

# Photogrammetric Pioneers

## J. Victor Dallin

AT THE END of World War I, thousands of British, Canadian, and United States flyers, who had trained and served in Great Britain and France, were repatriated, mostly in the summer of 1919. Some thought of a career in commercial aviation, which was then in its infancy. One of these war-trained flyers was J. Victor Dallin.

Dallin ferried Fokker D VII's to Canada and the United States, and then engaged in flying exhibitions and carrying passengers. At the conclusion of the smaller Ontario fairs he flew a JN4C to Philadelphia for delivery to Aero Service Corp. There he became Chief Pilot and Secretary of the Company. The business was mainly carrying passengers on weekend flights. At \$10.00 per head there was not much profit, so Dallin proposed adding aerial photography to the services available.

The company then started photographing industrial plants, country estates, golf courses, etc. The New York Times and the Philadelphia Public Ledger frequently used photos of general interest in their "rotogravure" sections. Various magazines and manufacturers of picture postcards did the same.

The Aero Service photographic crews started out with 4- by 5-inch plate cameras and later went to 5- by 7-inch and eventually to 8- by 10-inch cameras. The plates were manufactured by Ilford, with a panchromatic emulsion.

Piloting from the rear seat, with the photographer in the front cockpit, without means of communication between them except signs, shouting, nodding the head, and hand signals, represented a challenge in coordination. The pilot was strapped into a seat, but the cameraman was not, and despite air bumps, high slipstream, and often bitter cold, they never lost a camera or photographer overboard.

The aircraft of the time were biplanes, resulting in restricted access for positioning cameras. The camera was oriented backwards to avoid including wires and lower wing in the photograph. The view forward was even more restricted, because of the propeller and part of the fuselage. With a plate-type camera, it was necessary to return the protective slide to avoid double exposure. Due to tension of the operator, double exposures did occasionally occur, especially when the plane was flying over a congested area, with high church steeples! *Airsickness*, it was discovered, also contributed to double exposures. One day, Syd Bonnick, the photographer, admitted that he had failed to take his precautionary "Mother Sills Remedy" prior to flight. Result: Double exposures!

Winters in Philadelphia were not conducive to good operations in an open cockpit plane, so Dallin

proposed a move to Atlanta, Georgia for the winter, the Board of Directors approved. Little did they know that, because of burning soft coal, the 'smog' conditions were worse in Georgia than in Philadelphia. But, on the whole, it was an improved operation, so they based at a small field, just large enough for take-off. This was the same location where the most modern air terminal of Atlanta now exists.

Newspapers of those years requested aerial views for publication, such as the "KKK Palace" and Stone Mountain. In our usual two-hour flight area there were no other safe landing places. I recall we flew up and down Peachtree Street looking for the KKK Palace. Finally, at a very low altitude, we photographed a large white house, which proved to be the headquarters of that organization. Stone Mountain was different—a monolithic granite landmark, it was easy to find. The air was always bumpy, because of eddies around the mountain. It was hazardous, but "thrilling" to the photographer, who was unstrapped in his seat.

After four years of pioneering with Aero Service Corp., in Philadelphia and Atlanta, Dallin decided to resign and operate independently. When he had enough orders, he asked Captain James Suydam to come over from New York City to do the photography. His first job was to photograph both of the Reading Railroad company terminals in Camden, New Jersey.



FIG. 1. Staff of Dallin Aerial Surveys Co., Philadelphia, with their aircraft and cameras. From left: J. Victor Dallin, owner and pilot; Edgar Stephan, mapping engineer; Arthur Erb, photographer; Fred Innes, photographer. Aircraft is a Fairchild FC-2. Cameras are modified Eastman "Folmer-Schwing" models. Date of photograph: 25 September 1919. (Photo #70.200 G-124, Eleutherian Mills Historical Library, Greenville, Delaware.)



Most of the processing was done in the basement lab at night. Dallin photographed the area for a replacement for the Aronomink Golf Club, and took pictures for real estate operators, sporting events, large fires, and ship launchings. He photographed the launching of the *USS Saratoga* on speculation and sold the pictures to both the New York Times and the Philadelphia Public Ledger. A display enlargement was ordered out of a window because it showed the deck landing area, which was "classified."

Several years later, a Mr. Lewis Barringer was interested in photographing hundreds of oval-shaped craters, presumably caused by meteors, in South Carolina and in Arizona. He commissioned Dallin to do the flying and photography.

In 1927 and for several years after, Dallin operated in Cuba in the winter. For the Department of Public Works, his crew photographed an area from Havana to Santiago, including the Isle of Pines.

They also mapped the Icacos Peninsula for Irene DuPont and took many photos of Morro Castle and other historic places. They photographed Havana from 14,000 feet and assembled the map in Philadelphia. (Figure 1.)

To avoid the danger of taking oblique photos at low altitudes, Dallin's group developed a 7- by 9-inch camera of 40-inch focal length. The result was safer operations and less distortion. Aero Service made the first aerial map of Philadelphia in the mid-20's.

When the Dallin Aerial Surveys Co. finally closed its doors in 1939, on the eve of World War II, three of the staff members joined the Armed Forces for the duration. Many years later, Dallin's entire collection was turned over to the (DuPont) Eleutherian Mills-Hagley Museum Foundation at Greenville, Wilmington, Delaware, where they are included in the Pictorial Collections, in the care of Mr. Daniel T. Muir, Curator.



Alexander Gluck. In 1934, we used to work and not just throw snapshots from the air. It was the start and from that time on we advanced and advanced and advanced.



Herbert E. Haymaker in 1934 was with the California Air National Guard, 115th Obs. Squad, Los Angeles, California.



Lloyd Herd, in the summer of 1934.



Lawrence P. Jacobs, in 1934 or 35, "starting at the top," Signal Corps training, ROTC, Georgia Tech.



Elmore Kerkela, in February, 1934, as Compassman on timber survey crew in Quetico-Superior, National Forest, north of Ely, Minnesota.