest in the National Air Races and to flesh out the skeleton provided by the book research. Books are sketchier on small detail by virtue of having to cover greater ground. Newspaper accounts were found to provide these small but desirable details which are vital to bring life and character to a film script. Newspaper accounts will describe the scene and the atmosphere, the weather, and the size and moods of crowds. They will almost always provide quotes and dialogue of participants. They will detail time and chronology, often compressed and sometimes distorted in books written many years later.

In short, they have the luxury of the time and space to follow a story from beginning to end. In the case of the National Air Races, as has been shown, newspapers were with the events from the beginning, and continued to cover them for their entire duration from year to year. Listings in The New York Times Index for the decade being examined demonstrate this continuing, thorough interest. (Under the listing Aeronautics--Racing, National.)

| <u>Year</u> | <u>Number of Articles</u> |
|-------------|---------------------------|
| 1930        | 40                        |
| 1931        | 36                        |
| 1932        | 39                        |
| 1933        | 17                        |
| 1934        | 12                        |
| 1935        | 20                        |
| 1936        | 26                        |
| 1937        | 18                        |
| 1938        | 25                        |
| 1939        | <u>16</u>                 |
| Total       | 249                       |

An analysis of representative articles on the National Air Races shows them to be complete, detailed and in every sense good journalism. In the Tuesday, Sept. 6, 1932 edition of both the New York Times<sup>31</sup> and the Los Angeles Times<sup>32</sup> are articles on the final day's events of the year's races, held in Cleveland. As sources of both hard historical data and the more subtle details very useful for a film script, they are excellent. The New York Times, true to its intention to be the newspaper of record, is full of statistics and racing results, giving the average speed of winner Major James H. Doolittle (252.686), his elapsed time for the one hundred mile race (23 minutes 44.69 seconds), and his prize money for first place (\$4,300). The Los Angeles Times article is also full of figures, including the average speed of all finishers in the race. Prize money for first through fifth places are listed in both newspapers, although there is disagreement over the amount of Doolittle's prize, with the Los Angeles Times giving it as two hundred dollars more than the New York paper's figure.

Also included in the articles, especially the New York Times' is the sort of descriptive material invaluable in bringing a script to life. The weather "was perfect for racing--a clear sky, high visibility and the lightest of breezes faced the eight starters." The article described the crowd and, indirectly, people's interest and the lengths to which they would go for a view of the proceedings. "Fifty thousand persons were in the stands," the article relates, "and other thousands stood on the tops of their cars, clung to limbs of trees and dotted the hillside outside the airport." Doolittle's first remarks

for the crowd were recorded--"Hello, everybody, it was just a lot of clean fun." Also noted was the fact that his eyes were watering from the hay fever he had been suffering all week. "Speed doesn't help it any, apparently," he said.

There are many other ways, in addition to the actual content of the articles, in which newspapers demonstrated the popularity and significance of the National Air Races in the American mind. This is exactly what the following example material, taken from a decade's worth of newspaper accounts, demonstrates.

--The play given to the events. They were headline-making events, usually on the front page. The following headlines are from the Los Angeles Times, 1929-1939.

(1929) "Race Pilot Vanishes

Major Woods Down  
Friends Fear

Los Angeles to Cleveland Flyer  
Unreported Since Start

National Air Meet Closes  
as Angeleno Aviator Wins  
Last Event."<sup>33</sup>

(1930) "Crash Ends Air Races

Marine Speeder Badly Injured

Sixty Thousand See Chicago  
Sky Tournament Close  
With Many Thrills."<sup>34</sup>

(1931) "Bayles Wins Air Trophy

Champion Leads Seven Rivals

Climax to National Races Witnessed  
by 80,000 at Cleveland

Winner's Pace Thirty-five Miles  
an Hour Faster than 1930 Mark"<sup>35</sup>

- (1932) "Maj. Doolittle Wins Air Race  
Champion Attains Speed of 252 Miles Per Hour  
Mrs. Mae Haizlip Breaks Women's Record  
Army Officer Injured in Forced Landing"<sup>36</sup>
- (1933) "Turner Cracks Record in Opening Air Races  
Bendix Trophy Won in Speedy East to  
West Classic; Wedell Second  
Thompson Trophy Victory Brings Awards  
for Week to \$9,550; Mrs. Haizlip Beats  
Women"<sup>37</sup>
- (1934) "Davis Wins Bendix Dash;  
Non-starters Race Set"<sup>38</sup>  
"Speed Pilot Loses Life  
Crash Fatal to Doug Davis  
Georgian Plunges in Plane Going  
250 Miles an Hour; Turner Wins Race  
Atlanta Flyer Earlier Had Exceeded  
306 Mile Mark Set by Wedell"<sup>39</sup>
- (1935) "Ben Howard In Close Win Over Turner  
Air Race Margin 23 Seconds  
Thaw, Hunt, Miss Earhart Finish in  
Bendix Flight; Allendies in Crash"<sup>40</sup>  
"Classic Won by Neumann  
Turner Forced to Drop Out

- Thompson Trophy Race Goes to  
Star of Cleveland Air Contests"<sup>41</sup>
- (1936) "Miss Thaden Wins Bendix Dash;  
Air Race 'Chute Jumper Killed  
Four Other Contestants Meet Disaster"<sup>42</sup>
- "High Speed Spectacle Ends Races  
Frenchman Wins Final Air Classic  
in Blinding Flash Before Throngs"<sup>43</sup>
- (1937) "Bendix Race Winner Sets New Record  
Fuller of Bay City Flies to  
Cleveland in Less Than Eight Hours"<sup>44</sup>
- "Rudy Kling Captures Trophy  
in National Air Race Classic"<sup>45</sup>
- (1938) "Miss Cochran Bendix Victor;  
Fuller Second  
Woman Flyer Streaks to Cleveland  
at 249.77 Miles an Hour  
Roscoe Turner Captures Thompson Classic"<sup>46</sup>
- (1939) "Fuller Wins Bendix Race  
Average of 282 M.P.H. Breaks  
Record From Burbank to Cleveland"<sup>47</sup>
- "Turner Wins Thompson Race for  
Third Time at 282 MPH  
Pilot Announces Retirement and Plan  
to Establish Flying School After Victory  
in Cleveland Speed Classic"<sup>48</sup>

--Editorial assessment, pro and con. As has been shown, newspapers had always been boosters of aviation and air racing. The

Los Angeles Times on September 4, 1936, as that year's National Air Races were set to open in Los Angeles, ran the following editorial:

#### Air Races

The National Air Races which start at the Municipal Airport, Mines Field, today (Friday) will furnish four days of thrills, excitement and demonstration of man's progress toward mastery of the air.

Aviation has come a long way since the Wrights first piloted a clumsy contrivance of sticks and cloth, powered by a toy engine, off the sand dunes at Kittyhawk, N.C., and it still has a long way to go; but it is on its way.

Yearly better planes are built, better engines constructed, better instruments designed, and the pilots grow more skillfull; and the National Air Races mark the milestones in that progress. At these races aviation puts its best foot forward, shows its new stuff, unveils its latest wrinkles, does something astonishing and spectacular.

Those who have never seen aviation really spread itself are missing something. They can have no conception of what a plane can do and what a pilot can do with it, unless and until they see the best of both in action.

The best will be on display out at Mines Field today and the three days following, performing amazingly.

This is no place to give details of the program. There is enough of it in quantity and variety to satisfy anyone. It is a lot of show for the money, and worth the price to anybody.<sup>49</sup>

By the end of the decade, however, editorial opinion would change as people began to have doubts about air racing. The cost of the

designing and production of racing planes became prohibitive. Racing planes could be put to no practical use and manufacturers became disinterested. The speed of commercial airliners was creeping up toward that of the average racer. The airlines themselves began to frown on the races, observing that passenger business fell off after every racing fatality. The Cleveland races of 1939 coincided with the outbreak of war in Europe, and the races were cancelled for the duration. Except for hardcore addicts, most people were relieved. The New York Times editorialized:

The Roman holiday sport of whipping high-powered little planes around pylon-studded race courses joins with transatlantic solo flights and other such colorful exploits in the fast-moving cavalcade of an industry that has outgrown its swaddling clothes.<sup>50</sup>

--Examples of the attention of other media. The following item appeared in the Los Angeles Times on Friday, September 4, 1936 in its daily radio section:

Thrills of Air Races  
Billed for Dialers

Aviation Classic's Opening Events,  
Including Spectacular Parade, to  
Be Described in Broadcasts

Daring exploits of the knights of the air are to be recorded via radio during the sixteenth annual National Air Races, which get under way today with the finish of the Bendix dash from New York to Los Angeles.

It will be described by Ken Carpenter over KECA at 2 p.m.

Other events on the opening day's schedule are to be heard over KFWB at 2:30, 3:15 and 4 p.m., while KFAC will offer a brief description of the parade as it passes its studios at 10:45 a.m.<sup>51</sup>

--Pictures and Graphics. Editorial cartoons, explanatory drawings and other graphic material can be found in newspapers of the period. On September 3, 1936, the Los Angeles Times carried a drawing showing the Los Angeles area, depicting the course for the National Air Races events. Labeled "Course for Plane Speed Classic at Municipal Airport," the caption read in part, "Embracing a huge parallelogram of Southwestern Los Angeles from the Municipal Airport to the Pacific Ocean, the ten-mile course for the Major event of the National Air Races is shown on a map drawn by Times Staff Artist Charles H. Owens."<sup>52</sup> In the following day's issue, the Times ran an editorial cartoon entitled "Curves Are In Style These Next Four Days" which showed a (quite literally) rubbernecking crowd watching a formation of aircraft flying overhead, the formation spelling out the words National Air Races.<sup>53</sup>

To sum up, whereas our book research gave us a picture of air racing as neatly ordered and packaged history, newspaper accounts give us the immediate and equally valuable--to our purposes--impressions and "taste" of the events as they took place. In newspapers we find our subject drawn without the benefit (or the burden) of historical hindsight.

Our subject research of the events is beginning to provide an ex-

tensive account and body of knowlege with which to work. We now turn to the final area of our subject research, following books and newspapers; the area of magazines.

### Magazines

From the beginning it became apparent that magazines, while an important subject research area, would be of even greater value for the later materials research, and should be concentrated on for that later section. However, there are some instructive points on magazine locating, types and content which we will discuss at this point.

The starting point for magazine research is Ulrich's International Periodicals Directory,<sup>54</sup> found in the reference section of any large library. What Books in Print is to books, Ulrich's is to magazines; a listing, by subject, of every periodical currently published in the world. Under Aviation and Aerospace as a heading we find our area of research. Research on any subject for a proposed documentary film must at some point include periodicals and must, therefore, include checking Ulrich's.

The next step after Ulrich's is to Reader's Guide to Periodic Literature. Of course, foreign publications found in the former will not be found in the latter, and even many American magazines and journals are not found in Reader's Guide; but the two publications, used in conjunction, constitute the basic periodical research tool. Ulrich's began publication in 1932, almost perfect for our subject, since the aviation magazines of the 1930's--most now out of print--will be identified in earlier editions.

As explained, magazines turned out to be of greater value for materials research, so we will cover only lightly our subject research efforts in them.

However, one interesting point in connection with this particular subject did come up, one which might apply to other subjects as well, and that is the large amount of extremely useful information that was found in "hobby" magazines. In the case of our subject area, aviation, the hobby magazines referred to are mostly model airplane magazines. The history of any subject is often in large part in the very capable hands of hobbyists, those people who simply because of an interest in and liking for a subject continue to explore and preserve historical fact and information. Consider some examples; though our subject is aviation history, all of the following articles and source leads were found in "hobby" magazines.

--In the April, 1958 issue of Model Airplane News,<sup>55</sup> an article entitled "The Golden Age of Air Racing," with informative text and many drawings and photographs.

--In the October, 1976 issue of Model Builder magazine,<sup>56</sup> information and an address for the American Air Racing Society, an organization dedicated to the history of air racing, which publishes a newsletter and has photographs and drawings available for the interested.

--From the November, 1960 issue of Model Airplane News,<sup>57</sup> an advertisement for the Roscoe Turner Air Race Game. "Replay the National Air Races at Home." A board and dice game complete with "6 racing planes, 20-mile closed course, lap speeds."

--In the August, 1976 Flying Models,<sup>58</sup> an address for Transport

History Publications, emphasizing aviation history.

--From the August, 1975 issue of Radio Control Sportsman,<sup>59</sup> an article "Gee Bee Z, a Short Season" on one of the most famous National Air Races aircraft.

The information in these sources was accurate and checked with the previously researched newspaper and book information, demonstrating that in this type of research, no possible source should be discounted, even if it seems to carry an image of less than "serious." Scholarly research can be conducted anywhere, even in hobby shops.

For many fields and subjects, specialized bibliographies of periodic literature may exist. Such was the case for aviation history. As mentioned earlier in the book research process, a volume was located entitled Aircraft, Engines and Airmen: a Selective Review of the Periodical Literature, 1930-1969. Such a bibliography is unvaluable. Many periodicals, both in and out of print, were never indexed. This is of course what Reader's Guide to Periodic Literature does, but only to currently in-print publications and only selected ones. With a specialized bibliography like Aircraft, Engines and Airmen a search has been done for us. A sample entry from the book:<sup>60</sup>

GEE-BEE (Granville Bros.) USA

Air Pict, Mr '56:74-75 (Pt 1) (Aircraft types produced)

Ap '56:116-119 (Pt 2) (Aircraft types produced)

Je '56:216 (addendum) (Aircraft types produced)

Air Prog, Fall '59:57-72

Pop Avn, D '39:26-29+

We have thus found that information on the GEE-BEE aircraft, a series of racing planes manufactured in the United States by the Granville

Brothers for the National Air Races, can be found in the listed issues of Air Pictorial, Air Progress and Popular Aviation. Similar listings on the aircraft participating in the National Air Races, the pilots who flew them and the engines that powered them can be found in the appropriate sections of this bibliography. For any subject, if a specialized bibliography of periodic literature exists, it will be a prime research source.

#### Summary of Subject Research

At this point the subject historical information is fairly complete, and the subject research well developed. It could go on, of course, but it must stop at some point, even if arbitrarily. It should be noted that the written material researched on the subject was almost entirely second sources; very little primary historical source material was located. The participants in the National Air Races wrote no autobiographies; most of what is available about the pilots as people is in newspaper interviews and stories, as shown. And the events happened long enough ago that time has taken most of those who survived that hazardous vocation long enough to retire. Jimmy Doolittle, perhaps the best-known air race pilot of all, is as of this writing a senior airline official residing in Los Angeles. His biography, by longtime friend Lowell Thomas, was recently published.

But now is the point that the subject research must give way to the next step in the process. Not that this step is at a complete halt; the subsequent material research and even the scriptwriting process will continue to add to and augment the subject research.

But there is now a foundation of historical information on which to build the next two steps of the process, the material research and the writing of the script. It should be useful at this point to summarize the subject research steps.

1. Set down a skeleton of events, dates and locations of the subject being researched.

2. Begin to research and build a library of book information on the subject. Investigate:

Libraries; public, educational and private.

Bookstores; new, used and specialized.

3. Research newspapers in the period of the subject, with attention given to:

The play given to the subject.

Editorial perception of the subject.

Examples or leads to the attention of other media.

Visual material, pictures and graphics.

4. Research magazines, using in conjunction with each other:

Ulrich's International Periodicals Directory.

Reader's Guide to Periodic Literature.

A specialized periodical bibliography, if available.

Having completed this step of the research process, it is time to move to the next. The historical background and information has been gathered. But this entire research effort is mounted with the purpose of producing a preliminary script for a documentary film, a visual product, words with images. We have a start on our "words," now we

must turn our research efforts to our "images." The subject research is completed, the knowlege of our subject is sufficient to begin the next step, the next effort in the process. The materials research begins.

## MATERIALS RESEARCH

The next step, if we were intent on actually embarking on the production of a film, would be to research, locate, view, select and procure photographic still and motion picture material about the National Air Races. Since the purpose of this project is, of necessity, slightly more modest--to write a preliminary script--the next step shall be to locate and identify available sources of historical photographic material. A script can be written to the material without the material being actually available to hand, if the type and nature of the material is known.

### Still Photographs and Film Footage

A historical documentary film can be made--or a script written--without any original film footage, using still photographs, although this is less than ideal. The more film footage, the better. However, still photographs are important. For some subjects--and for various reasons--film footage will not always be available. The National Air Races are a good example. In the 1920's and 30's the cameraman faced the problem of film technology versus aviation technology; that is, simply, film speed--slow--versus airplane speed--high. Film footage of the planes during the actual races, at speeds up to 300 miles per hour, is likely to be scarce and perhaps marginal at best in quality. Still photography of course had the same problems. The point is that the two--photographs and film--must be researched to augment each other.

Another point to keep in mind is that in a documentary film even still photographs can be given a limited "motion" when filmed by

careful use of pan and zoom techniques, highlighting certain elements in photographs and avoiding too static a look. The arrangement for this kind of technique usually involves the camera looking down vertically on the still photograph to be filmed. Special set ups, known as animation tables, are commercially available. They provide controls for many zoom and pan effects.<sup>62</sup>

Information on sources for photographs on our subject, on any subject, is more immediately accessible to us than that for film, so we will begin there.

### Photographs

Photograph research begins in the same sources as our subject research--books, newspapers and magazines. The process is a two-step one; locate the desired photograph, and identify the source where a copy may be obtained. In the newspapers, periodicals and books we will find reproduced almost all the photographs we could want to begin with. From these we can consider, select and perhaps even begin to roughly group or arrange those photographs we want to think about writing a script to. Just as important, from the photo credit or caption we will identify the source to be contacted if we decided eventually on including that photo in the film. As in the subject research, this will be a sort of self-generating process; every photo and its source will lead to more photographs and more sources.

Applying this first photo research step to the books, magazines and newspapers of our subject research on the National Air Races produced the following list of possible still photograph sources:

Categories;

--public/commercial. Newspaper archives, wirephoto service archives, aviation and related manufacturer's archives and publicity departments, library collections. Examples include AP, UPI, Wide World, Acme, Bendix Corporation, Lockheed, Pratt and Whitney, Curtis Aircraft, Los Angeles Times, L.A. International Airport, Beechcraft, General Tire, Shell Oil, Texaco, Thompson Products.

--government/military. Examples include the National Archives, Library of Congress, Smithsonian Institution, U.S. Army and U.S. Navy,<sup>63</sup> U.S. Army Signal Corps,<sup>64</sup> U.S. Air Force.

--private collection/museums. Examples include Talmantz Aviation, American Hall of Aviation History (Northrop University), collections of individuals,<sup>65</sup> historical associations, aviation associations.<sup>66</sup>

Among them, these sources offer thousands of photographs on air racing from which to choose and with which to begin a script. While the particular examples deal with air racing and aviation, the categories are valid for photo research into any subject.

With this photographic research proceeding, a good start has been made on locating the visual images to go with the words and information gathered previously. But the heart of a historical documentary film using original film footage is of course that footage; and the next step is to identify, locate and research sources of film footage of our subject. Our subject, the National Air Races, was news; so our primary sources will be news film. We are going to investigate the history and world of the newsreels.

Film Footage Research: the Newsreels

Since the newsreels and original newsreel footage play an important part in the assembly of any historical documentary film of this

type, it is useful to do more than just quickly locate the surviving newsreel archives and research their contents. For this thesis an examination was made of the history of the newsreels, what companies dominated the field, during what periods, newsreels successes or failure as journalism, types and amounts of aviation coverage by newsreels, newsreels and the National Air Races, and surviving archive and library sources.

Newsreels were, in their period, a classic motion picture attraction. Something like a half-billion feet of motion picture film were exposed by American newsreels during their half-century of operation, approximately 1910 to 1967.<sup>67</sup> And a good deal of this survives today in motion picture archives.

As a form of journalism the newsreel provided predominantly photographic news coverage long before newspapers and magazines became as visual as they are today. And from the newsreels sprang the vastly more sophisticated and thorough motion picture journalism of today's television.

The first domestic American newsreel was Pathe's Weekly. Though French-owned, it was produced, assembled and released in the United States, with its first "issue" being released on August 8, 1911.<sup>68</sup> Through World War I it was America's best newsreel and it lasted for more than forty-five years.

In 1914 William Randolph Hearst and his organization entered the newsreel business with the first release of the Hearst-Selig News Pictorial.<sup>69</sup> This began Hearst's long, if sometimes controversial, association with newsreels which lasted until Hearst Metrotone

ceased operations in 1967.<sup>70</sup>

In an industry with a high mortality rate and a sometimes fly-by-night character, the product released by Universal, beginning in 1913, proved to be one of the best and longest lasting of all. Through changes in name, production, format and corporate ownership, the Universal newsreel was appearing in American movie houses into the 1960's and did not shut down until 1967, when it was America's oldest newsreel release.<sup>71</sup>

Another major newsreel--in time the major newsreel--made its bow in the fall of 1919, from Fox Studios. Fox News, later Fox Movietone, came on strong. Fox decided to do it right, beginning with an initial investment of five million dollars. Fox Movietone would become the largest newsreel of them all and survive until 1963.<sup>72</sup>

By 1919 four of the five major names in American newsreels had established their series; Pathe, Hearst, Universal, and Fox. The fifth, Paramount, introduced its series in 1927. From 1919 on, the history of the American newsreel centers about the operations of these five major firms.

Of interest and absolute value to the researcher is the fact that over the years each of the major newsreel producers initiated and maintained huge stock-shot libraries and archives for their film. Fox Movietone had one of the largest of these libraries. By the mid-1940's its vaults contained more than forty-two million feet of film, photographed throughout the world and elaborately and painstakingly indexed to subject matter, dates, personalities, political issues and other headings.<sup>73</sup>

Pathe also maintained a fine library, with footage dating back to 1908. In fact, all the major newsreels maintained archives and libraries. How much, if any, of this footage is going to be of use for our chosen subject, aviation? How did the newsreels approach aviation? Research into the development of aviation and newsreels (both were born in the first decade of the century and flowered in the 1930's) shows that the newsreels took a great and continuing interest in all things aeronautical, from the beginning. For instance, the period 1900-1911 was rich in technological innovation, and inventions which lent themselves to photographic visualization were often recorded on film. Many films, especially in Europe, showed scenes of trains, boats and automobiles. They were tailor-made for the still-new novelty of moving pictures, because of course they moved. The development of aviation was reflected in early airdromes, aircraft and ballooning activities.

That aviation was good newsreel material is shown in a review of an early Pathe which was carried in the magazine Motion Picture World; "In No. 36, for example, (released in September of 1911) the weekly continues its 'royal progress' in its presentation of the 'Crowned Heads' of Europe... From London comes the picture of Beaumont, 'King of the Air', at the conclusion of his great all-England flight... America is represented...the Aviation meet at Chicago presents some thrilling aeroplane ascents."<sup>74</sup>

When sound came to the newsreels, it was often the sound of an aircraft engine. In 1926 the Fox Movietone Corporation was established and on January 21, 1927--more than eight months before the release of The Jazz Singer, often called the first "talkie"--the first Movietone

sound films were exhibited at the Sam Harris Theater in New York.<sup>75</sup> And the first sound-on-film news film of any importance to be released commercially by Fox Movietone was concerned with aviation. It showed the takeoff of Charles Lindbergh from Roosevelt Field, Long Island on May 20, 1927, beginning his historic trans-Atlantic flight.<sup>76</sup>

Newsreel aviation coverage of the 1930's was capped by the incredible, indelible recording for history of the Hindenburg disaster in May of 1937, when the giant dirigible exploded and crashed while attempting to land at Lakehurst, New Jersey.<sup>77</sup>

Aviation progressed by leaps and bounds in the 1930's and the newsreels recorded most of it. Airplanes became larger and more complex, able to fly faster, farther and higher.<sup>78</sup> American aviation's premier yearly event continued to be the National Air Races. The country went air-crazy, and the newsreels were only too happy to keep up.

Although the 1930's were the high point in the development of both the newsreel and aviation in this country, in terms of rapid technological achievement and public interest for both, the newsreels were to continue until much more recently than most people think. Universal Newsreel prepared and distributed its last issue on December 26, 1967.<sup>79</sup> Television is what finally did the newsreels in, by simply performing the same function for the public.

Interestingly, air racing figured in a newsreel experiment which, if followed up, might have allowed the newsreels to compete more effectively and for a longer time against television. Newsreel technicians experimented with electronic systems for rapid transmission of

film footage as early as 1934. In November of that year Gaumont-British, an English newsreel company, transmitted approximately ten feet of newsreel footage, frame by frame, from Australia to London by wireless-telephoto service. The individual photographs, 160 in all, were rephotographed on motion picture film and rushed to theatres. The footage showed aviators Scott and Black after they landed in Melbourne, taking first place in an international air race from England to Australia. Owing to poor weather the transmission of the footage took sixty-eight hours to complete. In spite of this, Gaumont scooped everyone else by many days with their coverage. As an experiment, it was an expensive one. At \$189 a frame, the total cost of the transmission came to \$30,264. This use of electronics to bolster and speed newsreel news gathering and dissemination was never extensively exploited, and newsreels eventually fell to their technological heir, television.<sup>80</sup>

#### Newsreel Archival Research

Any of the large newsreel companies that currently maintains a library of footage can be a source for research for an archival film. In fact, were the actual production of a documentary film to be undertaken as the purpose of this thesis, several or all of them would be investigated. But since the goal of this work is slightly more modest, and since the processes involved are what are being sought out, research into just one such library will fill that purpose.

The Hearst newsreel library is located in New York, and is still active. Paramount's archives were purchased by Wolper Productions in 1963.<sup>81</sup> The output of the Universal newsreel is now in the National

Archives, and is available to the public for research and film production. The product of Pathe is now handled by the Sherman Grinberg Library in New York, as part of the largest stock footage library in the world.

The most extensive newsreel archive in existence, and the one chosen as the primary source for this thesis was the archives of Fox Movietone News. Although both the headquarters and the archives--Movietone prefers the term "library"--are in the East, the research can be conducted locally.

The initial contact with Movietone was Elliot Bennett, who is the West Coast Manager for Movietone News. Bennett maintains an office at 20th Century Fox Studios here in Los Angeles. It was through him and with his considerable cooperation and assistance that the research process into original footage was detailed and conducted.<sup>82</sup>

Movietone's headquarters are--as they have always been--in New York, N.Y. This included the labs, editorial offices and so forth. The film negatives are in vaults at 10th Avenue and 54th Street. The entire building was once owned by Fox. It has since been sold, but Movietone still stores its materials there. The building also contained studios where in-studio work was done. Many world figures were filmed there--Mahatma Ghandi, King George V, King Alphonso XIII of Spain. Often for many of these interviews it was the first time these persons had ever been recorded, either voice or picture.<sup>83</sup>

The library is still there and in fairly good condition, despite the fact that most of the footage is original negative and two-thirds to three-fourths of it is nitrate film which is susceptible to

decomposition. (However, this disadvantage of nitrate stock is also an advantage; if the nitrate survives, its reproduction is far superior to the later acetate film stock, giving much better grain in the reproduced print.)<sup>84</sup>

Movietone has always recognized that the footage is historic, but the larger reason for their maintaining the library was for stock shot material, in case they should want to use something previously shot in a later newsreel, which they often did. Unfortunately, the original footage was often re-cut for this new use, and sometimes the out-takes were disposed of and thus forever lost.<sup>85</sup>

Bennett pointed out that when doing research in the Movietone library it must be remembered that what was newsworthy then and important for people to know about then is not necessarily what is important today. And things that weren't thought that important when recorded and thus never shown in newsreels then might well be of more importance today. A historical perspective must be maintained.

Bennett was honest about Movietone's motive for maintaining their library of footage. There was no effort made to maintain the library for uses other than those of Movietone and its newsreels. The footage was not kept for posterity; it was kept for Fox's and Movietone's own commercial use, and that attitude exists today. Bennett does not argue with that attitude, and one has to agree. The library would not be there today if Fox did not make money from it.

But they do make money from it, and so it is there, for historians, moviemakers, and even if unintended, for posterity. If every foot of film that Movietone shot were there, if it all still existed

in the library in New York, there would be 110-million feet of film. It is not known how much of that actually exists because there has never been a physical inventory of the film. To conduct such an inventory would require an incredible number of people, a tremendous amount of time, and a prohibitive amount of money.<sup>86</sup>

What is there is all cataloged as a modern library would be cataloged. There is a 2-million-entry card file with cross references on every subject. There are approximately 195,000 subjects in the file. There are on the average ten cross-filings for every subject.

For any one particular subject, such as aviation in this case, an attempt to start with too broad a reference is counterproductive.

Take aviation as the example. Bennett has in Los Angeles, on microfilm, the card file of the Movietone library (making research possible without a trip to New York). There are four thousand file cards on every reel of microfilm. Bennett estimates that he has at the minimum ten reels of microfilm dealing with aviation. So if someone starts with "aviation" as the subject heading, they are talking about going through forty thousand cards, on sometimes hard-to-read microfilm.<sup>87</sup>

The thing to do is to be more specific, as specific as possible. In the case of this proposed film, the subject heading to begin with should be National Air Races. According to Bennett, all of the National Air Races from 1929 to 1939 were filmed, and most of them were used in released newsreels. This will be reflected both in the card file of the library and in the continuity sheets of released newsreels.<sup>88</sup>

One quickly learns when researching the Movietone library to be armed

with as many identifying specifics as possible. Events, dates--down to the very day, if possible--and people. Always try to have the names of the people involved in the subject being researched, as it will help the search. One method Movietone uses for cross-referencing its footage is by personalities. To sum it up, the more information one is armed with going in the easier it is to find what one is looking for. Here is where the pains taken in the subject research, as detailed in the earlier portion of this thesis, pays off. It pays off because it gives you the identifying specifics necessary to begin a search for footage. For research purposes it proved effective to group these specifics in categorized, alphabetized lists.

Pilots and Personalities, National Air Races, 1929-39<sup>89</sup>

|                     |                  |                 |
|---------------------|------------------|-----------------|
| Adams, Paul         | Gotch, C.H.      | McKeen, Marion  |
| Bayles, Lowell      | Granville, Z.D.  | Miles, Lee      |
| Blevins, Beeler     | Hague, George    | Minor, Roy      |
| Boardman, Russel    | Hall, Robert     | Moore, Ray      |
| Breen, Lt. R.G.     | Haizlip, James   | Neumann, Harold |
| Bulik, William      | Holman, Charles  | Noyes, Blanche  |
| Bussy, Arthur       | Howard, Benny    | Ong, William    |
| Chester, Arthur     | Hughes, Howard   | Ortman, Earl    |
| Cochran, Jacqueline | Hunt, Roy        | Pomeroy, George |
| Constant, Max       | Ingalls, Laura   | Rae, Roger Don  |
| Crosby, Harry       | Israel, Gordon   | Sinclair, Frank |
| Davis, Douglas      | Jackson, Dale    | Thaden, Louise  |
| Detroyat, Michele   | Jacobson, Joseph | Turner, Roscoe  |
| Doolittle, James    | Kling, Rudy      | Wade, Leigh     |
| Eaker, Ira          | LeVier, Tony     | Wedell, James   |
| Earhart, Amelia     | Mackey, Joe      | Whittman, Steve |
| Fuller, Frank       | Mantz, Paul      | Worthen, J.A.   |
| Gehlback, Lee       |                  |                 |

Since the aircraft taking part in the National Air Races were often well-known to the public by name and manufacturer, and are in some cases cross-referenced in the Movietone files, a list for them was also compiled.

Participating Aircraft, National Air Races, 1929-39<sup>90</sup>

|   |                          |
|---|--------------------------|
| Beech Staggerwing                                   | Folkerts Jupiter         |
| Bellanca Trimotor                                   | Folkerts Toots           |
| Brown Miss Los Angeles                              | Gee Bee Q.E.D.           |
| Brown Special                                       | Gee Bee R1 and R2        |
| Caudron C-460                                       | Gee Bee Model Z          |
| Chester Goon  | Golden Bullet            |
| Chester Jeep  | Hall Bulldog             |
| Chief Oshkosh                                       | Howard Ike and Mike      |
| Crosby Special                                      | Howard Mr. Mulligan      |
| Curtis Hawk P3-A                                    | Howard Pete              |
| Keith Rider R1, R2, R3, R4                          | Miles and Atwood Special |
| Keith Rider <u>Eight Ball</u> , <u>Suzy</u>         | Northrup Gamma           |
| Laird Solution                                      | Schoenfeldt Firecracker  |
| Laird Speedwing                                     | Seversky SEV-3           |
| Laird Super Solution                                | Travel Air Mystery       |
| Laird-Turner  | Wedell-Williams          |
| Lockheed <u>Vega</u> , <u>Orion</u> , <u>Altair</u> | Whittman <u>Bonzo</u>    |

And since almost all Movietone footage is indexed by the type and name of the event and the location where it took place and was filmed, a list of those specifics was drawn up.

Locations and Events, National Air Races, 1929-39<sup>91</sup>

Air Races, National  
 Bendix Air Race  
 Bendix Trophy Race  
 Burbank, Calif.  
 Cleveland, Ohio  
 Curtis-Wright Reynolds Airport, Chicago  
 Floyd Bennett Field, N.Y.  
 Glendale, Calif.  
 Greve Trophy Race  
 Inglewood, Calif.  
 Los Angeles, Calif.  
 Mines Field, Inglewood, Calif.  
 National Air Races  
 Shell Petroleum Corporation Speed Dash  
 Thompson Trophy Race

And finally, because Movietone does have a date file, a list of the dates of the National Air Races.

Dates, National Air Races, 1929-39<sup>92</sup>

1929 Aug. 24--Sep. 2

|      |                 |
|------|-----------------|
| 1930 | Aug. 23--Sep. 1 |
| 1931 | Aug. 29--Sep. 7 |
| 1932 | Aug. 27--Sep. 5 |
| 1933 | July 1--July 4  |
| 1934 | Aug. 31--Sep. 3 |
| 1935 | Aug. 30--Sep. 2 |
| 1936 | Sep. 4--Sep. 7  |
| 1937 | Sep. 3--Sep. 6  |
| 1938 | Sep. 3--Sep. 6  |
| 1939 | Sep. 2--Sep. 5  |

It is rewarding to examine this date file and how it came to be, as it gives valuable information on the operation of Movietone News and on how film was handled, processed and identified. Movietone had at one time as many as one hundred salaried cameramen around the world.<sup>93</sup> There were also freelance cameramen who would work on occasional special assignment. All film shot was sent by the cameramen to New York unprocessed. With the unprocessed film came what were known as dope sheets. A very careful log was made by the cameramen of everything that they shot and of the people in it; everything that they felt was of any significance whatsoever. With the dope sheets was included any printed material the cameramen deemed significant. In other words, if a speech was filmed, and there was a press release of the speech given to reporters and cameramen present, that press release was sent in along with the dope sheet and unprocessed film to Movietone. (These original press releases are still on file at Movietone.)<sup>94</sup> When the film and supporting material came in to Movietone headquarters, the entire package was given a number, consecutively as they arrived. This number is the single most important identifying tool for footage research. It is by this number that all Movietone footage can be located in the vaults today. The numbers began at one and went to 999, and then to 1-1, 1-2 1-3 and so on up to 1-999,

where it went to 2-1, 2-2, 2-3 and so on up to 2-999, then 3-1 and on. When the last Movietone newsreel was produced in 1963, the numbering had reached 193-1, 193-2, etc. However Movietone kept getting film even when no more newsreels were being produced, so there are even higher numbers.<sup>95</sup>

While the film was sent to the lab for processing, the editorial department went over the dope sheets to select those items and the appropriate footage they wanted for that week's two newsreels. Movietone newsreels averaged 750 to 1,000 feet long, so even with two a week the editors were selecting only 1,500 to 2,000 feet of film a week from the submitted 63,000 feet. If there were just one major story that week--such as Roosevelt declaring war on Germany--then of course all the footage selected would be for that story. But for the most part every Movietone newsreel had between six to eight stories per issue, sometimes as many as thirteen or fourteen. So the editors had to select carefully and often good footage would lose out simply for space considerations.<sup>96</sup>

When the film came back from the lab the editorial staff would take the footage they wanted. Everything else, with respective dope sheets, went into the files. The editorial copy would be written for the footage selected, the editing and production of the newsreel would be completed, and then all of that material took its place in the file, in numerical order. And this is Movietone's date file. Unfortunately, it is not complete today, because the approach to the use of the library was not always what it is today. Movietone at one time decided that there were just too many items in the numerical file so

they took many of the dope sheets and threw them away, destroyed them. So there is some casualty in this one area, but the gaps can usually be filled by research in other files under other listings and other references.<sup>97</sup>

The dated numerical file, incomplete as it may be, is useful if you are researching an event that was not used in the newsreels, was not shown in theaters. If the date of the event is known, the footage if it still exists can be located in that file.

If the desired footage was used in a released newsreel, then Movietone has another resource for research. This is the continuity sheets that accompanied every newsreel to the theaters. There were altogether some forty-five hundred of these continuity sheets put out, and Movietone has copies of them all on file, chronologically. They broke the newsreel down by story and sequence, following directly, for the most part, the actual titles and captions of the newsreel.<sup>98</sup>

Note should be taken at this point of Movietone's silent footage, which today is being handled somewhat differently than the later sound footage. Many film subjects will demand use of this earlier footage. Movietone's early silent footage--and some of the early years of the sound footage--is stored in Ogdensburg, New Jersey because of lack of space in New York. Unfortunately, according to Bennett, it is not too well cared for. Almost all of this early footage is on nitrate film which requires a certain temperature and humidity to combat its tendency to disintegrate and form flammable gasses. On one occasion an entire year of footage was lost when gasses exploded and burned the film. Fortunately it was material that Movietone had duplicate

release prints of. (The burned footage was sound newsreel footage; seven of the early years of the sound newsreels are stored in Odensburg.) Movietone currently has an arrangement with the National Archives for the silent footage. The National Archives are in possession of much of this footage and is cataloging it, while Movietone retains the commercial rights to it. The National Archives cannot loan or rent the footage to anyone while Movietone retains these rights, but it is available to anyone withing to do research; actual use of the footage must be arranged through Movietone. (After a period of fifty years, the National Archives will take full title to all of the silent footage.)<sup>99</sup>

This, then, is the organization and procedures of the Movietone film library. Armed with this knowledge and with the specifics of the subject to be researched, a search can be begun for actual footage to which a script can be written and from which an archival documentary film on the National Air Races could be assembled.

Before detailing what was found and how it was found, it should be explained that knowledge of certain newsreel policies and practices made it obvious going in that there was a certain kind of footage, pertaining to air racing, that would be difficult, if not impossible, to locate. This is footage of airplane crashes, specifically fatal crashes. Newsreels thrived on spectacular footage, and air racing often caused spectacular crashes. But almost without exception scenes of death and dead bodies, maiming, gross injury, and others of questionable taste were eliminated from the final released newsreel by the editors. Paradoxically, although cameramen were always urged to

catch moments of violence or accident--especially when filming dangerous events such as auto or air races where the chances of such occurrences were high--such scenes in the finished newsreels were usually cut either just before the moment of impact or before the reality of death or injury became apparent to the audience.<sup>100</sup> Movietone followed a similar policy. According to Bennett, Movietone never showed a body, never showed the aftermath of an accident or crash, never showed anything that would be distasteful.<sup>101</sup>

So if, for historical purposes, footage of crashes was to be included in a documentary film, such footage if it still exists would have to be found in the out-takes rather than in the release prints of Movietone newsreels.

Actual research in the Movietone library files is conducted much like research in the card file of any library. The cards are filed by the content of the negative they describe. They are divided into broad areas or subjects--sports, personalities, World War II, Hollywood, disasters, and so forth--and further classified within the subject. Within these classifications the cards are filed alphabetically. To be specific; all cards dealing with aviation are listed under that general subject Aviation. Within that are arranged subclassifications, such as Airports and Air Bases, Airshots (Miscellaneous), Aircraft by Company, Aircraft by Type, Aircraft by Name, and so forth.

Individual cards within the subclassifications are identical in format and all carry the following information:

Reference--this is the subject reference under which the negative

is filed and by which, alphabetically, the cards are filed. For instance, the most common reference under which material for this thesis was found was National Air Races.

Negative File Number--this is the number assigned to the footage when it was submitted by the cameramen and by which the footage can be physically located in the library.

Subject and scenes--This consists of a dateline, a headline or subject identifying line, and a shot-by-shot description of the footage.

Cross-references--identifies all references under which the footage is listed in the card file.

Name of cameraman--identifies the person or persons who actually shot the film.

Date submitted--identifies the date the footage arrived at Movietone headquarters in New York. (Not the date the footage was shot.)

Length--gives, in feet, the length of the total footage submitted. By dividing by 90 feet per minute (for sound footage) or 60 feet per minute (for silent) this can be converted to a time figure.

Used in--a number is given identifying the volume and issue number of the newsreel that any or all of the footage appears in. If no number appears in this space, the footage was not used in a released newsreel.

Research in the card file of the Movietone library yielded 39 sequences of footage dealing with the National Air Races of 1929 to 1939, totalling over 35,000 feet.

| <u>Negative file number</u> | <u>Length (feet)</u> |
|-----------------------------|----------------------|
| 3-485                       | 800                  |
| 3-485 additional            | 800                  |
| 3-537                       | 1500                 |
| 11-722                      | unknown              |
| 11-723                      | 2100                 |
| 11-723 additional           | 700                  |
| 11-723 additional           | 1400                 |
| 15-611                      | 1600                 |
| 15-644, 45, 46              | 800                  |
| 15-644, 45, 46 add.         | unknown              |
| 15-672                      | 150                  |
| 15-673                      | 1000                 |
| 15-674                      | 550                  |
| 15-675                      | 1000                 |
| 15-703                      | 1500                 |
| 15-704                      | 400                  |
| 15-712                      | 50                   |
| 18-814                      | unknown              |
| 18-815                      | 1250                 |
| 18-816                      | 600                  |
| 18-817                      | unknown              |
| 18-818                      | 200                  |
| 18-819                      | 1000                 |
| 19-60                       | unknown              |
| 23-91, 92, 93, 94           | 1900                 |
| 35-300, 301                 | 1500                 |
| 35-302, 303                 | unknown              |
| 35-337, 338                 | 600                  |
| 38-619, 620                 | 3000                 |

All of the above were found filed under National Air Races as their reference. The following additional air race footage was found under different references, mostly by location--city and state--or by airfield where events were held or by personalities involved.

| <u>Negative file number</u> | <u>Length</u> |
|-----------------------------|---------------|
| 11-740                      | 700           |
| 11-760                      | 500           |
| 12-800                      | 1250          |
| 26-275                      | 500           |
| 26-334                      | 400           |
| 26-335                      | 500           |
| 26-534                      | 400           |
| 32-146                      | unknown       |
| 38-680                      | 500           |

Occasionally there is no length listed on the file cards, as indicated in the above lists. Also the same number is sometimes assigned to two negatives, if they arrived together and cover the same subject. Sometimes, as in 23-91, 92, 93, 94 several negatives are listed on one card and a combined length given for all.<sup>102</sup>

The average length of the negatives found was 940 feet. If this average is assigned to those negatives for which the length is unknown, the total amount of footage on the National Air Races comes to 35,730 feet. The total time of this footage, at 90 feet per minute (since this is all sound film,) is 397 minutes, or six hours and 37 minutes. So even for a subject as specialized as this, there is ample footage from which to select for preparing a preliminary script.

It is common practice when producing a film of this sort to write a script for narration purposes after the film has been selected, obtained, edited and assembled. However, a rough script can be written first for the desired visual material which can be selected and "edited" on paper without actually being in hand. This is what will be done for this thesis.

In either case it is necessary to examine the procedure and costs for obtaining negatives from the newsreel company, and to know the arrangements and costs for uses and royalties. The procedures and costs given here are those of Movietone, but would be similar for any of the other newsreel companies that maintain similar libraries.

After the determination has been made of just what footage is wanted, an order for specific footage, in the form of a work print, is submitted to Movietone. There is of course no guarantee given that

what is desired is available or will be found, for reasons already examined. Out-takes were sometimes discarded. Film was sometimes used and not returned. Some has been lost because of fire or through simple age. It is in this connection that the card information on the disposition of the film is useful. If it is indicated that the footage was used in a released newsreel, then the footage is available today, because Movietone maintains master prints of every released newsreel. If the film was not used, there is still a good chance that it exists, since despite many problems the Movietone library has been maintained as best as possible.<sup>103</sup>

Movietone prepares a work print of the desired footage, charging a fee which included both handling costs and lab fees. For a 35 millimeter work print, the cost is \$.20 a foot. For a reduction to 16 millimeter, the cost is \$.25 a foot. The quality of this print is strictly for work purposes. The customer must agree to return every foot of the work print after any cutting, editing and selecting of final footage desired has been completed. When the work print is returned to Movietone a master print or negative, whichever the customer orders, of the customer's selected footage is made. Lab costs for this final print or negative run as follows: for fine-grain positive prints, the cost (for 35 mm) is \$.25 a foot for just the picture, or \$.27 for a composite of film and sound. For a 16 mm reduction print, the costs are \$.27 for picture and \$.29 for composite. If the customer prefers a negative, the costs for 35 mm are \$.27 and \$.30; for reduction 16 mm they are \$.32 and \$.35. For a documentary film for which new narration is going to be written the original sound will most

likely not be needed, unless a few sequences with original narration were desired to show the character of the original newsreel presentation.

The final cost to be considered is the royalty for the use of Movietone footage in a finished film. This charge is figured by the minute, the total charge based on the total amount, in minutes, of Movietone footage contained in the finished film. The amount differs depending on the area of presentation of the finished film. If the film is destined for educational use, the charge is \$670 a minute. For local television use, the charge is \$900 a minute. For network TV showing, the amount is \$1,350 a minute, and for showing in movie theaters the royalty is \$1,800 a minute.

This royalty is a one-time charge, with no additional charges for additional presentations of the film in the medium for which the royalty was paid. However, if the footage is used again in another production, or if the same film is shown in another medium, then an additional royalty payment must be made. For example, if a film were shown in theaters, and the \$1,800 royalty payment made, and then the film was sold to network TV and shown, the \$1,350 network TV royalty would be required to be paid.<sup>104</sup>

Let us consider a thirty-minute film comprised entirely of Movietone footage, and examine some costs. First it must be noted that such a film is going to require much more than thirty minutes of Movietone footage, for two reasons. First of course is the simple need to have a large amount of footage to select shots and sequences from, to distill down and edit into the final film. Second is the fact that

Movietone, in preparing a work print, will only duplicate entire negatives. If one particular shot is wanted, say of 500 feet, but that shot is in a negative listed in the library card file as being 1,800 feet in length, then a work print of the entire 1,800-foot negative must be purchased.

For purposes of getting a rough idea of costs involved, let us assume that we would, for a half-hour film, need to know the costs for about two hours of raw, work print footage; an hour of release quality footage from which to assemble the final film; and the royalty costs for a theatrical showing of the film. Two hours of work print comes to 10,800 feet, for a cost--at \$.20 a foot--of \$2,160. One hour of final print, 35mm with no sound, comes to 5,400 feet. The cost would be \$1,350 for a fine-grain positive print (\$.25 a foot) or \$1,485 for a duplicate negative (\$.27 a foot.) The royalty costs for theater showing, at \$1,800 per minute, would be \$54,000.

The total of these three costs--work print, final print, and royalties--would be \$57,510 (slightly higher if a final negative rather than a print is desired.) As can be seen, the major amount of money is the royalty for the use of the footage, but the point must be again emphasized that the footage would not exist and be available for use were it not for the fact that Movietone finds it profitable. Also, these costs were figured for half-hour film comprised entirely of Movietone footage; in reality, a half-hour film of this type will usually make much use of stills and other visuals with archival footage being only a portion of the finished film. At \$1,800 a foot royalties, the footage used will be carefully chosen and used for maximum impact.

And with this consideration of costs, this thesis has reached the point intended. It is beyond both the budget possibilities and the stated purpose of this thesis to actually proceed with production of an actual film. But the research has been completed, the information located, the footage found and the procurement procedures investigated; enough has been done to prepare a first draft script. From rough ideas and half-formed questions has come the ability to create a blueprint--a script--for an historical documentary film, an "archival" film, on the National Air Races of 1929-39.

As stated, this is not a thesis on scriptwriting, so a long discourse on form and technique has no place here. Any number of acceptable forms for the writing of scripts are available in example form in scriptwriting books. The form chosen for this work is a commonly accepted one. In it, each separate "visual" is numbered as a scene, grouped to be followed by the narration which is to be spoken over it. Each scene is identified by a number, followed by the source for the material, followed by a short description of the material. Again, each block of narration is written to be read over the group of scenes/visuals which precedes it.

The following script, The Air Racers, is the result of following the processes set down so far in this work.

THE AIR RACERS

Script by  
James Drake Algar

1978

1. Bendix Corporation. Aerial view of grandstands at National Air Races, filled to capacity with spectators.
2. Smithsonian Institution. View from grandstand of opening ceremonies, 1929 National Air Races.
3. UPI (United Press International). Long shot, planes in formation pass flagpole with American flag and race banners.

NARRATOR

In late August of 1929, more than half a million people began to converge on Cleveland, Ohio to witness an event that was part science, part sport, part entertainment and much more--the National Air Races.

4. Movietone News, 3-485. Army and Navy pursuit planes and attack groups in flight.
5. Movietone, 3-537. The dirigible Los Angeles visits the National Air Races at Cleveland and moors to temporary mast.

NARRATOR

America was infatuated with aviation, and the National Air Races were aviation's premier event.

6. E. M. Laird collection. Cockpit of Jimmy Doolittle's aircraft, winner of first Bendix Trophy in 1931.
7. Smithsonian. Savoia-Marchetti twin-engined seaplane racer surrounded by ground crew.
8. Smithsonian. Fiat C-29 seaplane racer with ground crew.
9. National Archives. Aerial shot Douglas World Cruiser aircraft over New York on the first round-the-world flight, 1924.
10. Lufthansa Archives. Dornier seaplane airliner taking off from water.

NARRATOR

Aircraft technology was booming, and Americans eagerly followed each new breakthrough. Planes

could fly farther and higher  
and could carry more passengers  
and cargo.

11. Flight International. Seaplane racer makes inverted turn at high speed.
12. UPI. Jimmy Doolittle airborne in the Gee Bee R-1 at speed.
13. UPI. Roscoe Turner in plane passes finish pylon at Los Angeles air races.
14. Movietone, 11-723. Shot of race contestants passing finish line.

NARRATOR

But most of all they were faster every year. Sheer speed was something people were excited about, and speed competition--a race--was as American as a national holiday.

15. Movietone, 11-723. Shot of grandstand, planes passing by.
16. UPI. Race plane making low-level, high-speed turn around pylon.
17. UPI. Race plane passes top of pylon which dominates the picture.
18. UPI. Pilot Doug Davis holds Thompson Cup trophy.
19. Wide World. Roscoe Turner, covered with flowers, accepts Thompson Trophy.
20. UPI. Pilot standing in cockpit of race plane, shakes hands of bystanders.
21. UPI. Long shot, opening day ceremonies Cleveland National Air Races.

NARRATOR

And so on every Labor Day for ten years, beginning in 1929, incredible crowds paid the price of admission to watch fearless pilots hurl their powerful aircraft around pylons and across the continent in quest of glory in the week-long spectacle that was the National Air Races.

22. Library of Congress. Composite photograph of early aerial exhibition at Belmont Park, New York, 1910. Crowds appear to watch six aircraft in flight.
23. Smithsonian. Wright biplane makes low-level pass between camera and crowded grandstand.
24. UPI. Pilot and ground crew run up engine in early monoplane aircraft.

NARRATOR

Aircraft exhibitions and air racing  
had been a part of aviation since  
its earliest days.

25. John W. R. Taylor collection. Three biplanes in close formation round pylon at Reims, France air race, 1909.
26. Flight International. Panoramic view of early air race meet. Seated crowds in foreground, hangars and grass flight strip in background.
27. UPI. Crowds watch as early monoplane crosses finish line marked by checkered pylon.
28. Smithsonian. Portrait photograph, James Gordon Bennett, Jr.

NARRATOR

The world's first organized air race  
was held in Reims, France in 1909.  
A quarter of a million persons attended,  
including most of the royalty of Europe.  
The principal event was the Bennett Cup  
International, sponsored by James Gordon  
Bennett Junior, publisher of the New York  
Herald.

29. National Archives. Two pusher biplanes fly over grandstand at Los Angeles, 1910.

NARRATOR

The first air races in the United  
States were held at Dominguez Field,  
near present-day Compton, California  
in 1910.

30. Front page, Los Angeles Times, September 3, 1929.
31. Front page, Los Angeles Times, September 2, 1930.
32. Front page, Los Angeles Times, September 8, 1931.

33. Front page, Los Angeles Times, September 6, 1932.
34. Front page, Los Angeles Times, July 2, 1933.
35. Front page, Los Angeles Times, September 1, 1934.
36. John W. R. Taylor collection. Large crowd in period dress sits in open cars viewing Harvard-Boston Aeromeet of 1911.
37. John W. R. Taylor collection. Crowd surrounds aircraft at London Daily Mail competition at Alexandra palace, London, in 1907.

NARRATOR

Air racing made good newspaper copy and newspapers would always take an active part in promoting and sponsoring air racing events. In 1910, the Boston Globe and the London Daily Mail sponsored major air races, while the Bennet Cup continued as aviation's premier event.

38. Smithsonian. Photograph, Ralph Pulitzer.
39. Smithsonian. Four of the race's seven entries on flight line for the 1923 Pulitzer race.

NARRATOR

In 1920, Ralph Pulitzer, publisher of the New York World, sponsored the Pulitzer Trophy Race, held annually until 1925.

40. UPI. Lt. L. H. Saunderson's Navy-Wright "Mystery" sesquiplane being run up by mechanics before start of Pulitzer race.
41. UPI. Lester Maitland's Curtiss R-6, winner of second place, 1922 Pulitzer race.
42. UPI. The Loening Packard aircraft, 1922 Pulitzer race entrant.
43. Curtiss Aircraft. Racing planes under construction in the Curtiss factory at Garden City, Long Island.
45. United States Army. Pulitzer race winner Curtiss R-6 under construction.
46. United States Navy. Navy racers Curtiss R-1 and R-2 under construction in Curtiss factory.
47. Smithsonian. Army Lt. Walter Miller's Curtiss R-6 during takeoff at St. Louis for 1923 Pulitzer Trophy Race.

## NARRATOR

The event was dominated by military aircraft, as America's fledgling air services seized on air racing as a way to prove designs and convince the public of the worth of aircraft.

- 48. UPI. Pilot Lee Ghelbach poses leaning on wing of Gee-Bee R-2.
- 49. UPI. Pilot Benny Howard posing with diminutive "Pete" racer in front of race grandstands.

## NARRATOR

This domination of American air racing would last until 1929, when a new breed of aircraft and pilot would take over.

- 50. L.A. International Airport photo. Cliff Henderson, managing director of National Air Races and International Aeronautical Exposition of 1928, shows model of airfield to Sid Grauman, showman and operator of Grauman's Chinese Theater.
- 51. UPI. A formation of U.S. Army biplanes flies by grandstand during official opening ceremonies of 1934 National Air Races.
- 52. UPI. Aerial shot, opening day 1933 National Air Races, Los Angeles.

## NARRATOR

An America tumbling into the depths of the Depression was ready for something to take its mind off its troubles. It was ready for colorful spectacle, for speed and thrills--and for heroes.

- 53. New Orleans Times-Picayune. Jimmy Wedell, builder of winning Bendix race planes of 1932, 1933 and 1934 poses in front of one of his aircraft.
- 54. Bendix Corporation. Pilot Doug Davis, winner of 1934 Bendix race, congratulated by race sponsor Vincent Bendix.
- 55. Bendix Corporation. Crowds at finish line with Bendix home pylon and race banners in background at 1936 Los Angeles races.

## NARRATOR

The National Air Races, moving into the 1930's as a firmly established annual event, was ready to give them

what they wanted...and then some.

56. Movietone, 59-115. Closeup shot, air race trophies on table.

NARRATOR

Fame and glory--and cold cash--  
beckoned from the air race cir-  
cuit to an aviation industry  
hard hit by the Depression.

57. John W.R. Taylor collection. Half-completed bare framework of aircraft in factory hangar.
58. John W. Caler publications. Canvas-covered biplane rests behind delapidated truck advertising early flying circus. Both resting in weed-grown field.
59. Sopwith Aircraft Co. Half-completed airplane on sawhorses in factory hangar.

NARRATOR

Manufacturers, designers and pilots  
by the hundreds were out of work.  
Almost the only loose cash still  
around in aviation was in racing.

60. John W. Caler publications. Art Chester's "Goon" racer, wings under construction in small workshop.
61. John W. Caler publications. Outdoor shot of partially completed "Goon" racer fuselage.
62. Model Builder Magazine. Partially completed fuselage skeleton of Gee Bee Model Z.
63. UPI. Designer Lawrence Brown poses along side Brown B-2 shortly before its completion.
64. John W. Caler publications. Pilot Art Chester in cockpit of "Jeep" racer as engine is hand-cranked by mechanic.
65. John W. Caler publications. Art Chester with uncovered framework of Jeep wing during early stages of construction.
66. Smithsonian Institution. Shot from above of Steve Wittman's short-span "Bonzo" racer.
67. UPI. "Bulldog" racer, fully streamlined raceplane designed for Thompson Trophy Race.

## NARRATOR

So they began laboring in small sheds, hangar corners and abandoned dance halls. They shoehorned large engines into their tiny designs. They clipped the wings shorter and shorter. They smoothed and streamlined, often more by eye than by science.

68. Peter M. Bowers collection. Benny Howard in cockpit of DGA-5 racer running up engine.
69. UPI. Four photo sequence. Howard racer digs in landing gear on landing, somersaults amid cloud of dust to crash landing.
70. UPI. Spectators surround pilot (unhurt) and wreckage of Howard racer.
71. UPI. Spectators and officials surround wreckage of Gee Bee Model Y in which pilot Florence Klingensmith was killed.
72. Wide World. Wreckage of Jacqueline Cochran's Northrup "Gamma."
73. UPI. Body of pilot Leland Williams lies amidst wreckage as workers attempt to free him.
74. UPI. A smiling Joe Jacobson waves at camera from cockpit of his Northrup Gamma racer.
75. UPI. Jubilant Jimmy Haizlip gives "high sign" to camera as he exits cockpit after winning 1932 Bendix.

## NARRATOR

They were operating on the cutting edge of aviation technology and sometimes it was a ragged edge. Racing planes crashed, were rebuilt and crashed again. Pilots died, but others were always ready to take their place in the cockpits.

76. Movietone, 15-644, 45, 46. Pursuit group flying over grandstand.
77. Movietone, 11-723. Long shots and general views of crowds at races.
78. Movietone, 59-118. Medium and close up shots of crowds in open stands.
79. Movietone, 18-814. Crowd shot, pans to plane piloted by Roscoe Turner.

80. Movietone, 15-611. Airplanes in flight rounding home pylon.

NARRATOR

To the public, none of this mattered, or perhaps only made it more exciting. Every pilot, every plane could be the winner to the Roman-holiday crowds that gathered every year. They sat on rickety grandstands in the hot, late-summer air and strained for a glimpse of brightly colored wings flashing around checkered pylons to the accompaniment of incredible roaring sounds from straining engines.

81. Movietone, 35-337. Start of Thompson Trophy Race, various shots of racers.
82. UPI. Sponsor Charles E. Thompson presents trophy to Lowell Bayles after 1931 Thompson race.
83. Movietone, 18-814. Shot of Roscoe Turner taxiing his Bendix-winning "Golden Bullet" racer.
84. UPI. Roscoe Turner speaking before microphone to crowds, with Bendix trophy beside him.

NARRATOR

The two biggest races every year--the two races that mattered--were the Thompson Trophy race, a closed-course pylon race first run in 1929, and the Bendix Trophy race, a long, grueling cross-country race begun in 1931.

85. Movietone, 3-485. Take-off of Army attack group for exhibition flying at 1929 National Air Races.
86. Peter M. Bowers collection. Side view of Travel Air Model R Mystery Ship winner of 1929 National Air Races.
87. Smithsonian Institution. Front view of Mystery Ship. Spectators hurrying away amid dust from running engine.
88. Beech Aircraft. Mystery Ship parked in front of large hangar bearing sign, "Travel Air Factory B."
89. Beech Aircraft. Front view of Mystery Ship in front of Travel Air hangar.
90. Charles A. Mendenhall drawing. Pen-and-ink technical line

drawing of Travel Air Mystery Ship.

NARRATOR

The end of the military hold on air racing came on the wings of the Travel Air "Mystery" aircraft which won the first Thompson Trophy race. Newspapers tagged it with the name when it was flown from its Wichita factory to Cleveland Airport and immediately covered with canvas to shield it from prying eyes. Capable of 235 mph it was 70 mph faster than the military's fastest pursuit aircraft.

91. UPI. Closeup of large formation of biplanes passing overhead.
92. UPI. Jimmy Doolittle taxiing after landing at Newark Airport after winning 1931 Bendix race.
93. Wide World. Charles "Speed" Holman poses leaning on propellor of Laird biplane.
94. E.M. Laird photo. Laird Solution biplane parked in front of aircraft hangar bearing large painted sign, "EM Laird Co."

NARRATOR

Biplanes dominated the races of 1930 and 1931. Charles "Speed" Holman flew the black and gold Solution--so named because it would solve 1929's Mystery Ship--to victory in the 1930 Thompson race.

95. UPI. The streamlined, but very dangerous Curtiss XF6C-6 of Marine Capt. Arthur Page.
96. Warren M. Brodie photo. Capt. Page in the cockpit of the seaplane F6C-3 Curtiss Hawk before its modification to Thompson Trophy racer.
97. US Navy photo. Same aircraft, same angle after its modification to racing plane.
98. US Navy photo. Capt. Page poses in cockpit of Curtiss racer for publicity shot. (hold and slow fade on this photo to end of following narration.)

## NARRATOR

In that race Marine Capt. Arthur Page crashed his Navy racer. The plane was originally a seaplane and was extensively modified especially for the Thompson race. Page was overcome by carbon monoxide fumes, lost control and was killed. This marked the end of military participation in the races for the rest of the decade. And Charles Holman, the race winner, would be killed in a crash the following year.

99. US Air Force photo. Major James H. Doolittle in cockpit of Laird Super Solution at Cleveland.
100. James H. Doolittle collection. Crowd surrounds Doolittle in cockpit of racing plane during refueling stop, 1931 Bendix race.
101. E.M. Laird collection. Closeup of Doolittle in cockpit being congratulated after victory.
102. James H. Doolittle collection. Doolittle in shirtsleeves and parachute poses in front of Super Solution.
103. E.M. Laird collection. Closeup of instrument panel and interior of Super Solution.

## NARRATOR

1931 marked the appearance of Jimmy Doolittle at the National Air Races as he won the cross-country Bendix Trophy in Holman's 1930 racer now called the Super Solution.

104. Wide World. Air-to-air shot of Gee Bee Model Z piloted by designer Bob Hall.
105. Dustin W. Carter collection. Pilot Lowell Bayles in business suit examines Gee Bee Model Z in front of airport hangar.
106. US Air Force photo. Designer Robert Hall in shirtsleeves standing up in cockpit of Gee Bee Model Z.
107. Warren M. Brodie collection. Three-quarter front shot of Gee Bee Model Z as it appeared on rollout from Springfield, Mass. factory on Aug. 22, 1931.

## NARRATOR

Of the new planes, none were better known than the oddly-shaped, treacherous

to fly series of aircraft known as the Gee Bee racer. The Gee Bees took their name from the five Granville Brothers, who built them in an abandoned dancehall in Springfield, Massachusetts. These aircraft eventually earned a reputation as killers. Extremely fast, they were also very unstable, and four pilots lost their lives trying to fly them.

108. Movietone, 15-673. Shots of Jimmy Doolittle in the Gee Bee R-1 at speed. Shots of landing.
109. Movietone, 15-672. Additional shots, Doolittle landing Gee Bee R-1.
110. Movietone, 15-673. Closeup of Jimmy Doolittle with R-1.
111. Movietone, 15-703. Jimmy and Mrs. Doolittle as he accepts Thompson Trophy from sponsor Charles E. Thompson.
112. US Air Force photo. Pilot Lowell Bayles, in helmet and goggles, in cockpit of Gee Bee Model Z.
113. Movietone, 12-800. Bayles brings his Gee Bee plane out of hangar. Reporter interviewing Bayles. Official gives Bayles electrical timing apparatus. Putting hood over cockpit. The take off. Pan shot of Bayles in flight.
114. UPI. Voluminous smoke billows from wreckage seconds after fiery crash of Gee Bee Model Z. Bayles' body visible near wreckage.
115. Steve Hudek photo. A serious Lowell Bayles gazes into the camera from cockpit of Gee Bee Model Z.

#### NARRATOR

These "flying barrels," as people called them, won two Thompson Trophy Races, in 1931 and 1932. The pilot in 1932 was Jimmy Doolittle, who also set a landplane speed record of more than 296 miles per hour. But these were the only triumphs in the Gee Bees' short history. All else was tragedy. Lowell Bayles had won the 1931 Thompson in the Gee Bee Model Z. Later, Bayles attempted to set a world speed record. In mid-air, the Gee Bee suddenly snapped a wing at over 300 miles an hour. The plane cartwheeled into the ground, completely destroying itself. Bayles was killed instantly. He was 31.

- 116. R.H. Knowlock photo. Gee Bee R-1 in foreground flashed by Bendix pylon at high speed.
- 117. UPI. Pilot Russell Thaw flares out for landing at Indianapolis in Gee Bee R-2.
- 118. Movietone, 15-674. Gee Bee comes in for a landing.
- 119. UPI. Pilots Russell Boardman and Thaw in worried discussion prior to Boardman's takeoff.
- 120. Movietone, 15-673. Shot of Gee Bee taking off.
- 121. UPI. Bystanders gather around wreckage of Gee Bee R-1.

NARRATOR

In 1933 two more Gee Bee aircraft were entered in the Bendix Race. At a refueling stop in Indianapolis the first aircraft, piloted by Russel Thaw, was damaged on landing and could not continue. The second Gee Bee landed a few minutes later. Pilot Russell Boardman refueled, had a few words with Thaw, then took off. Only a few feet into the air the Gee Bee snap-rolled and plowed into the ground upside down. Boardman died soon after in a local hospital.

- 122. Movietone, 15-703. General shots of racing plane in speed dashes.
- 123. Movietone, 15-672. Shots of planes at full speed.
- 124. Movietone, 18-815. Closeup shots of Roscoe Turner in grandstands.
- 125. UPI. "Colonel" Roscoe Turner in full dress uniform poses with Bendix Trophy.

NARRATOR

Some critical voices began to be raised about the justification for such a dangerous activity. But the public wanted more. They wanted heros, the more colorful the better. And they had the most colorful of all in Roscoe Turner.

- 126. Bendix Corp. photo. Turner, in helmet and goggles, poses in "uniform" of non-existent Nevada Air Force.
- 127. UPI. Roscoe Turner poses with lion cub mascot "Gilmore."

- 128. Wide World. Turner poses with Thompson Trophy.
- 129. UPI. A laughing Turner with armful of trophies talks to admirers in front of plane.
- 130. Movietone, 18-818 & 26-275. Turner entering cockpit of "Golden Bullet" racer. Mrs. Turner wishes husband luck. The plane takes off. Various shots of plane in the air.
- 131. Movietone, 18-814. Turner landing his Golden Bullet.
- 132. Wide World. Turner walking at head of group of admirers cradling Thompson Trophy in arms.

NARRATOR

Turner's trademarks were a waxed moustache, a powder-blue aviator's uniform and a lion cub mascot named Gilmore. He had been successful as a lion tamer, parachute jumper and Hollywood stunt pilot. Turner was perfect for the increasingly circus-like atmosphere of the National Air Races. But if Turner was a showman, he was also a skilled pilot. He won the Bendix Trophy in 1933, and the Thompson Trophy in 1934, 38 and 39, the only man to win that race more than once.

- 133. Movietone, 15-712. Closeup shot of Mae Haizlip.
- 134. Movietone, 15-712. Takeoff of race plane with Mae Haizlip at controls.
- 135. Movietone, 15-712. Landing and taxiing shots of Mae Haizlip's aircraft.
- 136. Movietone, 18-817. Amelia Earhart arrives for race. Shots climbing from plane.
- 137. Lockheed Corp. photo. Amelia Earhart sits in hangar awaiting start of 1935 Bendix race.
- 138. Lockheed Corp. photo. Pilot Laura Ingalls on wing of Lockheed racer as ground crew prepares plane.
- 139. Lockheed Corp. photo. Amelia Earhart, Laura Ingalls and Roscoe Turner on wing of Ingall's aircraft before race.
- 140. UPI. Louise Thadden and Blanche Noyes winners of 1936 Bendix

## NARRATOR

The Thompson Trophy Race of the same year created a controversy. A French airplane, the Caudron, was entered, to be flown by one of France's premier pilots, Michel Detroyat. The Caudron won the race easily at almost twenty miles an hour faster than the second place entry. American pilots protested, claiming the French government had poured millions of dollars into supporting Detroyat's efforts. While not true, the complaints and protests were enough to make the French abandon any future plans to take part in American air racing. The Caudron was the first--and last--international entry in the National Air Races.

- 151. Movietone, 18-817. Parachute jumper lands in grandstand.
- 152. Movietone, 18-817. Autogyro loops the loop.
- 153. Movietone, 18-817. Smokescreen stunting by Hollywood trio.

## NARRATOR

To the hugh crowds who attended the National Air Races year after year, such goings-on were of little importance. They still craved excitement and drama, and they got it.

- 154. Movietone, 38-619, 620. Planes on takeoff line. Roscoe Turner in cockpit. Earl Ortman and Jay Silver in cockpits. Takeoff. Shots of planes racing.
- 155. Smithsonian Institution. Steve Whitman standing next to ungainly "Bonzo" racer.
- 156. Movietone, 35-337, 338. Shots of racing planes passing each other on turns.
- 157. Movietone, 38-619, 620. Various shots of planes racing.
- 158. UPI. Pilot Rudy Kling stands in cockpit of plane with victory wreath around shoulders as wife holds trophy.

## NARRATOR

1937 gave spectators the most exciting Thompson Trophy race ever. Steve Wittman led most of the way in

his Bonzo--as fast as it was ugly-- until forced out with engine problems. Roscoe Turner then battled Earl Ortman until, thinking he had missed a pylon, Turner turned to take the corner again, taking himself out of the race. Ortman, thinking the race won, throttled back. Out of the pack came dark horse Rudy Kling in his Folkerts Special. Ortman never saw him and Kling flashed by him at the finish line to win by one length. The crowds roared their appreciation; they had gotten their money's worth.

- 159. Movietone, 35-337, 338. Shots of crowds and parked cars.
- 160. Movietone, 35-300, 301. Shots of crowds. Shots of individual watching racers.
- 161. UPI. Shot of parking area, 1938 National Air Races. Cars are packed from foreground into furthest distance.
- 162. Movietone, 35-300, 301. Opening aerial salute with formation of sky-writing planes.
- 163. UPI. Tight closeup of pilot Rudy Kling.
- 164. John W. Underwood collection. Rudy Kling leans nonchalantly against wing of his racer.
- 165. UPI. Crowd and officials around shattered wreckage of Kling's plane at Miami race.

#### NARRATION.

As the 1938 races got underway, what people would one day call the Golden Age of Air Racing was almost over. But no one could tell at the time. Air racing in America was big business and spectacle rolled into one. And the crowds awaited another exciting program. But Rudy Kling, the big winner of the previous year, would not be there. At a race earlier in the year at Miami, Kling was killed when his plane crashed in the first turn. But that was part of racing, people said, and they waited for new winners.

- 166. Movietone, 35-302, 303. Shot of Jacqueline Cochran landing airplane.

167. Movietone, 35-300, 301. Cochran after winning Bendix trophy.
168. UPI. Cochran taxis off runway after setting new trans-continental record.
169. UPI. Cochran is congratulated by Vincent Bendix.
170. Movietone, 32-146. Landing shot of Frank Fuller's aircraft. Taxiing in. Closeup of Fuller in plane.

NARRATOR

Jacqueline Cochran won the Bendix race, setting a new transcontinental record in the progress. Cochran's victory signaled the end of the days when an airplane built on a shoestring by a few determined men could win a long distance race. Cochran flew a Seversky aircraft, built as the prototype for a new pursuit ship for the American military branches. Frank Fuller, also flying a Seversky in which he had won the 1937 Bendix race, was second. He would win again in the final Bendix race of the decade in 1939.

171. Movietone, 35-337, 338. Shots of Roscoe Turner landing after winning Thompson. Closeup taxiing his plane toward crowd. Shots of Turner talking to crowd.

NARRATOR

But the special planes, built for speed and nothing else, could still dominate the short-course Thompson race. Again it was Roscoe Turner flying his new Meteor to victory at an average speed of 283 miles per hour.

172. Movietone, 38-619, 620. Shots of crowd showing storm clouds in background.

NARRATOR

During the summer of 1939, preparations for that year's National Air Races were underway. But America's attention was elsewhere, as Europe moved towards war.

173. Reed Kinert photo. Steve Wittman's Bonzo racer awaits start of 1939 Thompson. (Close from full frame to left quarter of photo, small group of people looking very dejected.)
174. UPI. Shot of five planes taking off for 1939 Thompson. People in

foreground watching takeoff seem dejected, almost bored.

175. Movietone, 38-619, 620. Shots Thompson Trophy Race.
176. Cliff Henderson photo. Closeup Frank Fuller in cockpit of Sev-ersky aircraft. Fuller looks fatigued.
177. UPI. Vincent Bendix with pilot and race official, silent and scowling.
178. UPI. Pilot Leland Williams tows his racer from field prior to fatal flight. (Close to tight closeup Williams.)
179. John W. Caler publications. Pilot Delbert Bush in cockpit of Folkerts racer.
180. UPI. An unsmiling Roscoe Turner accepts his final Thompson Trophy.
181. UPI. Bystanders and race officials remove body from plane wreckage.
182. UPI. Onlookers crowd around wrecked race plane.
183. Wide World. Twisted wreckage of Northrup "Gamma" raceplane.
184. Wide World. Pilot Earl Ortman poses in front of his racer, looking distractedly into distance. (Start full frame, close to figure of Ortman on left.)

#### NARRATOR

The day before the races would begin, Germany invaded Poland and World War Two had begun. Everyone sensed that the bright decade of that peculiar carnival called the National Air Races was playing out its final season. The races were run--Frank Fuller winning the Bendix, Roscoe Turner winning the Thompson for his third time--but people's hearts weren't in it now. Pilot Leland Williams was killed. Pilot Delbert Bush was killed. And Roscoe Turner climbed out of his plane after his victory and made a simple announcement. He was through with air racing. He was retiring. The racing fatalities could no longer be shrugged off. Sheer speed no longer impressed people. The future would come at them fast enough and no one resisted as the National Air Races were pushed off the front page.

185. Movietone, 3-485. Army and Navy planes thrill crowds with dive

stunts, precision and formation flying.

186. Movietone, 11-723. Pilot stunting.
187. Movietone, 11-723. Shot of parachute jumper jumping out of plane.
188. Movietone, 11-723. Shot of parachute jumper landing in circle.
189. Movietone, 11-723. Autogyros fly in formation.
190. Movietone, 15-644, 645, 646. Pilot does crazy, low flying.
191. Movietone, 15-611. Wingwalker, performs atop plane in flight.
192. Movietone, 15-673. Crowd shot.
193. Movietone, 16-644, 645, 646. Shots of 20-mile race around pylon.
194. Movietone, 23-91. Marine planes in formation laying down smoke-screen.
195. Saturday Evening Post front cover, Sept. 4, 1937. Artist's drawing, stylized race planes rounding checkered pylon.

NARRATOR

But for a decade they had been firmly on the front page, firmly on the minds and in the hearts of those who followed aviation in America. They were speed, they were spectacle. They were color, they were diversion. They were excitement. They were what America wanted...They were the National Air Races.

(Hold Post cover, roll credits to fade.)

end

## CONCLUSION

It is impossible in the preceding script to take it apart in an attempt to show which parts of it came out of which parts of the process demonstrated in this thesis. In a creative effort such as the script, the yield of that process merges, overlaps, the steps complementing each other. It would be too simple--and totally incorrect--to say that the narration came from the subject research while the visuals came out of the materials research. There is some of each in both.

Rather than taken apart, this script should be taken as a whole proof that the research steps and techniques outlined in this thesis do in fact produce what they were intended to--a documentary. The steps, when summarized, seem simple enough. Follow the subject through its written history in books, newspapers, magazines and any other written material which can be found. Follow its visual history through both photographs and motion picture footage from every possible source. Determine what is necessary to obtain what has been located if actual production of the film is intended. Familiarize yourself with as much of the technique of film as you feel necessary to accomplish your task, be it simply the research, or the research and a script taken from it, or even a finished film.

The process presented in this work was applied to a particular subject and thus in its final forms is unique to this subject. But the steps, the order, the manner in which the processes are carried through and followed up on are applicable to any subject. It is intended to be flexible enough to be useful as a guide which might help in the pre-

paration of any subject thought suitable for rendering in a historical documentary film--which includes just about any subject in the world.

## NOTES

<sup>1</sup>Photography was developed almost simultaneously by Niepce, Jr. of France (1826), Fox-Talbot of England (1835), and Daguerre, also of France (1837). Motion pictures were developed by a number of pioneers--Friese-Green, Lumiere, Edison and others--in the last decade of the 19th century.

<sup>2</sup>Pictures and film can of course can be made to lie, but the lie originates usually with the person behind the camera or in the laboratory.

<sup>3</sup>In 1976 the California State University, Northridge library had 23 card catalog listings under Documentary Film.

<sup>4</sup>Victory at Sea was produced in 1952 by NBC in cooperation with the U.S. Navy. The World at War was a Thames Television production for British television in the early 1970's.

<sup>5</sup>According to The New York Times Index, between 1930 and 1939 the Times carried not fewer than 249 separate stories specifically on the National Air Races.

<sup>6</sup>Joe Christy, Racing Planes Guide (New York: Modern Aircraft Series, 1963), p. 5.

<sup>7</sup>Richard O'Connor, The Scandalous Mr. Bennett (New York: Doubleday and Co., Ind., 1962), p. 149.

<sup>8</sup>Christy, p. 7.

<sup>9</sup>Ibid., p. 8.

<sup>10</sup>Ibid., p. 7.

<sup>11</sup>Ibid., p. 8.

<sup>12</sup>Ibid., p. 14.

<sup>13</sup>Ibid., p. 27.

<sup>14</sup>Ibid., p. 50.

<sup>15</sup>Ibid., p. 56.

<sup>16</sup>New York Times, September 6, 1932, Part 1, p. 1.

<sup>17</sup>From 1929 to 1939 the winning speed in the closed-course Thompson Trophy Race increased from 194.9 m.p.h. to 282.5 m.p.h.

<sup>18</sup>A new example of still-continuing interest in this period of aviation is the recently published biography of Jimmy Doolittle, by Lowell Thomas, which dwells extensively on Doolittle's air racing career.

<sup>19</sup>Hendrik de Leeuw, Conquest of the Air: The History and Future of Aviation (New York: Vantage Press, 1960).

<sup>20</sup>Charles Howard Gibbs-Smith, Aviation, an Historical Survey from its Origins to the End of WWII (London: Her Majesty's Stationery Office, 1970).

<sup>21</sup>Arch Whitehouse, The Early Birds: The Wonder and Heroics of the First Decades of Flight (New York: Doubleday and Co., Inc., 1965).

<sup>22</sup>C. R. Roseberry, The Challenging Skies: The Colorful Story of Aviation's Most Exciting Years, 1919-1939 (New York: Doubleday and Co., Inc., 1966).

<sup>23</sup>August Hannibal, Aircraft, Engines and Airmen: A Selective Review of the Periodical Literature, 1930-1969 (Metuchen, New Jersey: The Scarecrow Press, Inc., 1972).

<sup>24</sup>A perfect example: Buehl, Fred and Gann, Harry, The National Air Race Sketchbook, 1930-1949 (Los Angeles: Floyd Clymer, 1949). A rather specialized book, long out of print, found gathering dust in a Glendale used book store and purchased for one dollar.

<sup>25</sup>All of the cited categories of specialty book stores were taken from one just one (Northwestern) edition of the Los Angeles Yellow Pages.

<sup>26</sup>Don Vorderman, The Great Air Races (New York: Doubleday and Co., Inc., 1969).

<sup>27</sup>Reed Kinnert, Racing Planes and Air Races (Fallbrook, California: Aero Publishers, 1967).

<sup>28</sup>John Caler, The Art Chester Story (Sun Valley, California: Caler Publications Corp., 1968).

<sup>29</sup>Charles A. Mendenhall, The National Air Racers in 3-views (New York: Diane Publishing Co., 1971).

<sup>30</sup>Don Dwiggs, The Flew the Bendix Race (New York: J. B. Lippencott Co., 1965).

<sup>31</sup>New York Times, September 6, 1932, Part 1, p. 1.

<sup>32</sup>Los Angeles Times, September 6, 1932, Part 3, p.1.

- <sup>33</sup>Los Angeles Times, September 3, 1929, Part 1, p. 1.
- <sup>34</sup>Times, Sept. 2, 1930, Part 1, p.1.
- <sup>35</sup>Times, Sept. 8, 1931, Part 1, p. 1.
- <sup>36</sup>Times, Sept. 6, 1932, Part 1, p. 1.
- <sup>37</sup>Times, July 2, 1933, Part 1, p. 1; July 5, 1933, Part 2, p. 1.
- <sup>38</sup>Times, Sept. 1, 1934, Part 1, p. 1.
- <sup>39</sup>Times, Sept. 4, 1934, Part 1, p. 1.
- <sup>40</sup>Times, August 31, 1935, Part 1, p. 1.
- <sup>41</sup>Times, Sept. 3, 1935, Part 1, p. 1.
- <sup>42</sup>Times, Sept. 5, 1936, Part 1, p. 1.
- <sup>43</sup>Times, Sept. 8, 1936, Part 1, p. 1.
- <sup>44</sup>Times, Sept. 4, 1937, Part 1, p. 1.
- <sup>45</sup>Times, Sept. 7, 1937, Part 1, p. 1.
- <sup>46</sup>Times, Sept. 4, 1938, Part 1, p. 1; Sept 6, 1938, Part 1, p. 1.
- <sup>47</sup>Times, Sept. 3, 1939, Part 1, p. 7.
- <sup>48</sup>Times, Sept. 6, 1939, Part 1, p. 16.
- <sup>49</sup>Times, Sept. 4, 1936, Part 2, p. 4.
- <sup>50</sup>New York Times, Sept. 7, 1939.
- <sup>51</sup>Los Angeles Times, Sept. 4, 1936, Part 2, p. 18.
- <sup>52</sup>Times, Sept. 3, 1936, Part 1, p. 1.
- <sup>53</sup>Times, Sept. 4, 1936, Part 2, p. 4.
- <sup>54</sup>Ulrich's International Periodicals Directory is published in annual editions. For historical research, earlier editions are useful.
- <sup>55</sup>Robert C. Hare, "The Golden Age of Air Racing," Model Airplane News, April 1958, p. 12.
- <sup>56</sup>Model Builder, October 1976, p. 48.

<sup>57</sup>Model Airplane News, November 1960, p. 59.

<sup>58</sup>Flying Models, August 1976, p. 12.

<sup>59</sup>Radio Control Sportsman, August 1975, pp. 32-34, 77-79.

<sup>60</sup>Hannibal, Aircraft, Engines and Airmen, p. 277.

<sup>61</sup>Lowell Thomas and Edward Jablonski, Doolittle: A Biography (New York: Doubleday and Co., Inc., 1976).

<sup>62</sup>Lenny Lipton, Independent Film Making (San Francisco: Straight Arrow Press, 1972), p. 197.

<sup>63</sup>Both the U.S. Army and U.S. Navy took part in the National Air Races, either with official race entries or in exhibition flying, throughout the 1920's and 1930's.

<sup>64</sup>From the August 28, 1939 issue of Life magazine: "The best collection of photographs of U.S. history is owned, strangely enough, by the U.S. Army. In its bulging files, the Army Signal Corps has 125,000 pictures of America. They go back as far as the early 1850's, come right up to the present moment."

<sup>65</sup>Two individuals with photographic collections on the National Air Races are Steve Hudek, 14925 Kilbourne, Detroit, Michigan, and R. S. Hirsch, 8439 Dale Street, Buena Park, California.

<sup>66</sup>The Experimental Aircraft Association, Hales Corners, Wisconsin and The American Air Racing Society, P.O. Box 121, South Euclid, Ohio.

<sup>67</sup>Raymond Fielding, The American Newsreel 1911-1967 (Norman, Oklahoma: The University of Oklahoma Press, 1972), p. VII.

<sup>68</sup>Ibid., p. 72.

<sup>69</sup>Ibid., p. 86.

<sup>70</sup>Hearst's last newsreel issue was released November 30, 1972.

<sup>71</sup>Fielding, p. 105.

<sup>72</sup>Ibid., p. 98.

<sup>73</sup>Bert Holst, "The Film Library," Journal of the Society of Motion Picture Engineers, November 1946, p. 365.

<sup>74</sup>Fielding, p. 74.

<sup>75</sup>Ibid., p. 67.

<sup>76</sup>This footage, combined with footage of Lindberg being decorated by President Calvin Coolidge, was a sensation when released and drew continuous crowds to the Sam Harris Theater in New York.

<sup>77</sup>Arguably the most-shown, most-seen newsreel ever.

<sup>78</sup>The winning speed at the National Air Races increased from 1929's 194.9 to 282.536 in 1939. In 1938, an Italian aircraft flew to a record altitude of 56,046 feet. Lindberg's 1927 distance record of 3,600 was almost exactly doubled by 1938, when a British crew set a record of 7,158 miles on a flight from the Middle East to Australia.

<sup>79</sup>Fielding, p. 309.

<sup>80</sup>Ibid., p. 306.

<sup>81</sup>Ibid, p. 309.

<sup>82</sup>The information in this work on the structure and operation of the Fox Movietone News archives was gathered in a series of conversations with Elliot Bennett and in two extensive taped interviews with him on February 7, 1977 and March 1, 1977.

<sup>83</sup>Bennett interview, February 7, 1977.

<sup>84</sup>Bennett, February 1977.

<sup>85</sup>Bennett, February 1977.

<sup>86</sup>Bennett, February 1977.

<sup>87</sup>Bennett, February 1977.

<sup>88</sup>Bennett, February 1977.

<sup>89</sup>Kinnert, Racing Planes and Air Races, Vols. I-IV combined.

<sup>90</sup>Ibid.

<sup>91</sup>Ibid.

<sup>92</sup>Ibid.

<sup>93</sup>Bennett, February 1977.

<sup>94</sup>Bennett, February 1977.

<sup>95</sup>Bennett, February 1977.

<sup>96</sup>Bennett, February 1977.

<sup>97</sup>Bennett, February 1977.

<sup>98</sup>Bennett, February 1977.

<sup>99</sup>Bennett, February 1977.

<sup>100</sup>Fielding, p. 279.

<sup>101</sup>Bennett, February 1977.

<sup>102</sup>Bennett interview, March 1, 1977.

<sup>103</sup>Bennett, March 1977.

<sup>104</sup>Bennett, March 1977.

## BIBLIOGRAPHY

### Books

- Buehl, Fred and Gann, Harry. National Air Race Sketchbook. Los Angeles: Floyd Clymer, 1949.
- Caler, John and Underwood, John. The Art Chester Story, Sun Valley, California: John W. Caler Publications, 1968.
- Christy, Joe. Racing Planes Guide. New York: Crown Publishers, 1963.
- de Leeuw, Hendrick. Conquest of the Air: The History and Future of Aviation. New York: Vantage Press, 1960.
- Dwiggins, Don. They Flew the Bendix Race. New York, J.B. Lippincott: 1965.
- Fielding, Raymond. The American Newsreel, 1911-1967. Norman, Oklahoma: University of Oklahoma Press, 1972.
- Friedlander, Mark P. and Gurney, Gene. Higher, Faster and Farther. New York: William Morrow and Co., Inc., 1973.
- Gibbs-Smith, Charles Howard. Aviation: An Historical Survey from its Origins to the End of World War II. London: Her Majesty's Stationery Office, 1970.
- Hannibal, August. Aircraft, Engines and Airmen: A Selective Review of the Periodical Literature 1930-1969. Metuchen, New Jersey: The Scarecrow Press, 1972.
- Howard, Frank and Gunston, Bill. The Conquest of the Air. New York: Random House, 1972.
- Kinnert, Reed. Racing Planes and Air Races, Volumes I-IV. Fallbrook, California: Aero Publishers, Inc., 1967.
- Lipton, Lenny. Independent Film Making. San Francisco: Straight Arrow Books, 1972.
- Mann, Carl. Lightning in the Sky. New York: Robert M. McBride and Co., 1943.
- O'Conner, Richard. The Scandalous Mr. Bennett. New York: Doubleday and Co., 1962.
- Reynolds, Quentin. The Amazing Mr. Doolittle: A Biography of Lieutenant James H. Doolittle. New York: Appleton-Century-Crofts Inc., 1953.

Roseberry, C.R. The Challenging Skies: The Colorful Story of Aviation's Most Exciting Years 1919-1939. New York: Doubleday and Co., Inc., 1966

Taylor, John W.R. Aircraft. New York: Bantam Books, 1972.

Taylor, John W.R. and Munson, Kenneth. History of Aviation. London: Octopus Books Limited, 1977.

Thomas, Lowell and Jablonski, Edward. Doolittle: A Biography. New York: Doubleday and Co., Inc., 1976.

Underwood, John W. and Collinge, George B. The Lightplane: A Pictorial History, 1909-1969. Glendale, California: Heritage Press, 1970.

Vorderman, Don. The Great Air Races. New York: Doubleday and Co., Inc., 1969.

Whithouse, Arch. The Early Birds: The Wonders and Heroics of the First Decades of Flight. New York: Doubleday and Co., Inc., 1965.

\_\_\_\_\_. The Golden Age of Air Racing Pre-1940. Hales Corners, Wisconsin: Experimental Aircraft Association of America.

#### Articles

Baxter, Gordon. "When Air Racing Was King." Flying, Sep. 1977, page 175.

Groves, Patricia T. "Gee Bee Z: A Short Season." Radio Control Sportsman, Aug. 1975, page 32.

Hare, Robert C. "The Golden Age of Air Racing." Model Airplane News, April, 1958, page 12.

Price, Brick. "Gee Bee." International Modeler, May-June, 1976, page 88.