

## Background on "Gardenville" Historic Site

### **Significant Persons:**

- Arthur M. Young, Inventor and patent holder
- Bartram Kelley, Art Young's assistant and future senior vice president, Bell Helicopter Textron, Inc
- Floyd Carlson, Bell test pilot and first to fly, untethered, the first Bell helicopter

### **Dates of Significance:**

- 29 December 1942: Inventor Art Young makes the first tethered hops in the Model 30
- 26 June 1943: Bell Test Pilot Floyd Carlson makes the first untethered hover in the Model 30
- 10 May 1944: First indoor helicopter flight demonstration in the Western Hemisphere, Buffalo Armory
- 15 January 1945: Floyd Carlson ferries a doctor to the aid of a Bell test pilot who was injured as a result of an emergency bail out and snowbound in a farmhouse.
- 14 March 1945: Floyd Carlson rescues two fishermen from a crumbling ice flow in Lake Erie.
- 25 April 1945: First flight of the third Model 30, with improvements and features that presaged the production helicopter, the Model 47

**Design/Construction:** The Bell Model 30 was created by a small group of people, no more than 32 at one time, by scaling up Art Young's successful model helicopter that he had successfully flown by remote control. The design of pilot's flight controls was one feature that was not proven by the model and had to be created by the Bell team. The resulting helicopter flown only six months after the team began work at Gardenville (actually located in Cheektowaga, New York) and a follow-on production helicopter, the Model 47, was certified and in production less than four years from the establishment of the Gardenville facility.

**Information Potential:** Although "Gardenville" is well known at Bell Helicopter as the birthplace of the Bell helicopter and justly famous among a small group of aviation historians, over time the number of people who know where it was has dwindled to a handful. Like Camelot, it is in danger of becoming a legend of no certain physical location.

### **11. Detail Summary of Site Significance**

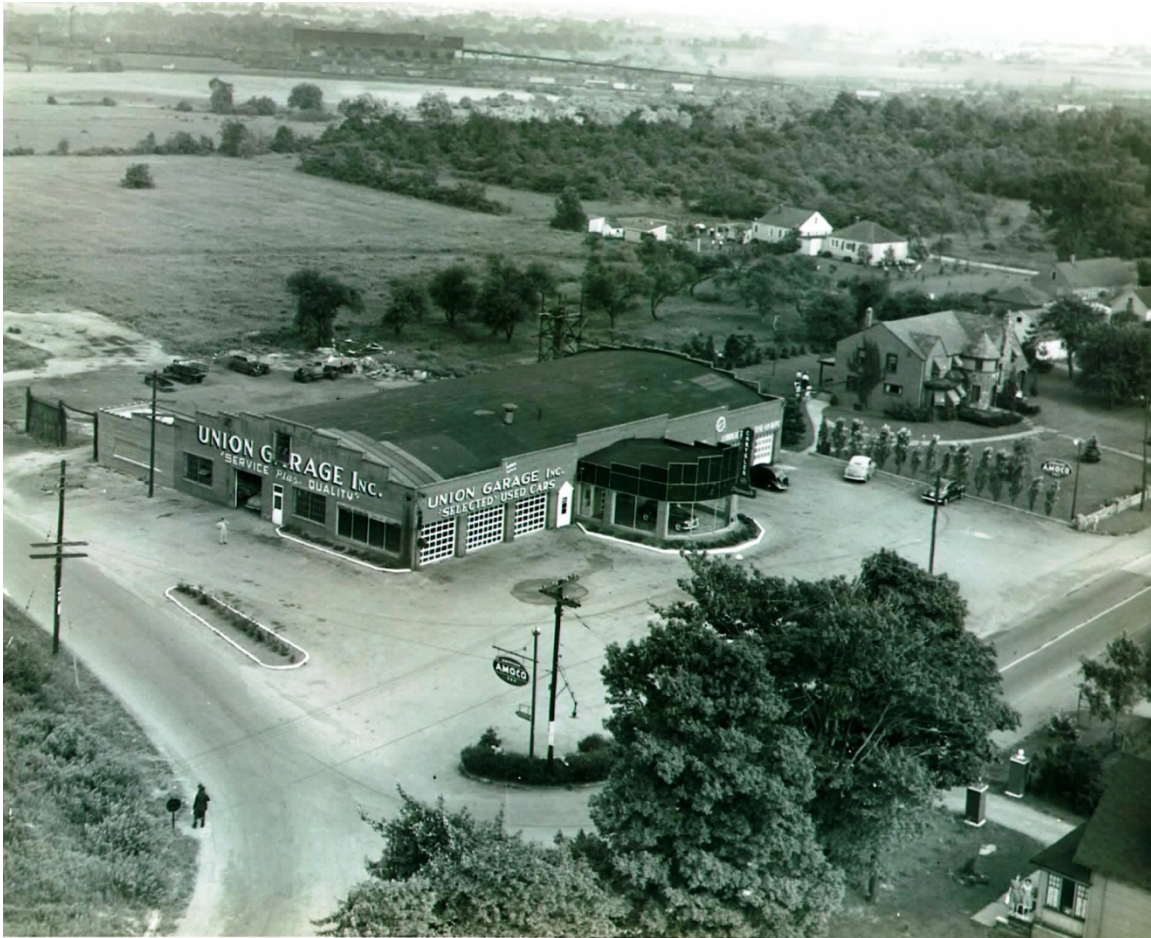
In 1928, young Arthur M. Young decided to invent a helicopter. He progressed from research in libraries to the experimentation with small models powered by rubber bands and electric motors. He eventually realized that some inherent stability was essential for a successful helicopter and focused his experimentation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

His successful demonstration was brought to the attention of Larry Bell, the founder of Bell Aircraft located in Buffalo, New York. Bell was very impressed by the demonstration and contracted with Young in 1941 to build two full-size helicopters based on the flying model and six times bigger. The Bell engineering department, however, was preoccupied with the development and production of airplanes and Young and his assistant Bartram Kelley, who had helped him with his model work as a boy, were not experienced enough with formal engineering design to guide them in any event.

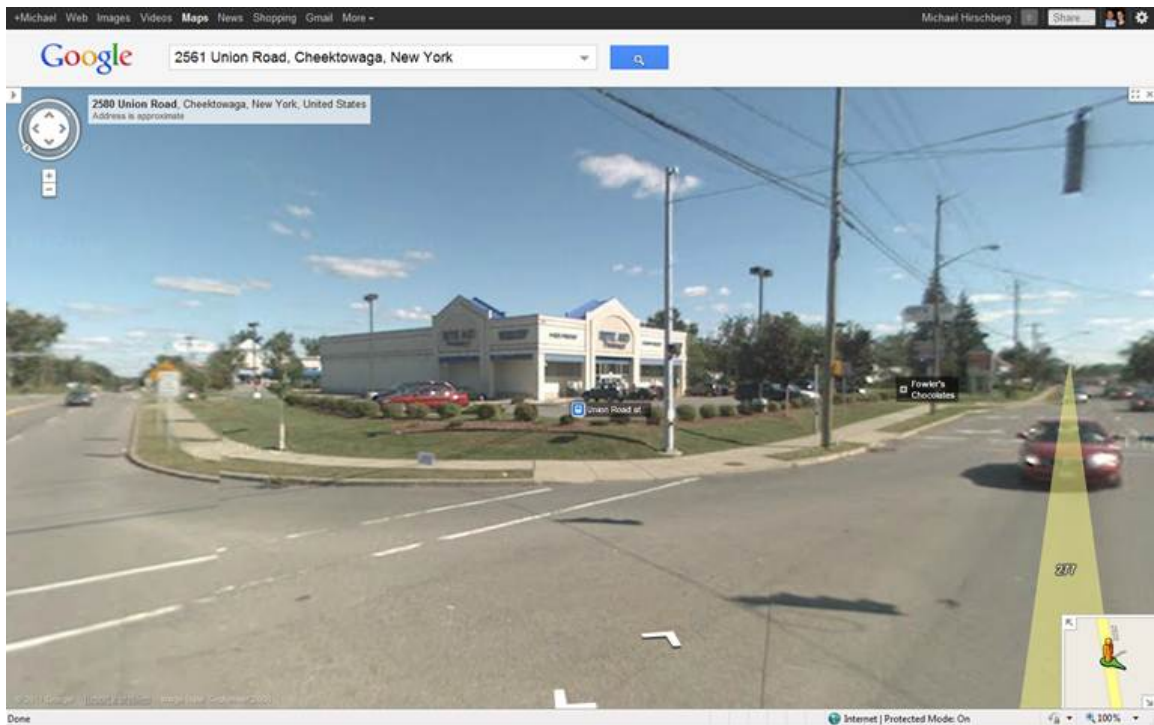




2561 Union Road, Cheektowaga, New York



Bell Aircraft Corporation - Gardenville, New York - Aerial View of the Bell Helicopter Development Facility in 1940 - Birth place of the Bell Model 30 & 47  
Union Garage, 1940 at Union Road and Losson Road



Present Day, Union Road and Losson Road



Floyd Carlson and Art Young demonstrating controllability



Rollout of the newly covered and painted Model 30



Flight Demonstration inside the Buffalo Armory



A Work in Progress, March 1944: Floyd Carlson at the controls with Art Young to his immediate right peering over his shoulder