The 1920s were an age of dramatic social and political change. For the first time, more Americans lived in cities than on farms. The nation's total wealth more than doubled between 1920 and 1929, and this economic growth swept many Americans into an affluent but unfamiliar "consumer society." People from coast to coast bought the same goods (thanks to nationwide advertising and the spread of chain stores), listened to the same music, did the same dances and even used the same slang! Many Americans were uncomfortable with this new, urban, sometimes racy "mass culture"; in fact, for many–even most–people in the United States, the 1920s brought more conflict than celebration. However, for a small handful of young people in the nation's big cities, the 1920s were roaring indeed.

The first man to give hope to dreams of space travel is American Robert H. Goddard, who successfully launches the world's first liquid-fueled rocket at Auburn, Massachusetts, on March 16, 1926. The rocket traveled for 2.5 seconds at a speed of about 60 mph, reaching an altitude of 41 feet and landing 184 feet away. The rocket was 10 feet tall, constructed out of thin pipes, and was fueled by liquid oxygen and gasoline.

The Chinese developed the first military rockets in the early 13th century using gunpowder and probably built firework rockets at an earlier date. Gunpowder-propelled military rockets appeared in Europe sometime in the 13th century, and in the 19th century British engineers made several important advances in early rocket science. In 1903, an obscure Russian inventor named Konstantin E. Tsiolkovsky published a treatise on the theoretical problems of using rocket engines in space, but it was not until Robert Goddard's work in the 1920s that anyone began to build the modern, liquid-fueled type of rocket that by the early 1960s would be launching humans into space.

Goddard, born in Worcester, Massachusetts, in 1882, became fascinated with the idea of space travel after reading the H.G. Wells' science fiction novel War of the Worlds in 1898. He began building gunpowder rockets in 1907 while a student at the Worcester Polytechnic Institute and continued his rocket experiments as a physics doctoral student and then physics professor at Clark University. He was the first to prove that rockets can propel in an airless vacuum-like space and was also the first to explore mathematically the energy and thrust potential of various fuels, including liquid oxygen and liquid hydrogen. He received U.S. patents for his concepts of a multistage rocket and a liquid-fueled rocket, and secured grants from the Smithsonian Institute to continue his research.

In December 1925, Goddard tested a liquid-fueled rocket in the physics building at Clark University. He wrote that the rocket, which was secured in a static rack, "operated satisfactorily and lifted its own weight." On March 16, 1926, Goddard accomplished the world's first launching of a liquid-fueled rocket from his Aunt Effie's farm in Auburn.

Goddard continued his innovative rocket work until his death in 1945. His work was recognized by the aviator Charles A. Lindbergh, who helped secure him a grant from the Guggenheim Fund for the Promotion of Aeronautics. Using these funds, Goddard set up a testing ground in Roswell, New Mexico, which operated from 1930 until 1942. During his tenure there, he made 31 successful flights, including one of a rocket that reached 1.7 miles off the ground in 22.3 seconds. Meanwhile, while Goddard conducted his limited tests without official U.S. support, Germany took the initiative in rocket development and by September 1944 was launching its V-2 guided missiles against Britain to devastating effect. During the war, Goddard worked in developing a jet-thrust booster for a U.S. Navy seaplane. He would not live to see the major advances in rocketry in the 1950s and '60s that would make his dreams of space travel a reality. NASA's Goddard Space Flight Center in Greenbelt, Maryland, is named in his honor.

Dr. Robert Hutchings Goddard is considered the father of modern rocket propulsion. A physicist of great insight, Goddard also had a unique genius for invention. It is in memory of this brilliant scientist that NASA's Goddard Space Flight Center in Greenbelt, Md., was established on May 1, 1959.

By 1926, Goddard had constructed and successfully tested the first rocket using liquid fuel. Indeed, the flight of Goddard's rocket on March 16, 1926, at Auburn, Mass., was as significant to history as that of the Wright brothers at Kitty Hawk.

Primitive in their day as the achievement of the Wrights, Goddard's rockets made little impression on government officials. Only through modest subsidies from the Smithsonian Institution and the Daniel Guggenheim Foundation, as well as the leaves of absence granted him by the Worcester Polytechnic Institute of Clark University, was Goddard able to sustain his lifetime of devoted research and testing.

Goddard first obtained public notice in 1907 in a cloud of smoke from a powder rocket fired in the basement of the Worcester Polytechnic Institute physics building. School officials took an immediate interest in the work of student Goddard. The school's administration, to their credit, did not expel him. He thus began his lifetime of dedicated work.

In 1914, Goddard received two U.S. patents. One was for a rocket using liquid fuel. The other was for a two- or three-stage rocket using solid fuel.

At his own expense, he began to make systematic studies about propulsion provided by various types of gunpowder. His classic document was a study he wrote in 1916 requesting funds from the Smithsonian Institution so that he could continue his research. This was later published along with his subsequent research and Navy work in a Smithsonian Miscellaneous Publication No. 2540 (January 1920). It was entitled "A Method of Reaching Extreme Altitudes." In this treatise, Goddard detailed his search for methods of raising weather-recording instruments higher than sounding balloons. In this search, he developed the mathematical theories of rocket propulsion.

Toward the end of his 1920 report, Goddard outlined the possibility of a rocket reaching the moon and exploding a load of flash powder there to mark its arrival. The bulk of his scientific report to the Smithsonian was a dry explanation of how he used the $5,000 grant in his research. The press picked up Goddard's scientific proposal about a rocket flight to the moon, however, and created a journalistic controversy concerning the feasibility of such a thing. The resulting ridicule created in Goddard firm convictions about the nature of the press corps, which he held for the rest of his life.

Goddard's greatest engineering contributions were made during his work in the 1920s and 1930s. He received a total of $10,000 from the Smithsonian by 1927, and through the personal efforts of Charles A. Lindbergh, he subsequently received financial support from the Daniel and Florence Guggenheim Foundation. Progress on all of his work, titled "Liquid Propellant Rocket Development," was published by the Smithsonian in 1936.

Goddard's work largely anticipated in technical detail the later German V-2 missiles, including gyroscopic control, steering by means of vanes in the jet stream of the rocket motor, gimbal-steering, power-driven fuel pumps and other devices. His rocket flight in 1929 carried the first scientific payload, a barometer, and a camera. Goddard developed and demonstrated the basic idea of the "bazooka" two days before the Armistice in 1918 at the Aberdeen Proving Ground in Maryland. His launching platform was a music rack. In World War II, Goddard again offered his services and was assigned by the U.S. Navy to the development of practical jet assisted takeoff and liquid propellant rocket motors capable of variable thrust. In both areas, he was successful. Robert H. Goddard died on Aug. 10, 1945, four days after the first atomic bomb was dropped on Japan.

Goddard was the first scientist who not only realized the potentialities of missiles and space flight but also contributed directly in bringing them to practical realization. Goddard had a rare talent in both creative science and practical engineering. The dedicated labors of this modest man went largely unrecognized in the United States until the dawn of what is now called the "space age." High honors and wide acclaim, belated but richly deserved, now come to the name of Robert H. Goddard.

On Sept. 16, 1959, the 86th Congress authorized the issuance of a gold medal in the honor of professor Robert H. Goddard.