



Karl Dawson Wood 1940

**TITLE:** Professor and Head of Department of Aeronautical Engineering  
University of Colorado

**ADDRESS:** 780 Ninth Street, Boulder, Colorado

**BORN:** Forest Glen, Maryland, September 27, 1898

**EDUCATION:** M.E. Cornell University, 1922  
M.S. Cornell University, 1926

**TECHNICAL SOCIETIES:**

Member: Sigma Xi, Tau Beta Pi, Pi Tau Sigma, ASME, SAE, AAUP, AS EE;  
Assoc. Fellow I.Ae.S: Who's Who listings: W.W. in Engineering, W.W. in  
Education, W.W. in Indiana, American Men of Science.

**EXPERIENCE:**

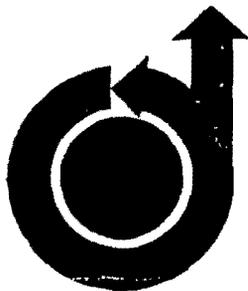
- (1) National Bureau of Standards, Aircraft Engine Laboratory, Washington D.C. Several summers plus full year of 1919-1920.
- (2) Cornell University, Department of Mechanics of Engineering, Ithaca, N.Y. from Sept. 1920 to Feb. 1936, except summers, Ass't Professor.
- (3) Summer and part time employment, 1920-1936, engineering work
  - (a) Bell Telephone Laboratories, N.Y. City, 1923, 1924.
  - (b) Atmospheric Nitrogen Corp., Syracuse, N.Y., 1925, 1926.
  - (c) Morse Chain Co., Ithaca, N.Y., 1927, 1928.
  - (d) Atmospheric Nitrogen Corp., Hopewell, Va., 1929.
  - (e) Consolidated Aircraft Corp., Buffalo, N.Y., 1930-1935.
- (4) Consolidated Aircraft Corp., San Diego, Cal., Aerodynamicist, Feb. 1936 to June 1937.
- (5) Purdue University, Lafayette, Indiana, Professor of Aeronautical Engineering, July 1937 to June 1944, except summers.
- (6) Summer and part time employment, 1938 to 1947
  - (a) Materiel Command, Army Air Forces, Dayton, Ohio; Senior Aeronautical Engineer.
  - (b) General Motors Corporation, Detroit, Mich; Chief Aerodynamicist.
  - (c) Consolidated-Vultee Aircraft Corp., San Diego and Downey Calif; Engineering Consultant, designed airplanes and guided missiles.
  - (d) The Johns Hopkins University, Applied Physics Laboratory, Silver Springs, Md; Engineer, Supersonic Wind Tunnel Group.
- (7) Civil Service Rating (1941); Principal Aero. Engineer (P-6) classification. F-7 appointment declined 1946

**PRINCIPAL PUBLISHED WORK:**

- 1920 "A Variable Speed Fan Dynamometer," Technical Note No. 26, National Advisory Committee for Aeronautics.
- 1927 "Possibilities of the Counter-Balance Connecting Rods," S.A.E. Journal and Sibley Journal of Engineering, April issue.
- 1933 "Formulas for Stress Analysis of Circular Rings in a Monocoque Fuselage," co-author with Roy A. Miller, Technical Note No 462, NACA.
- 1935 "Technical Aerodynamics" (textbook), published by McGraw-Hill, second edition March 1947.
- 1934-1943 "Airplane Design" (textbook), distributed by Cornell Co-op Society, now in seventh edition.
- 1943 "Aspect Ratio Corrections", Journal of Aeronautical Sciences, Sept. 1943.
- 1944 "Propeller Efficiency of a Light Airplane" SAE Journal, Nov. 1944 p. 50.

Now serving as Technical Editor of Aeronautical Engineering Series of college textbooks for Prentice-Hall Inc.

AMERICAN INSTITUTE OF  
AERONAUTICS AND ASTRONAUTICS



In recognition of his  
professional distinction  
and his notable and  
valuable contributions  
the Officers and Directors of  
the Institute declare that

**K. D. WOOD**

has been elected  
to the grade of  
**FELLOW**

*Richard E. Harner*

PRESIDENT

*James J. Harford*

EXECUTIVE SECRETARY

JANUARY 1959





Sept. 1964

**KARL DAWSON WOOD**  
Resume of Professional Data

**TITLE:** Prof. Aero. Engineering, Univ. of Colo. (since 1944)  
**ADDRESS:** 1511 Bluebell Ave., Boulder, Colo.  
**BIRTH DATA:** Forest Glen, Maryland; 27 September, 1898.  
**EDUCATION:** M.E., Cornell University, Ithaca, N. Y., 1922  
M.S., Cornell University, Ithaca, N. Y., 1926  
Ph.D., Univ. of Michigan, Ann Arbor, Mich., 1955

**PROFESSIONAL AND HONOR SOCIETIES:**

Member, Sigma Xi, Tau Beta Pi, American Helicopter Society, American Rocket Society. Fellow, Institute of Aerospace Sciences, American Soc. Engin. Education.

**WHO'S WHO LISTINGS:**

in America (1963 Ed.); in Engineering; in Education; in Commerce & Industry; Amer. Men of Science.

**EXPERIENCE:** (in chronological order)

- (1) Nat'l. Bur. of Standards, Aero. Engine Lab., Wash., D.C., 1919-20.
- (2) Cornell University, Ithaca, N. Y., Engin. Mech. Dept. 9/20-2/36.
- (3) Consolidated Aircraft, San Diego, Calif. Aerodynamicist 2/36-6/37.
- (4) Purdue University, Lafayette, Ind., Prof. Aero. Engr. 7/37-6/44.
- (5) Univ. of Colorado, Prof. Aero. E. since 7/44. Dept. Head '48-'56.

Summer & Part-time Employment Since 1938:

- (a) USAF Materiel Command, Dayton, Ohio. Senior Aero. Engr., 1941.
- (b) General Motors Corp., Detroit. Aerodynamicist, 1942.
- (c) Johns Hopkins U., App. Physics Lab., Silver Springs, Md., Engr. '46.
- (d) Consol.-Vultee Acft., San Diego, Consultant, '47-'48 + '51-'54.
- (e) Douglas Acft., Long Beach, Calif. Aerodynamicist, 1952.
- (f) Marquardt Aircraft, Van Nuys, Calif., Design specialist, 1957.
- (g) Grumman Acft. Engr. Co., N. Y., Engineer, Aerophysics, 1959.
- (h) Martin Co., Denver Div., part-time employee, 1959-1964.

**PRINCIPAL PUBLISHED WORK:**

**TEXTBOOKS:** AIRPLANE DESIGN. Ten editions, 1934-54.  
TECHNICAL AERODYNAMICS. 1st Ed. '35; 2nd Ed. McGraw-Hill, '47; 3rd Ed. '55.  
Both superseded by AEROSPACE VEHICLE DESIGN. Vol. I, AIRCRAFT DESIGN, 1963, and Vol. II, SPACECRAFT DESIGN, 1964.

Articles and U. S. Government publications:

- 1920 A Variable Speed Fan Dynamometer. NACA Tech. Note #26.
- 1927 The Counterbalanced Connecting Rod. Jour. of Soc. of Auto. Engrs.
- 1933 Stress Analysis of Circular Rings. NACA TN-462 (with Roy A. Miller)
- 1943 Aspect Ratio Corrections. Journal, Aero. Sciences, Sept., 1943.
- 1944 Propeller Efficiency of a Light Airplane. Journal, S.A.E., Nov., '44.
- 1951 Colo. U. Steam-jet-powered Supersonic Wind Tunnel. Aero. Rev. March.
- 1955 Aerodynamic Design of Helicopters (Mich. Ph.D. Diss.) AHS Paper, Jan.
- 1957 Data Gives Estimate for Winged Missile Performance. Av. Wk., 27 May.

**EDITORIAL WORK:**

Prentice-Hall Inc., Englewood Cliffs, N. J., since 1940, Series Editor, Aero. Engineering Textbooks, which has included Binder, Fluid Mechanics; Hemke, Elementary Applied Aerodynamics; Barton, Airplane Structures; Sibert, High Speed Aerodynamics; Durham, Aircraft Jet Powerplants, and Thermodynamics; McClure, Inertial Guidance.

# Dr. K. D. Wood Retires From CU, Not From Engineering Profession

Dr. K.D. Wood is about to retire as a professor of aerospace engineering sciences at the University of Colorado, but he has "no intention of retiring from the engineering profession."

Wood, 68, will end a 46-year teaching career, half of it at CU, on June 30. In his teaching career he formed an aeronautical engineering department at Purdue University and at CU. He was head of the CU department from 1948 to 1956, and from 1960 to 1962. He also was acting head of the department from 1958 to 1960. He also has taught at Cornell University.

"If I had it to do all over again," Wood said, "I would be a teacher. Teaching is more fun than anything for me. Teaching at the senior and graduate level is an area I find especially fascinating. It's the last step for a boy or girl finding a career in a developing field," he said.

His goal as a teacher has been to teach his students "to use scientific principles to develop products for use by mankind, and that basic engineering courses have merit only so far as they contribute to this objective. This is known as a hardware oriented outlook," Wood said.

### Wrote Text

To this end Wood wrote a two-volume text entitled "Aerospace Vehicle Design." The work, which stresses that the only practical design is an economical design, is in wide use throughout American schools and by European engineers. One volume, "Aircraft Design," is in its 12th edition, including 10 additions called "Airplane Design." The latest volume, "Spacecraft Design," is still in its first printing.

Of Wood's efforts Dean Max S. Peters of the College of Engineering said, "Prof. Wood has received national recognition for his contributions to the field of aircraft design. We deeply appreciate the outstanding leadership he has given to our University as a teacher, administrator and researcher."



Dr. K. D. Wood

Wood believes students who enter the University today are much better prepared than those who entered when he began teaching here. "State schools always have a wide range of talent, but our top students will compare well with those of the Ivy League schools," Wood observed.

He said the students of the post-war era were well motivated, more mature and determined to do well. "Today students are coming to school because they want to make a contribution," he added.

Wood contends it's no harder to make a contribution in aerospace engineering today than it was when he graduated from Cornell in 1922. The only exception is that literature in the field has expanded exponentially. "There's much more to work with now. In the '20s were working pretty much in the dark."

### More Education

"Also, a master's degree is becoming more important. A doctorate is indispensable for those going into teaching," Wood said.

Realizing the growing importance of a doctorate, Wood took a leave of absence from the University and in 1955 received a doctorate from the University of Michigan, 29 years after he had

received a master's degree from Cornell.

Wood, who already was recognized for his work in aeronautical design, wrote his doctoral dissertation on helicopter design.

He predicts that in the world of supersonic transports, helicopters eventually will play a key role in mass transportation.

Chiefly responsible for this advance is the development of highpowered, economical turbine engines, according to Wood. Currently helicopters can travel at 150 miles per hour. A 200 mile-per-hour craft is in experimental stages and one that will travel 400 miles per hour is projected. And, Wood interjects, heliports can be built more cheaply and simply than airports for supersonic jets.

Wood, who once took flying lessons with the thought of piloting his own helicopter, is unhappy that helicopters have yet to be built to provide economical flying by private pilots.

"They're a lot safer than single-engine airplanes," he noted.

Looking at his profession, Wood, who also is active as a consultant on missile design, believes the nation's manned space program has been pushed a little too fast. "The need for manned interplanetary spacecraft has not been demonstrated."

### Space Exploration

But, says Wood, the goal of exploring the solar system will pay off in high dividends that we can not define now. "It may be like the dividend garnered by Columbus in discovering America."

Also, Wood observed, the aerospace industry is in a period of boom. "It has reached an all-time high in productivity. At the same time the shortage of trained personnel has never been greater."

Although Wood must retire this spring from his regular teaching duties, the University still has a teaching role for him, according to Dr. Mahinder Uberoi, chairman of the aerospace engineering department. "We have appointed him visiting professor for the 1967-68 academic year. And this summer he will direct a National Science Foundation institute on engineering systems optimization," Uberoi said.

About 40 engineers from university faculties, industry and government research agencies will take part in the program which will cover various aspects of operations research and analysis as a guide to decision-making in designing engineering systems.

## BOULDER DAILY CAMERA

Saturday, May 20, 1967

Regents also approved the title "emeritus" for eight members of the faculty who are retiring this year. They are Prof. Elizabeth Abbott, women's physical education; Prof. Marjory G. Hibbard, nursing; Ass. Prof. Mary Louise Lyda, library science; Prof. Fred R. Nichols, business; Prof. Richard Thompson, medicine; Prof. Warren O. Thompson, geological sciences; Assoc. Prof. John F. Wagner, applied mathematics; and Prof. Karl D. Wood, aerospace engineering sciences.

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## KARL DAWSON WOOD

## Résumé of Personal and Professional Data.

Jan.1972

**TITLE:** Professor Emeritus, Aerospace Engineering Sciences, University of Colorado.  
**Address:** 1511 Bluebell Ave., Boulder, Colo. 80302; Phone 442-5576.  
**BIRTH DATA:** Forest Glen, Md., Sept. 27, 1898.  
**EDUCATION:** Cornell University, Ithaca, N.Y.: M.E. 1922; M.S. 1926  
 University of Michigan, Ann Arbor. Ph.D. 1955.

**PROFESSIONAL AND HONOR SOCIETIES:**

Sigma Xi, Tau Beta Pi, Phi Kappa Phi, Pi Tau Sigma.  
 Amer. Inst. of Aero. & Astronautics (Fellow, 1959)  
 Amer. Astronautical Society, Amer. Helicopter Society.  
 Registered Professional Engineer, State of Colorado.  
 Who's Who Listings: W.W. in Engineering, W.W. in Education,  
 W.W. in Commerce and Industry, W.W. in the West, American  
 Men of Science, W.W. in America after 1964-65.

**EXPERIENCE**

1919-20 National Bureau of Standards, Washington, D.C. Aircraft Engine Lab.  
 1920-35 Cornell University, Ithaca, N.Y. Instructor and Asst. Prof. Mechanics  
 of Engineering  
 1930-35 Consolidated Aircraft Corp., Buffalo, N.Y. Engineering Consultant.  
 1936-37 Consolidated Aircraft Corp., San Diego, Calif. Aerodynamicist.  
 1937-44 Purdue University, Lafayette, Ind. Prof. in Charge of Aero. Engineering  
 1944-60 University of Colorado, Boulder, Colo. Prof. Aero. Engineering; Head of  
 Department, 1948-60, except '57-'58  
 1959-60 The Martin Co., Denver Division, Aeronautics Dept., Applied Research  
 Section (on leave from Univ. of Colo.)  
 Summer and Consulting Work: Bell Telephone Labs 1923-24; Atmospheric Nitrogen  
 Corp. 1925-29; Consolidated Aircraft Corp. 1930-35; Consolidated Aircraft Corp.  
 1946-48; Convair Div. Gen. Dynamics Corp. 1951, 1953-54; Douglas Aircraft  
 Long Beach Div. 1952, Martin Company, Denver Div. 1960-65, National  
 Science Foundation, directed summer conf. on Space Systems Engin. 1965.  
 Engin. Systems Optimization 1967; Assoc. Director summers 1969, 1971.

**PRINCIPAL PUBLICATIONS AND PROFESSIONAL WRITINGS:**

**TEXTBOOKS:** TECHNICAL AERODYNAMICS, McGraw-Hill 1935, 2d Ed. 1947, 3d Ed. 1955.  
 AIRPLANE DESIGN, Edwards Bros., Ten Editions, 1934-1954.  
 AEROSPACE VEHICLE DESIGN: Vol. I, AIRCRAFT DESIGN, 1963; 2d Ed. 1966.  
 3d Ed. 1968; Vol. II, SPACECRAFT DESIGN, 1964.  
 1920 NACA TN 26. A Variable Speed Fan Dynamometer.  
 1921-32 Unpublished reports relative to above employment.  
 1933 NACA TN 462. Formulas for Analysis of Circular Rings in Monocoque Fuselage.  
 1934-42 Unpublished reports relative to above employment.  
 1943 ASPECT RATIO CORRECTIONS, Journal of the Aeronautical Sciences, Sept. 1943.  
 1944 PROPELLER EFFICIENCY OF A LIGHT AIRPLANE, SAE Journal, Nov. 1944.  
 1945-50 Security-classified documents relative to aircraft and missile design.  
 1951 COLORADO UNIVERSITY'S STEAM-JET-POWERED SUPERSONIC WIND TUNNEL; Aero.  
 Engineering Review, March 1951.  
 1955 AERODYNAMIC DESIGN OF HELICOPTERS; Amer. Helicopter Soc. Paper Jan. 1955.  
 1957 WINGED MISSILE PERFORMANCE; Aviation Week, 27 May, 1957.  
 1965 SOLAR MOTION AND SUNSPOT COMPARISON (with Robert M. Wood of Douglas Aircr.)  
 Nature, Vol. 208, No. 5006, 9 Oct. 1965, pp. 127-131.

**EDITORIAL WORK:** Prentice-Hall Inc., Englewood Cliffs, N.J. Editor of Aeronautical  
 Engineering Series of College Textbooks, including Binder, Fluid Mechanics;  
 Hemke, Elementary Applied Aerodynamics; Barton, Airplane Structures; Durnam,  
 Aircraft Jet Powerplants; Durham, Thermodynamics; Albert, High Speed Aerodynamics.

# RIB

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OCTOBER 8, 1982



Steve Anstey

The program this Friday will feature a word-and-picture report on Australia, to be presented by Stephen Anstey, who is a Rotary Foundation scholar here to study museum technology. Steve's home is in Western Australia.

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Next week, Oct. 15, the Rotaryann activities committee has scheduled a wine and cheese party from 6 to 8 p.m. at the CU Development Foundation Center, 1305 University. This will replace the regular luncheon meeting on that date.

## TRIBUTE TO K.D. WOOD

In a tribute to K.D. Wood, who first joined Boulder Rotary in 1946, Cal Briggs recalled that K.D. earned degrees from Cornell and Michigan, worked in the National Bureau of Standards aircraft engineering laboratory in Washington, D.C., taught at Purdue, then joined the CU faculty to head and develop the department of aeronautical engineering.

Since he retired he has won renown as—gardener, —skillful investor, —nationally rated senior tennis player, —Paul Harris Fellow, —researcher in long-range solar flare predictions, —consultant in aeronautical engineering, and —all-around grand fellow.

K.D. has demonstrated how one can make the post-retirement years the best years.



KARL D. WOOD - 60 years



K.D. Wood about age  
47-48

# Helicopter buff, 93, gets ride over Boulder

By LINDA CORNETT  
Camera Staff Writer

K.D. Wood doesn't get to ride in a helicopter nearly as often as he would like. In fact, the last time was 40 years ago, when he was in his early 50s.

On Friday, thanks to the efforts of a longtime friend and the cooperation of a Bell Helicopter executive and beer magnate Joseph Coors, Wood got to celebrate his upcoming 94th birthday, which occurs Sept. 27, with a flight over Boulder.

The ride, he said afterward, was "very informative. I haven't seen Boulder from the air since ... you know, I've never seen Boulder from the air."

Wood and aircraft go way back.

As a boy, he kept an interested eye on the early attempts at human flight.

(From Page 1B)

on a dissertation on helicopters.

When he tired of the commute to a consulting job, Wood toyed with the idea of buying his own helicopter to make the trip quicker and took flying lessons, but found the cost beyond his paycheck.

And, when the CU Engineering Center was built in the early 1960s, it was Wood who insisted that the roof be designed to accommodate landing helicopters so students could study the whirlybirds.

When Sam Pottinger, Wood's friend from the Rotary Club, which he joined in 1946, arranged for Friday's flight, he asked Wood if he was familiar with Bell Helicopters. Bell is the largest manufacturer of helicopters in the world.

ell," Wood replied, "I used

"When the Wright brothers crashed (Sept. 17, 1908) I was very sad," Wood said. "I set out to build my own." Dramatic pause. "I crashed also."

In college, he studied the new science of aeronautical engineering and taught at Cornell in the 1920s and early 1930s when unstable and fragile helicopters were being developed.

When he taught at Purdue, he owned a small two-seater that he used to collect data on engine output and propeller thrust for a research project for the federal government.

In 1944, Wood and his family came to Boulder and he became a professor of aeronautical engineering at the University of Colorado. In 1955, when he got his doctorate at ~~Cornell~~ <sup>MICHIGAN</sup>, it was based (See HELICOPTER, Page 4B)

to work with Larry Bell in the '20s." The two worked for another firm before Bell started his own company in the 1930s. "For many years, Bell was unable to make any money, but he finally solved the problem of safe control," Wood recalled.

Bell western division manager Darrell Maitlen arranged for Friday's flight, and piloted Joseph Coors' Long Ranger over the city, taking off from the lawn of the Elks Lodge where the Rotary Club had just had lunch.

"I would be uneasy flying alone without more instruction," Wood deadpanned.

When he isn't playing tennis (three times a week), Wood said, he has taken up the hobby of playing Lotto. "If or when I win the \$5 million jackpot, I plan to buy myself a helicopter," he said.



VERN WALKER / Daily Camera

**GROUNDING AGAIN:** Dutch Westerberg, right, talks excitedly with his friend and tennis partner K.D. Wood after the two went for a helicopter tour above Boulder Friday.

4B DAILY CAMERA

Saturday, August 29, 1992



*This copy for Robert and Charlotte, mailed Sept 3. I love to give an oral reply at the Rotary meeting to warrant Pat wishes. D.W.*



**Karl Dawson "K.D." Wood**

**September 27, 1898 - April 19, 1995**

## OPENING REMARKS

by Peggy Wood, K.D. Wood's daughter

We are come here to honor K.D. Wood, who lived his life in accordance with the highest wisdom he could find. Growing up, as he did, in a time when science seemed to hold the keys to man's understanding, he felt unable to find an easy foothold in any religious faith. Without the feeling of any support from a Power beyond himself, he nevertheless lived a life which was honest, kind, and genuine, doing the best he could in a series of difficult circumstances. He did not believe that he would survive beyond the grave; yet, if there is a spiritual power in the universe, as many of us believe, we know It is now honoring him -- whether welcoming him to him to an unexpected continuation of growth, or simply, in a way beyond the limitations of time, valuing the goodness which he expressed, and which is timeless.

## FATHER AND TEACHER

by Robert M. Wood, K.D. Wood's son

K. D. Wood loved to teach. As a teacher he liked to synthesize and to simplify. For example, when he retired, he thought he would read Will Durant's twelve volumes on the history of civilization. Will had done one volume that summarized those twelve. K.D. took that one volume and summarized it to one page, and then he took the one page and summarized it to one sentence, which he put in a letter to my wife, and that is: "If education is the transmission of civilization, we are unquestionably progressing."

As a teacher, he also educated me. And I wanted to share some vivid memories I had with you on my education. As a six year old, I watched him saw a board and began to appreciate the value of using the right tool for the right job. As a twelve year old, while on vacation with him, I learned to play bridge, and that's been a lot of fun ever since.

As a freshman here at the University of Colorado I was struggling with muddy thinking on how to solve a problem, and he said, "Here, lad, let me show you." He said, "You take what's **given**, and you write that down. Then you take what's **to be found**, and you write that down, and then you write the **solution**." As a careful engineer, that was the right approach, and in fact, I found that using that technique throughout my career was very helpful. I even found it applied to some human problems.

As a senior he taught me to think like the other guy might think. In one case, I was taking aeronautical engineering and, as all students did in aeronautical engineering, my father's course in technical aerodynamics. For the mid-term exam he had decided to give the class the problem, "Compute the landing characteristics of the DC-6," which at that time was on the drawing boards at Douglas Aircraft, and he knew about that.

Just before the final exam, three other students came to me, and they wanted some help to study jointly. So the four of us got together the night before, and they said, "What do you think he'll give on the test?" I said "Gee, I don't know. How about the take-off characteristics of the DC-6?" So we sat down and worked that from the top to the bottom, and we all compared our answers.

We all went into the class the next day, and my father came into the room, and he wrote on the board, "Calculate the take-off characteristics of the DC-6." One of the four guys took his notes from the night before, put them on the desk and walked out of the room, just like that. The three of us, however, decided to go through the process of redoing it. Later in the day I explained to him what had happened, and he said, "Well, I know you didn't cheat -- because I didn't think of what the question was going to be until I was riding to school on my bicycle this morning."

## ENGINEER

by David C. M. Wood and Phoebe Jane Wood Winthrop,  
K.D. Wood's son and daughter

Suddenly, twenty years later when I was forty in the late '60's, I got sent here to Boulder more often on business, and we became friends. We became colleagues. He introduced me to the Rotary Club of Boulder, and that was my first Rotary meeting. Subsequently in my own town I became president and then a district secretary, and all the satisfaction I've ever had in Rotary I owe to K.D.

He also got me started on the crazy idea that maybe the planets cause sunspots. So we did calculations on our high-speed computers at Douglas, and we wound up writing a joint paper together on how that might be true. In fact, I still think he's right, and he's still got me working on it. Maybe some day we'll find out.

As the author of four textbooks, K.D. was a truth seeker. He would have loved a quote from a society that I belong to now, the Society for Scientific Exploration. It goes, "Knowledge does not begin with textbooks; it begins with the unknown and ends in textbooks."

He was thrilled to be honored by the University of Colorado, both to have a laboratory named after him and to be received as a distinguished person two years ago.

He was attracted to the writings of Sir Richard Burton. In fact, he said in a letter in 1980, "If there should be some ceremony after my death where people make remarks about my life, I hope that at least one person there will be aware that Sir Richard Burton's Kasidah is close to my own testament." He then selected its best two-line summary of having fun while teaching:

To seek the truth, to glad the heart,  
Such is of life the higher law.

K.D. Wood was, above all, an engineer. His life spanned from the Wright Brothers, beyond landing on the moon, then the first space station, to exploring other planets in our solar system. He was fascinated with the promise of technology and was inspired to pursue his interest in aeronautical engineering after being moved by the crash of the Wright Brothers' first military airplane in 1909.

We enjoyed his career. In the early days of the C.U. aeronautical engineering department, we would go to his office after school and explore the wonderful toys engineers play with -- a wind tunnel, noisy, slow mechanical calculators or, best of all, a World War II Navy fighter plane for a jungle gym.

Daddy was inventive. Rather than buy pre-made storm windows, it was much more satisfying to make them himself. For all our closets he rigged switches into the door frames so the light came on any time the closet door was opened.

He was always fixing things. If something didn't work, he would take it apart and work on it himself, rather than send it off to someone else for repair. One cold morning we woke to the sound of a "boom" in the back hall. The furnace had gone off during the night and he had just re-lit it, singeing off his eyebrows and eyelashes in the process. He took it with a bit of humor, but his fixing slowed down and became a bit more cautious after that.

When I was in first grade, one day everyone was asked to tell the class what their father's job was. I announced that my father was a knife sharpener, because he was the sharpener of our knives and, besides, his regular job was too difficult for a first grader to pronounce. I was

embarrassed to be corrected by Benjy Spurlock who loudly announced to the class, "No he's not! He's an aeronautical engineer!"

Although Daddy was frugal, he liked shopping for cars -- researching them, trying them out, and of course driving them. He had a taste for luxury cars, but his frugality made him buy only used cars. Having written his Ph.D. dissertation on helicopters, he wanted to buy a helicopter -- used, of course.

He showed us the science of efficient driving: waste as little motion and time as possible; look ahead, and if the light two blocks in front of you is green, select the alternate route because the light will be red by the time you get there.

Though Daddy played tennis in Washington, D.C. when he was young, his career left him little time for tennis, but he strode vigorously to work every day. After he retired, he finally found time to resume his tennis. Tennis gave him the interest, vigor and friends to help keep him lively and active into his 90's.

Daddy was the longest standing and oldest member of Boulder Rotary. Everyone seemed to like him, and he seemed to like everyone, although he was never particularly good at remembering names. Everyone at the hospital and rehabilitation center always remarked about what a nice, sweet man he was. His best friend and long-time tennis partner, Cal Briggs, told us, "I loved that old guy; I'm going to miss him."

## APPRECIATIONS

by David C.M. Wood, K.D. Wood's son

Welcome. What I'd like to do is say thank you to an awful lot of people, some of whom are here, many of whom are not. But there were a large number of people who helped Daddy live a long and prosperous life:

- The C.U. Aeronautical Engineering Sciences Department;
  - Linda Sanborn, his secretary there; I know that he was very fond of all the work she did for him and helped him get done.
  - George Morgenthaler; Don Kennedy recently; Bob Culp, the current Chairman, and Lanny Pinchuk in Engineering;
- Another group of people were the Harvest House Sporting Association where he played tennis; they were always interested in him, and he really loved it; they gave him a 95th birthday party; they were always eager to have him out there playing on the courts, and he was out there doing it;
- Rotary -- he really liked Rotary; Dutch Westerberg was his longtime friend there; Sam Pottinger, who arranged his helicopter ride; and, of course, Cal Briggs, his buddy, for Rotary, tennis and anything;
- He also had a number of helpers in his later years: Marji Howe, Kim Lehner, AllyCatherine Wild; AllyCatherine was always encouraging him to take a walk around the block, be interested in something, and she could always make him interested in just about anything;

## CLOSING REMARKS

by Dudley Winthrop, K.D. Wood's grandson

- Of course the neighbors -- all the neighbors in the area took a great interest in Daddy, particularly after Mother died; they liked to have him there because he lent a sense of history to the place; he'd been the longest term resident for most of the neighbors anyway, and it was fun to see him there with the newborn kid, the Schermerhorns' little baby -- I've forgotten its name (just like my father, of course);
- Of course I'd like to thank his wife Norma; she did a lot for him over the years; she made sure he was getting all of his work done, that everything went smoothly at home, that he got fed properly -- lots of nutrition, lots of exercise, live a long life;
- And lastly, I'd like to thank Daddy himself because he's done a lot for all of us, and we'll miss him.

Thanks.

Phoebe Jane takes the podium to add:

David left one other person out of that list. I guess you probably know who that is, and that's David himself. One of the things everybody said when we walked around and told the neighbors and told friends is Daddy loved being in that house, and he never would have been able to be at home if it hadn't been for David. He made it possible for Daddy to live a well-supported life at home in the place he loved with the things he loved and the people he loved, and I just want to especially thank him for helping our father to live such a long and happy and healthy life.

A little over three years ago, I stood here in the same capacity that I am right now and talked about my grandmother and celebrated her life. I remember the day quite clearly. While I will not take this time to recount much from that experience, I will note two things that I remember very distinctly. First, I remember making these closing remarks and talking about my college essay. Now while college essays may not seem like an applicable subject matter, I do think that the message of my essay is still real to me and still apt here.

My essay talked about what made me who I was (a seemingly difficult task to be completed in 250 words or less.) I realized as I began to write it, though, that the answer was actually quite simple. What makes us who we are is the people around us. When you look deep into yourself, you find that much of your character is a composite of the characters of people in your life.

This leads me into the second memory of that day. I remember looking out into the audience from this podium and looking at my grandfather -- "granddaddy" as I called him -- and seeing him looking quietly up at me and taking everything in. He was always a quiet and attentive listener. It is something that I strive to take into my personality (although admittedly I never possessed it as much as he did.) It is one of his traits that sticks in my mind, and one I will remember for a long while.

He had many other notable traits which you have heard others touch on earlier today. He was frugal. He had a passion for learning. He had a great sense of humor. He had many traits which you can see live on in the people

## CROSSING THE BAR

around him. If you want to see an example of this, look at his family. Or better yet, look at yourself. He has given a little something different to everyone he knew. This was one of his unique gifts. What made him great is that everyone really loved some different part of him. I invite you to ask someone to recount their favorite memory of K.D. Wood. You may just find out something you never knew about him.

So, I would like to make one more thank you today. It is a thank you to K.D. Wood. Thank you for teaching us frugality. Thank you for giving us the drive to learn. Thank you for being a quiet, attentive listener. Thank you for being a grandfather, a father, a professor, a tennis player and a friend. Thank you for giving a little bit of your character in order to make our characters a little stronger. Thank you for giving a bit of yourself to us all.

And so, before I close, I want to share one more of my memories of my grandfather. It was in 1990 during a visit here. It was a beautiful day and my mother, he and I were sitting around with nothing much to do. Granddaddy looked around and jumped up and said, "Let's play a round of tennis." "Who me?" I responded. "No," he smiled back, and he stuck out his finger and pointed at my mother and me, "BOTH of you." Well, I will spare you all the unfortunate details, but I will simply say that the game was not even close. My mother and I, playing together against him, could not even take more than two games off of him. At first, I guess I thought it was pretty humiliating, but after thinking about it a little longer I realized that at the time, I was only 18 and my mother was only 49, so, at a sprightly 92, he still had 25 years of experience on us. (At least that's what I still tell myself!)

Sunset and evening star,  
And one clear call for me!  
And may there be no moaning of the bar,  
When I put out to sea,

But such a tide as moving seems asleep,  
Too full for sound and foam,  
When that which drew from out the  
boundless deep  
Turns again home.

Twilight and evening bell,  
And after that the dark!  
And may there be no sadness of farewell,  
When I embark;

For tho' from out our bourne of Time  
and Place  
The flood may bear me far,  
I hope to see my Pilot face to face  
When I have crost the bar.

*Alfred Lord Tennyson*