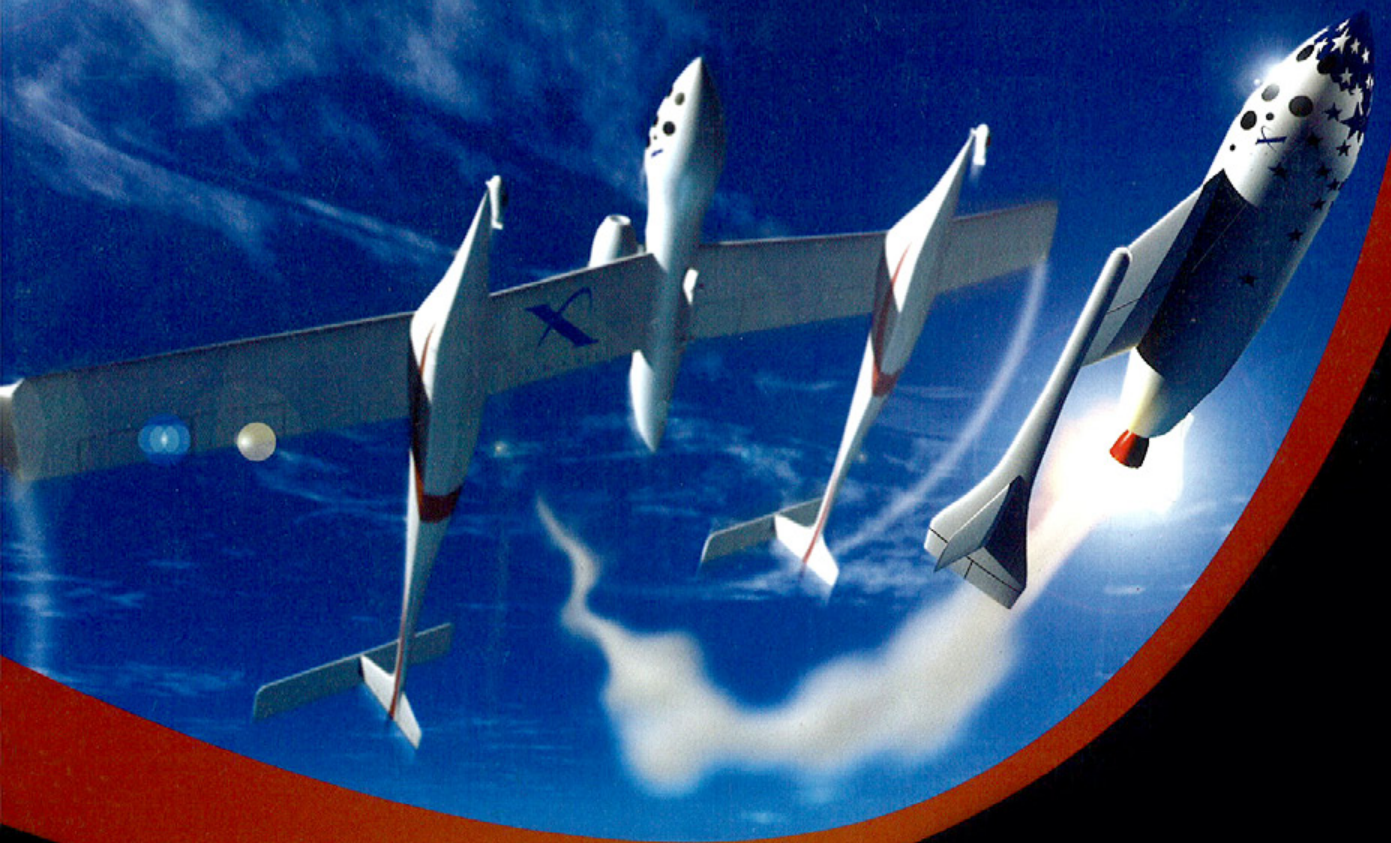




TO Boldly GO...

BY THE END OF THE DECADE, VIRGIN GALACTIC AIMS TO TAKE THE PAYING PUBLIC INTO ORBIT FROM A PURPOSE-BUILT SPACEPORT IN ROSWELL, NEW MEXICO. BOYS TOYS PONDER THE FINAL FRONTIER OF TOURISM... ■ WORDS: SCOTT SNOWDEN

Commercial space travel took a cosmic leap forward in October 2004, as the rocket plane SpaceShipOne, conceived by aviation pioneer Burt Rutan, shot to an altitude of more than 100km. By successfully soaring to the stratosphere for the second time inside a week, SpaceShipOne secured the coveted X-Prize competition and a \$10million deal to develop the amateur orbiter.

More than two dozen teams from around the world competed in the X-Prize contest, the aim of which was to spur on space travel in the same way air travel evolved after Charles Lindbergh made his solo trans-Atlantic flight from New York to Paris in 1927 to claim the \$25,000 Orteig Prize. The development of SpaceShipOne was funded by Microsoft co-founder Paul Allen, who was believed to have sunk more than \$20m into the project.

From the very first test flight that took place (coincidentally on the anniversary of the launch of Sputnik nearly half a century ago), SpaceShipOne caught the attention of interested eyes all over the world. One set of which belonged to British entrepreneur extraordinaire Sir Richard Branson.

Almost unsurprisingly, soon after the successful test flights had been completed high above the Mojave Desert in California, Rutan revealed that his company would be building five rocket planes that can each carry six or seven passengers for a client that would be known as Virgin Galactic.

CRUISING AT AN ALTITUDE OF 368,000FT...

Within three months of the announcement, more than 12,000 would-be space-travelling tourists contacted Virgin Galactic. A seat on the VSS Enterprise (Virgin Space Ship) is a snip at just £115,000 (\$205,000), which equates to more than £1billion of celestial curiosity. For the same amount, you could buy a Bentley Continental GT Coupé, a 12-metre, six-berth Sunseeker Portofino or an air-conditioned, south-facing apartment in the French Riviera with panoramic sea view. All create instant kudos in conversation with cocktail and canapé in hand, but nothing comes quite as close as announcing to all that you're an astronaut.

Naturally, the usual affluent suspects have already registered an interest, including actors, rock stars and Formula One drivers.

WARP SPEED

The key to Rutan's design was overcoming the two most dangerous stages in space travel: launch and atmospheric re-entry. SpaceShipOne is released from the underbelly of its carrier aircraft, White Lightning, at an altitude of 15km, in much the same way as the US Air Force X-15 experimental space plane was dropped from a B52 during testing in 1959. This eliminates the risks involved in igniting an enormous amount of highly flammable fuel on a launch pad.

The other ingenious design feature was turning the sleek space plane into a 'shuttlecock' of sorts that gently drifts back through the atmosphere without overheating. The wings rotate through 90 degrees to an upright position and cause enough drag to slow the craft down, allowing it to float through re-entry. The wings then return to the normal position, like that of a conventional aircraft, ready for landing.



ALL ABOUT ROSWELL...

Where? 300km South East of Albuquerque (New Mexico), 320km North East of El Paso (Texas). Where highway 380 and 285 meet.

Fly? Domestic flights from Albuquerque or Dallas (Mesa Airlines). International flights to El Paso (BA, United, American, Delta etc).

Drive? Greyhound bus from major South West cities.

Notes? The northern route, along Interstate 60, takes you through the White Mountains and the 27-dish VLA (Very Large Array). This 22-mile-across arrangement of 230-ton dishes is actually about 50 miles west of Socorro. The UFO crash site is on a ranch that belongs to William 'Mack' Brazel, about 120km North West of Roswell.



Cost is another factor to make space tourism of the moment, not of the future. Rutan adopted a much more efficient and up-to-date approach to making his spacecraft, using composite materials instead of metals. Rutan also used a much safer fuel than the liquid propulsion systems or solid fuel rockets of before: nitrous oxide.

SPACE CAMP...

The interstellar adventure takes place near Roswell, New Mexico with six nights luxury accommodation at the Virgin Galactic Space Camp. Every morning you will be taken by helicopter to the training base where you will undergo a full six-day programme of medical examination, G-force tolerance training, flight-simulator instruction and guidance from space experts on how to get the most from your unique experience. The preparation programme also includes negative gravity training in a specially modified Lear Jet.

The evening itinerary includes the chance to dine with astronauts over a memorable culinary experience painstakingly prepared from a carefully balanced menu.

The trip itself will last about three-and-a-half hours from take-off to landing, and includes about five minutes of weightlessness.

Project managers said New Mexico's favourable climate, low-density population and largely unrestricted airspace were key factors in its selection as Virgin Galactic's base. Fewer people and open airspace should cut insurance and regulation costs. The region also has a 4,700-foot (1,433-metre) elevation, which saves on the amount of jet fuel it takes to get the spaceships to the proper altitude for launch.

The planned \$225m (£127m) New Mexico spaceport is to be built almost entirely underground on 27 square miles (70 square kilometres) of state-owned land.

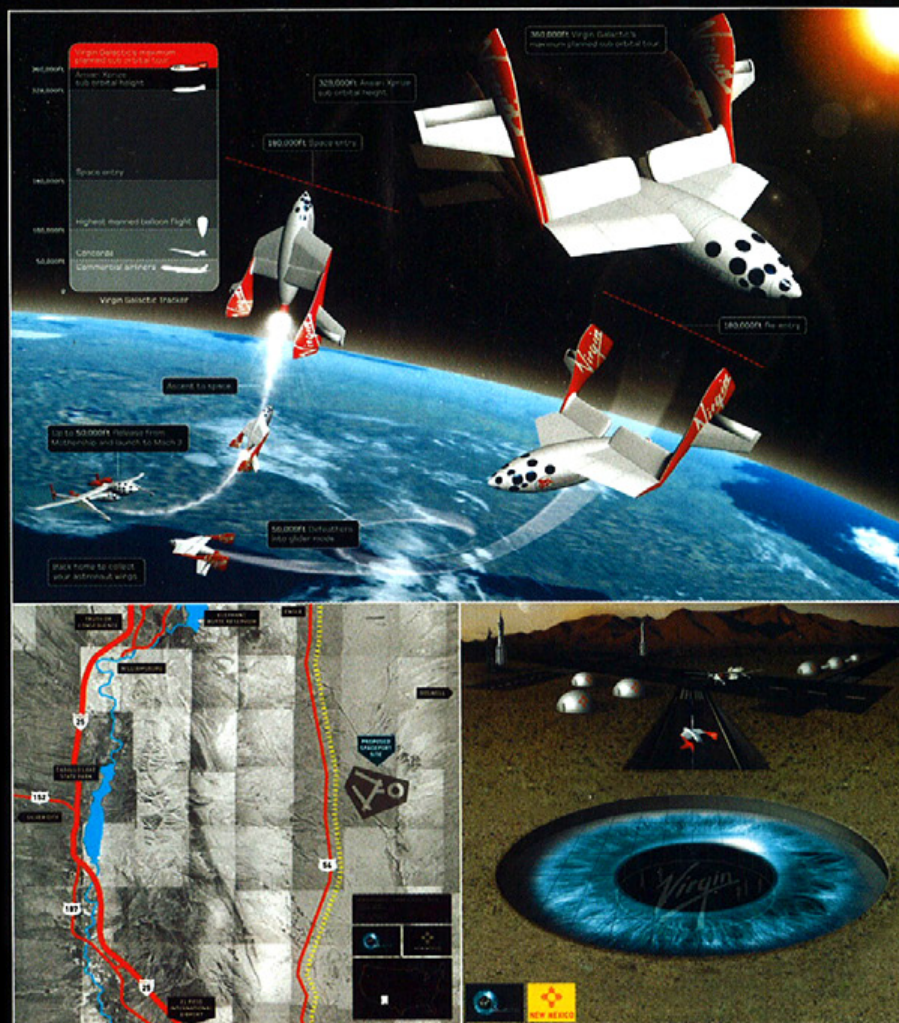
WATCH THIS SPACE...

Check out these websites for a wealth of information on travelling in space:
Virgin Galactic Website: www.virgingalactic.com
X-Prize Website: www.xpcup.com
Commercial space flight and space tourism website: www.star-chaser.co.uk
Collection of space-related stories and links: www.acc.co.uk/raes/space/main.htm
Everything you ever wanted to know about Roswell: www.city-data.com/city/Roswell-New-Mexico.html

'This business will mark a milestone in world history, and it will launch a new space industry – a private space industry, driven by innovators and entrepreneurs and new technologies and bold-thinkers. New Mexico will be known around the world as the

launch pad of the new space industry,' Branson said.

He added that his firm is aiming for two to three flights daily from the new spaceport. 'We're going where no one has gone before. There's no model to follow, nothing to copy. That is what makes this so exciting.'



SPACE: ABOVE AND BEYOND...

- **June 2004:** A successful test flight ensures SpaceShipOne a place in the history books as the first private manned spacecraft to fly to the edge of space and back.
- **September 2004:** Sir Richard Branson signs a deal to take paying passengers into space suggesting the X-Prize has achieved its goal of bringing space tourism closer to the masses.
- **September 2004:** SpaceShipOne completes the first of two qualifying flights above the Californian desert.
- **December 2005:** The site is chosen for the Virgin Galactic Space Camp 72km North East of Las Cruces and 165km South West of Roswell.

Space GADGETS...

DON'T EVEN THINK ABOUT ATTEMPTING TO CONQUER THE FINAL FRONTIER WITHOUT...

...ICE CREAM SPACE FOOD

Cost: £6.99 (Two packs) Details: www.sciencemuseumstore.com

Originally developed for the Apollo space missions, these space snacks are frozen to -40° C, then dried and stored in a foil pouch until it's time to eat. Can't say that ice cream would have been our first choice of flavour, we would have preferred say, steak and chips or a nice juicy burger, but as they say, space men can't be choosers.

...AN ILLUMINATED STAR GLOBE

Cost: £19.99 Details: www.sciencemuseumstore.com

Think of this as an intergalactic road map – Multimap, good though it is, hasn't quite got round to mapping the routes between the planets. Yet. You can see stars in intricate detail with the 13cm diameter stellar globe that lights up to show the constellations as pinpricks of light. Finely printed in silver on an opaque blue background, this is fascinating with and without illumination, so if you can't plug it in on your space ship it all is not lost. And neither are you...

...A PAIR OF SILHOUETTE TITAN MINIMAL ART SPACE EDITION GLASSES

Cost: From £120 Details: 0208 889 9997

Boasting an elite ophthalmic frame made from a top quality Hyper-Flex Titanium Alloy and minimalist design – hingeless, screwless and ultra lightweight, TMA: Space Edition were selected by NASA for their astronauts because they form to the face, pose no dangers in an artificial environment or during take off and offer total comfort for the wearer. They are the lightest glasses in the Universe – weighing only 1.8 grams. If they're good enough for NASA they're good enough for you, Four Eyes.

...AN ACRE OF THE MOON

Cost: £19.95 Details: www.paramountzone.com

Now you can buy your very own plot of land on the moon, and just to make sure you don't lose the plot, each purchase includes a Deed, Constitution, Property Map, Mineral Rights, and a copy of the original Declaration of Ownership. So when you visit the moon, you'll know exactly where your acre is to build your moon base. A back pad on the moon? Stellar!

...SOME LOCATION EARTH DOG TAGS

Cost: \$12.99 Details: www.earthbounddog.com

Should you get lost in space, these tags are engraved with several methods of locating Earth in the Galaxy, the beauty being that an alien pilot does not need to understand human language to know where you need to be dropped off. Comes complete with Alien Abduction Money Back Guarantee – should you ever be abducted whilst wearing these and not returned safely to Earth you will be entitled to a full refund of the purchase price. Reassuring.

...A COMPLETE SET OF ENCYCLOPEDIA BRITANNICA

Cost: £995 Details: www.britannica.co.uk

Take with you in order to proffer to any alien species who may be curious about our planet – comprising of 32 volumes with over 44 million words, this is filled with fascinating earthling info and will save you a heck of a lot of explaining. Weighing in at 62 kilograms you might have to jettison the odd fuel cell, but this also may come in handy for the long journey, as there's only so long you can play I-spy for in space. S? Star? Again...

