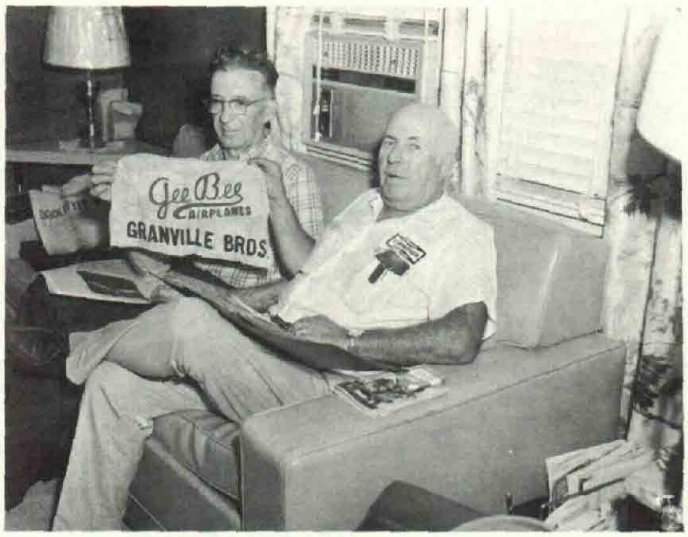
The GEE BEE Story

By Thomas Granville
As Told To Bill Sweet

PART I



Author Bill Sweet (right) looks over mementos of the glory days with Tom Granville. They are holding the name patch from an old pair of coveralls worn by the GEE-BEE employees while building the famous aircraft.

RETIRED FROM ACTIVE, productive life and with a heart condition in my September years, I often sit and remember the many happy and few unhappy events in my life. My thoughts keep running back to that memorable night of May 3, 1929 — the night my oldest brother, Zantford D. Granville, known to everyone around the Boston Airport and New England area as "Granny," flew the first of a line of aircraft that would later become world famous, the GEE BEE.

However, before I tell you about that first flight and first airplane, I would like to explain a few details as to why and how it all came about.

Zantford had always been an inventor. As a youngster back on the farm in Madison, N. H. where we were all born and raised he designed and built a very novel gas-engine powered water-well-windlass, a height adjustable gate to the barn yard (to eliminate shoveling snow), an adding machine and a wooden bi-cycle on which Granny and I learned to ride. Strange as it may seem, Granny was always "terrified" of height. Climbing on top of our barn just scared the life from him and he was numb with fear for several days.

He always wanted to fly but thought his natural born fear of height would be unbearable. However, he grabbed the first opportunity to fly that came his way — in an old Curtiss Flying Boat at Revere Beach, Mass. Climbing from the aged aircraft, you never saw a happier young man of twenty. Granny had learned that the height hadn't bothered him at all; from that time on his heart and soul were on flying.

Granny later ran a garage, "The Economy Shop," at 938 Mass. Avenue in Arlington, Mass. and in 1922 talked me into coming to work for him. In 1925 he took a job with the Boston Airport Corporation long enough to pay for a 10-hour flying course. He soloed following three-hours of flight instruction and flew the remaining seven hours with B. F. Billings in advanced training.

Two years later (1927), Granny took a full time job with the Boston Airport Corp. leaving me behind to operate his garage.

Granny made out for several months until he got into an argument with his boss and was fired. For a few days he hung around the garage driving me nuts with his restlessness, not knowing what to do with himself, but finally decided to go into business for himself, this time repairing airplanes. He bought an old, tired, seven-passenger car and built a truck body on its frame with an adjustable roof and equipped its interior with a work bench, tools, welding outfit, aircraft dope, fabric, nails, sitka spruce, etc. Granny's headquarters were located on the Boston Airport, but he would drive all over New England performing small repair jobs of "Johnny on the Spot" aircraft repair service — fixing crack-ups wherever they happened. Later, he added to his service by constructing a special rack on top of his rig to transport damaged wing panels and a rigging to tow the fuselage. In this fashion he could dismantle the complete aircraft and tote it in for repairs following a crack-up.

This varied experience developed the urge to design and build his own plane using his own ideas. Albert Axtman and we five Granville Brothers got our heads together and decided to build the plane in our spare time, evenings and holidays. Granny worked hours designing and drawing up the plans on brown wrapping paper and providing all the parts and supplies to manufacture the aircraft — with Al Axtman furnishing the cash to purchase a used Velie 60-hp radial air-cooled engine. As work progressed on the project, crowds of people jammed the work shop to have a look-see and watch the goings on of the "crazy" Granville Brothers. Many would shake their heads and say it will never fly; others claimed that no pilot could ever get familiar with the control system.

A few of the unique features of this plane were the flaps on the top and bottom wings, the entire length of all four wing panels. The top wing flaps were a combination aileron and flap, the lower wings were equipped only with flaps. The tail wheel swiveled 360 degrees with a flat spot on the cam that locked it straight forward during take-off and landings. Still another interesting engineering feature of this first GEE BEE was the landing gear. During Granny's career of repairing cracked-up planes out in the open cow pastures, he learned that the landing gear fittings were always ripping out the lower fuselage longerons so he developed and attached his landing gear at each point with bronze universal joints. This proved later to be a big thing in the aircraft manufacturing field.

Granny designed this first GEE BEE strictly for pleasure flying. It was a two-place side-by-side so that his passenger could converse with the pilot and enjoy the countryside as it moved slowly below. This created a problem as there was not enough space for conventional controls with two joy sticks poking up through the floor boards between both parties' legs. So he got busy and designed an overhead control system. The joy stick sliding fore and aft on six ball bearings for the elevator controls and moving sideways for the ailerons — practically the same motion as the floor stick but with freedom from

Zantford Granville with his wife, Alta, seen here with the GEE-BEE Model 1 with standard wheel landing gear. It was also outfitted with skis for winter use. Its advanced design for 1929 made it one of the country's most talked about aircraft.

GEE-BEE Model 1—The first plane built by the famous Granville Brothers: Thomas, Edward, Mark, Robert and Zantford. The Granville Brothers were born on a small farm at Madison, N.H., attended grade school there, and later moved to Malden, Mass. They started out in the auto repair business but eventually changed to aircraft repair. Here, the first GEE-BEE is pictured on floats.

"Granny" Granville and one of the GEE-BEE Super Sportster racing planes that made the brothers world famous.

interference with pilot and passenger's knees and legs. The rudder pedals were conventional except both occupant's stick and rudder controls could be disconnected by a flip of the pilot's wrist just in case the passenger-student became panic stricken and froze on the controls.

That first lil' GEE BEE had individually controlled brakes on the rudder pedals and with the stick pulled all the way back, both wheel brakes worked evenly.

The upper and lower wing panels were interchangeable as well as the rudder and both elevators, and the horizontal stabilizers. The vertical fin was adjustable on the ground.

On the eve of May 3, 1929 — following a ten-hour work day in Granny's Arlington garage, I took off for Malden, Mass. and a quick supper with Granny's wife, Alta, and their two youngsters, then headed for Orleans Street in East Boston, Mass. and the airport. When I arrived, all my brothers and interested parties were as busy as beavers putting the finishing touches on assemblying the ship.

An extremely bad thunder storm hit the airport that night, but it cleared off around midnight, so we dropped over to Granny's stationary but mobile aircraft repair shop. This shop had to be mobile as a permanent structure was not permitted on the airport. To overcome this legal problem we had constructed a building 28 feet long and 10 feet wide, mounted it on a White Motor Van chassis, and stocked it with all the supplies for servicing aircraft on the field.

About 3:30 A. M. we cranked the Velie engine into life and checked for oil leaks and the revs checked out O. K. Granny just had to run a taxi test or blow his mind. It was as black as the inside of a coal mine as he taxied out on the field and the only way we could follow his movements on the field was by listening to the bark of the engine exhaust. We listened as the engine rpm climbed to full power and a ring of fire erupted from the five short exhaust stacks.

We figured he had lifted the ship off the ground a few inches and then let it settle for a landing. From the end of the strip we listened — all ears were tuned to the engine as it revved to its full power. We could not believe our ears as Granny took off and flew out over the Boston Harbor! He had no lights, in or on the plane — or field lights, so all we could do was listen to the throb of the little 60 hp radial air cooled engine. Minutes later, we heard the engine throttled back, and seconds later heard the wheels strike the cinder runway. As Granny taxied the GEE BEE-1 along the runway, another full-blown wind and thunder storm struck the airport. We all ran to where the noise was emanating and draped our bodies over the wings and tail group, managing to herd the feather weight ship to the rear of the Boston Airport hangar — and tied it down for safety.

We were all filled with joy upon learning that the plane had flown and handled perfectly and, further, that Brother Granny hadn't been killed on such a hazardous night test hop. He had been promised a parachute for the test hop, but when he had flown off into the black of night, the chute was not available. If he had been sitting on a chute and was forced to bail out over the harbor, he would have drowned as Granny couldn't swim a stroke.

Later, back at the "Economy Shop Garage," Granny told me his reason for such a reckless after dark test — so many people had made remarks that the ship would never fly — or it could not be controlled with his control system. He wanted terribly to see just what it would do without a big crowd looking on. If something had gone wrong, Granny didn't want anyone to remark, "I told you so."

With the newly hatched bird tied down safely and all the talk about the exciting test hop over (and our hearts back to normal), the sun was breaking the darkness on the eastern horizon. I climbed into my Maxwell and headed back to Malden for breakfast and then on to Arlington for another ten hours in the garage, a mighty tired but very happy man.