



May 7, 2007

Leslie Main
GRC Historic Preservation Officer
NASA- John H. Glenn Research Center, Lewis Field
Cleveland, OH 44135-3191

Dear Mr. Main:

RE: Altitude Wind Tunnel (AWT), Glenn Research Center, Cleveland, OH

This letter accompanies a copy of the signed Memorandum of Agreement for the above listed project, which was submitted for signature on March 30, 2007. We accept the terms outlined in the MOA as appropriate to mitigate the adverse effect to this eligible historic property. We have retained a copy of the agreement for our files. To complete the Section 106 process, please forward one copy of the MOA to the Advisory Council on Historic Preservation, with the documentation described in 36 CFR Part 800.11(e).

We appreciate NASA's commitment to consideration of historic properties through the Section 106 process. If you have any questions about this letter or our consultation, please contact Lisa Adkins at (614) 298-2000.

Sincerely,

Mark J. Epstein, Department Head
Dept. of Resource Protection and Review

Attachment: Signed MOA

RPR Semo 1011922

OHIO HISTORICAL SOCIETY

Ohio Historic Preservation Office

567 East Hudson Street, Columbus, Ohio 43211-1030 ph: 614.298.2000 fx: 614.298.2037

www.ohiohistory.org

MEMORANDUM OF AGREEMENT

BETWEEN the National Aeronautics and Space Administration, Glenn Research Center

AND THE

Ohio State Historic Preservation Office

**REGARDING the Demolition of the Altitude Wind Tunnel (Building No. 7) at Lewis Field
in Brook Park, Ohio**

WHEREAS, the National Aeronautics and Space Administration, Glenn Research Center (NASA GRC) plans to **demolish** the exterior structure of the **Altitude Wind Tunnel, Building No. 7, (AWT) at NASA GRC** (undertaking); And

WHEREAS, the undertaking consists of removal of the AWT steel structure, which includes the Space Power Chamber (SPC), concrete foundations to two feet below grade, two small support buildings, leveling the work site, repaving the work site for storm water control, leaving intact the building that contained the AWT test section, control room, shop areas, and offices; And

WHEREAS, NASA GRC has defined the undertaking's area of potential effect (APE) as the North-Central campus of GRC; And

WHEREAS, NASA GRC has determined that the undertaking may have an adverse effect on **the AWT, which is potentially eligible for listing in the National Register of Historic Places**, and has consulted with the **Ohio Historic Preservation Office (SHPO)** pursuant to 36 C.F.R. part 800, of the regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f); and

WHEREAS, NASA GRC has provided for public comment by holding a Community Awareness meeting on April 27, 2006; And

WHEREAS, in accordance with 36 C.F.R. § 800.6(a)(1), NASA GRC has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); And

NOW, THEREFORE, NASA GRC and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

NASA GRC shall ensure that the following measures are carried out,

- 1) NASA GRC will establish a schedule to ensure that all tasks necessary to document the physical features of the AWT complex shall be completed before demolition. All products described in these stipulations shall be completed before the duration of this MOA has lapsed, or NASA will return to consultation to amend or extend this MOA.
- 2) NASA GRC will prepare and archive Level II Historic American Engineering Record (HAER) documents of the AWT complex which includes the Space Power Chamber (SPC). These documents will summarize the construction, historical context, technological significance, and a physical description of the AWT and the SPC. Included in this documentation will be selected photographs and architectural drawings from NASA's files and new drawings as required to clarify the two eras of the AWT/SPC. Any new drawings will be in accordance with the *Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation*. The HAER documents will be sent to the HAER offices in Washington, D.C. for review and approval during the preparation of these documents. The final documents will be submitted to HAER offices as the final repository. Electronic files of the HAER documents will be maintained by the Logistics and Technical Information Division (LTID). A backup paper version of the HAER documents will be maintained by the GRC Technical Library.
- 3) NASA GRC will collect, appraise, and maintain a collection of historically significant documents that will become a permanent record of the AWT/SPC. These documents may include correspondence, architectural drawings, maps, scientific or engineering publications, and operational materials, such as log books and test reports. These documents will be retained for five (5) years at NASA GRC. After that time period, the permanent records will be given to the National Archives and Records Administration (NARA) for permanent retention. A backup record will be maintained by the GRC Technical Library. A list of these documents will be prepared that includes their title, a basic description of their content, size estimate and format. This list will be provided to OHPO and HAER for inclusion with their files for this property.
- 4) NASA GRC will update the photographic images of the AWT/SPC by digitizing unscanned negatives and photographs and uploading them to the GRC Imagenet database. NASA will perform several 360 degree images of the AWT/SPC before demolition begins. NASA will compile film and video of tests performed in the AWT/SPC and have the film/video digitized. From the above digitized files, NASA will produce a CD-ROM or DVD that will include photographs, panoramic photographs, video clips, and scanned documents. This disc may supplement the monograph or be distributed separately. The electronic files for these images and videos will be retained at GRC with LTID. Approximately 100 CD-ROMs or DVDs will be distributed by GRC within NASA, to the

OHPO, local libraries, and other interested parties. Distribution of these electronic files will be accomplished by the Glenn Technical Library.

- 5) NASA GRC will conduct oral interviews with NASA retirees, facility and program managers, and others. These interviews will be recorded and transcribed. Selected interviews will be videotaped. NASA will produce a documentary video that would describe the facility, its history, and research programs. The documentary may include some of these interviews. Approximately 100 DVDs of the documentary will be produced by GRC NASA by LTID. The documentary will be distributed by GRC within NASA, to the OHPO, local libraries, and other interested parties. The master for the documentary will be retained at GRC within LTID electronically. Distribution of the DVDs will be accomplished by the Glenn Technical Library.
- 6) NASA GRC will publish a monograph that records the history of the AWT/SPC. The monograph will include photographs and drawings to illustrate the narrative text. Publishing this monograph will be done by NASA Headquarters. Approximately 100 copies of the monograph will be distributed within NASA, to the OHPO, local libraries, and other interested parties. Distribution of the monograph will be accomplished by the Glenn Technical Library.
- 7) NASA GRC will produce museum quality display boards that show the history of the AWT/SPC and the technology that was developed from the testing performed there. NASA GRC will showcase this display material at an appropriate campus tour stop or at the Visitor's Center, in order to make the interpretive material available to the public. These museum displays will be retained at NASA GRC until such time as a final location for this interpretive display can be determined. Installation of this display within the GRC facility will be coordinated with SHPO to in order to minimize effects to other eligible historic properties.
- 8) NASA GRC will create a web site with public access for the AWT/SPC through the NASA GRC History Office website. Historic photographs of the construction and testing within the Test Section, the tunnel, and the Space Power Chamber will be available for viewing. Photographs of the current state of the AWT/SPC and photographs documenting the demolition of the AWT/SPC will also be available for viewing. The text from the monograph will also be available for viewing. The website will be maintained by the GRC History Office as part of the GRC History Office website.

I. DURATION

This MOA will be null and void if its terms are not carried out within three (3) years from the date of its execution. Prior to such time, **NASA GRC** may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VIII below.

II. POST-REVIEW DISCOVERIES

Due to the nature of the structure of the AWT/SPC, potential historic properties or unanticipated effects on historic properties are not expected. If, during the demolition of the AWT/SPC, historically significant artifacts are discovered, **NASA GRC** shall temporarily stop work, isolate and document the artifact, notify the SHPO within two days, in writing, of the nature of the artifact and the mitigation that will be implemented. **NASA GRC** will proceed with any new mitigation after receiving comment from the SHPO, or ten days after sending notice if no comments are received from the SHPO.

III. MONITORING AND REPORTING

Following the execution of this MOA, **NASA GRC** shall notify the Ohio **SHPO** when mobilization for demolition begins. Every three months after mobilization, until it expires or is terminated, **NASA GRC** shall provide **SHPO** a summary report detailing work undertaken pursuant to its terms. Such reports shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in **NASA GRC's** efforts to carry out the terms of this MOA.

IV. DISPUTE RESOLUTION

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, **NASA GRC** shall consult with such party to resolve the objection. If **NASA GRC** determines that such objection cannot be resolved, **NASA GRC** will:

A. Forward all documentation relevant to the dispute, including the **NASA GRC's** proposed resolution, to the ACHP. The ACHP shall provide **NASA GRC** with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, **NASA GRC** shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. **NASA GRC** will then proceed according to **NASA GRC's** final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, **NASA GRC**, may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, **NASA GRC** shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

C. **NASA GRC's** responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

V. **AMENDMENTS**

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VI. **TERMINATION**

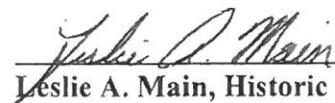
If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VIII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, **NASA GRC** must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. **NASA GRC** shall notify the signatories as to the course of action it will pursue.

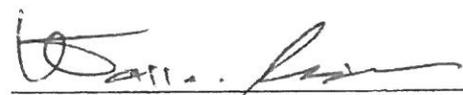
Execution of this MOA by the **NASA GRC** and **the SHPO** and implementation of its terms evidence that **NASA** has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORIES:

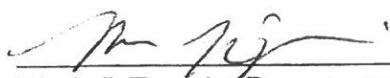
NASA Glenn Research Center

 Date March 26, 2007
Leslie A. Main, Historic Preservation Officer

NASA Glenn Research Center

 Date March 27, 2007
Dallas Lauderdale, Chief, Facilities Division

Ohio State Historic Preservation Office

 Date 5/7/07
Mark J. Epstein, Department Head, Resource Protection and Review

Attachment No. 2

List of Organizations and Individuals receiving
Hardcover version of
Revolutionary Atmosphere
Authored by Robert Arrighi

Ben Dastoli	Medina Ohio
Seymour Himmel	Lakewood Ohio
Fay Porter	Lakewood Ohio
Galen Wilson	Dayton Ohio
Bill Rieke	Westlake Ohio
Bill Korhely	Parma Ohio
Bob Walker	Hinkley Ohio
Andy Szhuai	Strongsville Ohio
Joe Chambers	Yorktown Virginia
Howard Wine	Westlake Ohio
Bill Harrison	North Olmsted Ohio
Kevin Coleman	North Olmsted Ohio
Joe Nieberding	Westlake Ohio
Don Young	Sandusky Ohio
Larry Ross	Bay Village Ohio
Virginia Dawson	Shaker Heights Ohio
Bill Prati	Tuscon Arizona
Richard Hallion	Laurel Maryland
Bobbi Pavelka	Bala Cynwyd PA
Hank Pfanner	Sandusky Ohio
Walter Vincenti	Palo Alto California
Frank Holt	Cleveland Ohio
Warren North	Glendale Arizona
Neal Wingenfeld	North Ridgeville Ohio
Akron Public Library	Akron Ohio
Amherst Public Library	Amherst Ohio
Avon Lake Public Library	Avon Lake Ohio
Baldwin-Wallace College	Berea Ohio
Bowling Green State University	Bowling Green Ohio
Case Western Reserve University	Cleveland Ohio
Cleveland State University	Cleveland Ohio
Dave Harries	Wichita Kansas
Cuyahoga Community College	Cleveland Ohio

Cuyahoga County Library-- Brecksville Branch	Brecksville Ohio
East Cleveland Public Library	Cleveland Ohio
Elyria Public Library	Elyria Ohio
Margie Aponte	Glenn Research Center
Hugh Aylward	Glenn Research Center
Ralph Bevilacqua	Glenn Research Center
Bridgette Caswell	Glenn Research Center
Bryan Coates	Glenn Research Center
William Darby	Glenn Research Center
Debbie Demaline	Glenn Research Center
Patrick Edmonds	Glenn Research Center
Lori Feher	Glenn Research Center
Jim Firak	Glenn Research Center
Mark Grills	Glenn Research Center
Suzanne Kelley	Glenn Research Center
Marty Krupar	Glenn Research Center
Mary Lester	Glenn Research Center
Alan Linne	Glenn Research Center
Les Main	Glenn Research Center
Joe Morris	Glenn Research Center
Michelle Murphy	Glenn Research Center
Patricia Naglowsky	Glenn Research Center
Gary Nolan	Glenn Research Center
Nancy O'Bryan	Glenn Research Center

Don Reams	Glenn Research Center
Quentin Schwinn	Glenn Research Center
Kelly Shankland	Glenn Research Center
Lori Rachul	Glenn Research Center
Katherine Martin	Glenn Research Center
David Defelice	Glenn Research Center
Sharon Webber	Glenn Research Center
Linda Dukes-Campbell	Glenn Research Center
Sally Harrington	Glenn Research Center
Kathy Zona	Glenn Research Center
John Carroll University	University Heights Ohio
Kent State University	Kent Ohio
Lakeland Community College	Kirtland Ohio
Lakewood Public Library	Lakewood Ohio
Lakewood Public Library-- Madison Branch	Lakewood Ohio
Lorain County Community College	North Elyria Ohio
Mentor Public Library	Mentor Ohio
National Museum of US Air Force	Wright-Patterson AFB Ohio
Larry Lee	Washington DC
New York City Public Library	New York New York
New York City Public Library	New York New York
New York City Public Library	New York New York
New York City Public Library	New York New York
Oberlin College	Oberlin Ohio

Oberlin Public Library	Oberlin Ohio
Ohio State University	Columbus Ohio
Perry Public Library	Perry Ohio
Mark Bowles	Cuyahoga Falls Ohio
Ritter Public Library	Vermillion Ohio
Rocky River Public Library	Rocky River Ohio
Sandusky Public Library	Sandusky Ohio
Shaker Hts. Public Library	Shaker Heights Ohio
University of Akron	Akron Ohio
University of Dayton	Dayton Ohio
Westlake Porter Public Library	Westlake Ohio
Willoughby-Eastlake Public Library	Willowich Ohio
Wright State University	Dayton Ohio
Glenn Bugos	Moffett Field
April Gage	Moffett Field
Jack Boyd	Moffett Field
Christian Gelzer	Dryden Flight Research Center Edwards
Mark Scroggins	2101 NASA Parkway, Building 45, Room 304 Houston
Rebecca Wright	
Jennifer Ross-Nazal	
Elaine Liston	NASA Kennedy Space Center
Julie Cooper	Jet Propulsion Laboratory Pasadena
Mike Wright	Marshall Space Flight Center Huntsville

Tessa Quave	PAOO/History Stennis Space Center
HQ History Office	Washington
Tina Norwood	NASA Headquarters, 300 E Street SW Washington
Sue Miller Acquisitions	Hampton VA
Pete Banholzer, TIS Head Library Branch	Greenbelt MD