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Robert Henry Randall

Memorial Address*

DR. ROBERT H. RANDALL (1890–1966) Honorary Member of the American Society of Photogrammetry; first president and Honorary Member of the American Congress on Surveying and Mapping; a civil engineer and internationally known authority on surveying and mapping, and resource planning, was a leader with tremendous objective vision dedicated to the surveying and mapping profession, who by a sequence of strategic posts in critical times and places, played an important role in the development of professional surveying, photogrammetry, and the cartographic sciences as we know them today. He was devoted to the promotion of the use of maps and surveys as basic intelligence in the national and public interest.

He was born in Waynesville, Ohio, in 1890 and educated at Ohio Wesleyan University (Figure 1). In 1914 he married Maree Gard who bore him three sons.

In Ohio he began his long career in surveying, mapping, and resource planning. After some field work with the U.S. Geological Survey, he worked as assistant city engineer for the City of Dayton, Ohio, soon after the 1913 Dayton flood and following Miami River Valley flood control project often in close association with conservationist Arthur E. Morgan, president of Antioch College and Morgan Engineering Co., who later was appointed by President Franklin D. Roosevelt to head the Tennessee Valley Authority (TVA).

After World War I, in 1918, Randall founded the R. H. Randall Company, in Toledo, Ohio, a firm of geodetic and topographic engineers specializing in precise urban area surveys. The firm, incorporated in 1924, surveyed and mapped more than 20 cities in the United States east of the Mississippi River and in Willacy and Hidalgo Counties in Texas; West Hartford, Conn.; West Palm Beach, Fla.; Evansville and Richmond, Ind.; Flint, Grand Rapids, Jackson, Pontiac, and Royal Oak, Mich.; Albany and Schenectady, N.Y.; Durham and Greensboro, N.C.; Akron, Columbus, Dayton, and Cuyahoga County, Lucas County, and Summit County, Ohio; Pittsburgh and Allegheny County, Pa.; Lynchburg and Richmond, Va.; and Bluefield, W.V. (The Hidalgo County, Willacy County, Texas, mapping was done for the Morgan irrigation and flood control engineers of Memphis, Tenn.)

Those were days when competitive bidding was the way of survival. To make matters worse, as we learned from our widespread operations, there was a wide disparity in surveying practices, disuniformity or even lack of survey standards from



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place to place. Professionalism was at low ebb in engineering—and virtually unheard of in surveying. No such thing those days as state registration or professional license.

Randall Company headquarters maintained in-house correspondence courses with its employees in the interest of improving surveying practices. Company key men, all members of the American Society of Civil Engineers (ASCE), spearheaded by R. H. Randall, moved rapidly to activate a Division on Surveying and Mapping within ASCE, which was approved and activated in January of 1926.

By 1928, ASCE activated a Committee on City Surveys with Randall as chairman. Work began on a manual on city surveys which was produced by mimeograph and widely distributed and used prior to final publication in 1934 as *ASCE Manual No. 10*.

Development of these high standards for surveys in urban areas just before the October 1929 stock market crash and their use during the resulting national economic depression, created a new professional respect for precision surveys by engineers and planners and surveyors.

During late 1928 and 1929, R. H. Randall met with aerial survey entrepreneur, Sherman Fairchild, and representatives of Pan American Airways in New York City to arrange a tri-consortium bid proposal to map Buenos Aires, Argentina. Fairchild's business manager Edward Polley came to Toledo, Ohio, with Randall to witness with George Whitmore and Charles Hatch a patent-pending procedure for aerial film image rectified-projection method for direct emulsion-on-glass delineation-engraving process, devised and demonstrated by Randall Company's vice president Walter Dix.

At this time all Randall Company key men began crash Spanish language courses. Randall booked passage via Pan American Grace Line facilities for Buenos Aires to visualize and confirm conditions and negotiate arrangements. Commencing travel on September 20, 1930, via Rio de Janeiro, Santos, Sao Paulo, and Montevideo, Randall arrived at Buenos Aires, October 27, 1930, just as Argentina's President Yrigoye was being deposed in a

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FIG. 1. R. H. Randall college photo, March 1912.

political revolution by General Uributo. The political situation negated all hopes of mapping negotiations. Revolution in Brazil prevented flying home via the east coast, so Randall was forced to fly the "hump" over the Andes (Figure 2), an unforgettable experience. (See "Flying the Hump of the Andes," *National Geographic*, Vol. LIX, May 1931, pp. 595-636). He arrived back in New York November 3, 1930, unscathed after an extraordinarily wild adventure. This experience was the start of R. H. Randall's intense interest in natural resources and surveying and mapping matters in Pan America.



FIG. 2. Pass of Uspallata site of "Christ of the Andes."

Some early financial losses were incurred by the Randall Company on Florida surveys when payrolls were lost in local bank failures following the Florida land-boom "bust." The Randall Company, Inc. continued in operation following the 1929 stock market crash through the great economic depression until 1933 when — under President Roosevelt's New Deal — Ohio's governor made his National Guard general the state relief administrator. A colonel was sent to Toledo in charge of northwestern Ohio. Three Randall men were assigned to work with the colonel: Bob Randall as assistant relief administrator, George Whitmore as projects engineer, and Walt Dix in charge of field surveys. (With all of its municipal clients bankrupt, R. H. Randall Company became dormant.)

Robert H. Randall was duly appointed relief administrator for the Federal Emergency Relief Administration for Lucas County, Ohio, continuing on through Civil Works, Public Works, and Works Progress Administrations, with the established surveying and mapping programs (Figure 3).



FIG. 3. Randall and his three sons (left to right) Bill, Dick, and Robert, Jr.

At this time USGS Topographic Chief John G. Staack and his Region Engineer, Ralph Wilcoxon, conferred in Toledo, Ohio, with Lucas County relief officials Randall, Whitmore, and Dix on the matter of conversion of the basic Randall Company Lucas County mapping to USGS quadrangle format.

Also, USGS Reproduction Chief Colonel Claude Birdseye and Mark Mattare spent a week with Dix at the closed Randall plant studying their unique map reproduction process.

In due time Randall was promoted to assistant state relief administrator at Columbus, Ohio. In 1934 he was assigned to Washington, D.C., with the Natural Resources Board.

In 1935 Randall was appointed examiner on cartography for the U.S. Bureau of the Budget, Executive Office of the President.

Randall was already serving as consultant to a variety of municipal, state, and federal agencies. Important among such posts were assignments as a member of the National Academy of Sciences Committee on the Organization of Federal Government Surveying and Mapping (1934) and as a consultant to the National Resources Planning Board on state and regional planning, public works, and urbanism (1935-40). He was also consultant to the TVA survey and map program (1938 and 1939) and United States member of the Committee for Public Works Planning of the International Labor Organization in Switzerland (1938).

In 1936 he accepted permanent employment with the federal government in Washington, and in 1940 he assumed the role of coordinating all charting and mapping programs of U.S. agencies. This position was eventually placed within the Bureau of the Budget, Executive Office of the President. Here R. H. Randall was responsible not only for establishing and enforcing standards of accuracy and content of federally produced maps, but also for eliminating duplicate and other wasteful mapping programs. From this key post Randall was an influential source in support of a committee movement to assemble a national congress to discuss surveying and mapping. A national forum was convened in Washington, D.C., June 16-18, 1941, at which a permanent National Congress on Surveying and Mapping (now ACSM) was organized with Robert H. Randall elected its first president.

During his career R. H. Randall took an active part in several professional organizations. He was a life member of the American Society of Civil Engineers; the first president and honorary member of the American Congress on Surveying and Mapping; honorary member of the American Society of Photogrammetry;

member of the American Institute of Planners, the American Society of Planning Officials, the American Planning and Civic Association, the American Geophysical Union, the American Association for the Advancement of Science, the Association of American Geographers, and the National Academy of Sciences' National Research Council committees on cartography, geography, and a national atlas (Figure 4).



FIG. 4. Seated George E. Randall, father holding great-grandson Richard; standing left, Robert Jr.; and right Robert.

A lifelong interest in affairs of the Western Hemisphere was reflected in R. H. Randall's connection with several organizations active in surveying, mapping, and related programs in countries of that region. He organized the Commission on Cartography of the Pan American Institute of Geography and History (PAIGH, Figure 5) in 1941 and was its chairman or acting chairman for many years between its inception and 1967. He was also president of the Institute from 1950 to 1955, and honorary president from that time on. In 1946 he was instrumental in organizing the Inter-American Geodetic Survey, a cooperative mapping project between the United States and 17 Latin American republics; and in 1953 he organized the Training Center for Evaluation of Natural Resources in Brazil. He was well known in several countries for his work and was a patron of the Geographic Society of Chile and a member of the Mexican Society of Geography and Statistics and the National Institute of Geographical Investigations of Uruguay. For his services in the fields of surveying, mapping, and geography, he was honored by the Governments of Brazil and the Dominican Republic. In 1954 Brazil presented him with the *Cruzeiro do Sul*, and in 1952 the Dominica Republic bestowed on him the Order of



FIG. 5. Randall and his wife Maree on one of his PAIGH trips in Latin America.

Duarte; also in 1952, the University of Santo Domingo awarded him an honorary doctor of sciences degree.

In his many years of applying surveys and cartography to the precise details necessary for engineering and metropolitan studies, Dr. Randall also concerned himself with the broader generalities required for regional, state, national, or world studies. His appreciation of geography developed gradually as a result of observing, and participating in, a variety of planning programs at local, national, and international levels over a number of years. He came naturally to the conclusion that geography integrates the essence of a number of disciplines and applies it to a better understanding of man and his environment. In addition to his ability and experience with details in the fields of cartography and surveying, he could perceive the larger tasks inherent in them and could bring into play not only his chosen profession but also other disciplines, combining them to effect solutions to a variety of problems. It was his ability to see the total picture and his recognition that geography ought to be committed to the solution of some of the problems besetting mankind that did so much to promote an understanding of the intrinsic value of both geography and cartography in the betterment of conditions and goodwill among peoples in the Western Hemisphere and in the rest of the world.



FIG. 6. Robert Jr. and Robert (back row); seated Dulcie (Robert Jr.'s wife); Maree holding grandson David, and other grandson Richard.

While being active in mapping and surveying affairs in the Western Hemisphere, Dr. Randall also played a role in the United Nations, and in 1949 was the U.S. member and chairman of the U.N. Committee on Cartography whose work led to the establishment of the Cartographic Office in the U.N. Secretariat and the institution of regular regional cartographic meetings in various parts of the world (Figure 6).

A recognized authority in the disciplines of survey engineering and cartography, Dr. Randall also possessed knowledge in depth in the associated disciplines of engineering, planning, geography, and the humanities, which had accrued over the years while he patiently but persistently advocated their application to the purposes of mankind by the use of maps and surveys as basic intelligence for evaluation of a nation's natural resources for development in the interests of its people.

Few of us today in surveying and mapping circles can forget the tremendous influence of Dr. Robert Henry Randall in the development and improvement of surveying and mapping as we know it today, for which the surveying and mapping profession is indeed indebted.



FIG. 7. Robert H. Randall, 1950.

While he leaves a unique record of outstanding accomplishments, perhaps he will be best remembered as a principal force in the establishment of the American Congress on Surveying and Mapping, the Commission on Cartography of the Pan American Institute of Geography and History, the Surveying and Mapping Division of the American Society of Civil Engineers, and the United Nations Cartographic Office. He will be long remembered also as the first and most effective occupant of the position of Adviser on Cartography in the Bureau of the Budget, Executive Officer of the President, a position which he held for 19 years, from 1941 until his retirement from government service in 1960 (Figure 7). A few of the older generation will remember him as the organizer and head of R. H. Randall Company, an organization of geodetic and topographic engineers, specializing in city surveys from 1918 until 1933, which was noted for its high technical and ethical standards.

When he retired from federal service in 1960, Dr. Randall accepted a post as vice-president of Aero Service Corporation in charge of mapping activities in Latin America. Later he became a consultant to the Agency for International Development, in which capacity he drafted a procedures manual for the inventory of resources, now used by federal agencies active in this field.

Aero Service's Al Quinn remembers an Organization of American States Mission to Chile after the devastating earthquake of May 1960. "We were well received and flew around Chile in the President's personal aircraft. Randall was dubbed "El Mundo," a title of respect by those of us on the mission. He spoke Spanish and he knew all the top-ranking mapping people in Chile. I worked with him on preparation of our report, and later when I was Project Administrator of the four companies that performed aerial photography, mosaics, tax-maps, land-use studies, and topographic mapping—Aero Service, Fairchild, Hunting, and Geotechnical Resources—a most interesting project."

In 1963 Dr. Randall suffered the loss of his wife Maree, the mother of his three sons.

A year later in 1964 he married a close family friend, Marquerite Dinsmore Gard, his brother-in-law's widow and retired at her home in Palm Springs, California.

Dr. Randall died suddenly on August 31, 1966, at Lake Arrowhead, California, at the age of 75. Services and interment were at Inglewood Park cemetery, Inglewood, California.

Those who knew him well will remember his passion for accuracy of fact and intense fondness for subtle humor. A kind and understanding man, he possessed a sensitive quality of leadership composed of a wealth of past experience, current acuitiveness, and a farsighted vision possessed by the few. A firm believer in the importance of maps and surveys as basic intelligence, he was dedicated to improving surveying and mapping in all of its facets, and devoted to the promotion of the use of maps and surveys in the national and public interest.

His three sons, Robert H. Randall, Jr., (VSHO)(ret.), Captain William E. Randall (ESSA/NOAA)(ret.), and Dr. Richard R. Randall (DMA-US Board of Geographic Names), each followed in his father's footsteps in careers in oceanography, engineering, and geography—a fitting tribute to a man's belief in his profession.

And in conclusion R. H. (Figure 8), old Randall company men who are still alive—Edwin Windham, Randall Gherke, John McAlinolen, Walt Dix and possibly Art Sweet—together with those already passed on—George Whitmore, Clarence Elicher, Murray Poling, Ray Moore, Carl Labbe, Charley Taylor, Charles Hopkins, Wolfram Soehle, Bernard Soehle, Bill Holland, Carl Holland, H.L. Oxley, Perry DuPre, Roy Newman, W.L. Sutton, O.W. Turpin, J.A. Foley, H.B. Christie, Harry Hankinson, and others memory fails to recall—we SALUTE YOU.



FIG. 8. Robert H. Randall, 1955.