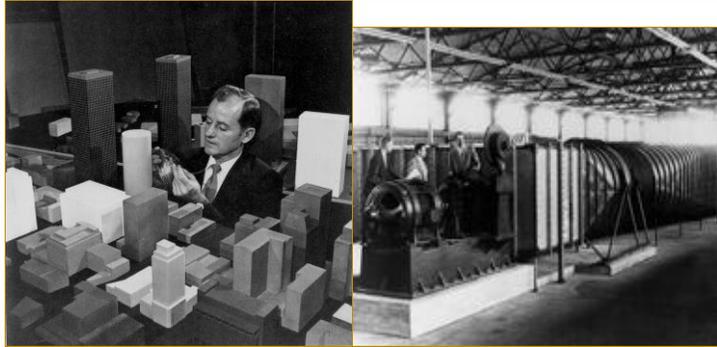


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<https://engineering.purdue.edu/AAE/AboutUs/News/ProfessorEmeritusGeorgePalmerHonoredbyAAE>

## FINDING AID TO THE GEORGE M. PALMER PAPERS, 1957

**Purdue University Libraries  
Virginia Kelly Karnes Archives and Special Collections  
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## Descriptive Summary

<b>Creator Information</b>	Palmer, George M., 1921-
<b>Title</b>	George M. Palmer papers
<b>Collection Identifier</b>	MSF 482
<b>Date Span</b>	1957
<b>Abstract</b>	Student course assignment results for AE 420, titled "Extrapolation 59," completed by K.E. Beyer, R. B. Chaffee, W. B. Fouts, and W. D. Harvey, May 23, 1957.
<b>Extent</b>	0.2 cubic feet (1 folder)
<b>Finding Aid Author</b>	Mary A. Sego
<b>Languages</b>	English
<b>Repository</b>	Virginia Kelly Karnes Archives and Special Collections Research Center, Purdue University Libraries

## Administrative Information

<b>Location Information:</b>	ASC
<b>Access Restrictions:</b>	Collection is open for research.
<b>Acquisition Information:</b>	Gift of George Palmer via Rita Baines
<b>Accession Number:</b>	20120710
<b>Preferred Citation:</b>	MSF 482, George M. Palmer papers, Karnes Archives and Special Collections, Purdue University Libraries
<b>Copyright Notice:</b>	Purdue University
<b>Related Materials Information:</b>	Paul E. Stanley papers: <a href="https://apps.lib.purdue.edu/archon/index.php?p=collections/controlcard&amp;id=127&amp;q=stanley">https://apps.lib.purdue.edu/archon/index.php?p=collections/controlcard&amp;id=127&amp;q=stanley</a>

## **Subjects and Genres**

### **Persons**

Palmer, George M., 1921-

### **Organizations**

Purdue University. School of Aeronautics and Astronautics  
Flight Archives at Purdue University

### **Topics**

Purdue University--Faculty  
Purdue University. School of Aeronautics and Astronautics  
Wind tunnels--Purdue University  
Wind tunnels--history

### **Form and Genre Types**

Coursework  
Reports

### **Occupations**

Professors  
Engineers

## Biography of George M. Palmer

George Palmer enrolled at Purdue University as an undergraduate student in September 1941. As an undergraduate, he joined Acacia Fraternity and the Purdue Band under the Directorship of Paul "Spotts" Emrick where he played trumpet in the Symphonic Band and the Marching Band for two years. His 2nd year he was a Sergeant and Quartermaster.

In 1943, in his junior year, he worked for Professor Wood as an aerodynamics paper grader. He was made a member of Tau Beta Pi and Pi Tau Sigma and joined the Institute of Aeronautical Sciences. At the end of his junior year he was awarded a scholarship in the Development Engineering Department at Consolidated Vultee Aircraft in San Diego, CA. As a Flight Test Engineer during the multiphase two-semester program, he made several test flights in the single tail and twin tail prototype X-B32 bomber measuring control force data expanding the airplane envelope. He also worked in design and manufacturing of parts as well as assembly.

He returned to Purdue for his senior year in 1944 and worked for Professor Bruhn as a Structures paper grader and as an Aerodynamics Instructor teaching in the Curtiss Wright Cadette program.

Through the influence of Professors Wood, Bruhn, and Liston, Palmer was convinced that he wanted to teach. He received his Bachelor's Degree in Aeronautical Engineering in February 1945 with distinction.

Following graduation, he returned to Consolidated in San Diego and was assigned to the Stability and Control and Aerodynamics Research Department. There, he worked on the design of the X-B46, a 4 jet 500 mph Bomber until the end of WWII.

He entered the California Institute of Technology Graduate School in September 1946 for his master's degree and was excused from their 5th year Graduate Airplane Design curriculum and allowed to take the 6th year Ph.D. Theoretical and Supersonic Aerodynamics major from Professors Clark Millikan and Hans Liepman, with minors in Structures, Design of Instruments and Accurate Mechanisms, and The Financial Policy of Corporations. During the two semesters he worked for Allen Puckett in the Supersonic Tunnel Laboratory

Palmer took another 6th year PhD. major in Jet Propulsion and Rocketry, taught jointly with Jet Propulsion Laboratory personnel. He took a minor in Kinetic Theory of Gases from the Physics Dept. He was employed by the Jet Propulsion Laboratory under Professor "Homer Joe" Stewart on the data reduction of the first flight of the WAC Corporal Rocket. WAC stands for Without a Canister, a booster rocket. He was awarded the Degree of Aeronautical Engineer from Caltech in June of 1947.

He accepted a position with the Purdue School of Mechanical and Aeronautical Engineering in July 1947. He was assigned by Professor Solberg with the rank of Instructor to the proposed Rocket Lab under Prof. M.J. Zucrow to work on the initial design of the Lab and to its use. He was the Lab's first full time engineer and in January 1948, he taught the first graduate course on Super Sonic Aerodynamics in the Aero School.

He wrote and presented a paper "The Heat Transfer in Ultra High Pressure Liquid Rockets" at an Office of Naval Research meeting. He also designed the Lab's first liquid propelled rocket motor for test stand use. After a number of projects in the development of the Lab, he transferred to the Aero School in 1949 to teach and do aerodynamic research. Professor Bruhn assigned him to design and complete the wind tunnel project which was planned to be a vertical tunnel with the test section at a balcony level. With Professor Bruhn's approval he changed it to a horizontal tunnel with the test section accessible at floor level. The wind tunnel was completed by 1950 and provided for many years of student projects. Later, Professor Palmer configured a 12 foot diameter turn table at the end of the diffuser to the 3 foot by 4.5 test section, and removed the air exchanger, thereby providing an open test section for large buildings. This modification allowed Purdue to become an outstanding higher educational institute for testing of Building Designs and post mortems that occur due to wind. Buildings from throughout the country and internationally with the testing of some 35 buildings. The modification not only allowed testing of tall buildings for pressure distribution and forces, both static and dynamic, but allowed testing of large scale Exxon Mobile Oil and Gas Ships and a variety of Truck models and Greyhound Bus models.

Palmer taught the senior cap stone course, Airplane Design from 1955 until 1987. This was taught on a team basis and testing their design in the wind tunnel, a marathon all night effort at the end of the semester with Professor Palmer getting cat naps next to the tunnel. During his 41 years he taught Stability and Control, Airplane Aerodynamics, Jet Propulsion and Rocketry, Space Propulsion and 490, 590 and 690 Special Individual Projects which frequently used the wind tunnel. He received the Outstanding Professor award in 1967.

During his tenure at Purdue, Palmer was a consultant on the design of the air-flow and combustion for asphalt and aggregate mixing machines and for grain drying machines, in both cases stationary and mobile units. He was also a consultant to Allison Division of General Motors on low thrust space propulsion research.

Upon retiring from Purdue in 1987, he took a position of Vice President for Research and Development with Dynamic Corporation in Montmorenci, IN, a manufacturer of large electrical resistance grids for dynamic braking for GM EMD, GE Electromotive and Asea Brown Boveri.

He was a two term Chairman of the Central Indiana Section of AIAA, Advisory Board Member for several years and on the Regional Advisory Committee (RAC 3). He was an Associates Fellow of AIAA, and Chairman of the Purdue Chapter of the American Society for Engineering Education (ASEE). He served in all positions in BSA Volunteer Adult Leadership from Cub to Troop to District to Council Vice President for Exploring. He was Chairman of the Scout Fair for two consecutive years and was awarded the Silver Beaver by the Council for all his devoted service. He was a Private Pilot for 36 years. A member of EAA and a two term Chapter President.

It was noted in Professor Palmer's bio for the 2013 Outstanding Aerospace Engineers Award that he worked tirelessly to create the wind tunnel program that Purdue is known for today. While serving as a faculty member for Purdue School of Aeronautics and Astronautics, he was more than just an advisor, teacher and esteemed leader. To many, he was the driving force behind student education, a professional resource, a personal friend, or a mentor who is held in the highest regard. He has impacted the lives of thousands of students during his tenure at Purdue with the School of Aeronautics and Astronautics.

He received the Outstanding Aerospace Engineer Award in 2013 to a standing ovation at the age of 92.

*Source:*

Purdue University School of Aeronautics and Astronautics. Outstanding Aerospace Engineers Award 2013. Web. 2015. 21 September.

<<https://engineering.purdue.edu/AAE/AboutUs/Alumni/oaec/2013/index.html>>.

## Collection Description

### Scope

The George M. Palmer papers (1957; 0.2 cubic feet) consist of student course assignment results for AE 420, which was taught by Professor Palmer. The report is titled "Extrapolation 59," and was completed by K.E. Beyer, R. B. Chaffee, W. B. Fouts, and W. D. Harvey, May 23, 1957.

### Descriptive Rules

Describing Archives: A Content Standard

### Processing Information

Material has been housed in acid-free folders, and acid-free boxes.

## DETAILED DESCRIPTION OF THE COLLECTION

**1 Box** *Aerospace Engineering 420, Student Course Assignment Results, 1957*

### Folder

1. Student course assignment results for AE 420, titled "Extrapolation 59," completed by K.E. Beyer, R. B. Chaffee, W. B. Fouts, and W. D. Harvey, May 23, 1957.