MARSHALL S. WRIGHT, JR.
Emeritus Member, ASPRS

Marshall Sheldon Wright, Sr.

Memorial Address*

Over the years I heard, "Your father got me my first job!" so many times in so many places that I became convinced that my Dad was personally responsible for recruiting the majority of those who entered into the mapping profession in the first half of the twentieth century. That is probably an exaggeration, but it was always gratifying to hear that statement and to sense these individuals' high regard for my father. He did not get me my first job, but he did attract me into this profession and he set a high standard for me and for many others to follow.

Marshall Sheldon Wright, Sr.'s career in surveying, mapping, and photogrammetry in government and the private sector covered a period of 52 years. A founder of the American Society of Photogrammetry (now the American Society for Photogrammetry and Remote Sensing — ASPRS) in 1934 he served as its fifth president. He was also a charter member of the American Congress on Surveying and Mapping (ACSM) and served as president of that organization from 1947 to 1949. He was an honorary member of both ASPRS and ACSM.

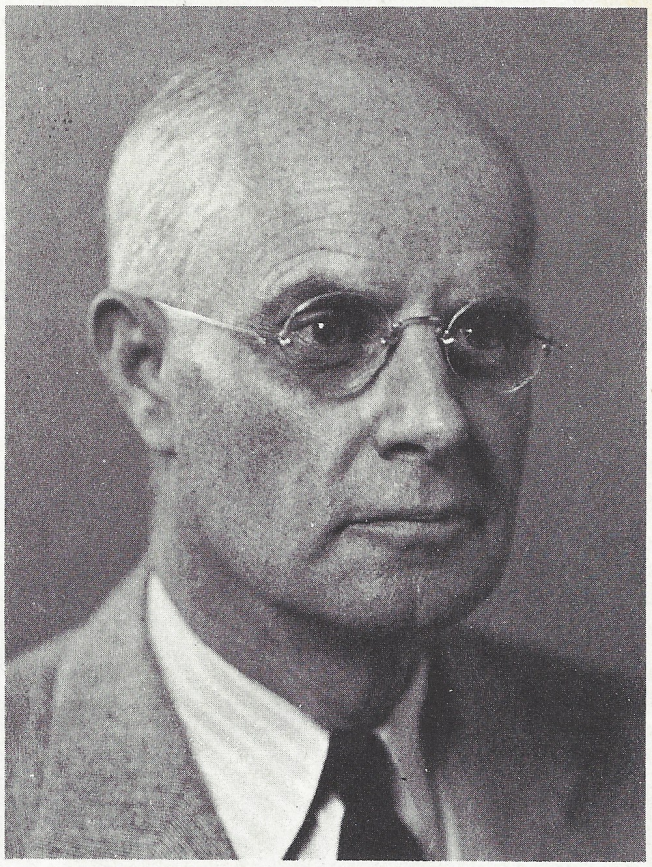


Figure 1. Lemhi Indians.



Figure 2. Marshall Wright, Sr. in early 1900s.

*Presented at the Annual Convention of the American Society for Photogrammetry and Remote Sensing, Baltimore, Maryland, 4 April 1989.



Marshall Sheldon Wright, Sr.
1890-1974

Marshall Sr. was actually born a Campbell in Toronto, Canada in 1890. His father, Mervyn Albert Campbell, died a few months after his son's birth and Marshall and his mother Ada Wright Campbell moved to Salmon, Idaho where her brother, Dr. Frank Sheldon Wright lived. Later Marshall was legally adopted by Dr. Wright and his name changed from Marshall Wright Campbell to Marshall Sheldon Wright. This seemingly uncomplicated chain of events resulted some 46 years later in a citizenship crisis that I will touch upon later in the proper chronology.

Dr. Frank Wright, in addition to conducting a private practice in Salmon, was also responsibility for the medical care of a tribe of Lemhi Indians on a nearby reservation. Marshall often accompanied his father on his calls to the reservation and, in so doing, acquired a nickname that followed him the rest of his life. These Lemhi Indians, who were unusually handsome and striking men and women (see Figure 1), respected Dr. Wright and became fond of his small son. They called Marshall "Notsamanada," which means "Little Doctor," and the nickname "Doc" persisted over the years. One of the earliest photographs I have of my father is this one of him in Indian headdress taken in the early 1900s (Figure 2).

Like most people in that time period Marshall was not a college graduate. He went through the Salmon public schools, then returned to Toronto and spent a year at the Toronto Polytechnic Institute, and later attended the Utah Agricultural College in Logan as a special student in engineering.

In 1911 Marshall met Mildred Caroline Smith, who was born in Nebraska but had moved with her family to Blackfoot, Idaho as a child. They were married in 1915 in Blackfoot and had two children. Their daughter Mildred Smith Wright now lives in Denver, Colorado with her husband, Col. George W. Childs near their three married daughters, Polly, Mary Sue and Ellin and their three grandchildren. Their son, namely me, Marshall Sheldon

Wright, Jr. married Helen Duckson and we also have three daughters, Kathy in Hermosa Beach, California; Virginia in Wilmington, North Carolina; and Elizabeth in New York City. We live in Reston, Virginia and have three grandsons and two granddaughters.

One of Marshall's first surveying assignments was in 1913 and involved making a rough drainage survey to be used in locating school lands in central Idaho. During this work he named a triangulation station "Sheldon Peak," located on the summit of a dominant mountain in the Challis National Forest several miles east of the well-known South Fork of the Salmon River (Figure 3). Over a period of time the peak and a creek flowing from it took on the name Sheldon and there is in fact a 7 1/2 minute U.S. Geological Survey quadrangle map named Sheldon Peak. Permit me to skip ahead 65 years to relate a story involving Sheldon Peak.



Figure 3. Challis National Forest.

In 1976, Bob Lyddan, then Chief of the U.S. Geological Survey's National Mapping Division and Rupe Southard, then the Associate Chief, presented me, in memory of my father, the three engraved copper plates which were used in the printing of the old Casto, Idaho 30-minute quadrangle map in 1930. Sheldon Peak appears on this map. Inspired by the gift of these plates, which are now mounted over our fireplace, Helen and I vowed to make our way to Sheldon Peak and to climb it. And we did.

In the summer of 1978 we met our oldest daughter Kathy, who cam from her home in California, and my niece Mary Sue, who cam over to Challis from Mountain Home, Idaho with her husband in their 4-wheel drive vehicle which proved to be a necessity in making the trek 32 miles from a paved road in to the base of Sheldon Peak over a very difficult jeep trail (Figure 4).

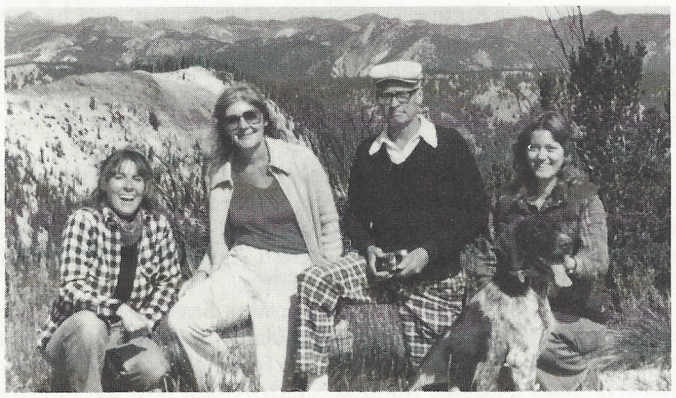


Figure 4. Challis National Forest, 65 years later.

Leaving the vehicle, we climbed up through a saddle, and then on up vertically about a thousand feet to the top of the 9278' peak. There, in a rock cairn, we left a piece of cloth, embroidered by our daughter the night before, with the dates of our climb and my father's climb some 65 years earlier. We doubt that many others have been on that peak during the intervening 65 years. Needless to say, this was a very special day to us. Now, back to my father's career.

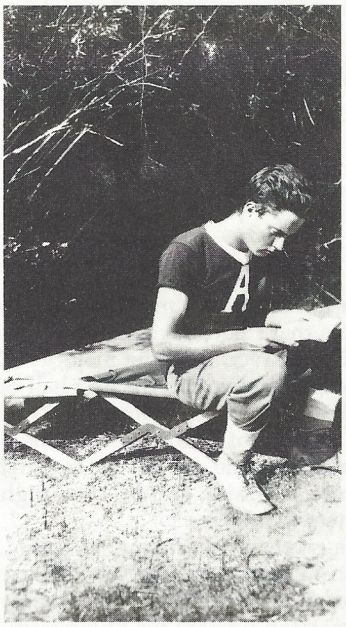


Figure 5. Working out of Boise, Idaho.

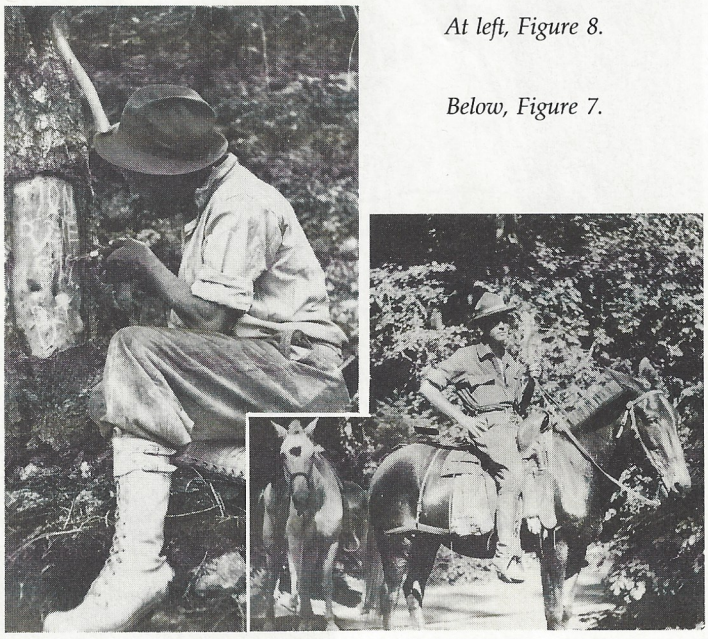


Figure 6. Performing township surveys.

Two years later, in 1915, Marshall, Sr. received his first U.S. Government Civil Service appointment as a surveyor with the General Land Office, working out of Boise, Idaho (Figure 5). He spent the next four years with the GLO (the predecessor to the present Bureau of Land Management) performing township surveys in several of the western states (Figures 6, 7, and 8). During this time Marshall and Mildred's first child, Mildred, was born in San Francisco.

At left, Figure 8.

Below, Figure 7.



An old friend and associate of Marshall's, Ed Massie (an ASPRS past president and honorary member, now living in Albuquerque with his wife Helen) recalls a story told to him by Marshall concerning this period of time. Marshall and his crew were surveying in a very rugged and rocky area and were having difficulty with their boots being literally shredded by the sharp rocks in the talus and scree slopes on which they were spending their days. Someone pointed out that Sears Roebuck sold a high quality boot which they guaranteed for six months and the crew ordered a pair each. After about a month the tattered remains were returned to Sears Roebuck and they were replaced free of charge. The story goes that after replacing that set of boots another month later, Sears called it quits and withdrew their guarantee. Fortunately, by that time the crew had moved on to more hospitable terrain.



Figure 9. Soldiers were assigned to accompany survey party.

Also, during this period, "Doc" was involved in surveying along the US-Mexico border in southern California and there were occasions when the crew "laid low" to avoid any possible conflicts with Pancho Villa's forces who were often seen in the area. In fact, the situation became so uncertain that General John (Black Jack) Pershing, who had military authority over the border area, assigned a company of soldiers to accompany the 16-man survey party. Figures 9, 10, and 11 show scenes typical of Marshall's activities during this time.



Figure 10. US-Mexican border area in southern California.

In 1919 Marshall transferred to the U.S. Forest Service in the Department of Agriculture and served as chief of the Surveying and Mapping Section in Ogden, Utah (where Marshall, Jr. was born). In 1924 he was transferred to the Division of Engineering in the Forest Service Headquarters offices in Washington, D.C. He remained there until 1929. This ten-year period, which involved both field and office work for Marshall in many parts of the United States, was an important period in his development as a dedicated professional in the surveying and mapping field.

In hindsight, 1929 was not the time to leave the security of a federal government civil service position, but everyone's hindsight is better than his foresight, and Marshall resigned from government service to join Aerotopograph Corporation of America, headquartered in Washington. Col. Claude Birdseye,

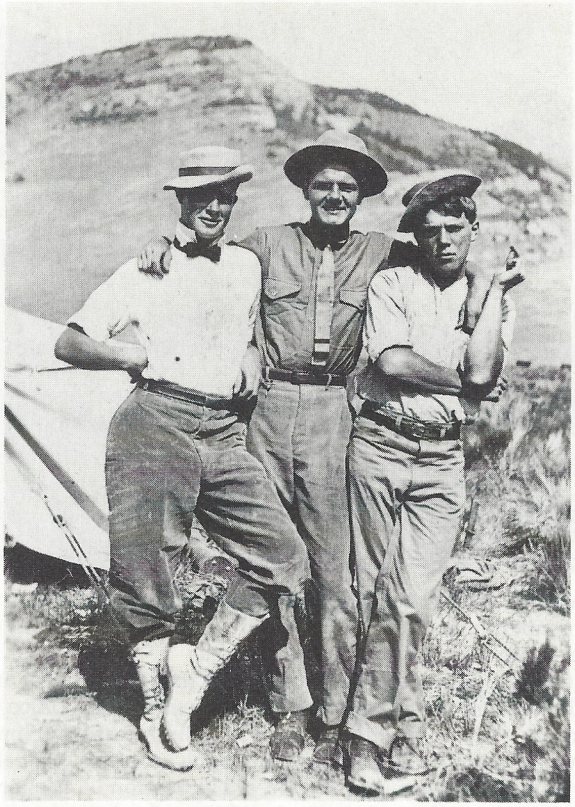


Figure 11. Marshall and two members of the survey crew.

ASPRS's first president, was president of Aerotopograph. Other well-known individuals on the Aerotopograph staff were Jack King, Heinz Gruner, Jack Ninneman, and Harry Tubis. This new company, with ties to the Zeiss organization in Germany, was going very well in 1929 and was beginning to build a national reputation as a first-class, reliable, well-staffed and equipped mapping organization. Marshall traveled extensively for the company, primarily in the highly important business of sales, getting the work which is so essential to any service organization. Secondarily, he "pitched in" on actual map production work, both in field and office activities.

Jack Ninneman, now living in Troy, Montana, recalls that in 1930 he and Marshall ran the ground control survey for the first significant aerial survey accomplished for highway location purposes in the United States. The survey covered the Locksa River canyon area through the Bitterroot Mountains in northern Idaho, extending from the Montana border to the middle fork of the Clearwater River. Jack stated that the use of Aerotopograph's surveys permitted the Idaho Highway Department to design the road two years sooner than would have been possible utilizing conventional ground methods of location.

Quoting from a 1971 paper *Aerial Surveys for Highways (A History)* by Fred W. Turner of the Federal Highway Administration: "Before World War II only one significantly large route topographic mapping project was undertaken using aerial surveys. This project comprised the mapping of a route selected by stereoscopic examination of photographic coverage through the Lochsa Rive region of Idaho, now know as the Lolo Pass Highway.... Approximately 600 miles of route alternatives were compared to select the more than 50 mile radius segment of highway route which was mapped at a scale of 500 feet per inch with a contour interval of 10 feet for a width of from 1000 to 2500 feet. This work was completed for the State of Idaho in 1930 by the Aerotopograph Corporation of America. Marshall S. Wright, Sr. was the field engineer in charge for the contracting corporation."

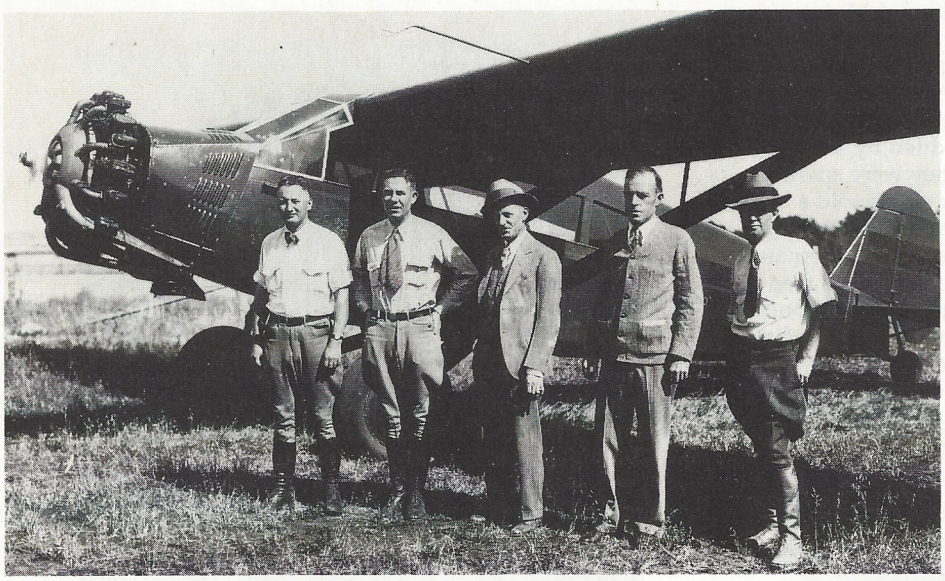


Figure 12. Left to right, Bob Johnson, Art Blomgren, J.J. McCready, J.A. Chamberlin, and Marshall Wright with aircraft used for highway aerial survey in Idaho in 1930.

Figure 12 shows Bob Johnson, Art Blomgren, J.J. McCready, J.A. Chamberlin, and Marshall Wright (left to right) in front of the photographic aircraft used on the project.

As the company grew and expanded its geographical area of operations it became apparent that a permanent sales office in the western part of the United States was desirable and preliminary plans were made for Marshall to run such an office, probably in San Francisco. However, as the Great Depression — triggered by the 1929 stock crash — deepened, public and private funding for engineering and construction virtually dried up and in 1930 the Aerotopograph Corporation was forced out of business.

I would add a parenthetical comment here which should be of interest to several of the descendants of Marshall and Mildred Wright. If there had not been the Great Depression, Marshall would have moved his family to California and I would not have met Helen, and my sister Mildred almost certainly would not have met her West Point husband, George (Chick), and therefore my parents' six grandchildren and eight great-grandchildren simply would not exist. There are, therefore, a number of us who are happy to say that the Great Depression was not all bad!

Following the demise of Aerotopograph the Wright family — mother, father, my sister and I — lived in many parts of the United States for about three years, going to wherever Marshall could find work (Figure 13). Such locations included Wellsboro, Pennsylvania; Candor, New York; Blackfoot, Idaho; and Denver, colorado where Marshall worked on a variety of mapping projects (some large, some small) for a variety of customers. A particularly interesting project involved the aerial photographic mapping of a 900-square-mile area covering the Gunnison, Holy Cross, and Grand Mesa National Forests in Colorado. The U.S. Forest Service awarded the mapping contract to the Aerial Survey Division of the Curtiss-Wright Flying Service, headquartered in New York City. The aerial photography was flown by pilot Ray Wilson and photography Noel King in a single-engine Cessna at an altitude of 23000 feet.

There are tremendous difference in relief in this area, some peaks near 14000 feet in elevation, and this resulted in aerial photo scales ranging from 800 to 2000 feet per inch, a situation which does not lend itself to routine, problem-free map compilation. After the flying work was nearly completed Curtiss-Wright hired Marshall, J.E. King (formerly with the U.S. Geological Survey), and J.W. Ninneman (formerly control engineer with Aerotopograph Corporation) to compile and finish the specified maps. It was soon discovered that the existing horizontal control net was not extensive enough to properly control the mapping work and these three men proceeded to the field to establish the additional control needed for the project. The map compilation work and final drafting was then undertaken.

Unknown to this group, the U.S. Forest Service, apprehensive as to the map accuracy attainable by aerial photographic methods in this extremely rugged area, sent several surveyors into the field to establish an accurate network of checkpoints to be used in checking the accuracy of the delivered maps. It is certainly to the credit of Wright, King, and Ninneman that these check surveys showed the maps to be well within the specified accuracies. It should be pointed out here that, under the terms of the arrangement with Curtiss-Wright, if the maps had *not* checked out, these men would have been paid *nothing* for their efforts.

(This project is described in more detail in an article by Marshall which appeared in the July-August 1933 issue of *The Military Engineer* and in an article by Ed Massie which appeared in the October-November-December 1940 issue of *Photogrammetric Engineering*.)

I would like to add another personal note here. This period of time 1930-1934, must have been a very difficult period for my parents, traveling all over the country from job to job (and wondering what the next job would be and where and when) and keeping us children in school; and I want to say, and my sister concurs in this, that I have no recollection whatever of any feeling of stress or anxiety coming from the. It was all a great adventure to us, a time of change and excitement. From the perspective that comes with time and having children myself, I am not at all sure that I could have put up such a good front and protected my children from fear and uncertainty as well as my parents did.

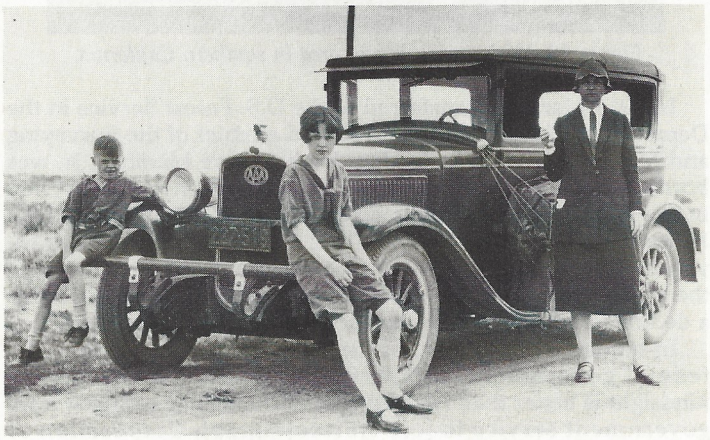


Figure 13. The Marshall Wright, Sr. family on the road.

This turbulent chapter in Marshall's career ended in 1933 when, at the age of 43, he was fortunate in being able to obtain a reappointment with the U.S. Forest Service in Denver, and he became involved with surveys of national forests in Colorado, Wyoming, Kentucky, West Virginia, and Vermont. Ed Massie recalls that Marshall obtained permission to perform some of these surveys by photogrammetric methods and he had field crews place large lime circles on the ground, prior to the accomplishment of the aerial photography, to permit precise identification of control points on the photographs. Ed is of the opinion that this was the first time targeted control points were ever used.

Marshall and his family moved back to the Washington area in 1934 and it was there on July 29 of that year that he and eleven other pioneers in the field of photogrammetry sat around a table in Scott Reading's home and founded the American Society of Photogrammetry. The twelve were: Marshall, R.K. Bean, C.H. Birdseye, W.N. Brown, J.L. Buckmaster, C.W. Collier, C.H. Davey, L.T. Eliel, H. Gruner, W.T. McKinley, J.W. Ninneman, and O.S. Reading. Three of those founders are still living: Buckmaster, Gruner, and Ninneman.

In 1936 Marshall left the Forest Service and was reassigned to the Division of Cartography of the Soil Conservation Service and then a year later was moved up to the Office of Land Use Coordination in the Office of the Secretary of Agriculture. It was during this period that the citizenship problem I mentioned earlier raised its head and nearly prevented him from representing his office at the International Society of Photogrammetry Congress in Rome, Italy in 1938. Marshall applied for a passport to attend this meeting and the State Department rejected the application on the grounds that there is no statute transferring citizenship by adoption, which Marshall had always believed to be the means by which he became a U.S. citizen. The State Department maintained that he was still a Canadian citizen and therefore ineligible to receive a U.S. passport. After a frantic period of telephoning, corresponding, searching of records in Salmon, Idaho and obtaining affidavits, it was determined that Marshall had actually become a U.S. citizen through his mother's marriage to a US citizen in Salmon, *prior* to the adoption. This determination was accepted by the State Department, and a passport was issued hours before his and my mother's departure for Italy.

War clouds were hanging over Europe at this time and, on a side trip through Austria and Germany, Marshall took this photograph (Figure 14) of Hitler's troops moving into Czechoslovakia. They were relieved to return safely to the United States as the situation in Europe was worsening with each day and traveling in some areas was becoming difficult and uncertain.

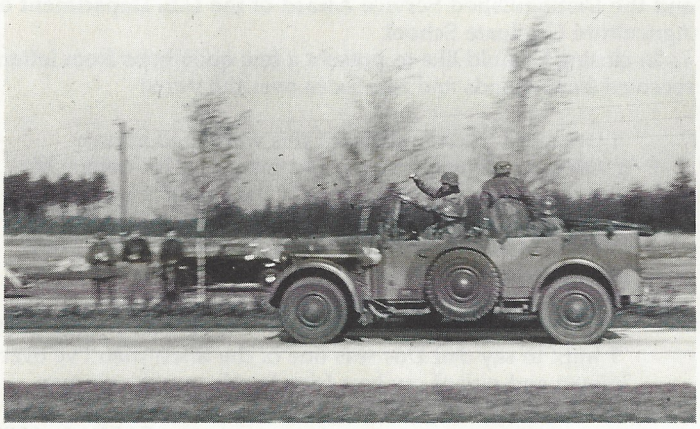


Figure 14. Hitler's troops moving into Czechoslovakia.

During the 1939-1941 period Marshall served on the Technical Advisory Board in the Secretary's office and then for the last eleven years of his federal service he served as assistant to the Director of the Office of Plant and Operation, also in the Agriculture Secretary's office. In this position he was responsible for coordinating all aerial photographic operations and all topographic, planimetric, cadastral, and photogrammetric surveys within the Department of Agriculture. He also served as the departmental member of the U.S. Board on Geographic Names was the survey and mapping technical liaison officer with the Bureau of the Budget. He retired from federal service on 30 June 1953 at the age of 63.

Marshall was not, however, of a mind to really "hang it up" at that tender age and, after six months of relaxation, traveling, visiting children and grandchildren, and catching up on household projects, he accepted a position as vice-president of Transmares corporation located in New Jersey, the sole representative of Zeiss-Aerotopograph of Munich, Germany (now, simply Zeiss). This led to a long and cordial relationship with Adam T. Schildge, the president of Transmares, now living in Middletown, New Jersey, and also reunited, in a business sense, Marshall and his old friend Dr. E. O. Messter of Zeiss. (Another personal aside: in 1945 I was with the Third Army in Germany and, shortly after the war ended I visited with Dr. Messter in a small, badly damaged building surrounded by city-blocks of bombed-out rubble. He was beginning the tremendous task of reconstructing the Zeiss photogrammetric instrument company. At about the same time my unit was successful in sending a 2 1/2 ton truck to Jena and bringing Heinz Gruner, his family and his books, papers and other belongings to the U.S. sector just ahead of the Russian occupation of Jena.)

Marshall and Mildred in Argentina in 1948.



Figure 16. During a PAIGH meeting in Argentina.

Marshall and Mildred enjoyed these "retirement years" representing Transmares and Zeiss and they were years filled with many plus and very few minuses. They had always liked to travel and the Zeiss representation took them to many ASPRS/ACSM annual and fall conventions throughout the United States, and to many international ISPRS and FIG congresses in such foreign areas as Lisbon, Stockholm, Paris, and London. This travel complemented earlier extensive travel, usually in the Western Hemisphere, in connection with the Federal government. As the Department of Agriculture's representative to the Pan American Institute of Geography and History (PAIGH) he and Mildred attended a number of annual meetings in such places as Rio de Janiero, Caracas, and Buenos Aires in the later 1940s and early 1950s.

One of their most eventful meetings was the one held in Argentina in 1948 where the delegation was greeted by General Juan Peron and Evita and they were flown on government aircraft to Bariloche for an "R & R" during the Congress! Figures 15 and

16 were taken in 1948 in Argentina and Figure 17 was taken in Rio in 1949.

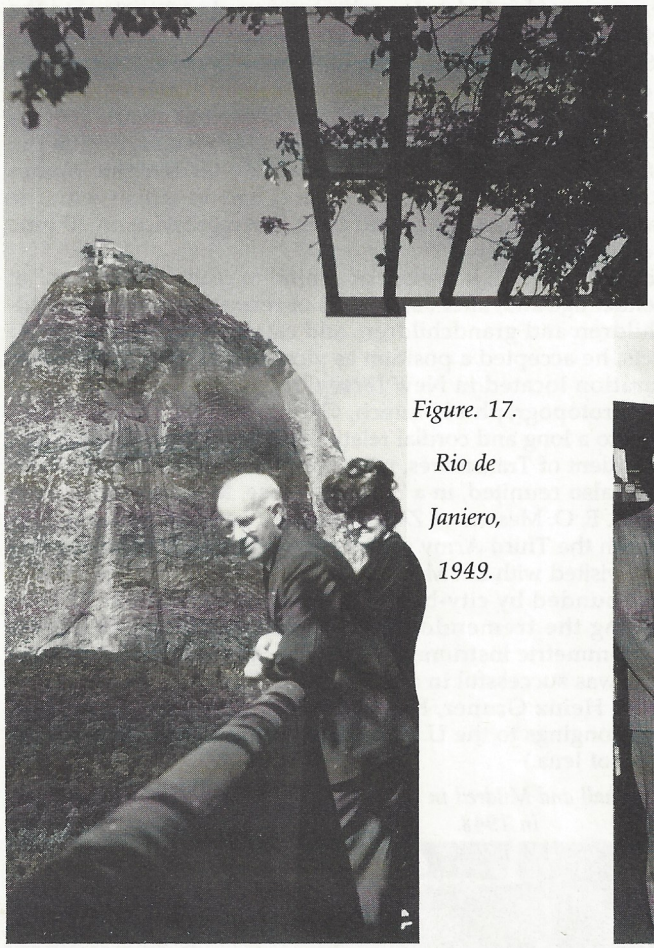


Figure. 17. Rio de Janiero, 1949.

Marshall retired (again) from Transmares in 1965 at the age of 75. He and Mildred lived in the northern Virginia area, keeping busy with gardening, woodworking, photography, and visiting children and grandchildren (Figure 18).



Figure 18. Marshall and Mildred enjoying his second "retirement."

In 1971 Mildred died as the result of an automobile accident which also seriously injured Marshall. From that time on, he divided his time between his daughter's home in Laurel, Delaware and our home in Huntington, New York.

His last official involvement with the Society he helped to found took place in September 1973 when he participated in a ceremony dedicating a memorial plaque which was later placed on the south rim of the Grand Canyon opposite Claude Birdseye Point, honoring the first president of the Society. That ceremony is depicted in Figure 19 which shows the plaque and eight past presidents: Carper Tewinkel, Marshall Wright, Jr., Gomer McNeil, Marshall Wright, Sr., Joe Burns, Bill Radlinski, Heinz Gruner, and Fred Doyle.



Dedication of memorial plaque in 1973.

He died of pancreatic cancer in Huntington, New York on 1 July 1974. One of his last outings was to attend a North Atlantic Region ASP meeting, hosted by past ASPRS president Ken Reynolds at the Wild Heerbrugg plant on Long Island.

In addition to being a past president and honorary member of both ASPRS and ACSM, other honors and awards accorded him included listing in *Who's Who in America,* 1952-53 Edition, election to the Cosmos Club, election as a Fellow Member of the American Association for the Advancement of Science, and receipt of the Department of Agriculture Superior Service Award and the Distinguished Service Award of the U.S. Department of Agriculture Graduate School.

In closing I would like to present a few quotations from letters received from friends and associates over the years:

> "I treasured the friendship of this warm and urbane gentleman, for many years, encompassing his unique service, successively as President of the American Society of Photogrammetry and the American Congress on Surveying and Mapping. Marshall was indeed one of our distinguished pioneers."
>
> — *Harry Tubis,* 1989

> "I want to say that Doc was one of the finest men I've ever known and one of my best friends. Also a staunch mentor."
>
> — *Ed Massie,* 1988

"Forest Service regions have always welcomed the visits of Doc Wright. I speak from experience as well as hearsay from my former ARF contemporaries in other regions. Neither we nor our cartographic chiefs experienced misgivings when Doc was looking around. He never failed to stimulate, inspire, and improve the morale of the gang."

— *A. P. (Tony) Dean*, 1953

"Your quiet and unassuming ways, your esteem of friendship, and your fairness, have been a goal which I have tried to imitate from the very beginning when you were my 'boss' in the old Atlantic Building."

— *Salvatore (Sam) LoJacono*, 1953

"I always admired your keen and thorough manner, your knowledge and good judgment in our work. I also admired your sense of fair play, justice, and your level-headed decisions in times when they were needed."

— *Frank Washburn*, 1953

"I often think how fortunate I was that day in 1920 when I first reported to you in Ogden.... Truly you have carved a secure place for yourself in the minds and hearts of many men and have left an indelible mark on those government agencies of which you were a part."

— *C.D. (Don) Jackson*, 1953

"You are to be congratulated upon the excellent record you have maintained throughout your career and I wish to take this opportunity to express appreciation on behalf of the Department and myself for your many years of loyal service."

— *Ezra Taft Benson*, 1953

[From a fourteen-year old granddaughter's letter:]

"I want you to know that you are one of the strongest, most unselfish people I know."

[And from a twelve-year old granddaughter's school paper:]

"My grandfather is a distinguished person. He is a pioneer in aerial photography and aerial mapping....
He is funny too. When we visit him, he is always telling us funny stories and playing jokes on us. He acts out all of his stories.... My grandfather is a very enjoyable person to know."

For valuable assistance in preparing this address I wish to thank Ed Massie, Jack Ninneman, Harry Tubis, my sister Mildred Childs, and especially my wife Helen for her genealogical research, remembrances, editing, and typing.



Colvo with Charles Andregg, Chairman of Bylaws Committee and Outgoing Director of the Florida Region receiving the special plaque for service on the Executive Committee and Board of Directors.



Jean Engel with Bill French celebrating 20-years of service.