

Photogrammetric Pioneers

Mark Hurd Aerial Surveys, Inc.

JOSEPH P. BURNS, FORMERLY VICE PRESIDENT
MARK HURD AERIAL SURVEYS, INC.

MARK HURD AERIAL SURVEYS, INC., which grew to a 25-plotter, 125-person operation in the 1960's, began in a small Minneapolis shop fifty years ago. Mark M. Hurd, a World War I fighter pilot, during the 1930's designed and produced a simple, rugged aerial camera which became widely known for its reliability and ease of maintenance.

In this camera, the film was held flat by air pressure rather than by vacuum; air was scooped up by the motion of the plane and led through a tube into the camera chamber, eliminating any chance of vacuum failure, a common plague in those days.

Mark Hurd served in the Army Air Corps again in World War II before returning to Minneapolis, where he invited Raymond H. Miller and Allan C. Bock, a pilot-photographer team, to join him in forming Mark Hurd Mapping Company. A rousing success "from day one," the company rapidly expanded to a six-crew operation that successfully photographed huge blocks of the United States for the Army Map Service, Michael Baker, Jr., Inc., Alster & Associates, and others.

Using simple navigational devices and automatic camera mounts developed by Miller, Hurd crews flew unpressurized P-38 Lightnings (a World War II reconnaissance plane), using heated flying suits and oxygen masks at altitudes to 36,000 feet.

In 1954, the company expanded into topographic mapping under the direction of Joseph P. Burns, a civil engineer and photogrammetrist, previously employed by the Geological Survey. The topographic operation successfully completed highway

maps in Ethiopia, Tanzania, Bolivia, Chile, and other Latin American countries, as sub-contractors to several large engineering firms. In 1960, Hurd surveyors pushed a 70-mile line through heavy woods in mapping and staking the Sunshine-Summit sector of the Anchorage-Fairbanks highway in Alaska.

In 1968, Ray Miller, pilot, mechanical engineer, and regarded by many as a mechanical genius, conceived the idea of building an aerial camera in the access door of the Lear jet, a small, fast-climbing business jet that could attain 44,000 feet in twenty minutes and proceed along flight lines at 550 miles per hour. This brilliant concept led the company into another prosperous era; for the past ten years it has photographed large parts of the United States and foreign areas at high altitude.

Since 1974 the company has been wholly owned by Dieter Stroeh, a former German lawyer with varied business interests, who resides in Greenwich, Connecticut and directs the company through periodic visits to Minneapolis. In recent years, company interests have shifted toward digital mapping.

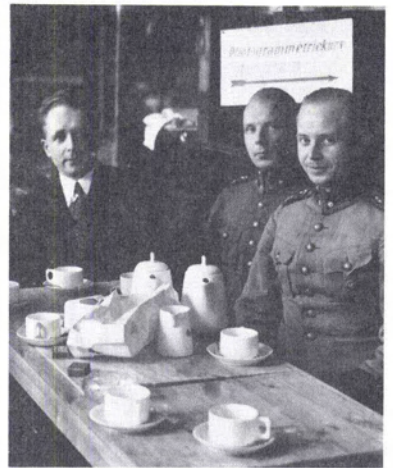
Joe Burns (1971-72) and Allan Bock (1982-83), formerly Vice President and President of Mark Hurd, have served as ASP presidents; each also was formerly a member of the Board of Directors. The firm has been a Sustaining Member of ASP for over 30 years and, at the peak of foreign activity in the Sixties, supplied interesting covers for the Journal and speakers for many Society meetings.



Margaret Mace Kingman in 1936, then Instructor in aerocartography and airphoto interpretation, Smith College, Northampton, MA. "This photo was to give the illusion I could handle that Fairchild camera for obliques!"



Dr. Gerhard Lehmann of Hannover, Federal Republic of Germany.



Karl G. Löfström in the center of the photo taken at a very decisive meeting of the Airphoto Service of the Field Artillery of Finland in Helsinki in October, 1932. Under discussion was the use of the NENON-CAMERA, named for its inventor and built by Zeiss, Jena. In Löfström's own words, "without the NENON-CAMERA for our photo map production to be used for fire control of guns and other heavy equipment, the Finnish Defence Forces hardly could have resisted the Eastern attacks in 1939 and 1941 as efficiently as we did."



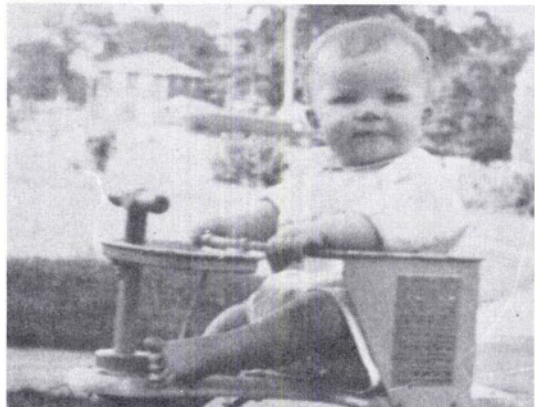
Hugh B. "Red" Loving, with his dog Lindy, circa 1932. Always interested in flying and gadgets, he along with a friend, Frank Adkins, built his first plane in the summer of 1934. Unfortunately, or perhaps fortunately, it never got off the ground, not even out of the basement. You guessed it—too big to go through the door!



Rex R. McHail. "On Sunday, 29 July, 1934, while the founders of our Society were busy arranging the destinies of many of us, I was at a McHail-Robinson family reunion and picnic at Idlewild Park near Ligonier, Pennsylvania. My twin sister, Fay, and I played all the games and rides, shot the moving targets, caught the brass ring, watched the fireworks, ate all kinds of suitable picnic food, and immortalized the day by having our photo make in the three-for-a-quarter photo booth."



Arthur J. McNair in June, 1934, his Senior Class Picture. That fall he started graduate studies and teaching surveying and photogrammetry.



Robert B. McEwen—Birthday Boy! On the very day, July 29, 1934, ASP was born in Washington, DC, Bob McEwen was busy being born in Fall River, Mass.