“Gardenville” was the Bell Aircraft facility where the first Bell helicopter was built and tested, first in ground runs and then in flight. When I joined Bell Helicopter in 1972, some of the handful of engineers assigned to Bell’s Gardenville were still there, among them Bart Kelley, who had become the Vice President of Engineering. To them, it was a near-mythic place.

In 1928, young Arthur M. Young decided to invent the helicopter. He progressed from research in libraries to experimenting with small models powered by rubber bands and electric motors. He eventually realized that some inherent stability was essential for a successful helicopter and focused his experimentation on that goal. His solution was the stabilizer bar (implemented on the model with a flywheel that also provided remote-control capability). By 1941, he was demonstrating the stability and precision of control of his final model by flying in and out of his barn and landing on a designated spot.

Young’s achievement was brought to the attention of Larry Bell, who had founded Bell Aircraft just a few years earlier (1935) in Buffalo, New York. Bell was very impressed by the demonstration he received and in late 1941 signed a contract with Young to build two full-size helicopters based on the flying model, using Bell’s facilities. Young’s assistant, Bartram Kelley, accompanied him to Buffalo. The Bell engineering department, however, was preoccupied with existing airplane development and production, now that war had been declared. What’s more, Art’s approach to design, fabrication, and test was more like that of the Wright Brothers than the formal procedures of an airplane factory.

Young and Kelley therefore made arrangements to set up an offsite facility where formal drawings, manufacturing documentation, rigid production control and procurement procedures, etc., were unnecessary. (This short-cut approach predated the now famous Lockheed “Skonkworks” by a year.) The venue was a former car dealership and garage in Cheektowaga, New York for the design, fabrication, assembly and flight test of the first Bell helicopters. Ground run and tethered flights were accomplished in the parking area in the rear of the building; the meadow beyond was used for flight tests.

Arthur Young, Bart Kelley, and a small contingent of Bell Aircraft employees utilized the former Union Garage in Cheektowaga, New York for the design, fabrication, assembly and flight test of the first Bell helicopters. Ground run and tethered flights were accomplished in the parking area in the rear of the building; the meadow beyond was used for flight tests.

The interior of the facility was divided into five parts: a small office space; the machine shop and assembly area, which occupied about half the building; a wood shop for making rotor blades; and a drafting room, later referred to as the “paper shop,” and a model shop in what had been the new-car display room.

In only six months, this small group created the first Model 30 and began tethered hover tests, flown by Art Young himself, in the parking area behind the garage. Six months after that, on June 26, 1943, Bell test pilot Floyd Carlson took Lady Genevieve, as it had been named, on its maiden flight around the adjacent meadow. By July, she was being flown at over 70 miles per hour (112 km/hr). In September, Carlson, now flying from a nearby airport, had begun to teach himself how to autorotate, gliding down without power and making a power-off landing.

The second helicopter was flown in late September 1943; one of the first passengers was Larry Bell. A series of public demonstrations followed, including the first flight in the western hemisphere inside a building, the Buffalo Armory, on May 10, 1944 and a flight demonstration at Buffalo’s Civil Stadium on July 4, 1944, where Carlson hovered the front wheel of a Model 30.
Gardenville was named as the third location to be recognized as an AHS Vertical Flight Heritage Site. The original building at the corner of Union and Losson Roads in Cheektowaga has long since been replaced by a Rite-Aid Pharmacy. Benderson Development Corporation, which owns the surrounding property, has been very supportive of this commemorative effort and agreed to the placement of the large bronze plaque at the site.

The formal unveiling and dedication of the memorial plaque will be held on June 24, 2015 at the Niagara Aerospace Museum, which is located close to the original Bell plant at Niagara Falls Airport. The following morning, the plaque will be erected at the “Gardenville Site” in Cheektowaga, New York, with local and state officials participating in the ceremony. The dedication will be 70 years to the day after the work of the Gardenville facility was completed, having been instrumental in evolving Art Young’s successful toy into a practical helicopter for a myriad of uses.

About the Author

Tommy Thomason is a former aerospace executive with Bell Helicopter and Sikorsky Aircraft. In retirement, he writes books and monographs on U.S. Navy carrier-based aircraft history. (All photos by Bell Helicopter via Tracy Rozelle/Paul Fardink.)

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