~~EULOGY FOR~~

DR. LOREN CARLSON

IN MEMORIAM

Dr. Loren D. Carlson, internationally known aerospace physiologist and educator, a member of the IAA since 1964, died December 12, 1972, at the age of 57. At the time of his death, he was Professor and Chairman of the Department of Human Physiology and Associate Dean of the School of Medicine, University of California at Davis. Born May 5, 1915, in Davenport, Iowa, he received his education at St. Ambrose College in Davenport and at the University of Iowa, from which he received his Ph.D. Degree in Zoology in 1941. Shortly thereafter, he entered military service as a commissioned officer in the United States Army Air Corps, where he conducted laboratory research in high altitude respiratory physiology and oxygen equipment design, which resulted in the establishment of criteria for the delivery of oxygen at altitudes. After World War II, Dr. Carlson's research in environmental physiology continued, expanding into extensive studies of thermophysiology, metabolism, and cardiovascular responses to weightlessness. He accepted a faculty appointment at the University of Washington in Seattle ~~in 1946~~ where he became Professor of Physiology in the College of Medicine. ~~In 1960,~~ he joined the University of Kentucky College of Medicine as Professor and Chairman of the Department of Physiology and Biophysics. In 1966, he was appointed one of the original ~~7~~ faculty members who founded the School of Medicine at the University of California, Davis, now a thriving Institution

due in great part to his outstanding devotion, skill and leadership. Dr. Carlson was the author of more than 130 scientific publications and was recipient of many national and international awards in recognition of his work. He was a singularly important pioneer in manned space flight, not only through his physiological research, but also by virtue of his sage guidance as a member of the Space Science Board of the National Academy of Sciences, a member of the President's Scientific Advisory Committee, and Advisor to NASA in space medicine and biology.

Dr. Carlson's indelible contributions to physiology, aviation, man's achievement of space, and to the field of education, are destined to be honored as long as man's great ~~achievements~~ ACCOMPLISHMENTS are recorded in history. But, he leaves a legacy of equal magnitude in his inspiring example as a man. A brilliant and strongly self-disciplined scientist, scrupulously objective and uncompromisingly honest in all matters, he was at the same time a quite and genuinely modest man with an idealists devotion to humanity and human achievement. His twinkling sense of humor, even temperament, and discomfort with ostentation were characteristic of him. His love of his fellow man was reflected daily in the respect, deep understanding and concern he showed for others and in his devotion to his family, his students, and his friends. It was reflected most of all in the dedication of his immense abilities, energies, and achievements, indeed, his entire life to his fellow man. A few hours before his death, he said, "If people want

to do something for me, they can do so by living good lives."

Although he would have been the last to acknowledge it, Dr. Carlson, both as a man and in the pattern of his life, exemplified the concept of good as a lofty standard to which future generations ~~can~~ MAY aspire.

July 27, 1977

Dr. Vinograd

This is all the information I could gather from Dr. Carlson's files that I felt would be of help. There is more but it seems repititious so I only sent this. If you wish the rest I'll be happy to forward it upon receiving word from you.

Sharon Holley

Sharon Holley
Human Physiology

Biography of Loren D. Carlson

Dr. Loren Daniel Carlson was born in Davenport, Iowa, May 5, 1915. After his education in the Davenport public schools, he attended St. Ambrose College in Davenport, Iowa and received a Bachelor of Science Degree in 1937. Dr. Carlson attended the University of Iowa in Iowa City and received a Ph.D. in Zoology in 1941. After a short period as a research associate in the Department of Zoology at the University of Iowa, he was commissioned a First Lieutenant in the U.S. Army and was stationed with the U.S. Army Air Corps, Aeromedical Laboratory at Wright Field, Ohio. His work during World War II was related design and testing of oxygen equipment and he finished his active duty career as a Major in charge of the Oxygen Branch of the Aeromedical Laboratory. He left the service in February, 1946 to accept the position as instructor in the Department of Zoology at the University of Washington. With the formation of the Medical School at the University of Washington, he joined the Department of Physiology and Biophysics in the School of Medicine where he remained until 1960. He was promoted to full Professor at the University of Washington, 1955. During his career at the University of Washington, Dr. Carlson served as an Assistant Dean in two time periods, one in 1948-49 and the second in 1953-54. One year of his tenure at the University of Washington was spent as Director of General Education. In July 1960, Dr. Carlson was appointed Professor and Chairman of the Department of Physiology and Biophysics of the newly established College of Medicine at the University of Kentucky. In 1966, Dr. Carlson accepted an appointment as Assistant Dean and Chief of the Division of Sciences Basic to Medicine at the School of Medicine, University of California at Davis. He also is Professor and Chairman of the Department of Physiology. Dr. Carlson has served as Chairman of the Aeromedical Panel of the U.S. Air Force, Scientific Advisory Board. He is a member of the Medical Advisory Group for the Office of Manned Space Flight, NASA; the Biosciences Advisory Group for the Office of Space Science and Applications, NASA; and of the Space Science Board of the National Academy of Sciences. He serves on a Space Technology Panel of the Office of Science and Technology. He has served as member and chairman of the Physiology Training Grant Committee, National Institutes of Health. Dr. Carlson was awarded the Legion of Merit and the Decoration for Exceptional Civilian Service by the U.S. Air Force. He is a member of the International Academy of Astronautics, the American Physiological Society, American Society of Zoology, Aerospace Medical Association, and the Society for Experimental Biology and Medicine. He is listed in Who's Who in America. Dr. Carlson is the author of a number of papers dealing with, in the earlier phase of his career, Cellular Physiology; later with problems of Respiratory Physiology and the design and development of oxygen equipment and in the metabolic aspects of temperature regulation during adaptation to cold environments. He was married to Marion Dudley Gross in 1941 and has four children: Eric, Christopher, Allen and Katherine.

CURRICULUM VITAE

Loren D. Carlson

Date of Birth: May 5, 1915 — Place of Birth: Davenport, Iowa

Date of Marriage: June 7, 1941 — Maiden Name of Wife: Marion Gross

Children: Four — Social Security No.: 479-09-3748

Degrees Held

B.S. St. Ambrose College, Davenport, Iowa, 1937 (Biology)

Ph.D. University of Iowa, 1941 (Zoology)

Present Position

Associate Dean for Research Development and Curricular Affairs; Chairman, Division of the Sciences Basic to Medicine; Professor and Chairman, Department of Human Physiology - School of Medicine, University of California at Davis

Positions Held

1941-42 University of Iowa; Research Associate, Physiology

1942 Aeromedical Laboratory, Wright Field, Ohio; 1st Lt., SnC., Physiology Branch

1943 Aeromedical Laboratory, Wright Field, Ohio; Capt., A.C., Oxygen Branch Chief

1943-46 Aeromedical Laboratory, Wright Field, Ohio; Major, A.C., Oxygen Branch Chief

1945 University of Washington; Instructor, Zoology

1946-49 University of Washington, School of Medicine; Assistant Professor, Physiology

1948-49 University of Washington, School of Medicine; Assistant Dean

1949-55 University of Washington, School of Medicine; Associate Professor, Physiology

1949-51 University of Washington; Director of General Education

1953-54 University of Washington, School of Medicine; Acting Assistant Dean

1955-60 University of Washington, School of Medicine; Professor, Physiology

1960-66 University of Kentucky, College of Medicine; Professor and Chairman, Department of Physiology and Biophysics

1965-66 University of Kentucky, College of Medicine; Chairman, Department of Zoology

1966- University of California at Davis, School of Medicine; Chairman, Division of the Sciences Basic to Medicine, and Professor and Chairman, Department of Human Physiology

1966-69 University of California at Davis, School of Medicine; Assistant Dean

1969- University of California at Davis, School of Medicine; Associate Dean for Research Development and Curricular Affairs

CURRICULUM VITAE
Loren D. Carlson

Listed in

American Men of Science
Who's Who in America
Who's Who in Space
Who's Who in American Education
Who's Who in the West
Personalities of the West and Midwest
Dictionary of International Biography
The Blue Book (London)
Engineers of Distinction, including Scientists in Related Fields
International Scholars Directory

Honors

Legion of Merit, U.S. Army Air Corps, 1946
Exceptional Civilian Service Medal, U.S. Air Force, 1962
The Alumni Association of St. Ambrose College Award of Merit, 1967
John Jeffries Award of the American Institute of Aeronautics & Astronautics, 1968
Ph.D. *Honoris Causa,* University of Oslo, Norway, 1969
Outstanding Achievement Award, Department of the Air Force, Office of Aerospace Research, 1970

Societies and Honors

American Institute of Aeronautics and Astronautics (Associate Fellow), 1967-
Sigma Xi (Vice President, Davis Chapter, 1971)
A.A.A.S. (Fellow)
American Physiological Society (President-elect, 1967), 1945-
Federation of American Societies for Experimental Biology (President, 1969), 1945-
American Society of Zoologists
Society for Experimental Biology and Medicine
Aerospace Medical Association (Fellow), 1966-
International Academy of Astronautics, 1964-
Society of General Physiologists, 1968-
Association of Chairmen of Departments of Physiology, 1967-
American Academy of Arts and Sciences (Fellow), 1969-
Biomedical Engineering Society (Charter Member) -- Board of Directors, 1970-73
New York Academy of Sciences, 1969-
Biological Abstracts, Board of Trustees, 1971-74 (Vice Chairman, 1972)

Alpha Omega Alpha Honor Medical Society, Eta Chapter, Charter Member 1972

CURRICULUM VITAE
Loren D. Carlson

National Committees

Aeromedical and Biosciences Panel of the USAF Scientific Advisory Board
(Chairman), 1957-62

Member of the President's Scientific Advisory Committee
Bioastronautics Panel and Space Vehicle Panel, 1961-64
Space Technology Panel, 1964-67

National Aeronautics and Space Administration
Biosciences Panel, OSSA, 1962-67
Space Medicine Advisory Group, OMSF, 1964-67; Consultant, 1968-
Editorial Board, US/USSR Scientific Text, 1965-
NRC Resident Research Associateship Evaluation Panel, 1967-
OART Advisory Council, 1967-70
Subcommittee on Biotechnology and Human Research (Chairman), 1967-70
Scientists as Astronauts Selection Panel, 1966

National Academy of Sciences
Space Science Board, 1964-70
Life Sciences Panel, 1963-70
Cardiovascular Review Panel, 1969-
Space Medicine Committee, 1969-

USA National Committee for the International Union of Physiological Sciences, 1968-
Secretary, 1969

Society for Experimental Biology and Medicine
Editorial Board, 1966-69

American Physiological Society
Council, 1965-70
President, 1968-69
Handbook of Physiology Editorial Committee, 1967-
Representative to Council of Academic Societies (AAMC), 1971

Office of Naval Research
Biological Sciences Advisory Committee on Physiology, 1965-68

Aerospace Medical Association
Standing Committee for International Activities, 1967-

Federation of American Societies for Experimental Biology
The Board and Executive Committee, 1967-
President, 1969-70

National Institutes of Health
Heart Program Project Committee, 1969-

International Biological Program
Human Adaptability Section, 1966-

American Institute of Biological Sciences
Visiting Biologists Program to Colleges and Universities, 1966-70

American Heart Association
Established Investigatorship and Adv. Research Fellowship Reviewer, 1967-

American Biological Council, 1969-

Biomedical Engineering Society
Editorial Board, 1971-

CURRICULUM VITAE
Loren D. Carlson

Local Committees

Sacramento-Yolo-Sierra Heart Association
Research Committee, 1967- (Chairman, 1971-2)

American Association of University Professors
Executive Committee, 1966-68

Graduate Group in Physiology, University of California-Davis
Steering Committee, Chairman, 1969-
Membership Committee, Chairman, 1968-69
Graduate Adviser, 1969-71

Universitywide Committee on Educational Policy
Subcommittee on Health Sciences Education, 1967-70 (Chairman, 1969-70)

University of California, Davis
Committee on Educational Policy, 1967-70
Committee on Courses of Instruction, 1969-70
Chancellor Selection Committee, 1968-69
Committee on Committees, 1970-71 (2 years)
Executive Council, 1970-71 (2 years)
Chancellor's Advisory Committee to the Radiobiology Laboratory
Representative to the Assembly of the Academic Senate, 1970-

University of California, Davis, School of Medicine
Dean's Advisory Council
Faculty Executive Committee
Committee on Development and Public Affairs, 1968-69
Committee on Faculty Organization, 1969
Committee on Faculty Appointment Procedures, 1969
Promotions Board
General Research Support Grant Advisory Committee
Committee on Educational Policy, Chairman, 1969
Courses Committee, Chairman, 1968
Committee on Professional Affairs, 1970-
Committee on Research Affairs, 1970-

Brief Statement of Research Interests

The research program is a series of investigations directed toward a description and understanding of the mechanism involved in adaptation to temperature. Currently, these investigations are directed toward measurements of changes in the response of the peripheral circulation following chronic cold exposure.

A second program is directed toward the understanding of the mechanisms involved in the change in the cardiovascular response to tilting or lower body negative pressure following the hypodynamic state, or weightlessness.

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Loren D. Carlson

1. The action of certain stimulating and inhibiting substances on the respiration of the grasshopper embryo. Melanoplus differentialis (with J.H. Bodine). J. Cell. Comp. Physiol. 14: 159-172, 1939.

2. Enzymes in ontogenesis (Orthoptera). VIII. Changes in the properties of the natural activators of protyrosinase during the course of embryonic development (with J.H. Bodine, O.M. Ray and T.H. Allen). J. Cell. Comp. Physiol. 14: 173-181, 1939.

3. Enzymes in ontogenesis (Orthoptera). XII. Some physiological changes in eggs, the embryos of which have been destroyed by X-irradiation (with J.H. Bodine and O.M. Ray). Biol. Bull. 78: 437-443, 1940.

4. Enzymes in ontogenesis (Orthoptera). X. The effects of temperatures on the activity of naturally occurring and other activators of protyrosinase (with J.H. Bodine). J. Cell. Comp. Physiol. 16: 71-83, 1940.

5. An injection manometer assembly for the study of reactions at steady state (with G. Marsh). J. Biol. Chem. 136: 69-72, 1940.

6. Enzymes in ontogenesis (Orthoptera). XIV. The action of proteins on certain activators of protyrosinase (with J.H. Bodine). J. Gen. Physiol. 24: 423-432, 1941.

7. On the peroxidatic function of catalase (abstract, with G. Marsh). Proc. Amer. Physiol. Soc. 53: 47-48, 1941.

8. Physical and chemical properties of protyrosinase (abstract, with J. Bodine). Anat. Rec. 81, 1941 (Suppl. 45).

9. Necessity for atmospheric oxygen for catalase action (abstract, with G. Marsh). Anat. Rec. 81, 1941 (Suppl. 45).

10. Enzymes in ontogenesis (Orthoptera). XVIII. Esterases in the grasshopper egg. Biol. Bull. 81: 375-387, 1941.

11. The effect of hydrogen peroxide on the EMF of frog skin (with G. Marsh). J. Cell. Comp. Physiol. 18: 317-328, 1941.

12. The effect of hydrogen peroxide on the rate of oxygen consumption of frog skin (with G. Marsh). J. Cell. Comp. Physiol. 22: 99-114, 1943.

13. A concise description of the demand oxygen system. Air Surg. Bull. 1: 14-17, 1944.

14. Oxygen consumption of aircrews (with W.R. Lovelace II and V.J. Wulff). Air Surg. Bull. 2: 304-305, 1945.

15. The action of a convulsant and a narcotic barbiturate on the respiration and the EMF of frog skin (abstract, with A.W. Martin). Anat. Rec. 96: 587-588, 1946.

16. A method suitable for application of moist heat therapy and applicable for controlling moist chambers (abstract, with W.R. Lovelace II and H.L. Burns). Fed. Proc. 6: 86, 1947.

17. Oxygen requirements in commercial aviation as determined by physiologic, medical and engineering bases (abstract, with W.R. Lovelace II and H.L. Burns). Fed. Proc. 6: 86-67, 1947.

18. Studies concerning the role of metabolism in steady EMF maintenance under the influence of DNP (abstract, with A.W. Martin and K.K. Krauel). Fed. Proc. 6: 86, 1947.

19. The application of basic physiologic data in the design of respiratory equipment (with V.J. Wulff). J. Aero. Sci. 14: 229-236, 1947.

20. An apparatus for the measurement of pulmonary function (abstract, with A.W. Martin and V. Gattone). Fed. Proc. 7: 18, 1948.

21. A method for studying reflex activity under varying conditions (abstract, with A.W. Martin and R.S. Bark). Fed. Proc. 7: 18-19, 1948.

22. Requirements for oxygen in commercial aviation. Some aspects of its use (with W.R. Lovelace II and H.L. Burns). J. Aviat. Med. 19: 399-413, 1948.

23. Report of studies on acclimatization, winter 1948-1949 (with H.L. Burns, W.E. Quinton and R.S. Bark). USAF Technol. Rep. No. 5835, 27 pp., 1949.

24. The effects of barbiturates on the EMF and the respiration of frog skin (with A.W. Martin, Jr.). Physiol. Comp. 1: 340-374, 1949.

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26. Regional heat loss by temperature gradient calorimetry (abstract, with A.C. Young and H.L. Burns). Fed. Proc. 9: 140, 1950.

27. Studies of pulmonary capacity and mixing with the nitrogen meter (with W.A. Wolfe). J. Clin. Invest. 29: 1568-1575, 1950.

28. Acclimatization to cold. Physiological mechanisms. Proceedings of the Alaskan Science Conference, November, 1950 (abstract). Bull. Nat. Res. Coun., Washington, 122: 89, 1951.

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30. Electronic polyneumograph (with A.C. Young, W.E. Quinton and H.L. Burns). USAF Tech. Rep. No. 6243, 17 pp., 1951.

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32. Temperature gradient calorimetry (with A.C. Young, H.L. Burns and W.E. Quinton). USAF Tech. Rep. No. 6248, 14 pp., 1951.

33. Qualitative studies of neutral 17 ketosteroids in normal subjects (abstract, with R.B. Wilkins). Amer. J. Physiol. 167: 837, 1951.

34. Life situations, emotional reactions and variations in urinary secretion of 17 ketosteroids (abstract, with T.H. Holmes, R.B. Wilkins, K. Dorpat and T. Dorpat). Proc. Amer. Fed. Clin. Res., 7: 1951; also in Amer. J. Med., 12: 114, 1952.

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37. Thermal gradient calorimeter (with A.C. Young). Arctic Aeromed. Lab. Proj. Rep. 22 - 1301-002, 8 pp., 1952.

38. Adaptive changes during exposure to cold (with H.L. Burns, T.H. Holmes and P.P. Webb). J. Appl. Physiol., 5: 672-676, 1953.

39. Adaptation of caloric balance in rat exposed to cold (abstract, with W. Cottle). Fed. Proc. 12: 23, 1953.

40. Reactive sulfhydryl and disulfide groups of protyrosinase and tyrosinase (with J.H. Bodine). Proc. Soc. Exp. Biol., N.Y., 83: 717-720, 1953.

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43. Ultraviolet absorption spectrum of protyrosinase ans tyrosinase (with J.H. Bodine). Proc. Soc. Exp. Biol., 85: 156-157, 1954.

44. The adequate stimulus for shivering. Proc. Soc. Exp. Biol. 85: 303-305, 1954.

45. Adequate stimulus for shivering (abstract, with W. Sherwood and R. Elsner). Fed. Proc., 13: 23, 1954.

46. Solubility of protyrosinase and tyrosinase (with J.H. Bodine). Proc. Nat. Acad. Sci., Washington, 40: 513-515, 1954.

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50. Effects of temperature and work on metabolism and heat loss in man (abstract, with D. Pearl and W. Scheyer). Amer. J. Physiol. 179: 625, 1954.

51. Interrelationship of circulatory and metabolic factors. Pp. 13-51, in Cold Injury. Transactions of the Third Conf., Feb. 22, 23, 24 and 25, I. Ferrer, ed., 1954.

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54. Regional heat loss by temperature gradient calorimetry (with A.C. Young and H.L. Burns). Arctic Aeromed. Lab. Proj. Rep. 8-7951, 13 pp., 1955.

55. The effects of temperature and work on metabolism and heat loss in man (with D.C. Pearl, Jr.). Proc. Soc. Exp. Biol., 91: 240-244, 1956.

56. Oxygen deficit in the dog gastrocnemius (abstract, with D.C. Pearl and W.W. Sherwood). Fed. Proc. 15: 142, 1956.

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59. Mechanism of oxygen deficit (with D.C. Pearl and W.W. Sherwood). Proc. Soc. Exp. Biol., 92: 277-281, 1956.

60. Thyroxine secretion in rats exposed to cold (with R. Woods). Endocrinology, 59: 328-330, 1956.

61. Regulation of heat production in cold-adapted rats (with W.H. Cottle). Proc. Soc. Exp. Biol. 92: 845-849, 1956.

62. The role of the thyroid in the metabolic response to low temperature (with A.C.L. Hsieh). Amer. J. Physiol. 188: 40-44, 1957.

63. Role of the sympathetic nervous system in the chemical regulation of heat production (abstract, with A.C.L. Hsieh). Fed. Proc., 16: 62-63, 1957.

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Loren D. Carlson

64. The combined effects of ionizing radiation and low temperature on the metabolism, longevity, and soft tissues of the white rat. Part I. Metabolism and longevity (with W.J. Scheyer and B.H. Jackson). Radiat. Res., 7: 190-197, 1957.

*65. Role of adrenaline and noradrenaline in chemical regulation of heat production (with A.C.L. Hsieh). Amer. J. Physiol., 190: 243-246, 1957.

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67. Thermal stress and physiological strain (with K.J.K. Buettner). Fed. Proc. 16: 609-613, 1957.

68. Immersion in cold water and body tissue insultation (with A.C.L. Hsieh, F. Fullington and R.W. Elsner). J. Aviat. Med., 29: 145-152, 1958.

69. Limb blood flow during recovery from moderate exercise (with R.W. Elsner). Fed. Proc., 17: 41, 1958.

70. Chairman's Introduction (to symposium on metabolic aspects of adaptation of warm-blooded animals to cold environment). Fed. Proc., 17: 1044-1045, 1958.

71. Effects of ionizing radiation on longevity of the white rat (with B.H. Jackson). Radiat. Res., 9: 99, 1958.

72. Internal heat of the body (with A. Kawahata, R. Miller and R. Elsner). Fed. Proc., 18: 23, 1959.

73. Role of rat liver in nonshivering thermogenesis (with A. Kawahata). Proc. Soc. Exp. Biol., N.Y., 101: 303-306, 1959.

74. The combined effects of ionizing radiation and high temperature on the longevity of the Sprague-Dawley rat (with B.H. Jackson). Radiat. Res., 11: 509-519, 1959.

75. Anatomy and physics of respiration. Chapter 35 in Medical Physiology and Biophysics, 18th Ed., T.C. Ruch and F.J. Fulton, eds., Philadelphia, W.B. Saunders Co., 1960.

76. Gas exchange and transportation. Chapter 36 in Medical Physiology and Biophysics, 18th Ed., T.C. Ruch and F.J. Fulton, eds., Philadelphia, W.B. Saunders Co., 1960.

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79. Human acclimatization to cold. A selected annotated bibliography of the concepts of adaptation and acclimatization as studied in man (with Helen Thursh). Arctic Aeromed. Lab. Technical Rep. 59-18. Sept. 1960, Ladd Air Force Base, Alaska.

80. Protection of the extremities in extreme cold. A selected annotated bibliography (with Helen Thursh). Arctic Aeromed. Lab., Tech. Rep. 59-19. October 1960, Ladd AFB, Alaska.

81. Requirements for monitoring physiological function in space flight. Astronautik, 2: 310-321, 1960.

82. Cold injury and frostbite. A selected annotated bibliography (with Helen Thursh). Arctic Aeromed. Lab., Tech. Rep. 59-20, December 1960.

83. The question of criteria in stress measurements. Proc. XII International Astronautical Congress, 1961.

84. Criteria of physiological responses to cold in temperature, its measurement and control in science and industry. Biology and Medicine, Vol. 3, J.D. Hardy, ed., 33: 359-366, 1961.

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87. Temperature. Ann. Rev. of Physiol. 24: 85-108, 1962.

88. Maintaining the thermal balance in man. Proc. Inst. Radio Eng., 1962.

89. Effects of chronic low-level irradiation on mice (with Leo K. Bustad, Frances Replogle and Beulah Uland). School of Aerospace Med. 61-5, January 1962.

90. The effects of adrenaline and noradrenaline on the ear vessel in the cold- and warm-adapted rabbits (with N. Honda and W.V. Judy). J. Appl. Physiol., 17: 754-758, 1962.

91. Response of mice to prolonged low-level gamma irradiation (abstract, with Leo K. Bustad). II International Congress of Radiation Research, Harrogate, England, Aug. 5-11, 1962.

92. Post exercise hyperemia in trained and untrained subjects (with R. Elsner). J. Appl. Physiol. 17: 436-440, 1962.

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Loren D. Carlson

93. Design and performance of a human calorimeter (with N. Honda and mechanical design by H.L. Burns, abstract). The Physiologist, 5: 116, 1962.

94. Skin temperature and blood flow in the rabbit ear (with N. Honda and W.V. Judy). Amer. J. Physiol., 204: 615-618, 1963.

95. Heat exchange during a step change in environmental temperature (abstract, with T. Sasaki and W.V. Judy). The Physiologist, 6: 154, 1963.

96. Temperature regulation and cold acclimation. The Physiologist, 6: 29-39, 1963.

97. Bone cellular activity associated with skeletal atrophy from disuse (with P.A. Thornton). Proc. Soc. Exp. Biol. Med., 114: 347-349, 1963.

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101. A human calorimeter (with N. Honda, T. Sasaki and W.V. Judy). Proc. Soc. Exp. Biol. and Med., 117: 327-331, 1964.

102. Seasonal changes in metabolic response to temperature change (with T. Sasaki). Proc. Soc. Exp. Biol. Med., 117: 332-333, 1964.

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UNIVERSITY OF
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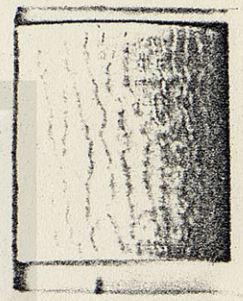
In Memoriam

JULY 1975



Loren Daniel Carlson

1915—1972

PROFESSOR OF HUMAN PHYSIOLOGY

Loren Daniel Carlson was born in Davenport, Iowa on May 5, 1915. He died in Sacramento, California on December 12, 1972. He is survived by his wife, Marion Gross; three sons, Eric Daniel, Christopher Dean, and Allen Davis; and a daughter, Katherine Dudley.

Russel H. Fitzgibbon, in his book on the Academic Senate of the University of California, speculates on the validity of the concept that there is the "faculty mind" and the "administrative mind" and that the two are as far apart as Kipling's East and West. Loren Carlson was the perfect example of how the two "minds" can function as one. The blend was better than the sum of the ingredients and constituted an uplifting force in education and research at the School of Medicine, Davis. He was the major architect of the innovative interdisciplinary "core" curriculum which has been the basic curricular pattern of the medical school. He blended his organizational genius with penetrating research and exhilarating teaching. His performance was clear, concise, and a beautiful example of the relationship between the knowledge stemming from basic medical research and its application to clinical teaching.

It was his wish to be remembered as a physiologist. But he so gained the respect and confidence of his colleagues that he became a continuous source of advice on administrative matters on the Davis campus. At the medical school, the question "What does Loren think?" was constantly asked. His ability to perceive and establish relationships was apparent to all who sought his advice. He was particularly accessible and communicative to students and junior faculty members, being an example to them of scientific excellence and kindly helpfulness. His avocation was his profession, and his approach to it was one of unusual self-discipline, infectious enthusiasm, and scrupulous honesty.

Dr. Carlson received his training at St. Ambrose College, Davenport, Iowa and at the University of Iowa where he received a Ph.D. in zoology in 1941. He was commissioned a 1st lieutenant in the U.S. Army and was stationed at the Aeromedical Laboratory at Wright Field, Ohio. His work during World War II was related to design and testing of oxygen equipment and led to the establishment of criteria for the delivery of

oxygen at various altitudes. He joined the department of zoology at the University of Washington, Seattle in 1946, and was subsequently appointed to the Department of Physiology and Biophysics of the newly established School of Medicine. In 1960 he was appointed chairman of the Department of Physiology and Biophysics at the College of Medicine. University of Kentucky, Lexington. In 1966 he came to the medical school at Davis as assistant dean and chairman of the division of sciences basic to medicine, a post he held concurrently with the chairmanship of the Department of Human Physiology. He was elected chairman of the physiology graduate group and served as a catalyst in the development of a creative interdepartmental and scientifically productive graduate program.

Dr. Carlson's interest in aerospace and environmental physiology led to his appointment as a consultant to various offices of the president of the United States, the National Aeronautics and Space Administration, and the National Academy of Science. He made important contributions concerning adaptation to cold and the role of the sympathetic nervous system in regulation of heat production in homeotherms. In 1969 the University of Oslo, Norway awarded him a Ph.D. *honoris causa*. He was elected president of the American Physiological Society (1968-69) and served as president of the Federation of American Societies for Experimental Biology (1969-70).

Dr. Carlson's thoughts on higher education are best summed up by the following quotation from his past-president's address presented at Davis to the American Physiological Society:

We have passed through an era of "blessedness" when support of research was unquestioned as providing a source of betterment and progress.

We are increasingly aware that we can no longer live in an ivory tower and insulate ourselves from political and social pressures.

We must accept the inevitability of change in university structure from an aristocratic one to a democratic form involving the student and faculty community in its decisions.

Somehow, we must change the connotation of the conjunction between teaching and research to teaching with research so that the public and government recognize their inseparable nature in the university. ("The way of an investigator—reanalyzed," *The Physiologist* 12:425-432. 1969)

How does one honor the memory of such a man? To Dr. Carlson, the answer was simple: "If people want to do something for me, they can do so by living good lives."

A. C. L. Hsieh
L. K. Bustad
C. E. Cross
T. C. West

Benedict Casser

1902—1972

PROFESSOR OF BIOPH

The Laboratory of Nuclear Medicir
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first Distinguished Scientist Award give
Medicine at its annual meeting in July 1

He was born in New York City and live
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and mathematics from the Royal College
He went on to receive his doctorate (mag
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tubes. He became a hospital physicist and
Research Laboratories and the Harper H
quently accepted a research post in the
Station in Pasadena, and in 1947 was appoi
UCLA Atomic Energy Project in the Sc
Laboratory of Nuclear Medicine and Rad

Dr. Cassen was professor of biophysics
students and teaching. He supervised th
students. With Dr. Norman S. MacDonal
the planning and development of the U
Facility which was dedicated by Dr. Glen
also served as a consultant to the Medica
Institute of Nuclear Studies and to the Los
ration Hospital.

Dr. Cassen also did research on the phys
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Obituary notices

Dr. Loren D. Carlson

Loren D. Carlson, PhD, one of the UCD school of medicine's original seven faculty members and nationally famed for his research into aerospace physiology, died Tuesday at the Sacramento Medical Center at 57 years old.

He died after a long illness. Dr. Carlson was professor and chairman of UCD school of medicine human physiology, chairman of the division of sciences basic to medicine, and associate dean for curricular affairs and research development.

He is survived by his widow, Marion, of 22 Meadowbrook drive, Davis, and their children, Eric Daniel, Christopher Dean, Allen David and Katherine Dudley Carlson. He also is survived by a brother, John M. Carlson of Davenport, Iowa.

There will be no funeral services. The family requests donations be made to the Loren Carlson physiology scholarship fund, care of the UCD school of medicine.

Born May 5, 1915, he received his BS degree in 1937 from St. Ambrose college, Davenport, Iowa, and his PhD from University of Iowa in 1941.

He served from 1942 to 1946 in the U.S. Army Air Corps at the aeromedical laboratory at Wright Field, Ohio. He taught and conducted research at the University of Washington in Seattle from 1945 to 1960, the University of Kentucky from 1960 to 1966, and UCD from 1966 to present.

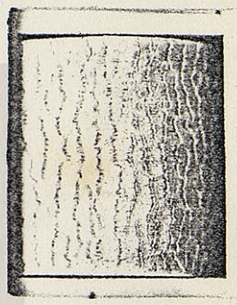
Professor Carlson served as president of the American Physiological society (1968-69) and the Federation of American societies for Experimental Biology (1969-70). He also served on many national and international panels and committees, including the National Committee for the International Union of Physiological Sciences, the National Institutes of Health, the Society for Experimental Biology and Medicine, the American Heart association, and the Aerospace Medical association.

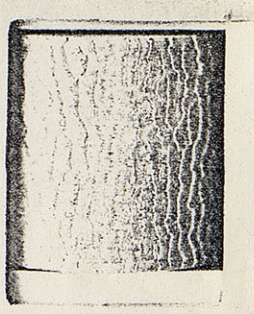
Locally, Dr. Carlson was heavily involved with university affairs, acting as chairman of the campus graduate group in physiology, as a representative to the assembly of the university academic senate, and serving on many university and medical school committees and boards. In addition, he was the chairman of the research committee of the Sacramento-Yolo-Sierra Heart association.

Dr. Carlson was a distinguished scholar, as noted by his inclusion in such volumes as the American Men of Science, Who's Who in America, Who's Who in Space, Who's Who in American Education, Who's Who in the West, Personalities of the West and Midwest, Dictionary of International Biography.

The Blue Book, and the International Scholars Directory. He was the recipient of numerous awards, among them the US Army legion of merit, the US Air Force exceptional civilian service medal, the St. Ambrose College Alumni award of merit, the John Jeffries Award of the American Institute of Aeronautics and Astronautics, and the Air Force Office of Aerospace Research outstanding achievement award.

He was honored by the University of Oslo as a recipient of the PhD honoris causa from that institution, and by the UCD medical school as a charter member of the Alpha Omega Alpha honor medical society.





Loren Carlson

Med School founder dies

Loren Daniel Carlson, chairman of the human physiology department at UC Davis, is dead at age 57.

Carlson, a world renown research scientist and one of seven founders of the UCD School of Medicine, died at the Sacramento Medical Center after a long illness.

Dr. Carlson came to UCD in 1966 after teaching at both the University of Washington (1945-60) and the University of Kentucky (1960-66).

Born May 5, 1915 Carlson graduated from St. Ambrose College, Davenport, Iowa in 1937 and received his doctorate from the University of Iowa in 1941. He also received an honorary doctorate from the University of Oslo later in his career.

After receiving his Ph.D. Carlson served in the US Army Air Corps at the Aeromedical Laboratory, Wright Field, Ohio from 1942 to 1946.

At the time of his death Wright was professor and chairman of human physiology, chairman of the division of sciences basic to medicine, and associate dean for curricular affairs and research development at the UCD School of Medicine.

Dr. Carlson served as president of the American Physiological Society (1968-69) and the Federation of American Societies for Experimental Biology (1969-70).

Dr. Carlson's early work was on enzymes in ontogenesis and the characteristics of protyrosinase in the grasshopper. Research during the war years was in the field of respiratory physiology and led to the establishment of criteria for the delivery of oxygen at altitude.

This interest in aerospace physiology continued in his research and brought about his appointment as a consultant to various offices of The President, the National Aeronautics and Space Administration, the National Academy of Science, and numerous branches of the military.

Since 1948 he was interested in environmental physiology and made important contributions to our understanding of the role of the sympathetic nervous system in the regulation of nonshivering thermogenesis and in adaptation to cold.

During his career he contributed greatly to the formation and development of all three of the medical schools with which he was affiliated. He has also trained a significant number of environmental physiologists.

Dr. Carlson served on many national and international panels and committees, including the National Committee for the International Union of Physiological Sciences, the National Institutes of Health, the Society for Experimental Biology and Medicine, the American Heart Association, and the Aerospace Medical Association.

Locally, Dr. Carlson was heavily involved with university affairs, acting as chairman of the campus graduate group in physiology, as a representative to the assembly of the university academic senate, and serving on many university and medical school committees and boards.

In addition, he was the chairman of the research committee of the Sacramento - Yolo-Sierra Heart Association.

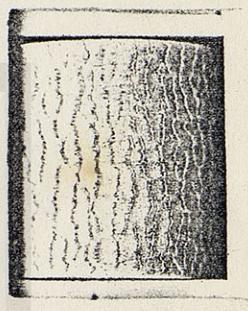
Carlson was a distinguished scholar, as noted by his inclusion in such volumes as the American Men of Science, Who's Who in America, Who's Who in Space, Who's Who in American Education, Who's Who in the West, Personalities of the West and Midwest, Dictionary of International Biography, The Blue Book, and the International Scholars Directory.

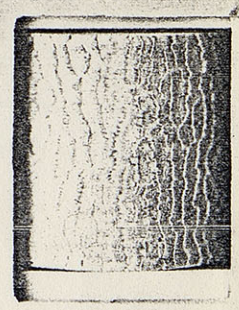
He was the recipient of numerous awards, among them the US Army legion of merit, the US Air Force exceptional civilian service medal, the St. Ambrose College Alumni award of merit, the John Jeffries Award of the American Institute of Aeronautics and Astronautics, and the Air Force Office of Aerospace Research outstanding achievement award.

Dr. Carlson is survived by his widow, Marion, and their children Eric Daniel, Christopher Dean, Allen David and Katherine Dudley Carlson, and a brother, John Carlson of Davenport, Iowa.

There will be no funeral services.

The family has asked that donations be made to the Loren Carlson Physiology Scholarship Fund at the UCD School of Medicine.





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Maj. Gordon L. M. Gibson, USAF, MC, has been reassigned as Director of Base Medical Services at the USAF Clinic, McClellan AFB, Sacramento, Ca. He was formerly Chief of the Aerospace Medicine Division of the Air Force Logistics Command, Wright-Patterson AFB, Oh.

CAPT George E. Balyeat, MC, USN, former Director of Training at the Naval Aerospace Medical Institute, Pensacola, Fl, has been reassigned as Senior Medical Officer at NAS Point Mugu, Ca.

Frederick E. Guedry, Jr., Ph.D. and **Martin P. Lansberg, M.D.,** will be cochairmen for the May 14-17 meeting of the Medical Panel for NATO's Advisory Group for Aerospace Research and Development (AGARD). The session will be held at the Aerospace Medical Institute, Pensacola, Fl, where Dr. Guedry is Chief of the Psychophysiological Sciences Division in the Naval Aerospace Medical Research Laboratory. Dr. Lansberg is Director of the National Aeromedical Center, Soesterberg, The Netherlands.

Herman A. Heise, M.D., now retired to Arvada, Co, was recently presented a Certificate of Appreciation jointly by the American Medical Association and the National Safety Council. The award cited his "contribution to the body of scientific knowledge in chemical tests for intoxication and to the field of alcohol traffic safety and for his dedicated service to the American Medical Association's Committee on Medicolegal Problems from 1950 to 1962; and for 35 years of service to the National Safety Council and its programs in alcohol and traffic safety."

Lt. Col. Myron J. Zeller, USAF, MC, former Chief of Aeromedical Services for the USAF Hospital, Nellis AFB, Nv, has been reassigned as Director of Base Medical Services at the USAF Hospital, George AFB, Ca.

Robert H. Adams, M.D., former USAF Medical Corps Colonel, who retired in October 1971, after an extended vacation has joined the California state Department of Health Care Services as a medical consultant. He was awarded the Meritorious Service Medal on retirement.

Col. Olive Y. Burner, USAF, NC, has ended a two-year detail as Acting Director of Health Services for Project Head Start, the preschool program for low-income children, and been assigned as Chief Nurse of the USAF Hospital at March AFB, Ca. Before leaving for her new assignment, Col. Burner received the Legion of Merit for her work with Project Head Start.

Mary F. Szalwinski, USAF, NC, former student at the Nursing Administration School, Sheppard AFB, Tx, has been reassigned as Assistant Chief Nurse for the USAF Hospital at Forbes AFB, Ks. She recently received the AF Commendation Medal.

NEW MEMBERS

CANANAU S. ADRIAN, M.D., Bucharesti, R.S., Romania
ROGER K. ALLEN, CPT, MC, USAR
CHARLES L. ANDERSON, ENS, USN
ERNEST W. BEEHLER, M.D., Covina, Ca
RICHARD C. BELLAS, Maj., USAF, MC
RALPH R. BOLLINGER, Capt., USAF, MC
NORMAN J. BUKA, M.D., Westmount, Canada
JOSEPHINE A. CASHIN, Capt., CAF
ALFREIDA E. DOUGLAS, Capt.
FRANCOIS DUBE, M.D., Ottawa, Canada
JOHN C. DUFFY, M.D., Tucson, Az
WILLIAM N. FLOYD, Jr., M.D., Evansville, In
J. R. HILLIARD, M.D., Ontario, Canada
INTS KALEPS, Dayton, Oh
J. I. KENNEDY, M.D., Nome, Tx
CLAUDIUS O. KLIMT, M.D., Baltimore, Md
S. LAVY, Prof., M.D., Jerusalem, Israel
JOHNNIE O. LOMAX, Summerville, SC
CALVIN B. W. LUM, CPT, MC, USA
JAMES T. McMAHON, M.D., Pacific Palisades, Ca
MARGO J. MAYO, Lt., CAF
LOUTFALLA MELKI, M.D., Tucson, Az
C. H. NELSON, M.D., Tucson, Az
SERGIO OLMEDO, M.D., Santiago, Chile
EDWIN R. POWELL, M.D., Fallbrook, Ca
MICHAEL R. POWELL, Ph.D., Tarrytown, NY
GEORGE H. PEACOCK, Maj., USAF, MC
RADE PODJANIN, Dr., Belgrade, Yugoslavia
RONALD D. REED, Berkeley, Ca
BETTYE ROGERS, Maj., USAF
MIRIAM M. RUEGER, 1Lt., USAFR, NC
HARRY G. STORRS, M.D., Fairbanks, Ak
JACQUES THIVIERGE, M.D., Quebec, Canada
IRVING J. THORNE, M.D., New York, NY
CHEN TSU-CHUN, M.D., Taipei, Taiwan
R. O. UNDERWOOD, M.D., Russellville, Al
ROBERT H. ZELLERS, Capt., USAF, BSC

IN MEMORIAM

Loren D. Carlson, Ph.D., died in December after a long illness. He was 57. A member of the Aerospace Medical Association since 1959, he had been associate dean of research development and curricular affairs at the University of California's School of Medicine at Davis. He received his Ph.D. in 1941 from the University of Iowa. For four years he served in the U.S. Army Air Corps at the Aeromedical Laboratory, Wright Field, Oh. He then entered teaching and physiological research at the Washington School of Medicine, Seattle, and the University of Kentucky's School of Medicine, Lexington. During the war his work in the field of respiratory physiology led to the establishment of criteria for delivery of oxygen at altitude. Since 1948 his emphasis was on environmental physiology, particularly the role of the sympathetic nervous system in the regulation of nonshivering thermogenesis and in adaptation to cold. He published more than 130 scientific papers, was listed in many volumes of notables, and received a number of honors and awards including the U.S. Army's Legion of Merit the USAF Exceptional Civilian Service Medal, the John Jeffries Award of the American Institute of Aeronautics and Astronautics, and the Air Force Office of Aerospace Research Outstanding Achievement Award.

Russell S. Leone, M.D., 67, died Dec. 31 at his home in Arlington, Va. He retired as an Air Force flight surgeon in 1960. Since then he had been director of the emergency service at Fairfax County, Va, Hospital. He became a flight surgeon in 1942 and served as hospital commander at several USAF installations. For the 5 years prior to retirement, he had been Chief of the Physical Standards Division in the office of the USAF Surgeon General.

Horace O. Parrack, Ph.D., 67, died very suddenly last May. When he joined the Aerospace Medical Association in 1959, he was technical coordinator of noise and vibration research at Wright Air Development Center, Wright-Patterson AFB, Oh, and had formerly taught at the Columbia University and Harvard Medical School.

INDEX TO ADVERTISERS

Academic Press v

Aerospace Medical Association
Advance Registration x
Housing ..... i, ii
Jewelry xi

Burroughs Wellcome & Co.
Cortisporin Otic viii
Sudafed xiii

Lederle Laboratories
Filibon ix

Smith Kline & French Laboratories
Compazine ..... Cover II
Dyazide ..... Cover IV
Ornade ..... vi, vii

XXIst International Congress of Aviation and Space Medicine xii

Exploration Cons., Inc., 1951-60, Canadian Geophys. Measurements, Ltd., 1954-65, Venezuela Geophys. Measurements, S.A., 1957-65; pres., dir., gen. counsel Petroleum Research Corp., 1957-65; chmn. bd., gen. counsel Community Merchandisers, Inc., 1959; pres., dir., gen. counsel Western Petroleum Co., Inc., 1960; v.p., sec., dir., gen. counsel Enterprises & Businesses, Inc., 1960; sec., dir. Western Hemisphere Trade & Credit Corp., 1960, v.p. 1961; sec., dir. Hemisphere Constrn. Co., 1960, v.p., 1961-64; v.p., sec., dir., gen. counsel Jameson Corp., 1961-63; pres., chmn. bd. T'Oil, Inc., 1962-—. President Maple Ridge Association, 1964-—. Member Am., Okla., Okla. Jr. (president 1943-44), Tulsa County, Fed. Power bar assns., Am. Judicature Soc., Tulsa C. of C., Am. Soc. Internat. Law, Mid-Continent Oil and Gas Assn., Delta Sigma Rho, Phi Beta Kappa. Clubs: Southern Hills Country, The Tulsa, Harvard (pres. 1949-50) (Tulsa, Oklahoma). Editor: Compendium of Laws Relating to Problems of Men in the Armed Forces, 1943. Contbr. sect. to report on 34th Nat. Fgn. Trade Council. Home: 1001 E. 19th St., Tulsa 74120. Office: Fourth Nat. Bank Bldg., Tulsa 74119.

CARLSON, Karen Louise, univ. dean; b. Milw., Apr. 15, 1906; d. Duane Lloyd and Jennie (Boothroyd) Carlson; A.B., Carroll Coll., 1929; M.A., Northwestern U., 1937, Ph.D., 1948. Sec. to pres. Carroll Coll., 1929-34, registrar, 1934-44, instr. Latin, 1934-37, asst. prof., 1937-44; counselor Northwestern U., 1944-45; asst. dean women U. Ariz., 1945-49, dean women, 1951-—; registrar Woman's Coll. of U. North Carolina, 1949-51. Member of the advisory bd. Guidance Research Group. Mem. Nat., Ariz., So. Ariz. assns. women deans and counselors, Am. Assn. U. Women, Nat. Council Administrv. Women in Edn., Pima County Assn. Mental Health, Pi Lambda Theta, Delta Kappa Gamma, Alpha Xi Delta, Mortar Bd., Alpha Lambda Delta (hon.). Home: 201 N. Norton, Tucson.

CARLSON, Leland Henry, educator; b. Rockford, Ill., Mar. 25, 1908; s. Henry John and Bessie (Nilson) C.; B.A., Beloit Coll., 1931, LL.D., 1956; B.Th., North Park Theol. Sem., 1934; B.D., Chgo. Theol. Sem., 1938; Ph.D., U. Chgo., 1939; m. LaVerne Shirley Larson, June 10, 1933; children—Timothy, Kay (Mrs. John Roberts III). With North Park Coll., 1932-42, dean, 1938-42; with Northwestern U., 1942-54; pres. Rockford Coll., 1954-59; prof. history Claremont Grad. Sch., prof. church history Sch. Theology, Claremont Coll., 1959-—. Sect. editor Am. Hist. Review, 1949-—; Trustee Rockford Coll., 1954-59. Folger Shakespeare Library fellow, 1953, 58, 60; Rockefeller fellow, 1962-63; recipient King Gustav V Royal Swedish medal, 1951; Northwestern U. Centennial award, 1951. Fellow Royal Hist. Soc. London; mem. Phi Beta Kappa, Sigma Xi, Phi Theta Kappa. Author: A History of North Park College, 1941; An Alaskan Gold Mine, 1951; Cartwrightiana, 1951; The Writings of Robert Harrison and Robert Browne, 1953; The Writings of Henry Barrow, 1587-1590, 1962; The Writings of John Greenwood, 1587-1590, 1962; The Writings of Henry Barrow, 1590-1591, 1966. Office: 1325 N. College Av., Claremont, Cal.

CARLSON, Lennart H., mining co. exec.; b. Deer River, Minn., Sept. 14, 1921; s. John W. and Alma (Hagbloom) C.; B.B.A. in Accounting, U. Minn., 1947; m. Dora E. Bugliosi, Aug. 23, 1943; children—Alan G., Curtis D. Accountant, M.A. Hanna Co., Hibbing, Minn., 1947-53; chief accountant, adminstrv. mgr. Hanna Nickel Smelting Co., Riddle, Ore., 1954-61; with Hanna Mining Co., Cleve., 1961-—, comptroller, 1965-—. Served with USAAF, 1943-46. Mem. Nat. Assn. Accountants, Financial Execs. Inst. Republican. Mason. Home: 3570 Eldorado Dr., Rocky River, O. 44116. Office: 100 Erieview Plaza, Cleve. 44114.

CARLSON, Loren Daniel, physiologist, educator; b. Davenport, Ia., May 5, 1915; s. Frank Daniel and Esther (Lind) C.; B.S., St. Ambrose Coll., 1937; Ph.D., U. Ia., 1941; Ph.D. honoris causa, Univ. of Oslo (Norway), 1969; m. Marion Dudley, June 7, 1941; children—Eric Daniel, Christopher Dean, Allen David, Katherine Dudley. Research asso. cellular physiology, dept. zoology U. Ia., 1941-42; instr. physiology U. Wash., 1946, asst. prof. to prof. physiology and biophysics, 1946-61; prof., chmn. dept. physiology U. Ky. Coll. Medicine, 1961-66; chief of scis. basic to medicine U. Cal., Davis, 1966-—. Mem. of scientific advisory board to the USAF, 1957-63. Served to maj. USAAF, 1942-46. Decorated Legion of Merit; recipient USAF Exceptional Civilian Service award, 1963; John Jeffries award Am. Inst. Aeros. and Astronautics, 1968. Asso. fellow Inst. Aeros. and Astronautics; fellow Aerospace Med. Association, American Academy of Arts and Sciences; member Am. Physiol. Society (pres. 1968-69), Soc. Exptl. Biology and Medicine, Am. Soc. Zoologists, A.A.A.S., International Astronautics Academia, Sigma Xi. Contbr. articles sci. jours. Home: 22 Meadowbrook Dr., Davis, Cal. 95616.

CARLSON, Margery Claire, educator; b. Arthur, Ill., Nov. 21, 1892; d. John Emerick and Nellie Marie (Johnson) Carlson; B.S., Northwestern U., 1916, M.S., U. Wis., 1920, Ph.D., 1925. Tchr. biology high schs. in Ill., 1916-19; grad. asst. U. Wis., 1919-20, 22-25, 27-28; instr. botany Wellesley Coll., 1920-22; research fellow Boyce Thompson Inst. Plant Research, Yonkers, N.Y., 1925-27; mem. faculty Northwestern U., 1928-—, asso. prof. botany, 1954-58, asso. prof. emeritus, 1958-—; research asso., collector tropical plants Field Natural History Museum, 1945-—; dir. Nature Center and Wild Flower Trail, Evanston, Ill., 1958-—; sec. Ill. chpt. Nature Conservancy, 1964-—; lectr. plants and conservation, 1940-—. Mem. Ill. Nature Preserves Commn., 1963-—; Gov. Ill. Com. Ill. Beach State Park, 1945-—. Chmn. Evanston Victory Garden Com., 1942-50. Bd. dirs. Wild Flower Preservation Soc., 1935-—. Fellow A.A.A.S.; mem. Am. Inst. Biol. Scis., Bot. Soc. Am., Ill. Acad. Scis., Garden Club Am. (Eloise Payne Luquer medal 1952, Sarah Gildersleeve Fife award 1954), Garden Club Evanston (hon.), Evanston Bird Club (cons.), Alumni Assn. Northwestern U. (award of merit 1944, hon. life mem. 1953), Sigma Xi, Sigma Delta Epsilon (charter mem.; pres. Lambda chpt. 1933, 35, sec., v.p. grand chpt. 1936-40). Club: Zonta Internat. (pres. Evanston club 1942, 46). Author monograph. Address: 2308 Hartzell St., Evanston, Ill. 60201.

CARLSON, Marvin Albert, educator; b. Wichita, Kan., Sept. 15, 1925; [illegible]

Univ. Theatre, 1963-64, 65-66. Guggenheim fellow, 1968. Mem. Am. Edni. Theatre Assn., Am. Soc. Theatre Research, Nat. Collegiate Players, Phi Kappa Phi. Author: Andre Antoine's Memories of the Theatre-Libre, 1964; The Theatre of the French Revolution, 1966. Home: 121 Thruston Av., Ithaca, N.Y. 14850.

CARLSON, Maxwell, banker; b. Aberdeen, Wash., Nov. 9, 1905; s. Gust A. and Eleanor (Lind) C.; A.B., Dartmouth, 1928; M.C.S., Amos Tuck Sch. Adminstrn. and Finance, 1929; m. Willadee E. Hart, Sept. 15, 1931; children—Deane, Karen. Pres. Nat. Bank of Commerce of Seattle, 1948-—; pres. Internat. Bank of Commerce, 1963-69, chmn., 1969-—; vice pres., dir. Marine Bancorporation. President of Clearing House Association of Seattle, 1953-54, and 1965-66. Director United Good Neighbors, 1952-—, campaign dir., 1954, pres., 1963; pres. St. Nicholas Sch., Seattle, 1959-62. Mem. Am., Wash. (pres. 1956-57) bankers assns., Assn. Res. City Bankers, Financial Execs. Inst. Clubs: Rainier, Washington Athletic (Seattle); Harbor. Home: 1626 Federal Av. E., Seattle 98102. Office: P.O. Box 3966, Seattle 98124.

CARLSON, Natalie Savage, author; b. Winchester, Va., Oct. 3, 1906; d. Joseph Hamilton and Natalie Marie (Villeneuve dit Vallar) Savage; student parochial schs., Cal.; m. Daniel Carlson, Dec. 7, 1929; children—Stephanie Natalie (Mrs. Robert David Sullivan), Julie Ann. Newspaper reporting, Long Beach (Cal.) Sun, 1926-29. Author: The Talking Cat and Other Stories of French Canada, 1952 (N.Y. Herald Tribune award, Children's Spring Book Festival, 1952); Alphonse, That Bearded One, 1954 (in N.Y. Herald Tribune award, Children's Spring Book Festival, 1954); Wings Against the Wind, 1955; Sashes Red and Blue, 1956; Hortense, the Cow for a Queen, 1957; The Happy Orpheline, 1957; The Family Under the Bridge, 1958; A Brother for the Orphelines, 1959; Evangeline, Pigeon of Paris, 1960; The Tomahawk Family,, 1960; The Song of The Lop-Eared Mule, 1961; A Pet for the Orphelines, 1962; Carnival in Paris, 1962; Jean-Claude's Island, 1963; The Empty Schoolhouse, 1965; Sailor's Choice, 1966; Chalou, 1967; Luigi of the Streets, 1967; Ann Aurelia and Dorothy, 1968; Befana's Gift, 1969. Republican. Roman Catholic. Home: Periwinkle, Newport, R.I.

CARLSON, Oscar Norman, educator, metallurgist; b. Mitchell, S.D., Dec. 21, 1920; s. Oscar and Ruth Belle (Gammill) C.; B.A., Yankton Coll., 1943; Ph.D., Ia. State U., 1950; m. Virginia Jyleen Forsberg, July 30, 1946; children—Gregory Norman, Richard Norman, Karen Virginia. Mem. faculty Ia. State U., 1943-—, prof., sr. metallurgist Ames Lab., 1960-—, chmn. dept. metallurgy, chief metallurgy div. Ames Lab., 1962-66; spl. research nuclear metals and alloys, phase studies binary alloy systems, brittle-ductile behavior metals and alloys; developed process preparing and purifying yttrium, vanadium, zirconium, calcium, hafnium metals. Mem. Am. Soc. Metals (chmn. Des Moines 1957-58), Am. Chem. Soc., Am. Inst. Metall. Engrs., Am. Soc. Engring. Edn., Ia. Acad. Scis., Sigma Xi, Phi Kappa Phi, Phi Lambda Upsilon. Lion. Home: 811 Ridgewood, Ames, Ia.

CARLSON, Philip Ebel, cement co. exec.; b. Mpls., Mar. 25, 1915; s. John F. and Laura (Ebel) C.; B.Chem. Engring., U. Minn., 1938; m. Louise Richards Burger, May 19, 1942; children—Philip B., John C. With Mpls.-St. Paul San. Dist., 1938-41, Collins & Aikman, 1945-46; with Lehigh Portland Cement Co., 1946-—, asst. v.p. mfg., 1958-62, v.p. engring., 1962-—. Served to lt. comdr. USNR, 1941-45. Mem. I.E.E.E., Portland Cement Assn., Engrs. Club Lehigh Valley. Club: Livingston (Allentown). Home: R.D. 1, Alburtis, Pa. 18011. Office: Lehigh Portland Cement Co., Young Bldg., Allentown, Pa. 18105.

CARLSON, R. R., v.p., treas., controller Allied Mills Inc. Address: 110 N. Wacker Dr., Chgo. 60606.*

CARLSON, Raymond, magazine editor; b. Leadville, Colo., Sept. 1, 1906; s. Carl and Hulda (Bengtson) C.; student U. Ariz., 1924-25, 26-27; A.B. in Romance langs., Stanford, 1929; m. Helen Mary Hooker, Oct. 12, 1937. Reporter, editor Ariz. Silver Belt., Miami, Ariz., 1929-35; editor Ariz. Highways, 1937-—. Served with inf. AUS, World War II; PTO. Decorated Bronze Star. Mem. Hammer and Coffin Soc. (Stanford), Phi Beta Kappa, Phi Delta Theta. Editor: Gallery of Western Paintings, 1951; The Flowering Cactus, 1954. Home: 1223 W. Palo Verde Dr., Phoenix 13. Office: 2039 W. Lewis St., Phoenix 9.

CARLSON, William Donald, educator, former dean; born Sandstone, Minnesota, January 15, 1914; son of C. Oscar and Jennie A. (Bjorklund) C.; B.E. with high honors, St. Cloud State Teachers College, 1939; M.A., U. Minn., 1951, Ph.D., 1955; m. Marian A. Finseth, Feb. 15, 1942; children—John W., Marcia A., Audrey J., Meridee J. Tchr. elementary schs., Minn., 1932-36, tchr., prin., secondary schs., 1937-41; with U.S. Bur. Prisons, 1941-42, 46-47; research asst. bur. edni. research U. Minn., 1947-48, dir. student personnel Coll. Edn. High Sch., 1948-52; dean student affairs U. Nev., 1952-57, dean so. regional div., 1957-65, prof. edn., 1952-—. Adv. council U.S. Civil War Centennial Commn. Member U.S. Regional Export Expansion Council. Served to capt., inf., AUS, 1942-46. Decorated Bronze Star with cluster. Mem. Clark County (president), Nevada (v.p.) mental health associations, Nevada Psychological Assn., Am. Personnel and Guidance Assn., Am. College Personnel Association, Higher Education Association, also Phi Delta Kappa, Psi Chi, Kappa Delta Pi, Tau Kappa Alpha. Mason (32°); Rotarian; mem. Order Eastern Star. Home: 1308 Cashman Dr., Las Vegas, Nev.

CARLSON, William Dwight, univ. pres.; b. Denver, Nov. 5, 1928; D.V.M., Colo. State U., 1952, M.S., 1956; Ph.D. in Radiology, U. Colo., 1958; m. Beverley Ann Bradshaw, 1950; children—Susan Elaine, Earl Dwight. Pres., prof. radiation biology U. Wyo., Laramie, 1968-—; affiliate prof. radiology, radiation biology Colo. State U., Fort Collins, 1968-—. Mem. subcom. Nat. Council on Radiation Protection and Measurements, 1965-—; ex officio mem. Wyo. Natural Resources Bd., 1967-—; adv. dir. Wyo. Indsl. Devel. Corp., 1967-—; dir. Cheyenne Nat. Bank (Wyo.), 1968-—, dir. Health Consol. Industries [illegible]

mal Hosp. Assn., 1967; recipient Distinguished Service award Fort Collins Jr. C. of C., 1960, Honor Alumni Fort Collins High Sch., 1966. Fellow A.A.A.S.; mem. Laramie C. of C. (hosp. com. 1968-—), Am., Wyo. vet. med. assns., Nuclear Medicine Soc. Am. (nat. trustee 1964-68), Radiation Research Soc., Colo. Med. Soc., Am. Vet. Radiology Soc. (charter, nat. v.p. 1963, pres. 1965). Rotarian. Author: Veterinary Radiology, 1961. Editor: Proc. Internat. Symposium on the Effects of Ionizing Radiation of the Reproductive System, 1964. Contbr. articles in field to profl. jours. Home: 1306 Ivinson Av., Fort Collins, Colo. Office: Univ. Wyo., Laramie, Wyo. 82070.

CARLSON, William Samuel, univ. pres.; b. Ironwood, Mich., Nov. 18, 1905; s. Samuel and Mary (Lamsted) C.; A.B., U. of Mich., 1930, M.S., 1932, Ph.D., 1938; student U. of Copenhagen, Denmark, 1931, Columbia University, 1935; LL.D., Dickinson College, 1948, University of Michigan, Univ. of Del., 1950, Middlebury Coll., 1951; D.Sc., Alfred University, 1953; D.Sc., Bowling Green State University, 1964; m. Maryjane Rowe, December 17, 1932; 1 dau., Kristin Rowe. Asst. in geology U. of Mich., 1927; special observer U.S. Weather Bureau, 1928; field leader, U. of Mich. Greenland Expdn., 1928-29; tech. adviser on Greenland to Chicago Tribune, 1929; asst. in dept. geology U. of Mich., 1929-30, leader fourth expdn. to Greenland, 1930-31; Henry Goddard, Leach Fellow, Am.-Scandinavian Foundation, 1931-32; instr., geology U. of Mich., 1932-33, grad. fellow, 1933; instr. Ironwood (Mich.) High Sch., 1933-34; prin. Wakefield (Mich.) High Sch., 1934-36, East Lansing (Mich.) High Sch., 1936-37; asst. prof. U. of Minn., 1937-39, asso. prof., 1939-41, dir. admissions and records, 1941-45, dean and prof., 1946; pres. U. of Del., 1946-50; pres. U. Vermont, 1950-52; pres. State U. N.Y., 1952-58; pres. U. Toledo, 1958-—; dir. Toledo Trust Co. Mem. Gov.'s (Minn.) Adv. Com. on Edn., 1941; chmn. Ohio Civil War Centennial Commn., 1959-63, Greater Toledo War Centennial Commn., 1959-63. Special cons. on arctic problems to comdg. gen., U.S.A.A.F., 1941; commd. maj., Air Corps, 1942, and advanced through grades to col., 1945; asst. chief, spl. projects branch, plans div., Hdqrs. A.A.F., 1942-43, exec. Western Hemisphere branch, plans div., 1943-44, dir. Arctic, Desert and Tropic branch, A.A.F. Tactical Center, 1944-45; col., O.R.C., since 1945. Awarded Legion of Merit, Asiatic-Pacific Theatre Campaign, Am. Theatre and European-African-Middle East medals. Mem. N.Y. State Citizens Com. for the Public Schs.; chmn. N.Y. State Com. on Fulbright Scholarships, 1952-58; elector Hall of Fame; member bd. visitors Air U., 1949-52; bd. dirs. Toledo Hosp., Inst. Med. Research; adv. bd. St. Vincent Hosp. Mem. Geophys. Union, State Univs. Assn. (sec.-treas.), N.Y. Acad. Scis., Am. Council Edn., Met. Edni. TV Assn. (past trustee), Minn. Assn. Secondary Sch. Prins. (sec. 1937-41), Ohio College Association (pres. elect 1968), A.A.A.S., American Legion, Newcomen Soc., Sigma Xi, Sigma Gamma Epsilon, Phi Delta Kappa, Phi Kappa Phi, Omicron Delta Kappa, Blue Key, Tau Beta Pi, Alpha Kappa Psi, Pi Delta Theta, Beta Gamma Sigma, Phi Eta Sigma, Pershing Rifles. Clubs: Toledo, Rotary (Toledo, Ohio); Explorers, Century (N.Y. C.); Toledo Country; "M" (U. of Mich.). Author: Greenland Lies North, 1940; Report of the Northern Division of the Fourth University of Michigan Greenland Expedition, 1941; (with C. W. Boardman) Student Teachers Handbook, 1940; Lifelines Through the Arctic, 1962; The Municipal University, 1962. Editor: Manual for the Supervising Teacher, 1940. Contbr. articles to tech. jours. Home: 3425 W. Bancroft St., Toledo 6.

CARLSTON, Kenneth S., prof. of law; b. Grand Haven, Mich., July 11, 1904; s. Charles and Nina Mae (Smith) C.; B.B.A., Univ. of Wash., 1926; M.A., American Univ., 1928; LL.B., Yale, 1933; m. Margaret O. Hall, Mar. 30, 1934; children—Peter Kenneth, James Scott. Admitted N.Y. bar, 1935, Ill. bar, 1955; atty. Mexican Claims Commns., Washington, D.C., 1928-31, Mitchell, Taylor, Capron & Marsh, New York, N.Y., 1933-38, Shell Union Oil Corporation and related companies at New York, N.Y., 1938-46; professor of law at University of Ill. since 1946; United Nations Legal Secretariat, 1950; mem. U.N. legal secretariat, 1952-53. Member American Soc. of Internat. Law, American Arbitration Association (member of national panel of arbitrators), American Society for Legal and Polit. Philosophy, Internat. Law Assn., African Law Society, Law and Society Association, Internat. Assn. for Philosophy of Law and Social Philosophy, Order of Coif, Pan Xenia, Phi Beta Kappa, Beta Gamma Sigma. Author: The Process of Internat. arbitration, 1946; Law and Structures of Social Action, 1956; Law and Organization in World Society, 1962; Social Theory and African Tribal Organization, 1968. Contbr. law jours. Specialist internat. law and arbitration, antitrust, jurisprudence. Home: 1006 E. Harding Dr., Urbana, Ill.

CARLTON, see also Carleton.

CARLTON, Doyle Elam, lawyer; b. Wauchula, Fla., July 6, 1887; s. Albert and Martha (McEwen) C.; A.B., Stetson U., 1910, also LL.D.; A.B., U. Chgo., 1910, LL.D., 1912; LL.B., Columbia, 1912; LL.D., U. Fla., 1933; L.H.D., Fla. South Coll., 1953, U. Tampa, 1953; m. Nell Ray, Aug. 30, 1912; children—Martha (Mrs. David Ward), Mary (Mrs. W. J. Ott), Doyle Elam. Admitted to Fla. bar, 1912, since practiced in Tampa; partner firm Carlton, Fields, Ward, Emmanuel, Smith & Cutler, 1912-—, city attorney, Tampa, 1926-28. Mem. President Eisenhower's Commission Civil Rights, 1957-61; member of President Kennedy's National Agrl. Adv. Commn., 1961-—; pres. Pan Am. Commn. of Tampa. Mem. Fla. Senate, 1917-19; gov. of Fla., 1929-33. Trustee Stetson U. Named Outstanding Citizen of Tampa, Civitan Club, 1954. Mem. Am., Fla., Tampa, Hillsborough County bar assns., Fla. (past pres.) chambers commerce, Com. of 100. Baptist. Kiwanian (dist. gov. 1922), Mason (Shriner), Elk, K.P. Home: 2401 Bayshore Harbor House, Tampa 9. Office: Exchange Nat. Bank Bldg., Tampa 1, Fla.

CARLYLE, see also Carlisle.

CARLYLE, Irving Edward, lawyer; b. Wake Forest, N.C., Sept. 20, 1896; s. John Bethune and Dora (Dunn) C.; A.B., Wake Forest College, 1917, stu-

Hendren & Womble since 1923, becoming partner and remaining as partner in firm under present name, Womble, Carlyle, Sandridge & Rice. Served as 2d lt., F.A., U.S. Army, World War I. State representative N.C., 1941, 43, 45, 51; state senator last three terms; N.C. del.-at-large to Dem. Nat. Conv., 1952, 56. Mem. N.C. Adv. Budget Commn., 1945-46. Bd. Law Examiners, 1936-49; apptd. by gov. to N.C. State Bd. Pub. Welfare, 1948-63; chmn. N.C. Edni. Radio and Television Commn., 1953-—; chmn. Gov's. Comm. Edn. Beyond High Sch., 1961-62; mem. N.C. State Constitutional Study Commn., 1968. Trustee Wake Forest Univ. (pres. 1946-65), Goucher Coll., E. Carolina U. Recipient Medallion Merit, Lake Forest U., 1969. Mem. Am., N.C. (pres.), Forsyth County (pres.) bar assns., Am. Judicature Soc. (mem. so. regional council), Phi Beta Kappa, Delta Psi, Omicron Delta Kappa, Phi Delta Phi. Clubs: Torch, Forsyth Country (Winston-Salem). Home: 101 Belle Vista Ct., Winston-Salem. Office: Wachovia Bank Bldg., Winston-Salem 1, N.C.

CARMACK, George, newspaper editor; b. Troy, Tenn., Feb. 20, 1907; s. Dan Meacham and Frances (Burnett) C.; attended Union Univ., Jackson, Tenn., 1922-24; A.B., University of Tennessee, 1927; m. Bonnie Tom Robinson, Ft. Riley, October 1943; 1 dau., Judith Anne. Reporter Knoxville Sentinel, 1926-28, Memphis (Tenn.) Evening Appeal, 1928-30; city editor Memphis Press-Scimitar, 1930-35; mng. editor, 1935-37; editor Knoxville News-Sentinel, 1937; editor Houston Press, 1946-64; staff writer Scripps-Howard Newspaper Alliance, 1964-66; editor Albuquerque Tribune, 1966-—. Took leave of absence to volunteer as pvt. in 6th Cav., 1940; commd., 1942; ETO, PTO. Episcopalian. Home: 1800 San Patricio S.W., Albuquerque 87104. Office: Albuquerque Tribune, Albuquerque 87103.

CARMAN, G(lenn) E(lwin), educator, entomologist; b. Waterloo, Ia., June 8, 1914; s. Herbert Elwin and Corna Anne (Peck) C.; B.S., Ia. State U., 1936; Ph.D., Cornell U., 1942; m. Sophie Gertrude Quick, Apr. 12, 1941; children—Donna Gail, Gary Bruce. Research fellow Ia. State U., 1936-37, Cornell U., 1937-41, Rohm & Haas Co., 1942-43; mem. faculty U. Cal. at Riverside, 1943-—, successively jr. entomologist, asst. entomologist, asso. entomologist, 1943-53, entomologist, 1953-—, prof. entomology, 1963-—, chmn. dept., 1963-68. Vice pres., mem. bd. ICCAP, Incorporated. Mem. bd. dirs., exec. com., chmn. disaster com. Riverside County chpt. A.R.C.; vector control adv. com. Dept. Health, Cal. Mem. Entomol. Soc. Am. (chmn. Pacific br. 1951, mem. governing bd.), A.A.A.S., Am. Chem. Soc., Sigma Xi, Phi Kappa Phi. Home: 5368 Pinehurst Dr., Riverside, Cal.

CARMAN, James Walmsley Frederic, bishop; b. Denver, Sept. 26, 1903; s. Frederic and Rosa (Cook) C.; B.A., Carleton Coll., 1929; B.D., Seabury Div. Sch., Fairbault, Minn., 1930; D.D., Seabury-Western Theol. Sem., Evanston, Ill., 1949; m. Phyllis Churchill, Aug. 13, 1930; children—Catherine (Mrs. Stephen W. Edwards), Charles Churchill. Odained deacon Episcopal Ch., 1929, priest, 1930; rector St. Luke's Ch., Denver, 1930-34, Ascension Ch., Pueblo, Colo., 1934-44; field officer Nat. Council P.E. Ch., 1944-47, mem. dept. promotion, 1948-53; dean Trinity Cathedral, Phoenix, 1946-56; bishop coadjutor Diocese Ore., 1956-58; consecrated bishop, 1958-—. Pres. trustees Good Samaritan Hosp., Corvallis, Ore., Good Samaritan Hosp., Portland, Ore., Rogue Valley Meml. Hosp., Medford, Ore., St. Helen's Hall, Portland; trustee Church Div. Sch. of Pacific, Berkeley, Cal. Home: 409 S.W. Edgecliff Rd., Portland 19. Office: 11800 S.W. Military Lane, Portland 19, Ore.

CARMAN, Newell J., sec.-treas. Internat. Union Operating Engineers. Address: 1125 17th St. N.W., Washington 20006.*

CARMAN, William Brainerd, lawyer; b. Detroit Lakes, Minn., Oct. 5, 1905; s. William B. and Frances P. (Fritzsche) C.; A.B. magna cum laude, Carleton Coll., 1926; LL.B. magna cum laude, Harvard, 1929; m. Dorothy J. Day, Sept. 15, 1930; children—Patricia Jeanne McEldowney, Mary Elisabeth Kneale. Admitted to Cal. bar, 1930; asso. O'Melveny & Myers, 1920-40, partner, 1940-—; instr. law Southwestern U., 1936-39. Mem. Carleton Nat. Alumni Assn. (pres. 1964-66), Harvard Legal Aid Soc. (pres. 1928), Carleton Coll. So. Cal. Alumni Assn. (pres. 1947-50), Am., Cal. State (chmn. radio com. 1950-51), Los Angeles bar assns., Cal., S.C. hist. socs., Am. Judicature Soc., Phi Beta Kappa, Phi Delta Epsilon. Clubs: University, Chancery, Zamorano; El Niguel Country. Mem. editorial bd. Harvard Law Rev., 1928-29. Home: 630 S. Orange Grove Blvd., Pasadena, Cal.; also 31671 Crystal Sands Dr., South Laguna, Cal. Office: 611 W. 6th St., Los Angeles 90017.

CARMER, Carl, author; b. at Cortland, New York, Oct. 16, 1893; s. Willis Griswold and Mary (Lamson) C.; Ph.B., Hamilton Coll., Clinton, N.Y., 1914, Ph.M., 1917; M.A., Harvard U., 1915; Litt.D., Elmira Coll., 1937; L.H.D., Hamilton Coll., 1941; Litt.D., Susquehanna University, 1944; LL.D., University of Buffalo, 1962; m. Elizabeth Black, Dec. 24, 1928. Instr. in English, Syracuse U., 1915-16, U. of Rochester, 1916-17; head of pub. speaking dept., Hamilton Coll., 1919; asst. prof. English, U. of Rochester, 1919-21; asso. prof. same, U. of Ala., 1921-24, prof., 1924-27; columnist New Orleans Morning Tribune, 1927; asst. editor Vanity Fair, 1928-29, Theatre Arts Monthly, 1929-33; president Boscobel Restoration, Inc. Overseer of College of Virgin Islands, 1963. Served as first lieutenant F.A., World War I. Recipient merit award American Association of State and Local History, patriotic achievement medal Order Founders and Patriots of America. Past president of MacDowell Association, P.E.N., Poetry Society America, Authors Guild of Authors League America. Fellow New York State Historical Assn. (v.p.); member New York State Folklore Soc. (v.p.), Soc. Am. Historians (director), Victorian Society in America (bd. advisers), Hudson River Conservation Society (1st v.p.), Phi Beta Kappa, Psi Upsilon, Presbyn. Clubs: Pilgrims, Century. Publs. include: Stars Fell on Alabama, 1933; Listen for a Lonesome Drum, 1936; The Hudson, 1939; Dark Trees to the Wind, 1949; Windfall Fiddle, 1950; The Susquehanna, 1955; The Screaming Ghost, 1956; My Kind of Country, 1966. Editor: Rivers of America Series; The Tavern Lamps Are Burning. Address: Octagon

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DEPARTMENT OF THE NAVY

Memorandum

DATE: 7.7.77

FROM:

TO:

SUBJ:

Dear Sherm:

Herewith the eulogy. I failed to tell you that 200 words is about the maximum. How about the date. good to chat

Ash

U.S. GOVERNMENT PRINTING OFFICE: 1974—635-000/2018 Region No. 3-11

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Necrology Jacob Eugster

Jacob Eugster, member of the Academy since 1962, died February 17, 1974 in Bern at the age of 83. The academy mourns the loss of a member distinguished in the humanistic as well as the scientific knowledge of our age. His name is imperishably inscribed in the records that deal with the biological effects of cosmic ray heavy particles. Among his publications three books deserve special comment. The first one, "Cosmic Radiation and its Biological Effects," written in 1949 with V. F. Hess, cosmic ray physicist at Fordham University, as co-author, is an early study of the significance of cosmic radiation for life. The second book revealed ~~his~~ Eugsters creative talent and was written with a high regard for truth and accuracy. ~~Eugster was the first to~~ demonstrate for the first time the "microbeam" effectiveness of cosmic ray heavy particles (on the egg of the sand crab) using a sophisticated alignment technique with nuclear emulsion; exposure to high altitudes ~~became available in the early 50's~~ were accomplished using the sky-hook balloon technique. The third book, "The Search for Extraterrestrial Life," is Jacob Eugster's scientific testament to the Academy and his fellow-scientists. In it he weaves the visions of a scientist-philosopher on man's destiny into a comprehensive study on the state of knowledge on the origin of life. In dealing with metaphysics he avoids the common pitfall of flouting the laws of physics.

Jacob Eugster will not be forgotten, but we will miss the pleasure of his company.

IN MEMORIAM

DR. LOREN CARLSON

Dr. Loren D. Carlson, internationally known aerospace physiologist and educator, a member of the IAA since 1964, died December 12, 1972, at the age of 57. At the time of his death, he was Professor and Chairman of the Department of Human Physiology and Associate Dean of the School of Medicine, University of California at Davis. Born May 5, 1915, in Davenport, Iowa, he received his education at St. Ambrose College in Davenport and at the University of Iowa, from which he received his Ph.D. Degree in Zoology in 1941. Shortly thereafter, he entered military service as a commissioned officer in the United States Army Air Corps, where he conducted laboratory research in high altitude respiratory physiology and oxygen equipment design, which resulted in the establishment of criteria for the delivery of oxygen at altitudes. After World War II, Dr. Carlson's research in environmental physiology continued, expanding into extensive studies of thermal physiology, metabolism, and cardiovascular responses to weightlessness. In 1946, he accepted a faculty appointment at the University of Washington in Seattle where he later became Professor of Physiology in the College of Medicine. He joined the University of Kentucky College of Medicine in 1960 as Professor and Chairman of the Department of Physiology and Biophysics. In 1966, he was appointed one of the original seven faculty members who founded the School of Medicine at the University of California, Davis, now a thriving Institution due in great part to his outstanding devotion, skill and leadership. Dr. Carlson was the author of more than 130 scientific publications and was recipient of many national and international awards in recognition of his work. He was a singularly important pioneer in manned space flight, not only through his physiological research, but also by virtue of his sage guidance as a member of the Space Science Board of the National Academy of Sciences, a member of the President's Scientific Advisory Committee, and advisor to NASA in space medicine and biology.

Dr. Carlson's indelible contributions to physiology, aviation, man's achievement of space, and to the field of education are destined to be honored as long as man's great accomplishments are recorded in history. But, he leaves a legacy of equal magnitude in his inspiring example as a man. A brilliant and strongly self-disciplined scientist, scrupulously objective and uncompromisingly honest in all matters, he was at the same time a quiet and genuinely modest man with an idealist's devotion to humanity and human achievement. His twinkling sense of humor, even temperament, and discomfort with ostentation were characteristic of him. His love of his fellow man was reflected daily in the respect, deep understanding, and concern he showed for others and in his devotion to his family, his students, and his friends.

It was reflected most of all in the dedication of his immense abilities, energies, and achievements, indeed his entire life, to his fellow man. A few hours before his death, he said, "If people want to do something for me, they can do so by living good lives." Although he would have been the last to acknowledge it, Dr. Carlson, both as a man and in the pattern of his life, exemplified the concept of <u>good</u> as a lofty standard to which future generations may aspire.

SBR September 7, 1977

Mrs. Marian Carlson
22 Meadowbrook Drive
Davis, CA 95616

Dear Marian:

It was indeed a treat to talk to you a few weeks ago and to find that you and the children are well and happy, and that the family is swelling normally. Loren would have been pleased and proud of all of you.

Sharon Holley (a different person with exactly the same name as Loren's secretary) at the University cooperated beautifully and sent me all of the information that I needed to write the piece on Loren for the Acta Astronautica. As you may be aware, the Acta Astronautica is the publication of the International Academy of Astronautics whose home base is Paris, France. I am not certain that the article will appear exactly as I have written it, but I thought that you might like to have a copy of it as it was submitted. If I receive the published version, I will be happy to send you a copy of that, too. Implicit in all of this, his great achievements and the enormous esteem in which he was held by his colleagues, is your great and dedicated support. We all know this very well, but for some reason we tend to treat it like many great and wonderful things; we accept them but don't talk about them very often. In case there is ever any doubt in your mind, Marian, please be thoroughly assured that you share richly in all of the wonderful things that are constantly being said about Loren. For all those great years, you were half the team. For the same reason, I know that in the ensuing great years your children will make you extremely proud.

With warmest best wishes,

Sincerely yours,

S. P. Vinograd, M. D.
Director, Medical Sciences Division

Enclosure

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SPV

Director, Med. Sciences Div.

Encl.

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INTERNATIONAL ACADEMY OF ASTRONAUTICS

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26 October 1977

Dr. S.P. Vinograd
Director, Medical Sciences
NASA Office of Life Sciences
NASA Headquarters
Washington, D.C. 20546, U.S.A.

Dear Dr. Vinograd,

Thank you for your letter of 2 September and the article on Dr. Loren Carlson. We have sent it to Acta Astronautica for publication with only a small deletion and change in the third and fourth sentences.

You mention a regret that Dr. Carlson's passing "was overlooked by Acta at the time", but the fact is that we heard of it for the first time by a letter dated 23 June 1977 from Dr. Richard F. Walters, from which I quote:

> "I received a letter recently addressed to Dr. Loren D. Carlson and forwarded to me as his successor in these matters. Dr. Carlson died several years ago, and unfortunately no one here has undertaken research in the area of astronautics to whom your recent letter could be directed....."

Obviously, nobody was aware that our correspondence was intended for Dr. Carlson personally as a Member of the Academy.

Sincerely yours,

Hélène van Gelder
Secretary