

Variviggen Burt Rutan

Forfatteren, der har stor erfaring på området, fortæller om selvbygning af fly med brug af skum- og glasfibermaterialer.

A New York Times bestseller! The historic race that reawakened the promise of manned spaceflight A Finalist for the PEN/E. O. Wilson Literary Science Writing Award Alone in a Spartan black cockpit, test pilot Mike Melvill rocketed toward space. He had eighty seconds to exceed the speed of sound and begin the climb to a target no civilian pilot had ever reached. He might not make it back alive. If he did, he would make history as the world's first commercial astronaut. The spectacle defied reason, the result of a competition dreamed up by entrepreneur Peter Diamandis, whose vision for a new race to space required small teams to do what only the world's largest governments had done before. Peter Diamandis was the son of hardworking immigrants who wanted their science prodigy to make the family proud and become a doctor. But from the age of eight, when he watched Apollo 11 land on the Moon, his singular goal was to get to space. When he realized NASA was winding down manned space flight, Diamandis set out on one of the great entrepreneurial adventure stories of our time. If the government wouldn't send him to space, he would create a private space flight industry himself. In the 1990s, this idea was the stuff of science fiction. Undaunted, Diamandis found inspiration in an unlikely place: the golden age of aviation. He discovered that Charles Lindbergh made his transatlantic flight to win a \$25,000 prize. The flight made Lindbergh the most famous man on earth and galvanized the airline industry. Why, Diamandis thought, couldn't the same be done for space flight? The story of the bullet-shaped SpaceShipOne, and the other teams in the hunt, is an extraordinary tale of making the impossible possible. It is driven by outsized characters—Burt Rutan, Richard Branson, John Carmack, Paul Allen—and obsessive pursuits. In the end, as Diamandis dreamed, the result wasn't just a victory for one team; it was the foundation for a new industry and a new age.

Popular Science gives our readers the information and tools to improve their technology and their world. The core belief that Popular Science and our readers share: The future is going to be better, and science and technology are the driving forces that will help make it better.

The Complete Guide to Rutan Aircraft

Engineers, inventors, and dreamers in the state of Michigan had been searching for the secret of heavier-than-air flight well before the Wright brothers' successful flights in 1903. In 1911, the first aircraft manufacturer opened for business in Michigan. During the 1920s and 1930s, the Detroit area was known as the "Aviation Capital of America." The All-American Aircraft Show, held annually in Detroit from 1928 to 1933, was the major showcase for introducing new airplanes to the aviation community. Major competitions, such as the Ford Air Tours (1925 to 1931) and the Cirrus Derby (1930), originated and ended at airports in Michigan. Michigan's aircraft manufacturers made major contributions to America's war efforts, building 1,500 Liberty planes during World War I and 8,685 B-24 bombers during World War II. In addition to

those major manufacturers, a large number of individual designers and entrepreneurs toiled to build the ultimate airplane. Today the pioneering tradition lives on in the hundreds of individuals who design and build airplanes in their garage or basement.

Covers the development and tuning of race car by clearly explaining the basic principles of vehicle dynamics and relating these principles to the input and control functions of the racing driver. An exceptional book written by a true professional.

Popular Mechanics inspires, instructs and influences readers to help them master the modern world. Whether it's practical DIY home-improvement tips, gadgets and digital technology, information on the newest cars or the latest breakthroughs in science -- PM is the ultimate guide to our high-tech lifestyle.

Some of the finest military warbirds in American aviation history are still flying in the Southern State of Alabama. Many of them are on display in a number of excellent air museums, or they have been mounted on pylons to stand as memorials to the many military aviators who called Alabama home. This handbook is designed to provide aviation enthusiasts with a simple locating guide on where to find Alabamays retired warbirds within the state. Many of the aircraft can be found in the Southern Museum of Flight, Birmingham; the United States Army Aviation Museum; the US Space and Rocket Center at Huntsville; Battleship Memorial Park at Mobile; Maxwell AFB Park at Montgomery; or in the hands of private owners and collectors. The handbook provides photographs of many of the aircraft preserved in Alabama, along with a brief description and history of its service within the US armed forces. The aircraft are listed alphabetically by manufacturer, number and aircraft type. Famous aircraft found on display in Alabama include the Lockheed A-12 Blackbird, and a number of very rare flying machines such as the gigantic one of a kind Boeing Vertol XCH-62 Heavy Lift Helicopter not found in other aviation museums.

Please note that the content of this book primarily consists of articles available from Wikipedia or other free sources online. Pages: 19. Chapters: NASA AD-1, Rutan Defiant, Rutan Long-EZ, Rutan Quickie, Rutan Solitaire, Rutan VariEze, Rutan VariViggen, Rutan Voyager, Scaled Composites Catbird, Scaled Composites Model 395, Scaled Composites Model 396, Scaled Composites Proteus, Scaled Composites Stratolaunch, Scaled Composites Triumph, Scaled Composites White Knight Two, Three lifting surface aircraft, Williams V-Jet II. Excerpt: The Scaled Composites Model 281 Proteus is a tandem-wing high-endurance aircraft designed by Burt Rutan to investigate the use of aircraft as high altitude telecommunications relays. The Proteus is actually a multi-mission vehicle, able to carry various payloads on a ventral pylon. An extremely efficient design, the Proteus can orbit a point at over 65,000 feet (19,800 m) for more than 18 hours. It is currently owned by Northrop Grumman. Proteus has an all-composite airframe with graphite-epoxy sandwich construction. Its wingspan of 77 feet 7 inches (23.65 m) is expandable to 92 feet (28 m) with removable wingtips installed. Proteus is an "optionally piloted" aircraft ordinarily flown by two pilots in a pressurized cabin. However, it also has the capability to perform its missions semi-autonomously or flown remotely from the ground. Under NASA's Environmental Research Aircraft and Sensor Technology (ERAST) project, NASA's Dryden Flight Research Center assisted Scaled Composites in developing a sophisticated station-keeping autopilot system and a satellite communications (SATCOM)-based uplink-downlink data system for Proteus'

performance and payload data. The Proteus wing was adapted for use on the Model 318 White Knight carrier aircraft, which is the launch system for Rutan's Tier One spacecraft and the DARPA X-37. Flight testing of the Proteus began with its first flight on July 26, 1998 at the Mojave Airport and continued through... This comprehensive survey of the flying machines built since the mid-1800s contains nearly 3,000 entries.

The author of SpaceShipOne chronicles the significant achievements of the Ansari X Prize-winning aerospace innovator, offering insight into his pioneering vision for enabling space exploration and the processes of his history-making designs, including Voyager and SpaceShipTwo.

Uncover the Technology behind Hybrids and Make an Intelligent Decision When Purchasing Your Next Vehicle With one billion cars expected to be on the roads of the world in the near future, the potential for war over oil and the negative environmental effects of emissions will be greater than ever before. Now is the time to seriously consider an alternative to standard automobiles. Exploring practical solutions to these problems, Hybrid Vehicles and the Future of Personal Transportation provides broad coverage of the technologies involved in manufacturing and operating hybrids. It reviews key components of hybrid and pure electric vehicles, including batteries, fuel cells, and ultracapacitors. The book also discusses both concept and production-bound hybrids as well as the economics and safety issues of hybrid ownership. In addition, the author supplies effective tips on how to save gasoline with conventional and hybrid automobiles. Making the jargon of fuel-efficient vehicles accessible to a wide audience, this guide explains the history of hybrids, how they work, and their impact on the environment. It will help you make a sound decision concerning the purchase and operation of a hybrid or electric vehicle.

On July 25, 2010, Arnold Ebnetter flew across the country in a plane he designed and built himself, setting an aviation world record for aircraft of its class. He was eighty-two at the time and the flight represented the culmination of a dream he'd cultivated since his childhood in the 1930s. Eileen Bjorkman — herself a pilot and aeronautical engineer — frames her father's journey from teenage airplane enthusiast to Air Force pilot and Boeing engineer in the context of the rise, near extermination, and ongoing interest in homebuilt aircraft in the United States. She gives us a glimpse into life growing up in a "flying family" with two pilots for parents, a family plane named Charlie, and quite literally, a propeller under her parents' bed. From early airplane designs serialized in magazines to the annual Oshkosh Fly-in where you can see experimental aircraft on display, Bjorkman offers a personal take on the history of building something in your garage that you can actually (and legally) fly as well as how the homebuilt aircraft movement has contributed to aviation and innovation in America. Watch the book trailer: <https://www.youtube.com/watch?v=T8PvowEMkmQ>

Award-winning writer and journalist Kenny Kemp goes in search of the paying passengers who will make history on the first commercial flight into space. They will be able to experience weightlessness, witness the curvature of the Earth and have a unique view of the Universe seen only by astronauts. Detailing their arduous training

and how their bodies will be affected in space, to the science, business and politics behind this incredible breakthrough, *Destination Space* describes just the beginning of an amazing adventure . . .

Presents the events that led up to Voyager's flight, details on the flight itself, and complete Voyager specifications.

Dave is a man of determination and dedication in overcoming a challenge a man who will not take no for an answer. After a near-fatal airplane accident, Daves doctors told him he would never walk again. But he did! They told him he would never return to his job at Ford Motor Company. But he did! And they told him he would never fly an airplane again. But he did! *The Spirits Journey* describes Daves lifelong involvement in aviation with many interesting and humorous anecdotes Bob Pauley, private and glider pilot, aviation photographer, and author There is a story buried in this manuscript of when Mac McKenzie flew my mother and me for my first airplane ride. After the flight (I must have been three or four years old), Dave and I sat in the airplane and talked. He explained all the controls, instruments; and how they related to flying an airplane. I was hooked for life. He is responsible for my start in what turned out to be a very great and successful career in aviation Captain John D. Patten, Delta Airlines, Retired There's little doubt in my mind, there's something we learn about ourselves, from the people that enter our lives. After reflecting on Dave McKenzies determination to succeed, courage, and will to overcome the adversities as told in his book, I hope you gain insight to your lifes perspective, its experiences, and that you become the person you truly wish to be. John O. Maxfield, corporate pilot In the heartwarming memoir *The Spirits Journey*, Dave McKenzie shares the inspiring story of how he overcame lifelong pressures, family opposition, and incredible personal hurdles in order to follow his dream of flying an airplane. As a young boy, he felt there could never be any odor more pleasant than the exhaust fumes that emitted from a small airplane engine. As each airplane he rode in started its take-off run, Dave would revel in the sensation of freedom he felt even as a passenger. He shares how both his mother and his teachers opposed his preferred career choice of becoming a pilot, but he also details how he relied on his determination, effort, and intelligence to make the most of his love of aviation while still enjoying a career as an automobile chassis designer. Yet his adventuresome choices were not without challenges. After he becomes an aerobatic pilot, he chronicles the disastrous air show and subsequent injuries that nearly ended his life and his dreams. Dave McKenzies story proves that the human spirit is a much stronger force than we ever imagined even when faced with seemingly insurmountable obstacles.

“One of the most remarkable accomplishments in our conquest of gravity.” — Sir Arthur C. Clarke In April, 2003, a company called Scaled Composites introduced *SpaceShipOne* to the world. *SpaceShipOne: An Illustrated History* chronicles the development of the world's first commercial manned space program—a program that includes an airborne launcher (the *White Knight*), a space ship (*SpaceShipOne*), rocket propulsion, avionics, simulator, and full ground support. With ample illustrations, photographs, and behind-the-scenes information, *SpaceShipOne* provides a full picture of this classified project. The story of *SpaceShipOne* combines the adventurous spirit of Charles Lindbergh, the entrepreneurial drive of Howard Hughes, and the urgency of the space race at

the height of the Cold War.

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