

CHARLES E. TAYLOR: THE UNSUNG HERO OF KITTY HAWK FINALLY GETS HIS DAY

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If it hadn't been for the engine that Charles E. Taylor built for the Wright brothers' aircraft, the date December 17, 1903, would have marked nothing more than a day at the beach in Kitty Hawk, N.C. It was Taylor's engine that turned the Wright glider into the history-making Wright Flyer. Over the years his name was all but forgotten as a major player in the aeronautical achievement that ushered in a new transportation era. But now the "Father of Aircraft Maintenance" finally has the level of recognition his significant contributions to flight deserve. To preserve his memory and to honor all aviation maintenance technicians (AMT), Taylor's birthday, May 24, has been named AMT Day.



Charles E. Taylor has been called “the man aviation history almost forgot.” No wonder. Three people – Orville and Wilbur Wright, plus Taylor – made the first powered flight at Kitty Hawk, N.C., happen. Despite intermittent “rediscoveries” of Taylor’s contributions to aviation throughout the decades, only the Wright brothers continue to be named in most accounts of the milestone flight at Kitty Hawk; at most, Taylor is a footnote. Without question, it was Taylor’s hand-crafted engine that transformed the Wrights’ airframe into the extraordinary vehicle that changed transportation forever. Without Taylor’s engine, the brothers and aviation would not have soared and moved forward as they did.

With the number of aviation industry “firsts” that can be credited to Taylor, it is difficult to believe that the talented, but modest, Midwesterner went unheralded for so many decades after the first engine-driven flight at Kitty Hawk. His story is a simple, yet at times a heart-breaking, one. In its twists and turns of fortune can be found evidence of the fickleness of fate as well as the very deep friendship that existed between the “Wright boys” (as he often called Orville and Wilbur) and Taylor.

EARLY LIFE

On May 24, 1868, Charles E. Taylor was born in a log cabin on a farm in Cerro Gordo, Ill. When he was a young boy, his family moved to Nebraska. Most sources state that he dropped out of school at age 12 to work as an errand boy for the *Nebraska State Journal*, but others indicate he graduated from high school. Whatever his academic achievements were, they are not of much consequence because while at the *Journal* and working in their bindery, he discovered that he was mechanically inclined. And it was this natural inclination to use tools easily and skillfully that led Taylor to his greatest accomplishment.

In his 20s, Taylor moved to Kearney, Nebr. He started his own business of making metal house numbers (the dexterity needed to fashion numerical shapes from metal was good practice for when he would later construct the first airplane engine from scratch), and, in 1894, he married Henrietta Webbert. It was through his wife's family that he eventually met the Wright brothers.

MOVING TO DAYTON AND MEETING THE WRIGHTS



Taylor and the Wright Brothers at work in the bicycle shop, 1897

Interested in bettering their life, the couple decided in 1896 to move to Dayton, Ohio, where many members of Henrietta's family lived. As the world would soon learn, also living there were two highly motivated, technologically sharp brothers who owned a bicycle shop. The shop was leased to them by Henrietta's uncle.

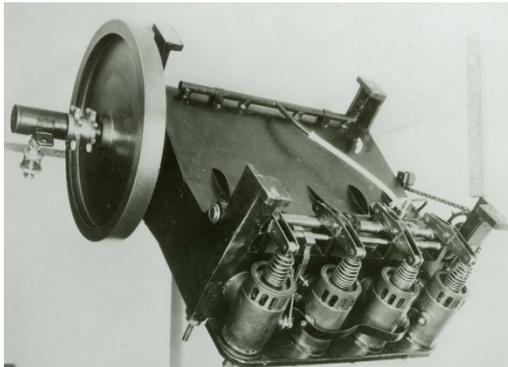
At the dawn of what would be called the "American Century," Taylor found opportunities aplenty in Dayton. After first working for the Stoddard Manufacturing Company, which made farm equipment and then bicycles, he opened his own tool shop. Since Taylor had been introduced to the Wrights through Henrietta's family, they were familiar with his trade and occasionally asked him to make mechanical parts for their bicycles. They were so satisfied with his work that the inevitable eventually happened. As Taylor recalled the fateful moment in a 1948 interview: "It was a hot June night in Dayton. It must have been a Saturday because I was at the Wright Cycle Company gassing [yakking] with Wilbur and Orville. They stayed open Saturday nights to take care of the folks who worked all week... One of the brothers, I forget which, asked me how would I like to go to work for them. There were just the two of them in the shop, and they said they needed another hand. They offered me \$18 a week." Taylor took them up on the offer not only because of what was a good salary at that time, but also because he lived only six blocks away from the shop and could bicycle home for lunch. "Besides,"

he elaborated, “I liked the Wrights.” The year was 1901, and in two more years, the three of them would make history.

HELPING OUT THE BOYS AND MAKING THE ENGINE

From his visits to the shop and “gassing” with the guys, Taylor already knew Orville and Wilbur were very involved in “their flying studies and experiments.” His role as an employee would be to handle the shop’s customers and bicycle business, especially when the brothers were in North Carolina testing their experimental gliders. The Wrights traveled to Kitty Hawk a couple times a year whenever they had an improved flying machine. They were obviously intellectually gifted (Orville invented a calculating machine when he was 24) and possessed the attitude of true scientists, i.e., they were never daunted by failure and willing to try the next thing.

At one point, they figured they needed a wind tunnel to perfect the performance of the gliders. Helping to build the wind tunnel was the first time Taylor worked on any of the Wrights’ aeronautical projects.



Engine built by Taylor, 1903

When the Wrights returned from one of their trips south in 1902, they informed Taylor that they were no longer interested in gliders and wanted a powered machine. They developed the specifications for the new biplane they would build, but were unable to find a manufacturer who could or would make the engine. So they turned to Taylor for help. As Taylor recalled, “While the boys were handy with tools, they had never done much machine work...” The Wright brothers went to work building the airframe, and Taylor, using only

the simple tools he had in the shop – a drill press, lathe, and assorted hand tools – went to work constructing a 180-lb., 12-horsepower engine. “We didn’t make any drawings,” he explained. “One of us would sketch out the part...on a piece of scratch paper, and I’d spike the sketch over my bench.” Following what he saw in the sketches, Taylor made the first airplane engine in only six weeks. He also made all the metal parts for the airframe. How was this phenomenal achievement ever forgotten? After all, Taylor made the first airplane engine, thus becoming the “First Airplane Mechanic.”

Part of the answer can be found in the nature of the man himself. Cut from the mold of many aircraft mechanics, Taylor did not seek the limelight or notoriety. It is enough for this type of person to do a good job and that’s it. The other part was the actual swiftness with which aviation technology took off. In not too long, Taylor’s first engine as well as his subsequent, more powerful ones quickly became artifacts on the road to invention.

TEST FLIGHTS MOVED TO HUFFMAN PRAIRIE AND MOVING ON IN OTHER WAYS

After the first successful flight, the Wrights moved their experimentation closer to Dayton, to a large pasture called Huffman Prairie. Taylor was put in charge of maintaining the aircraft as well as the hangar that housed the airplanes at Huffman

Prairie. These duties gave Taylor another first; he was, in effect, the “First Airport Manager.” Taylor worked for the Wright brothers (who had become very successful manufacturing airplanes) until 1911. That year they lent him to adventurer Calbraith Perry Rodgers, who had entered a contest to make the first U.S. transcontinental flight in a set number of days. Taylor’s masterful skills repairing the plane, which crashed 16 times en route, enabled it to finally arrive in California, even if too late to win the prize and with only three original parts on it. What Taylor won, though, was another first. He was the “First Airplane Mechanic to Service a Transcontinental Flight.”

Because his wife had become ill in California, Taylor wasn’t able to return to Dayton until 1912, but soon discovered after arrival that “it wasn’t like old times. Wilbur had died [at 45] from typhoid fever...and there were a lot of new faces around the Wright plant. The pioneering days seemed about over for me.” The hard-working mechanic moved on to work at the Dayton-Wright Company in 1919. “Orville and I continued to see each other frequently after 1919. Then in 1928 I moved to California and didn’t see him again until 1937.”

THE GREAT DEPRESSION DEALS A BLOW

California proved disastrous for Taylor. When the depression hit, he lost his job at a machine shop in Los Angeles. Hopeful, he invested his savings in a new land venture in the Southern California desert, built a little house there, and waited for something good to happen. It never did.

Not until 1937 did anyone remember him for his important contribution to aviation. Henry Ford was developing his historical attraction, the Greenfield Village museum, and wanted Taylor to reconstruct the Wrights’ bicycle shop as well a replica of the first Wright engine. Long gone from Dayton, Taylor had to be tracked by detectives, who found him working a 37¢-per-hour job in Los Angeles. Just as he had on all his jobs since leaving the Wrights, he had never told anyone there that he built the first aircraft engine. “Why should I?” he would quietly respond when folks wanted to know the reason for his reticence when it came to his singular achievement. After replicating the shop, Taylor “worked” in it for Ford until 1941.

ILL, POOR, AND UNRECOGNIZED

Taylor returned to California in 1941 and nabbed a job in a defense factory. In 1945 he suffered a heart attack, which unfortunately left him unable to work. With a meager income from an annual annuity of \$800 (given to him by a grateful Orville before his death in 1948) and Social Security, Taylor no longer could pay his bills. He ended up in a Los Angeles hospital’s charity ward where a reporter discovered him in 1955. Once it became known that this destitute individual was one of the three major figures who created the first powered aircraft, the news traveled fast. The aviation community rallied to help him, raising funds for better medical care for their unsung hero and making it possible for him to spend the last few months of his life cared for in a private sanitarium. It was there that he died on January 30, 1956, eight years to the day after his good friend Orville Wright passed. Fittingly, Charles Taylor was buried alongside other aviation pioneers in the Portal of Folded Wings Mausoleum at Valhalla Memorial Park, Los Angeles.



Charles Taylor, later in life

GIVING TAYLOR HIS DUE

There is something about Charles Taylor's reluctance to brag about his stellar accomplishment or profit from it, despite obvious financial hardship, that makes him special to a lot of people who know the details of his life. Of course the financial destitution experienced by this worthy American inventor tugs at the heart, but there is definitely something else about him that touches us. Perhaps it's that he was such a modest, decent, hard-working man – a man who embodied the simple nobility of spirit and principles that we idealize in the best American character. Or maybe it is the stark imbalance between the Wright brothers' fame and fortune and his

obscurity and impoverishment that followed their brilliant success at Kitty Hawk.

Unfortunately, the effort to make Charles E. Taylor and his formidable aviation accomplishments better known to the world has always moved in fits and starts. The FAA has its "Charles Taylor Master Mechanic Award," to be sure, but Taylor's name is already known in that select aviation group. To popularize him among the general public, in 2006 the Aircraft Maintenance Technicians Association (AMTA) donated a bust of Taylor that appropriately sits among early aircraft engines at the National Air & Space Museum's Steven F. Udvar-Hazy Center. This was a solid step toward educating the public about Taylor.

Shooting for even greater name recognition and deserved respect for Taylor, in 2012 aircraft maintenance professionals raised enough money to have his name written on Udvar-Hazy's Wall of Honor, a memorial reserved for the all-stars of aviation.

THE ULTIMATE RECOGNITION: A DAY TO HONOR CHARLES E. TAYLOR AND ALL AMTs

Thanks to the effort and enthusiasm of FAA aviation safety inspector Richard "Dilly" Dilbeck of the Sacramento Flight Standards District Office, Charles E. Taylor now has a day to honor him and all AMTs. Appropriately, that day is Taylor's birthday, May 24.

Dilbeck initiated the idea of giving Taylor proper recognition in 2001 when he ignited the effort to have all U.S. states, commonwealths, and territories pass an AMT Day Resolution that set aside Taylor's birthday as a day of honor. In 2002, California became the first state to pass the Resolution, and May 24 was finally a day to recognize, every year, the "First AMT" and all who followed him.

At this time, 47 AMT Day Resolutions have passed, thanks to Dilbeck and the staunch support of the AMTA. The AMTA has been successful in having the Resolution passed by the U.S. Congress. Presently, the non-profit organization is working to have an AMT Day Resolution introduced and passed by the U.S. Senate. As it stands now, on May 24 of each year, many in the aviation industry already honor AMTs.

This wonderfully positive epilogue to the story of Charles E. Taylor reflects the respect with which he is held by AMTs as well as the way they take care of their own. AMT Day will bring deserved honor to all the men and women who inconspicuously maintain the integrity of our aircraft and don't seek recognition for it. They are, like Charles E. Taylor, the unsung heroes of aviation safety.