Proposal and Guide for Development of an Archival Special Collection for the Preservation of the Contributions of Auburn University and its Alumni to NASA and Space Exploration

by

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Abstract

Auburn University, a major research institution, has a long and rich history of engineering scholarship as well as scholarship in the history of technology and aviation. Many graduates of Auburn have gone on to serve the United States both in public sector as well as private sector occupations. What is of central interest are those Auburn alumni who have had significant involvement with the exploration of space as well as Auburn University itself, which has contributed to the exploration of space through its work as a Space Grant Institution and as a participating member of the Space Grant Consortium. Through concerted effort focused on identifying alumni, collecting oral histories, and collecting, arranging, and preserving documents and photographs acquired through donation, gift, purchase, and generated research and instructional material by Auburn University faculty and staff, an archival collection documenting the involvement of Auburn University and its alumni in the development of Space exploration can be created. This collection will serve to further the institution's mission as a Space Grant institution, as well as an institution that hosts programs in Aerospace Engineering and History of Technology.

In the development of this thesis, emphasis is placed on the creation of a document that will serve as the foundation for a proposal to initiate a collection within the Auburn University Archives and Special Collections. This collection will consist of oral histories, documents, photographs, and other artifacts collected either through donation or that were generated as a part of the research, instructional, and outreach scope and mission of Auburn University.

Style manual used: Kate L. Turabian, *A Manual for Writers of Research Papers, Theses, and Dissertations,* Seventh Edition. Chicago: University of Chicago Press, 2007.

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While my committee played a significant role in this, my parents, Dennis and Terry, are worthy of praise and adulation. Their patience, their love, and the restraint that it must have taken not to vanquish hopes of grandchildren by removing me from the gene pool at any given point in these thirty-two years, is limitless. The life lessons that they taught me, even when they were certain I was not listening, are priceless. Those lessons, combined with the lessons from my late-grandparents, Cecil and Mary Self, and Cecil and Lillian Burchfield, are more meaningful and beneficial than any one person could ever hope to have. So to you, my family, thank you for all that you have done for me to help me get to this point in life.

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List of Abbreviations

CITI	Collaborative Institutional Training Initiative
COE	Samuel Ginn College of Engineering
IRB	Auburn University Institutional Review Board
NASA	National Aeronautics and Space Administration
NEH	National Endowment for the Humanities
NSF	National Science Foundation
RBD	Ralph Brown Draughon Library
PI	Principal Investigator

PROPOSAL AND GUIDE FOR DEVELOPMENT OF AN ARCHIVAL SPECIAL COLLECTION FOR THE PRESERVATION OF THE CONTRIBUTIONS OF AUBURN UNIVERSITY AND ITS ALUMNI TO NASA AND SPACE EXPLORATION

Auburn University, a major research institution, has a long and rich history of engineering scholarship. Many graduates of Auburn have gone on to serve the United States both in public and private sector occupations. Of central interest are those Auburn alumni who have had significant involvement with the exploration of space. These graduates have contributed to the advancement of sciences and scholarship as well as to the country as a whole. In addition to the contributions and efforts of these alumni, Auburn University itself has contributed to the exploration of space through its work as a Space Grant Institution and as a participating member of the Space Grant Consortium. This proposal, then, is for the establishment of a special collection within the Auburn University Archives and Special Collections documenting and preserving this history, which is not only the history of the institution, but also of the history of science and technology.

Such a collection would be of significant value to this institution as it would further help set Auburn University apart from its peer institutions. After a benchmarking study was conducted by the author of this work, it was determined that of Auburn University's twenty-one peer institutions as selected by Auburn University's Office of Institutional Research and Assessment, only two institutions have dedicated archival collections related to Space Grant work, and two others have collections relating to general space research. By establishing a collection of this nature at Auburn, a significant step would be taken in preserving the work of the institution and its alumni in this field. Further, such a collection would allow the institution

to both honor and emphasize the contribution of those individuals who have flown in space as astronauts or who have served as directors of NASA Space Centers, such as Kennedy Space Center. Such a collection would further strengthen and build upon Auburn University's reputation as a center of historical work in the history of technology.

Collection Description and Housing

The proposed collection would contain oral histories, documents, photographs, and other artifacts that document the contributions made by Auburn University alumni, faculty and staff during the course of routine research, instruction, contracted, and grant work. In addition, this proposed collection will house oral histories, documents, photographs, and other artifacts generated by them during their professional association with NASA or its affiliated agencies. Together, these documents, artifacts, and oral histories serve as a valuable source of knowledge, information, and understanding of the exploration of space, manned and unmanned, as well as providing insight into the workings of NASA, its affiliates, and member institutions of the Space Grant Consortium.

The housing of this proposed collection shall be within the Archives and Special Collections Department of the Auburn University Library, and specifically at the Ralph Brown Draughon Library. The rationale for hosting this collection at the main library for the institution is based on the location of the library in respect to the primary audience, the ease of access, the stack space, and the staff of the facility to accommodate this collection. Further, the selection of the RBD Library as the host location for this collection is a logical choice given the needs of the collection to be in a secure location, both in terms of facility security as well as preservation assurances.

The RBD Library, serving as the host for this collection, is a natural choice given the primary audience who would benefit the most from this collection. This audience would mainly be students enrolled in undergraduate and graduate research courses in the History of Technology curriculum at Auburn University as well as members of the Samuel Ginn College of Engineering, primarily those within the Department of Aerospace Engineering. Those students, and particularly those in the history curriculum, would benefit the most from having ready access to a collection centered on space research and exploration. Faculty from both fields, engineering and history, would also benefit from this collection as it would provide insight to past research work, notable alumni of the institution, and relevant work carried out by the institution, its alumni, and its faculty and staff. In addition, developmental staff of the institution and especially in the COE, would find the collection helpful in the development of potential financial donors and benefactors for programs and the university.

In addition to its location on main campus at Auburn University, the RBD Library is a natural location for this collection because of the relative ease of access to the general public, the secondary users of this collection. As a public building, the RBD library is a logical location for the housing of this collection, not just because of staff, security, and facilities, but because of the ease of access that this location would grant to the interested public and non-university affiliated researchers. While university students and faculty are the primary patrons of this collection, consideration must also be made for the interested public as well. The general access policies will be addressed in subsequent sections of this proposal and thesis document.

A central reason for the housing of this collection at the RBD Library is due to the proximity of the staff. The staff of the RBD Library, and the staff of the Archives and Special Collections Department in particular, are uniquely qualified to oversee the custody and

preservation of this collection. The Archives and Special Collections Department staff are trained in archival preservation techniques and are under the supervision of the university archivist. Further, this same staff, while occupied with maintaining the holdings of the university and the department, has the necessary equipment and materials required for the preservation, storage, and arrangement of the collection. While additional supplies and materials might need to be purchased, the staff already has the requisite experience and the resources for this type of undertaking.

Another compelling reason for the selection of the RBD Library as the housing institution for this proposed collection is the availability of stack-space within the building. Already housing an archive, the RBD Library has the ability to accommodate this collection within the stack-space of the department. This is beneficial because of the security afforded by housing this collection within a facility that was designed to contain such holdings and keep them in a stable environment. In addition to the facility being a large, research library, it is also a Federal Depository Library, which would also grant further access to governmental documents and records that would benefit this collection as well as members of both the primary and secondary patron groups.

Commitment to Preservation

Currently, the RBD Library is home to an extensive collection of aerospace and aviation papers and other related artifacts. This collection, which includes the Eddie Rickenbacker Papers, is part of the culmination of extensive research work by former Distinguished University Professor, W. David Lewis of the History Department. Other collections housed by the Department of Archives and Special Collections include the Walter Hoover collection as well as the R.K. Smith collection, both of which focus on different aspects of aviation history including

propeller research and naval aviation. These collections, while not preserving or identifying a direct link between Auburn University and aerospace research or involvement, do demonstrate the existing connection between the university, its Department of Archives and Special Collections, and the larger aviation and aerospace community as a whole.

While the Rickenbacker Papers are a significant and perhaps most well-known collection relating to aviation and aerospace within the University's archives, it is just one component of a larger collection that documents and preserves the history of Auburn alumni to aviation and space exploration. Within this collection, there exists a small collection (.75 cubic feet) of papers and artifacts of two Auburn astronauts, Thomas Mattingly and Henry Hartsfield. This is a significant, albeit small, collection but it serves as a direct and necessary connection of Auburn University and some of its alumni and space exploration and development.

This aerospace history collection does afford the staff of the institution's archives and special collections department the experience necessary to grapple with the demands of a larger collection. The existing collection, as explained within the finding aids, contains vinyl records, photographs, documents, memorabilia, and other artifacts such as a variable-pitch propeller, each of which has particular preservation needs and requires specialized equipment and skills sets to work with and preserve. This, of course, is of great benefit to this proposed collection as there is little, if any, additional or specialized training that must occur before beginning this collection and the subsequent preservation work necessary for the collection.

Therefore, it can be argued that the establishment of a collection of this nature, one focusing on the contributions of Auburn University faculty, staff, students, and alumni to the development and exploration of space, is a natural and logical extension given the institution's existing, dedicated stack space and preservation efforts towards documenting aviation history as

well as its role as a Space Grant institution, its engineering curriculum, and its history of technology curriculum.

Collection Accessibility

Access to this collection shall first and foremost be governed by the policies of the RBD Library at Auburn University and especially those of the Archives and Special Collections Department. In considering accessibility of the collection, there are two primary areas of concern: physical access and electronic access. Both of these forms of access shall be governed by the policies and the procedures set forth by the RBD Library and the Archives and Special Collections Department housed therein. Electronic access is more interesting and much more important as while the aims of any archive are to preserve and make available for research records, documents, and artifacts of scholarly interest, it is incumbent for the policies of the archive to protect the physical and intellectual property contained therein. Therefore, in following the precedent set by the Archives and Special Collections Department at Auburn University in the publishing of the finding aid and index for the Aviation and Aerospace Collection, only the finding aid and index shall be published for the collection relating to the collection relating to Auburn University and its contributions to space exploration.

Types of Materials to be Preserved

The types, nature, and relevance of the materials to be collected are interesting and important. In summary, there are five main types: photographs, memorabilia, oral histories, papers, and other related artifacts. The purpose behind preserving these materials is apparent, given the significance of the proposed collection. Each of these materials does present some

interesting preservation demands, but these needs are within the scope and capability of the staff of the RBD Library staff, given their experience with preservation and archival projects.

The acquisition of the materials for this collection will come from a variety of sources, and through a variety of means. One of the most direct means of acquiring materials for the collection will be through donations of materials to the collection. Utilizing the donation procedures already in place for the Archives and Special Collections Department in the RBD Library, this aspect of the donation process will not serve as a hindrance to the development of this collection.

Photographs are an important item for consideration. The axiom that photographs are worth a thousand or more words is certainly something to be mindful of, as photographs are a useful way of capturing moments in time, often in ways that words simply are unable to do. Photographs, therefore, should be sought by those whose mission it will be to build this collection. Photographs from training space missions, actual missions, demonstrations, conferences, training sessions, and the like all should be of primary importance they help provide visual context and information about the role of Auburn alumni, faculty, and staff in space exploration.

Another type of material that should be considered when developing this collection is memorabilia. Memorabilia performs an interesting role in historical preservation. Memorabilia serves as a tangible way of connecting those in the present to the events and periods of the past. It is for this reason, as well as reasons of historical and preservation significance that memorabilia should be considered as material for preservation for this collection. In regards to this collection, the types of memorabilia that should be considered and sought after include media kits from actual missions, mission patches, mission flags, any item that might have spent

time in space, and other items that are relevant to the exploration of space. While different types of memorabilia have different preservation and storage requirements, these are needs that are able to be accommodated by the facilities and the staff of the RBD Library and of its Archives and Special Collections Department.

In addition to photographs and other memorabilia of space exploration, another material that is of key consideration in the development of this collection is oral histories. While photographs and memorabilia provide visual and physical contributions to this collection, oral histories make this collection unique among Auburn University's peer institutions that have collections or archival holdings related to space exploration. Oral histories provide the necessary human connection that allows researchers to better grasp the experience of space exploration and the work that goes into management of an organization such as NASA. Further, oral histories allow for a better understanding of the complexities of running a center like Kennedy Space Center, or the research, consulting, and instructional work of University faculty and staff as they work to fulfill contract and grant obligations and other responsibilities within the University. Further, the collection of the oral histories should also be transcribed so that there is both a written and recorded medium. Transcription of these histories, while not a function of the staff of the RBD Library, can fall under the guidance of members of the History Department when instructing a class on the history of technology, the history of space flight, or public history. This will be addressed more fully later in this document.

While photographs, memorabilia, and oral histories are of central concern in the development of this collection, general artifacts must also not be ruled out as being of importance to the collection. These artifacts, including things such as space mission insignia, tools, equipment, and other assorted items related specifically to the development and

exploration of space. It will be of utmost importance that the faculty of the History Department specializing in the history of space exploration be involved in the appraisal of these various items of miscellany as they are uniquely qualified to assess historical value and importance to the field. The need for interdepartmental collaborative staffing and plans of work will be addressed later within this document.

Plan of Work

Once the approval has been granted to begin this proposed collection, the establishment of a time table of the actual work will be developed in full by those who are the principal investigators on any grant funding, or who are overseeing the development of this collection either through professional responsibilities or through other obligations. While the full development of the plan of work and timetables will be expanded upon at a later date, there are some specific considerations that will be examined at this time.

Upon receipt of final authorization, there will be a period of time not exceeding six months for the procurement of necessary materials including archival boxes, acid mitigation and de-acidification products, any necessary shelving units, digitization equipment for photographs if so planned, recording equipment for oral histories, and other tools and paraphernalia necessary for the creation of this collection. During this period of acquisition, the principle investigator or project head will also be working towards fulfilling responsibilities and obligations mandated by the Auburn University Institutional Review Board, or IRB. This will be a necessary step for the PI to take as there will be personally identifiable information being collected, possibly from members of protected populations as classified in the Belmont Report on Ethical Principles and Guidelines for the Protection of Human Subjects of Research, and from CITI protocols. While this is unlikely, these precautions must be met in advance in order to ensure full compliance as

well as reduce potential points of hindrance during the course of the development of this collection.

Also occurring during this six-month time frame will be the recruitment and training of staff for the field collection, the processing, and the arranging of the items to be contained within this collection. The initial focus will be on the recruitment and training of the field staff and of the processing staff as these are the two most important aspects to focus on during this time frame. The field staff and the processing staff should come, ideally, from the graduate students of the History Department, and ideally those specializing in the history of technology as well as those focusing on public history or in archival studies. Recruiting the field and processing staff from these three cohorts, will allow students to receive beneficial, practical experience as well as serve as a way to supplement the existing staff of the RBD Library's Archives and Special Collections Department in a cost-effective manner.

Once all of the purchased equipment has been received, staff members trained on the operation of the equipment, and necessary human subjects research certification has been gained through IRB and CITI, the next step of the development of this proposed collection will focus on identifying key persons of interest to this program as well as specific materials that would be most beneficial to the collection. This phase should take no more than a month to complete, due in part to the extensive database that the Auburn University Alumni Association maintains on alumni as well as the expertise of the faculties and staff of the History Department and the Aerospace Engineering Department.

Once the key persons and items of interest for the collection have been determined, initial contact and solicitation for oral history interviews as well as donations should begin. This is a long and delicate process and could take up to six months to complete. Once it has been

completed, accessioning and interviewing can begin, with emphasis placed on interviewing the most advanced in age of the persons of interest early in the process and then proceeding from there. The actual interview and accessioning process can take anywhere from a month to twelve months, during which time multiple interview sessions must be conducted and transcription must occur as well. This process will be the most time-consuming but also the most richly rewarding for the collection and for those student members of the staff as well.

While the interviews are being conducted, those students and staff who are tasked with accessioning documents, artifacts, and other miscellany will be collecting and beginning the initial appraisal work to ensure that those items that are being donated or gifted to the collection meet the needs of the collection as well as fulfill the established intent of the collection. This process is long by nature, and can take up to a year to complete. Fortunately, this can occur concurrently with the oral history interviews, depending on the size of the staff and the availability of resources, material and human, to accomplish the necessary objectives.

Once the oral histories and the artifacts have been collected, the most difficult aspect of the formation of this collection begins. During this time final appraisal, processing, arrangement, and indexing must occur. This phase can last up to five years, depending on the amount of material collected and the preservation or conservation methods needed to ensure the longevity and health of the collection's documents, artifacts, and memorabilia. While it is impossible to predict how much time will be needed, it can be stated with confidence that this phase will be the most time-consuming and perhaps the most critical of the endeavor.

Once the final appraisal, arrangement, and indexing has been performed on the collection, and a finding aid created and published on the Archives and Special Collection's website, it will be available for access by researchers and students alike. At this point, the access

policies of the department and of the RBD Library will dictate the degree of patron access to the collection. Further, the policies of the department and the RBD Library will also dictate disaster response, physical and intellectual property security, and environmental conditions for the collection. Relying on these pre-existing policies and procedures, allows for greater management and control by the members of the staff of the RBD Library without the need to implement and train on new policies or procedures, which also keeps the financial costs in check.

It should be noted at this point that once the initial list of persons of interest has been prepared, the people have been contacted, oral histories conducted, and artifacts of different natures collected, the collection should not be considered to be in a completed or finalized status. It is of great importance that the work of the collection continues, documenting the work of the university, its faculty, staff, and alumni towards the development of and exploration of space.

Institutional Contributions

The contributions of Auburn University, its staff, faculty, and students are of key importance to the success of this proposed collection. The principal contributions that Auburn University will make towards this collection are staff, facilities, and disaster recovery and insurance on the collection. The costs for this collection will be determined based on present market price for the equipment used in collecting oral histories and digitizing any photographs or records. Further costs, such as insurance, are more complex, but would be covered under Auburn University's Fine Arts Insurance Policy which, as of February 28, 2013, covers up to $11 million, and under the State Property Insurance Policy which covers $300 million. These figures are also tied in with the insurance costs on the RBD Library building itself. These figures came from the Auburn University Risk Management and Safety Department, the entity within

Auburn University which oversees the insurance policies of the institution and the coverage of those policies.

Additional contributions from the university will come in the form of RBD Library Staff and Faculty of the History Department, and the department of Aerospace Engineering in the COE. The collaboration of the faculty and staff of these departments will be significant, with each faculty member contributing a small allocation of their time towards the development and maintenance of the collection, especially in the initial establishment of this collection. To further assist with the establishment and maintenance of this collection, interested graduate research assistants from the departments, especially those with specializations in public history, would be recruited to assist with staffing and other needs. On a continuing basis with this collection, the contributions of the different faculty members, staff, students, and departments can be expected to decrease, but only to appropriately determined maintenance levels so that the collection is maintained, and any growth or additions are accommodated by the present staff allotment, or student involvement and engagement.

Budgeting

At this time in the development of this proposal and document, it is impractical to develop or put forth a budget or budget proposal due to unforeseen advances in technology, unforeseen costs and expenditures, and the inability to plan accurately for or predict costs of materials, person-hours, travel, and other miscellaneous costs due to an unstable economic future.

What can be done at this point is to outline some of the necessary costs that should be considered in the development of a budget and a budget narrative for this collection. In the development of the budget for this collection as well as the development of a grant proposal it is

of utmost importance to factor in travel costs for traveling to collect oral histories as well as artifacts and paraphernalia for the collection, costs for equipment such as digital scanners, cameras, audio and video recording devices, writing implements, boxes, shelving units, and archival preservation and conservation materials. Additional costs will include CITI certification, salary percentages for involved and supervisory faculty and staff members, stipends or financial awards for graduate students, salary requirements for non-graduate student workers, and on-going salary for the director of the Archives and Special Collections department at the RBD Library in a supervisory capacity only and most likely not to exceed ten hours per week. The appropriate percentages and costing break-down can be attained for this proposed collection from Auburn University's Contracts and Grants Accounting Office and Payment and Procurement Services Office.

Proposal Conclusion

This proposal illustrates the value and need for the development of such a collection to preserve the rich history and contributions of the faculty, staff, and alumni of Auburn University to the development and exploration of space. This proposal, in rough form, provides the blueprint necessary for the development of a more fully functional proposal that can be submitted to the administration of Auburn University, the Dean of the Library, the Dean of the College of Liberal Arts, the Dean of the Samuel Ginn College of Engineering, the Board of Trustees, and to potential granting agencies including but not limited to the National Science Foundation, the National Endowment for the Humanities, the National Aeronautics and Space Administration, the National Archives, and private granting agencies focused on historic preservation and research.

The sections that follow this proposal are elaborations on different aspects of the proposal as well as a brief overview of space history. Of importance to students and faculty alike is the preliminary list of persons of interest and the proposed schedule for conducting oral history interviews as well as a brief discussion of the benchmarking study that led to the development of this proposal. This benchmarking study was an important step in developing an understanding of the need for the establishment of such a collection, as well as furthering the understanding and need for collaboration between different departments and divisions within the university. Without the assistance of the Office of Institutional Research and Assessment, this study would not have been able to take place in such a relevant and meaningful manner.

Historical overview

Beginning in October 1957 with the launch of the Soviet satellite *Sputnik*, the "Space Race" was a phenomenon that captured both attention and imagination alike.[1] With the launch of this simple spacecraft, a new era dawned upon all mankind. In the days and weeks following the launch of *Sputnik*, the governments of the United States and the Soviet Union began, in earnest, a race that drove the two countries in a scientific and technical competition, and led to the creation of "technocracy," which as McDougall defines it is "the institutionalization of technological change for state purposes, that is, the state-funded and –managed R&D explosion of our time."[2] The resulting Space Race and to a lesser extent the "prestige race" that focused on regaining and preserving American scientific and technological prestige in the eyes of the world, pitted the economic, technological, and scientific might of the Soviet Union and the United

[1] Paul Dickenson, *Sputnik: The Shock of the Century* (New York: Walker Publishing Company, 2001), 1.
[2] Walter A. McDougall, …*The Heavens and the Earth: A Political History of the Space Age* (New York: Basic Books, 1985) 5.

States in a struggle for political and technological supremacy, as well as further emphasizing the rise of the technocracy that McDougall described.[3]

In the midst of this rise of technocracy and a scientific and industrial complex were the contributions of numerous individuals and institutions of higher learning. Design bureaus in the Soviet Union contributed personnel and materiel to the effort of placing the Soviet Union first among pioneers of the new space frontier. In the United States, institutions such as the California Institute of Technology (CalTech) and its research subsidiary, the Jet Propulsion Laboratory, and others answered the call for the development of rocket technologies and related systems.[4] No longer were rockets the projects and hobbies of clubs and associations such as the American Rocket Society or its Soviet counterpart, the Group for Studying Reaction Propulsion. Now these rockets and their development became the property of the state.

Nearly twelve years of political one-upmanship between the Soviet Union and the United States followed from October 1957, not to mention the technological and engineering one-upmanship that occurred as a part of the quest to explore space and to achieve the next, monumental "first." During this time, the National Aeronautics and Space Administration (NASA) sought and recruited the best and the brightest in engineering, physics, chemistry, and pilots. Reaching out to universities, private industry, and the armed forces, NASA amassed an impressive collection of intellectual power aimed at the technological defeat of the Soviets and the promotion of the American system of science, engineering, and way of life as the one true path on the global stage.

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[3] Robert Reeves, *The Superpower Space Race: An Explosive Rivalry Through the Solar System* (New York: Plenum Press, 1994), 19.

[4] Matt Bille and Erika Lischock, *The First Space Race: Launching the World's First Satellites.* (College Station: Texas A&M University Press 2004) 14.

Long after the Space Race had been concluded and the United States had emerged as the clear victor, NASA still sought partnerships and contract work with institutions of higher education across the country. Through these partnerships, institutions had access to resources that were not a normal part of an institution's physical plant or within the institution's budget. In addition to these partnerships between higher education and NASA, other levels of education sought access to the resources and opportunities that could be granted by an association with NASA. In 1987, a formalized way for these partnerships to exist came into being with the passage of the National Space Grant College and Fellowship Act.[5] This act allowed educational institutions to establish consortia focused on the development of space-related technologies and sciences. Modeled after the Land Grant University Program established with the Morrill Land-Grant Acts of 1862 and 1890, the Space Grant program was to contribute to United States preeminence in aeronautics and space science and technology "by funding education, research, and public engagement projects." [6] With the passage of the act, NASA developed the goals for the Space Grant program:

> Promote a strong science, technology, engineering, and mathematics education base from elementary through secondary levels while preparing teachers in these grade levels to become more effective at improving student academic outcomes.
>
> Establish and maintain a national network of universities with interests and capabilities in aeronautics, space and related fields.
>
> Encourage cooperative programs among universities, aerospace industry, and Federal, state and local governments.
>
> Encourage interdisciplinary training, research and public service programs related to aerospace.
>
> Recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities, for careers in aerospace science and technology.[7]

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[5] http://www.nasa.gov/offices/education/programs/national/spacegrant/home/index.html. Accessed June 4, 2013

[6] Ibid.

[7] http://www.nasa.gov/pdf/418826main_Space%20Grant%202010%20Solicitation%20Rev%20B[1].pdf Accessed June 4, 2013

With these goals, per the 2010 funding solicitation booklet from NASA, it is clear that the interests of both NASA and participating institutions would be best served by increased rigor in the instruction of sciences, technology, engineering, and mathematics. Further, seeking partnerships with educational and corporate institutions is a significant step towards developing the future of NASA and of the American aeronautical institution.

With this overview in mind, how does one catalog or collect the history and the involvement of an institution of higher education as a part of the Space Grant endeavor? In researching the involvement of an institution's contributions to aerospace history, a good starting point would be to approach that institution and request access to the archives and special collections for research purposes. While finding a directory of current Space Grant participating institutions is relatively easy from NASA, locating the papers and holdings is not as simple. Indeed, while the majority of the Space Grant participators are institutions of higher education, they are comprised of individuals who spearhead the efforts and are the points of contact. It should be noted here that properly identifying these individuals might be problematic due to the accuracy of institutional directories and institutional appointments. Needed would be a concerted effort on the part of the institution to create and maintain a special collection of papers generated, research performed, any artifacts produced by the employees and staff of the institution as well as identifying and collecting the papers and artifacts of those alumni who worked for NASA in some capacity. Through this effort, an institution can collect and display its contributions to space exploration through a properly maintained and developed special collection or archival holding that will be accessible to researchers and scholars who are interested in the history of the National Space Grant College and Fellowship Act and the

contributions of those individuals associated with a particular institution or of an institution itself.

Auburn is well placed to benefit from the development of such a special collection or an archive such as the one proposed. Founded in 1856 as the East Alabama Male College, Auburn became a Space Grant institution in the early 1990s. This act was a logical extension of the long list of contributions that Auburn made to the space program including countless engineers, technicians, contractors, administrators, and astronauts. While each was important to spaceflight, the astronauts usually garner the most attention and are the usual sources of inspiration. With six astronauts and three space center directors to its credit, as well as numerous other NASA employees such as engineers, program directors, and technicians, Auburn alumni have made important contributions to the space program.

While Auburn alumni have contributed to the space program, students and faculty have made significant contributions as well. A team led by Auburn University faculty member, Dr. Jean-Marie Paul Wersinger, has worked to develop two methods of contributing to space science. This team of undergraduates and graduate students is known as the Auburn University Student Space Program (AUSSP), and is housed in the Samuel Ginn College of Engineering. The AUSSP has three main programs; the first of these is a high-altitude balloon program; the second on the development and launch of a satellite known as AubieSAT I that is a platform for testing novel UV sensors and attitude sensors during operation; the third, known as AubieSAT II, is designed to test radiation levels during orbit and take action to mitigate the effects and errors caused by radiation.[8]

From this brief listing of significant contributions to the development of spaceflight technologies and science, it can be determined, then, that it would be of significant interest and

[8] http://www.eng.auburn.edu/~strouce/DaTseminar/Wersinger07s.pdf Accessed June 4, 2013

value to Auburn University to pursue the development of a special collection or archival holding dedicated to documenting and preserving the institution's contributions to spaceflight and to spaceflight technologies and sciences. Such a collection would prove to be of significant value and would serve as an integral part of Auburn University's History of Technology curriculum. This program, widely recognized within the field, would benefit greatly from such a collection as would the University as a whole.

Needs Assessment and Benchmarking

In order to begin the process of constructing an archival collection, a basic needs assessment is necessary in order to gain an understanding of the need for a collection and the availability of potential items for the collection, as well as assessing the need for such a collection. Needs assessments, according to Kaufman and English, are beneficial tools that can serve as the prime-movers of positive and beneficial change.[9] In the case of developing an archival collection, a needs assessment illustrates why such a collection should be established. Further information in this phase can be developed through a benchmarking process. This process serves several roles, but most important, it provides guidance and information as to existing standards and practices for use in developing assessments or establishing services and finding market niche.

Needs Assessment

Conducting a needs assessment for this type of collection is straightforward. Auburn University is proud of its heritage and contributions to the exploration of space, be it robotic or human. With only a perfunctory search or effort, one could make the argument that it would be

[9] Roger A. Kaufman, Fenwick W. English, *Needs Assessment: Concept and Application* (New Jersey: Educational Technology Publications, 1981), 8.

wise for the University to begin work on the development of a collection within the Archives dedicated to preserving the University's contributions to spaceflight, both in terms of human capital as well as intellectual and physical capital. Before this can occur, a proper understanding of a needs assessment must be gained so that all involved parties, the History Department, the University, and the Special Collections and Archives are all in possession of the same definition and are able to work within that definition.

A viable, working definition of needs assessment was provided by Kaufman and English and will suit the needs of this proposed collection quite well. According to them, needs assessment can be seen as a process by which "gaps" are identified, selected, and justified so that they may be filled.[10] The contextual framework that this definition provides for this proposed collection is of significant importance. It can be argued that there is an acute gap in the institutional knowledge and research potential of the University in terms of documenting and preserving its own history and heritage. The need, therefore, to fulfill this gap is important as it further contributes to the body of knowledge in regards to the history of manned and unmanned space exploration, both at the local institutional level and at a broader level as well.

Benchmarking

Benchmarking, by its very name, is not a passive exercise, but is an active process that requires participation and inquiry into best practices and standards in order to gain a particular positional advantage or to improve practices and processes in order to be more competitive in a marketplace or field.[11] In this instance, the benchmarking process will not necessarily be used to establish performance goals or process improvements, but rather be used to establish a reasonable peer group for Auburn and to determine the institution's place within that peer group.

[10] Ibid.
[11] Sylvia Codling, *Benchmarking* (Adlershot, England: Gower Publishing, 1998), 3.

The benchmarks generated by this exercise will serve as a necessary foundation for subsequent proposals relating to this proposed collection.

One of the first steps that must be addressed is identifying a peer group of institutions that Auburn can be compared with as well as used for identifying best practices. In order to establish a peer group, a list of Space Grant institutions is a good starting point. Once this list has been examined and peer institutions identified, research into the practices that are employed by each must be undertaken to develop a useful table of practices and characteristics for reference purposes, as well as to aid in identifying best practices as well as establishing benchmarks.

Benchmarking Process

The first step in the benchmarking process must be the examination of a roster of Space Grant institutions so that a peer group can be developed. In this phase, NASA web-based informational resources were utilized to identify and access the internet home pages of Space Grant Consortium members.[12] In order to perform this benchmarking initiative in a timely and efficient manner, only those institutions within Auburn University's institutional peer group will be examined.[13] This peer group is comprised of twenty-four public universities (including Auburn University) that are classified as research universities with high activity, based on the Carnegie classification system.[14] These institutions, which serve as the benchmark for Auburn University in other areas can also serve as a peer group to use in this proposal.

Six categories were selected for evaluation. One category, "Space Grant Archival Collection," is an over-arching category that qualifies or disqualifies the five other categories. The "Space Grant Archival Collection" is the general name for determining the existence of an

[12]http://www.nasa.gov/offices/education/programs/national/spacegrant/home/Space_Grant_Consortium_Websites.html Accessed on 6 March 2012

[13] This list of institutions was obtained via email exchange with Drew Clark, Ph.D., the director of the Office of Institutional Research and Assessment at Auburn University.

[14] https://oira.auburn.edu/assessment/articles/nsse20070817.aspx Accessed on 5 April 2012

archival collection or special collection based on or pertaining to an institution's work as a Space Grant institution. If such a collection is determined to exist, it is indicated as such on a spreadsheet and further investigation undertaken to determine the extent to which the collection exists. The extent to which the collections exists is based on the five remaining criteria, which are: presence of an online finding aid; specific programs; personnel records and papers; collections of oral histories; and collections of documents and artifacts (including, but not limited to photographs, memorabilia, film collections, and the like.) The spreadsheet of the findings of this process is included as "Appendix A" to this document.

Beginning the benchmarking process

With only a cursory internet search on Auburn's home page, two of the first web links that occurs after a search for the word "space" are pages leading to "AubieSat-1" and the "Space Research Institute,"[15] thus indicating a strong connection with space exploration and the development of space technologies. This level of work and commitment is notable in that it demonstrates academic commitment as well as a commercial-level commitment to the development of space technologies and research both for contracts and grants funding as well as for potentially private enterprise and development. This was, however, the extent to which Auburn University's website contained information regarding aeronautics or space research of any type at this institution.

Similar searches were undertaken for twenty-three other institutions in Auburn University's peer group. These searches were carried out using the same, multistep process. This process involved accessing the institution's archives and special collections internet web

[15] http://search.auburn.edu/?q=space&sa.x=0&sa.y=0&cx=006456623919840955604%3Apinevfah6qm&ie=utf-8 Accessed on 20 February 2012.
The Space Research Institute is no longer immediately associated with Auburn University, but does utilize expertise and experiences gained during its tenure of operations on Auburn's campus. This is a potential source of contribution to a proposed collection as it does fit in with Auburn's role as a Space Grant Institution.

page, and then searching through the holdings using online finding aids or collections catalogs. Once this had been performed, the results of these searches were recording on the spreadsheet, Appendix A" of this document.

Findings

This benchmarking initiative returned results that can be best summarized as "surprising." After examining the online finding aids and collections catalogs two institutions, the University of Mississippi and Virginia Polytechnic Institute and State University (Virginia Tech), have collections dedicated to their work as Space Grant institutions. Of the remaining twenty-one institutions, three institutions have some collections of space-centered research performed by individuals associated with the institution, but none that directly reflect the work of the institution per se. Of the remaining eighteen institutions, there is no indication of any collection or holding of any type found in that institutions archives and special collections.

Auburn University's Position

In conducting this benchmarking process, the main focus was determining where Auburn University stood in regards to its peer institutions in terms of archiving and preserving this important and vital aspect of an institution's history. Auburn University is one of eighteen of its twenty-three peer institutions that do not have a designated archival collection dedicated towards preserving the work of the institution as a Space Grant institution, nor does it have collections that link, indirectly or otherwise, with the institution's role or work as a Space Grant.

Persons of Interest

In the development of this collection, it is necessary to follow a logical pattern based on perceived importance and significance, both in terms of alumni prestige and in relative importance to the space program itself. One would do well to begin the process of forming this

collection by following a logical pattern based first on a person's age and then on a person's status within NASA during his or her active period.

The identification of key people begins with the Auburn alumni who served as astronauts in NASA. Astronauts Henry Hartsfield, Clifton Williams, Thomas Mattingly, Nancy Jan Davis, James Voss, and Kathryn Ryan Cordell Thornton are all Auburn alumni and are of central interest to Auburn University in the development of an archival holding focusing on Auburn's contributions to spaceflight.[16] While astronauts, at least in popular press and media, receive the glory and the hero worship, there are others who contributed greatly to the space program, even if they did not serve as astronauts.

Several key personnel who held administrative positions in NASA that would also be of interest in the establishment of a special collection or archive. These people, in order, include former Kennedy Space Center directors: Richard G. Smith, Forrest S. McCartney, and James W. Kennedy. In addition to these individuals, another person of interest would be Jennifer Kunz, another Auburn alumna.[17] While not a Space Center Director, Kunz has held the distinction of serving as the Deputy Director for the Constellation Program, the replacement for the space shuttle that would further manned exploration of the solar system. These individuals, in their administrative roles, have provided leadership and guidance to the space program, and are also prime candidates for development of this proposed archival holding. With a brief listing of key people of interest in mind, the next step in this proposal would be to develop a list of whom to approach first. Determining this list should follow a logical pattern that utilizes age, position held, and depth of tenure within NASA as being key for the selection process. These criteria

[16] http://www.eng.auburn.edu/organizations/AIAA/Astronaut_Alumni.html
[17] http://www.nasa.gov/centers/kennedy/about/biographies/kunz.html

would allow the researcher to be able to have a specific plan in place for undertaking the processes necessary for the development of this collection.

Following these criteria, the first choice is former Kennedy Space Center Director Richard Smith. Born in 1929, Smith graduated from the Alabama Polytechnic Institute in electrical engineering and went to work at the Redstone Arsenal in Huntsville. In 1960, he was transferred to NASA and was a part of the founding group of Huntsville's George C. Marshall Spaceflight Center. Serving NASA from 1960 until his retirement in1986, Smith's tenure in NASA is considerable. During his career, he participated in the Apollo Program, the Skylab reentry program, and the build-up and launching of the Space Transportation System ("Shuttle") program.[18] His length of tenure, extensive administrative experience, as well as his age makes Smith an ideal choice for being the first person who should be approached in regards to beginning this collection.

The next choice would be Lt. Gen. (Ret.) Forrest McCartney, a former director of the Kennedy Space Center. Born in 1931, General McCartney received a bachelor's degree in electrical engineering from the Alabama Polytechnic Institute and was then commissioned as a lieutenant in the United States Air Force. After a distinguished, thirty-five-year career with the Air Force that saw McCartney rise to the rank of lieutenant general and serve as the Commanding Officer of the Air Force's Space Command, he assumed the role of director of the Kennedy Space Center in 1987, replacing the retiring Richard Smith, a fellow alumnus of Auburn.[19] Due to his tenure as Kennedy Space Center Director, and most important his long involvement in space operations for the United States Air Force, McCartney should follow Smith as a priority for the collection.

[18] http://www.nasa.gov/centers/kennedy/about/biographies/smith-r.html

[19] http://www.nasa.gov/centers/kennedy/about/biographies/mccartney.html

The third person who should be approached in regards to this collection is former astronaut Thomas "Ken" Mattingly. Mattingly, an Auburn alumnus born in 1937, began his service in the United States Navy as an aviator. Following his tenure as a pilot, he was accepted into the Air Force's Aerospace Pilot Research School and served there before his selection in the Astronaut Class of 1966. Serving as backup and support for Apollo's 8 and 11, Mattingly was the original command module pilot for Apollo 13, but was scrubbed due to exposure to the measles. During the Apollo 13 crisis, Mattingly worked tirelessly in the lunar module simulator testing ways to solve the problems that the crew of James Lovell, Jack Swigert, and Fred Haise would face during command module power-up prior to reentry. Mattingly's next flight assignment came during Apollo 16 where he served as the command module pilot. His final flight assignments were STS 4 and STS 51-C of which he was the commander.[20] Due to his age, his extensive experience covering both Apollo and Shuttle programs as well as his work during the Apollo 13 crisis, Mattingly is an excellent choice as the third individual approached for this proposed collection.

The fourth person who should be approached for this proposed collection is former astronaut Henry Hartsfield who was born in 1933. Serving in the Air Force for more than twenty years and as an astronaut since 1969, Hartsfield has worked on the Apollo, Skylab, and Shuttle programs during his active flight status with NASA. Before joining NASA in 1969, Hartsfield was assigned to the Air Force's Manned Orbiting Laboratory program from 1966 until his reassignment to NASA in 1969 when the Manned Orbiting Laboratory program was cancelled. After commanding his last mission, STS 61-A, Hartsfield accepted increasing levels of responsibility within the administrative side of NASA, including several program offices.[21] Due

[20] http://www.jsc.nasa.gov/Bios/htmlbios/mattingly-tk.html
[21] http://www.jsc.nasa.gov/Bios/htmlbios/hartsfield-hw.html

to his experiences in the Air Force and within NASA, including his administrative responsibilities and his spaceflight experience, Hartsfield is another excellent choice.

The fifth person to be approached for the proposed collection would be Kennedy Space Center Director James Kennedy. A 1972 graduate of Auburn University, Kennedy's career in NASA began in 1968 at the Kennedy Space Center. From there, Kennedy moved around within NASA holding increasing levels of responsibility including positions within program directorates before assuming the directorate of Kennedy Space Center in 2003.[22] Because of his tenure in NASA and his significant involvement within the administrative side of NASA, Kennedy is an excellent choice for the fifth person of interest to be contacted in regards to supporting this proposed collection.

With these initial five candidates listed based on age, NASA experience, and tenure within NASA, the remaining candidates can be approached in any order chosen by the researcher. This approach, while seemingly chaotic, is not based on the previously mentioned criteria due to the age of the persons being considered. While their contributions are significant, the need for expedited research and inquiry is not as great as with the others mentioned.

Joining NASA in 1984, Kathryn Ryan Cordell Thornton is of significant interest historians and researchers of American spaceflight. Being the second American woman in space, Thornton is of great interest to this proposed collection not only because of her status as an Auburn alumna, but due to her accumulated twenty-one hours of extravehicular activity (EVA) time that she logged over the course of her NASA career. Her second spaceflight, STS 49, was the maiden flight of the new space shuttle, *Endeavour*, and she served as a specialist and performed several EVAs to test methods and techniques that were used in the construction phase

[22] http://www.nasa.gov/centers/kennedy/about/biographies/kennedy.html

of the International Space Station. While serving as payload commander and specialist during her spaceflight career, Thornton has distinguished herself as a person of great intellectual capability as well as being a distinguished astronaut.[23]

Joining NASA in 1979 at the Marshall Spaceflight Center, Nancy Jan Davis served NASA in a variety of positions including analyst, lead engineer, astronaut, and capsule communicator (CAPCOM). During her non-astronaut tenure with NASA, Davis was the lead engineer on the team responsible for the redesign of the solid rocket booster external attachment ring on the shuttle in the wake of the *Challenger* disaster in 1986. She also served on technical and evaluation teams for the Hubble Space Telescope. Her spaceflight career includes three flights on which she served as payload specialist and on her last flight on STS 85 as the payload commander.[24] Her career as a mechanical engineer and as an astronaut marks Davis as being a significant person of interest for this proposed collection as well as an interesting figure for historians.

After serving in the United States Army, James Voss joined NASA in 1984. Before his selection as an astronaut in 1987, Voss served as an integration test engineer on the shuttle program and served as a member of the *Challenger* investigation team and as a part of the team that helped return the shuttle program to flight status. Voss's spaceflight experience includes four shuttle flights, one of which was as a crewmember for Expedition Two on the International Space Station. He also accumulated more than twenty-two hours of EVA time during his spaceflight tenure in addition to his accumulated 201 days in space.[25] As can be seen by his impressive flight record as well as his depth of engineering experience, Voss is an excellent candidate for this collection.

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[23] http://www.jsc.nasa.gov/Bios/htmlbios/thornt-k.html
[24] http://www.jsc.nasa.gov/Bios/htmlbios/davis.html
[25] http://www.jsc.nasa.gov/Bios/htmlbios/voss-ji.html

The last of these initial nine, living candidates is Jennifer Kunz. Kunz began her career with NASA in 1991 and has been involved with NASA over the span of three different programs: the space shuttle, the International Space Station, and most recently the Constellation Program, of which she serves as Deputy Director. During her tenure within NASA, Kunz has served in areas of increasing responsibility including several directorate positions with significant responsibilities and personnel obligations.[26] Because of her intense administrative responsibilities and her involvement in the Constellation Program, Kunz would make an excellent addition to this collection.

Another person referenced in the original considerations for this collection is astronaut Clifton Williams. A graduate of Auburn University and United States Marine, Williams was selected as an astronaut of Group Three in 1963. Originally slated to serve as the lunar module pilot on Apollo 12 after having served as the back-up pilot for Gemini 10, Williams was killed in an accident in Florida where the T-38 he was flying went into an aileron spin from which he was unable to recover.[27] While his death prevented him from accumulating spaceflight experience, his selection as an astronaut and his service as a Marine aviator and test pilot are meritorious enough for addition to this archival collection.

In all, these individuals have served not only NASA, but the United States with distinction. Because of their service to science and exploration, it is proposed that these ten individuals be approached as the initial contributors for a special collection or archive at Auburn University that documents the contributions of Auburn University and its alumni to the exploration of space and the development of space technologies.

Schedule and Plan of Work Elaboration

[26] http://www.nasa.gov/centers/kennedy/about/biographies/kunz.html
[27] http://www.jsc.nasa.gov/Bios/htmlbios/williams-cc.html

In the development of any proposed archival collection, a schedule must be implemented so that the development can proceed in a logical and orderly process to achieve the necessary and desired results in a timely manner. This collection will follow the proposed schedule.

1. Funding

In the development of any archive or special collection, one of the first things that must be considered is funding. Having access to and securing funding is an important step, allowing for the collection to go forward and for necessary expenses to be provided for. Some of these expenses would include processing costs, preservation costs, technology purchases for things such as audio or video recorders for oral histories and the necessary storage media, containers for the papers and artifacts themselves, and other expenses that would become necessary in the preservation and or conservation aspects of the development of the collection.

2. Institutional Review Board

A schedule of oral history interviews should also be developed in the early stages. As a part of the development of this schedule which will include key personnel to interview, an interview protocol should also be developed. As a key component of the development of the interview protocol, due consideration should be given to the policies and the procedures of the Institutional Review Board (IRB). The purpose of the IRB, per Auburn University's Office of Human Subjects Research, is to protect the rights and dignity of human research participants.[28] The IRB reviews each research proposal involving human subjects to ensure compliance with local, state, federal, and institutional regulations and guidelines are followed.

Since this collection will be collecting oral histories and interviews with live participants, it could be necessary for the IRB to approve interview protocols to ensure that proper procedures are followed to protect the interview participant, the interview and research team, and Auburn

[28] http://www.auburn.edu/research/vpr/ohs/irb.htm Accessed June 5, 2013

University. In order to determine the status of the oral history project in terms of IRB standing, the researcher will need to submit the protocol and proposal to the IRB to determine the need of IRB approval. This is an important step that must be followed closely in order to guarantee ensure that the oral history component of this proposed archival collection to occur. The necessary steps and procedures for filing for the determination of the project status can be found online at the Auburn University Human Subjects Research web page at http://www.auburn.edu/research/vpr/ohs/protocol.htm. Once there, selecting the hyperlink to download the protocol submission form will enable the researcher to download the appropriate forms, a sample of which is included as a separate appendix to this document.

Should it be determined that presentation of the research protocols to the Auburn University IRB be necessary, the following steps should be taken in order to properly file for an *Expedited Review*, the type of review that this sort of research would best be categorized under Auburn University Policy, which states:

1. Investigator submits one hardcopy of protocol requests to the OHSR. There are no deadlines for submissions for expedited review.
    - The IRB reserves the right to assign any protocol to Full Board Review.
2. Submissions are reviewed by the IRB Chairman and/or the IRB Liaison (or other members of the IRB).
    - Expedited Protocol Reviewers are determined based on the proposed research and experience or expertise of the reviewers.
3. Approvals or reviewer comments, suggestions, or recommendations are communicated by email from the OHSR to the investigator.
    - Expedited submissions are reviewed within 15 business days, unless workload or unusual circumstances exist where we are unable to meet this goal.
    - Expedited protocols may be approved, approved pending revisions, or required to be revised and resubmitted for review under this category. However, no research may be disapproved under this process.
4. Investigators address comments for protocols which require revisions. A complete revised protocol packet, including a memo outlining how each of the IRB's comments were addressed, must be submitted to the OHSR.
5. The OHSR or the IRB, depending on the issues, will review the revisions.
6. The investigator will be contacted via email if the revisions do not adequately address the IRB's comments.
7. The investigator will receive written documentation of protocol approval from the OHSR along with copies of the stamped version of the approved consent document(s) (Informed Consent or Information Letter).

- When consenting participants, investigators MUST use the approved consent document to which the IRB's approval stamp has been applied. This allows the participant to see that the document has been reviewed and approved by the IRB and that the document approval dates are current.

All research reviewed and approved under an Expedited category is reported to the full IRB at convened meetings of the Board.

http://www.auburn.edu/research/vpr/ohs/aupolicy.htm

Before the submission of the research protocol and proposal to the IRB for review, it would be advisable for the principal investigator, the researcher who is directly responsible for the implementation of the research initiative, to undergo the necessary training and certification programs that are sponsored through the Collaborative Institutional Training Initiative (CITI). These programs, which are available through the Human Subjects website at http://www.auburn.edu/research/vpr/ohs/resources.htm are a necessary component of the protocol approval process and must be completed before protocol submission to the IRB, should it be deemed necessary.

3. Initial contact

An important element to this project is the initial contact. While this would appear to be as easy as a phone call, the best procedure suggests a more formal approach be taken so as to ensure the actual legitimacy and to create a positive and beneficial working relationship with the potential donors.

In making the initial contact, it is best to send the potential donor a letter asking for his or her participation in the archival project. This letter should outline the aims and the objectives of the project. These aims and objectives, the creation of an archival collection based on oral histories, papers, and other artifacts documenting and preserving Auburn University's contribution to the exploration of space as well as a participating Space Grant institution, need to be briefly explained so that the potential donor has an understanding of what the project entails and what his or her role within the project would be. Such a letter would be best served coming from the

principal investigator (preferably a professor within the History Department or from the College of Engineering), the director of the Auburn University Archives and Special Collections, and possibly from the University Vice President for Research.

When making the initial contact, it is preferable to include a form that the potential donor/participant can fill out indicating their interest as well as supply any other pertinent information that might be deemed necessary by the History Department or the Special Collections and Archives. The Auburn University Alumni Office would be the best source of contact information during this phase as they have an active, extensive database of alumni and can provide the most up-to-date information on them. Another source that could be used would be NASA itself as the agency might house records as well as a retiree database that could also help in the location of potential contributors.

4. Securing gifts and donations of material

Once initial contact has been made and participation in the establishment of this collection secured, the next step that must be undertaken is to establish the means by which gifts, donations, or deposits into the collection would be made. This process would best be undertaken by utilizing the established protocols and procedures in place with the Auburn University Department of Archives and Special Collections. These policies can be accessed through collaboration with the director of Special Collections and Archives. It is important to note that close collaboration with the department is of great importance as this department will handle processing, arranging, and indexing the collections as well as preserving them for future use and scholarship

5. Conducting oral histories

When conducting oral history interviews, it is important to have a protocol that allows for the interview participant to discuss his or her involvement with NASA and the work done during his or her tenure with NASA. This protocol should include a basic set of questions that pertain to each individual's Auburn experience including, but not limited to questions about student life, academics, and other vital aspects of campus life. Further, a question set should be developed that will focus on the individual's career path and especially as it relates to their work within NASA or its contractors. These questions should include areas of focus such as type of work performed, places worked, projects worked on, working experiences, and involvement with NASA. A sample research protocol can be found in the appendix to this document for use and reference in framing interview specific protocols.

6. Accessioning papers

In seeking donations of papers, it might be tempting to collect everything that the person has done or seen. Some things are not necessarily of great value to anyone other than themselves. Papers to be focused on are project reports and records, memoranda generated regarding projects or special requests, designs if applicable and obtainable, personnel records, program specific operations guides or manuals, and other documents pertaining to their work at NASA and even to their Auburn experience.

The importance of accessioning these types of papers for this collection is that it will enable the collection to be focused on the working and professional life of these Auburn University alumni including their work in NASA as well as any special training or preparations that they undertook in order to gain employment within NASA. For those Auburn alumni who are or were members of the astronaut corps, other documents that might of value for the collection

would be their military service records especially if they were in the Reserve Officer Training Corps during their tenure at Auburn.

7. Accessioning artifacts

The accessioning of artifacts for this collection is of importance, but should not constitute an immediate priority. The major aim of this collection should be to collect as many oral history interviews as possible as well as perform an in-depth search and acquisition of documents and papers from the noted Auburn alumni. Artifacts should be considered to be secondary in the collection and as a secondary objective for the aims and purposes of the collection should be collected to enrich or "round out" the collection in a way that benefits the future scholar or patron of the collection. Artifacts might include project models, flight patches from astronauts, memorabilia, and other such items that are not able to be classified as papers or documents and, while enriching the collection, would not be considered documents.

8. Processing

The processing of the different aspects of this collection shall be done in accordance with the policies and procedures set forth by the Auburn University Department of Special Collections and Archives. These processing policies and practices shall occur in a timely manner as dictated by the staff of the department and shall be done in accordance with accepted archival preservation and processing practices in regards to documents and artifacts. Upon the completion of the processing efforts, the collection should be made available to scholars and the public as a whole with a listing on the department internet home page as well as ways of accessing the finding aid(s) for the collection.

9. Access

Access to this collection should be open for all patrons of the Ralph Brown Draughon Library at Auburn University. This collection would allow for research into some of the aspects of Space Grant institutions as well as allow for those researchers into the history of the University itself to have access to better resources for their scholarship. Also, this collection could serve as an important resource for those students of the history of technology and of space flight in particular. This repository of information would serve an important, scholarly purpose within the Southeast United States and would help to further the prestige of the University among its peer institutions. This access policy and especially those of the RBD Library must be fully disclosed and stressed in the accessioning agreement.

Funding

One of the most important elements in developing an archival or special collection is the securing of the necessary funds to establish the collection. Securing funding must necessarily be the first step the development of this proposed collection. The rationale for securing funding before taking any other step is to ensure that it will be possible to develop the collection in a proper manner that will ensure its long-term survival. There are several different options for receiving funding support for this proposed collection, but only two- grant support and donor contribution- will be explored in this section of this work.

Grant Funding

Grant funding is an important and viable form of support for establishing and maintaining this collection. Grant funding allows for flexibility, but with that comes a system of support and structure that ensures proper management of the money as well as timely implementation of the work due to the need for reporting requirements and deadlines. While these are some of the

strengths of using grant funding to support the development of the collection, these are also drawbacks as well due to the pressures of grant reporting.

Reporting measures actually form one of the most significant drawbacks to the utilization of grant funding to support an archival collection. One of the significant disadvantages to the use of grants is the need to work within the reporting requirements of the granting organization. Working within these reporting requirements might carry with it such requirements as the development of assessment protocols that serve as measures of program efficiency and effectiveness. Such measures might be as simple as the development of logic models to serve as guides rather than more complex measures such as the development of auditing schedules as well as other more detailed reporting requirements. While such measures are not necessarily likely, it is incumbent upon the principal investigator, in this case the graduate student or professor, to be mindful of these needs and to work within them in order to secure funding.

One of the simplest and most likely measures to be used in the development of the assessment requirements for soliciting a grant is the use of a logic model. A logic model, or a graphical representation of the necessary components of a program or plan, is a useful and beneficial tool that, according to the W. K. Kellogg Foundation, is a picture of how a program works, a visual, systematic way in which to present the connections and relationships between the resources available, the planned activities, and the desired outputs of the program.[29] Such a model is a beneficial tool to develop during the initial organizational phase of the establishment of this proposed collection. In creating a logic model, the principal investigator outlines the different elements of the program in such a way that is easy to follow and is essential to inclusion

[29] W.K. Kellogg Foundation, *Logic Model Development Guide* (Michigan: W.K. Kellogg Foundation, 2004), 1.

in grant proposals, especially in any sections or portions relating to program assessment or evaluation.

Program Evaluation

In the development of a grant request to support or fund (either in part or whole) this proposed archival collection, the program evaluation is necessary. A program evaluation plan demonstrates to potential donors a variety of things including forethought, preparedness, commitment to the program, as well as outlining a method of ensuring a return on the investment for the potential donor. Such evaluations should not be needlessly burdensome, but whatever method is selected for assessing the program must be acted upon and used in reporting and in meeting the aims of the collection. Recommended in this case is the use of an objective-oriented approach whereby the success or failure of the collection can be measured against specific goals or objectives.[30]

In the case of developing objectives for use in the establishment of this collection, the list of measurable objectives or metrics should be simple and encompassing. One of the most important elements when designing the objectives for assessment measures is to make the selected measures specific, measurable, attainable, results oriented, and time-bound or "S.M.A.R.T."[31] By making these measures SMART, a clearer, more focused program can be developed as well as better assessment methods used to satisfy donor requirements and any reporting requirements that are necessary. Further, in the event of a grant audit, these will assist the principal investigator with organizing and presenting the necessary information required by auditors.

[30] Jody L. Fitzpatrick, James R. Sanders, Blaine R. Worthen, *Program Evaluation: Alternative Approaches and Practical Guidelines,* (Upper Saddle River, NJ: Pearson Education, Inc., 2011).

[31] Catherine L. Wehlberg, *Promoting Integrated and Transformative Assessment: A Deeper Focus on Student Learning,* (San Francisco: Jossey-Bass, 2008).

Sources of Grant Funding

Sources of external funding are of singular importance. There are several sources of grant funding possible, but the best of these sources would be through the National Archives. Through the National Archives website, www.archives.gov/grants/, it is possible to search the National Historical Publications and Records Commission as well as other federal grant possibilities. Utilizing federal grant money to form the foundation of this collection is a sound course of action since federal grant money is more stable, plus with Auburn's Ralph Brown Draughon Library (RBD) serving as a Federal Depository, the grant application process should be less problematic.

Another source of potential grant funding would be through the NASA History Office. While the grant funding that is primarily awarded through the NASA History Office is typically to individual researchers conducting NASA research or science and technology research. It is also possible that the principal investigator in the development of this collection could apply for grant or fellowship funding to support the work of collecting oral histories from those individuals who are alumni of Auburn University who have served as Space Center directors, astronauts, or program directors. This approach would help to further the preservation of aerospace history as well as help contribute to the body of knowledge in the field.

One must keep in mind when applying for federal grant funding for the development and establishment of this proposed collection is the need to follow the regulations, rules, and guidelines as published in the Office of Management and Budget Circular Number A-21 (OMB a21). OMB a21 is a set of guidelines and rules that governs the uses of federal grants by educational institutions. It serves as the guiding framework for Auburn University's own contract and grant office policies as well for institutional accounting policies. While it is not

known if this proposed archival collection would be subject to the rules and guidelines of OMB a21, it would be prudent to be familiar with these standards so that when equipment is being purchased, such as recording devices, preservation materials, and so forth it is specifically earmarked for this collection and is not used elsewhere or for other programs. This is a must in the case of a grant audit as a violation of these rules could result in a penalty, should the equipment not fall within the terms of the grant agreement. The uniform resource locator (URL) for OMB a21 has been included in the works cited list for reference.

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Internet Sources

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http://www.nasa.gov/centers/kennedy/about/biographies/kennedy.html

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http://www.jsc.nasa.gov/Bios/htmlbios/voss-ji.html

http://www.nasa.gov/centers/kennedy/about/biographies/kunz.html

http://www.jsc.nasa.gov/Bios/htmlbios/williams-cc.html

Other references

http://www.whitehouse.gov/omb/circulars_a021_2004

http://www.library.cornell.edu/preservation/librarypreservation/mee/supporting/proposaloutline.html

http://www.lib.auburn.edu/archive/flyhy/cover.htm

http://www.lib.auburn.edu/archive/find-aid/aviation.htm

Appendix A

INSTITUTION	Space Grant Archival Collection	Online Finding Aid	Programs	Personnel	Oral Histories	Documents/ Artifacts
AUBURN UNIVERSITY	**N**	**NA**	**NA**	**NA**	**NA**	**NA**
Univ. of Alabama*	N	NA	NA	NA	NA	NA
Univ. of Arkansas	N	NA	NA	NA	NA	NA
Florida State Univ.*	N	NA	NA	NA	NA	NA
Univ. of Florida*	N	NA	NA	NA	NA	NA
Georgia Tech*	N♠	NA	NA	NA	NA	NA
Univ. of Georgia	N	NA	NA	NA	NA	NA
Univ. of Kentucky	N	NA	NA	NA	NA	NA
Lousiana State Univ.*	N	NA	NA	NA	NA	NA
Univ. of Maryland*	N♠	NA	NA	NA	NA	NA
Mississippi St. Univ.	N	NA	NA	NA	NA	NA
Univ. of Mississippi	Y♦	Y	Y	Y	N	Y
N.C. State Univ.*	N♠	NA	NA	NA	NA	NA
UNC-Chapel Hill	N	NA	NA	NA	NA	NA
Oklahoma State	N	NA	NA	NA	NA	NA
Univ. of Oklahoma*	N♣	NA	NA	NA	NA	NA
Univ. of Tennessee	N	NA	NA	NA	NA	NA
Texas A&M*	N	NA	NA	NA	NA	NA
Univ. of Texas*	N	NA	NA	NA	NA	NA
Virginia Polytechnic*	Y♦	Y	Y	Y	Y	Y
Univ. of Virginia*	N	NA	NA	NA	NA	NA
West VA Univ.*	N•	Y	Y	Y	N	Y

Key:

" * " denotes peer institution that is a Space Grant institution

" ♠ " denotes peer institution that has NASA/Space Research related collections, but no collection dedicated to the institution as a Space Grant per se

" ♣ " denotes peer institution whose archival/special collections web site is of questionable validity/reliability or has technical shortcomings

" ♦ " denotes peer institution with research and progams in support of Space Grant missions for example, Space Law programs

" • " denotes peer institution that does not have a set collection dedicated to Space Grant work, but does contain some holdings relating to Space research

" NA" denotes "Not Applicable" based on findings or relevance

" N " denotes "No", indicating a lack of listed items

" Y " denotes "Yes", indicating presence of the listed items

Appendix B

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS
RESEARCH PROTOCOL REVIEW FORM

For Information or help contact **THE OFFICE OF RESEARCH COMPLIANCE,** 115 Ramsay Hall, Auburn University
Phone: 334-844-5966 **e-mail:** hsubjec@auburn.edu **Web Address:** http://www.auburn.edu/research/vpr/ohs/

Revised 03.26.11 – DO NOT STAPLE, CLIP TOGETHER ONLY.

Save a Copy

1. PROPOSED START DATE of STUDY:

PROPOSED REVIEW CATEGORY (Check one): **FULL BOARD** **EXPEDITED** **EXEMPT**

2. PROJECT TITLE:

3.

PRINCIPAL INVESTIGATOR **TITLE** **DEPT** **PHONE** **AU E-MAIL**

MAILING ADDRESS **FAX** **ALTERNATE E-MAIL**

4. SOURCE OF FUNDING SUPPORT: ___ Not Applicable ___ Internal ___ External Agency:_____ Pending Received

5. LIST ANY CONTRACTORS, SUB-CONTRACTORS, OTHER ENTITIES OR IRBs ASSOCIATED WITH THIS PROJECT:

6. GENERAL RESEARCH PROJECT CHARACTERISTICS

6A. Mandatory CITI Training

Names of key personnel who have completed CITI:

_____ _____
_____ _____
_____ _____
_____ _____

CITI group completed for this study:
Social/Behavioral Biomedical

PLEASE ATTACH TO HARD COPY *ALL* CITI CERTIFICATES FOR *EACH* KEY PERSONNEL

6B. Research Methodology

Please check all descriptors that best apply to the research methodology.

Data Source(s): New Data Existing Data

Will recorded data directly or indirectly identify participants?
Yes No

Data collection will involve the use of:
___ Educational Tests (cognitive diagnostic, aptitude, etc.)
Interview / Observation
Physical / Physiological Measures or Specimens (see Section 6E.)
___ Surveys / Questionnaires
Internet / Electronic
___ Audio / Video / Photos
Private records or files

6C. Participant Information

Please check all descriptors that apply to the participant population.

Males Females AU students

Vulnerable Populations

Pregnant Women/Fetuses ___ Prisoners
Children and/or Adolescents (under age 19 in AL)

Persons with:

Economic Disadvantages Physical Disabilities
Educational Disadvantages Intellectual Disabilities

Do you plan to compensate your participants? ___ Yes ___ No

6D. Risks to Participants

Please identify all risks that participants might encounter in this research.

Breach of Confidentiality* Coercion
Deception Physical
Psychological Social
None Other:

_____
_____
_____
_____

*Note that if the investigator is using or accessing confidential or identifiable data, breach of confidentiality is always a risk.

Do you need IBC Approval for this study? No Yes - **BUA #**_____ **Expiration date** _____

FOR OHSR OFFICE USE ONLY

DATE RECEIVED IN OHSR: _____ **by** _____ **PROTOCOL #** _____
DATE OF IRB REVIEW: _____ **by** _____ **APPROVAL CATEGORY:** _____
DATE OF IRB APPROVAL: _____ **by** _____ **INTERVAL FOR CONTINUING REVIEW:** _____
COMMENTS:

7. PROJECT ASSURANCES

PROJECT TITLE:

A. PRINCIPAL INVESTIGATOR'S ASSSURANCES

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
    - **a.** Conducting the project by qualified personnel according to the approved protocol
    - **b.** Implementing no changes in the approved protocol or consent form without prior approval from the Office of Human Subjects Research
    - **c.** Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
    - **d.** Promptly reporting significant adverse events and/or effects to the Office of Human Subjects Research in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has been named as co-investigator in this application, or I will advise OHSR, by letter, in advance of such arrangements.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Human Subjects Research before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates that I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

Printed name of Principal Investigator	**Principal Investigator's Signature** (SIGN IN BLUE INK ONLY)	**Date**

B. FACULTY ADVISOR/SPONSOR'S ASSURANCES

1. By my signature as faculty advisor/sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
2. I certify that the project will be performed by qualified personnel according to the approved protocol using conventional or experimental methodology.
3. I agree to meet with the investigator on a regular basis to monitor study progress.
4. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.
5. I assure that the investigator will promptly report significant adverse events and/or effects to the OHSR in writing within 5 working days of the occurrence.
6. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the OHSR by letter of such arrangements. If the investigator is unable to fulfill requirements for submission of renewals, modifications or the final report, I will assume that responsibility.
7. I have read the protocol submitted for this project for content, clarity, and methodology

Printed name of Faculty Advisor / Sponsor	**Signature (SIGN IN BLUE INK ONLY)**	**Date**

C. DEPARTMENT HEAD'S ASSSURANCE

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department.

Printed name of Department Head	**Signature (SIGN IN BLUE INK ONLY)**	**Date**

8. PROJECT OVERVIEW: Prepare an abstract that includes:
(400 word maximum, in language understandable to someone who is not familiar with your area of study**):**

I.) A summary of relevant research findings leading to this research proposal:
(Cite sources; include a "Reference List" as Appendix A.)
II.) A brief description of the methodology,
III.) Expected and/or possible outcomes, and,
IV.) A statement regarding the potential significance of this research project.

9. PURPOSE.

a. Clearly state all of the objectives, goals, or aims of this project.

b. How will the results of this project be used? (e.g., Presentation? Publication? Thesis? Dissertation?)

10a. KEY PERSONNEL. Describe responsibilities. Include information on research training or certifications related to this project. CITI is required. Be as specific as possible. (Attach extra page if needed.) *All non AU-affiliated key personnel must attach CITI certificates of completion.*

Principle Investigator_____Title:_____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

11. LOCATION OF RESEARCH. List all locations where data collection will take place. (School systems, organizations, businesses, buildings and room numbers, servers for web surveys, etc.) Be as specific as possible. Attach permission letters in Appendix E.
(See sample letters at http://www.auburn.edu/research/vpr/ohs/sample.htm)

12. PARTICIPANTS.

a. Describe the participant population you have chosen for this project.
Check here if there is existing data; describe the population from whom data was collected & include the # of data files.

b. Describe why is this participant population is appropriate for inclusion in this research project. (Include criteria for selection.)

c. Describe, step-by-step, all procedures you will use to recruit participants. *Include in Appendix B a copy of all e-mails, flyers, advertisements, recruiting scripts, invitations, etc., that will be used to invite people to participate.*
(See sample documents at http://www.auburn.edu/research/vpr/ohs/sample.htm.)

What is the minimum number of participants you need to validate the study? _____

Is there a limit on the number of participants you will recruit? ☐ No ☐ Yes – the number is _____

Is there a limit on the number of participants you will include in the study? ☐ No ☐ Yes – the number is _____

d. Describe the type, amount and method of compensation and/or incentives for participants.
(If no compensation will be given, check here .)

Select the type of compensation: ___ Monetary ___ Incentives
___ Raffle or Drawing incentive (Include the chances of winning.)
___ Extra Credit (State the value)
___ Other

Description:

13. PROJECT DESIGN & METHODS.

a. Describe, step-by-step, all procedures and methods that will be used to consent participants.
(☐ Check here if this is "not applicable"; you are using existing data.)

b. Describe the procedures you will use in order to address your purpose. Provide a step-by-step description of how you will carry out this research project. Include specific information about the participants' time and effort commitment. (*NOTE: Use language that would be understandable to someone who is not familiar with your area of study. Without a complete description of all procedures, the Auburn University IRB will not be able to review this protocol. If additional space is needed for this section, save the information as a .PDF file and insert after page 6 of this form.*)

13c. List all data collection instruments used in this project, in the order they appear in Appendix C.
(e.g., surveys and questionnaires in the format that will be presented to participants, educational tests, data collection sheets, interview questions, audio/video taping methods etc.)

d. Data analysis: Explain how the data will be analyzed.

14. RISKS & DISCOMFORTS: List and describe all of the risks that participants might encounter in this research. *If you are using deception in this study, please justify the use of deception and be sure to attach a copy of the debriefing form you plan to use in Appendix D.* *(Examples of possible risks are in section #6D on page 1.)*

15. PRECAUTIONS. Identify and describe all precautions you have taken to eliminate or reduce risks as listed in #14. If the participants can be classified as a "vulnerable" population, please describe additional safeguards that you will use to assure the ethical treatment of these individuals. *Provide a copy of any emergency plans/procedures and medical referral lists in Appendix D.*

If using the Internet to collect data, what confidentiality or security precautions are in place to protect (or not collect) identifiable data? Include protections used during both the collection and transfer of data.
(These are likely listed on the server's website.)

16. BENEFITS.
    a. List all realistic direct benefits participants can expect by participating in this specific study.
    (Do not include "compensation" listed in #12d.) Check here if there are no direct benefits to participants.

    b. List all realistic benefits for the general population that may be generated from this study.

17. PROTECTION OF DATA.

a. Will data be collected as anonymous? ☐ Yes ☐ No *If "YES", skip to part "g".*
("Anonymous" means that you will not collect any identifiable data.)

b. Will data be collected as confidential? ☐ Yes ☐ No
("Confidential" means that you will collect and protect identifiable data.)

c. If data are collected as confidential, will the participants' data be coded or linked to identifying information?
■ Yes (If so, describe how linked.) No ■

d. Justify your need to code participants' data or link the data with identifying information.

e. Where will code lists be stored? (Building, room number?)

f. Will data collected as "confidential" be recorded and analyzed as "anonymous"? ☐ Yes ☐ No
(If you will maintain identifiable data, protections should have been described in #15.)

g. Describe how and where the data will be stored (e.g., hard copy, audio cassette, electronic data, etc.), and how the location where data is stored will be secured in your absence. For electronic data, describe security. If applicable, state specifically where any IRB-approved and participant-signed consent documents will be kept on campus for 3 years after the study ends.

h. Who will have access to participants' data?
(*The faculty advisor should have full access and be able to produce the data in the case of a federal or institutional audit.*)

i. When is the latest date that confidential data will be retained? (Check here if only anonymous data will be retained. ☐)

j. How will the confidential data be destroyed? (*NOTE: Data recorded and analyzed as "anonymous" may be retained indefinitely.)*

PROTOCOL REVIEW CHECKLIST

All protocols must include the following items:

1. Research Protocol Review Form (All signatures included and all sections completed)

(Examples of appended documents are found on the OHSR website: http://www.auburn.edu/research/vpr/ohs/sample.htm)

2. Consent Form or Information Letter and any Releases (audio, video or photo) that the participant will sign.

3. Appendix A, "Reference List"

4. Appendix B if e-mails, flyers, advertisements, generalized announcements or scripts, etc., are used to recruit participants.

5. Appendix C if data collection sheets, surveys, tests, other recording instruments, interview scripts, etc. will be used for data collection. Be sure to attach them in the order in which they are listed in # 13c.

6. Appendix D if you will be using a debriefing form or include emergency plans/procedures and medical referral lists (A referral list may be attached to the consent document).

7. Appendix E if research is being conducted at sites other than Auburn University or in cooperation with other entities. A permission letter from the site / program director must be included indicating their cooperation or involvement in the project. NOTE: If the proposed research is a multi-site project, involving investigators or participants at other academic institutions, hospitals or private research organizations, a letter of IRB approval from each entity is required prior to initiating the project.

8. Appendix F - Written evidence of acceptance by the host country if research is conducted outside the United States.

FOR FULL BOARD REVIEW, NUMBER ALL PAGES, INCLUDING APPENDICES