

UNITED STATES

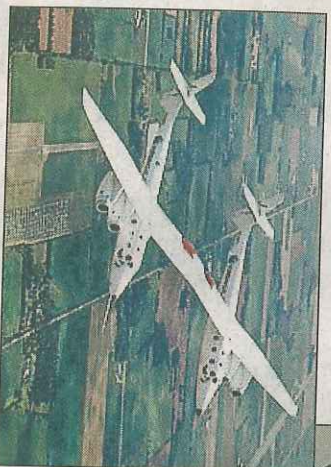
Branson near final frontier

Space tourism
launches
tomorrow into
virgin
territory.

THE MOJAVE Desert, 160km north of Los Angeles, is best known for its unforgiving weather and ancient, almost alien, landscape.

Tomorrow, however, it will play host to a very modern spectacle when Sir Richard Branson unveils the latest stage of his scheme to transform space travel into a cheap, commercial proposition.

On a barren airstrip tucked into the edge of the desert, the 59-year-old billionaire will pull back the curtain on Virgin Galactic's SpaceshipTwo (SS2) - the carbon-composite craft about the size of a Gulfstream jet (and a third of the size of a space shuttle) which aims to carry paying passengers out of the Earth's atmosphere to the brink of space.



Already, 300 wealthy adventurers are said to have signed up for the proposed \$US200,000, 2½-hour flights - among them scientists Stephen Hawking and 90-year-old James Lovelock, and celebrities such as *X-Men* director Brian Singer and former *Dallas* star Victoria Principal.

In stark contrast to the complexity of an astronaut's training, a flight with Virgin Galactic will require only three days' pre-training. It is rumoured that the very first passengers will be Branson himself, along with his two children and parents.

In all, SS2's 12ft-long pressurised cabin is designed to carry six "space tourists" and two pilots beyond the Karman line (the generally acknowledged boundary of space, 100km up). For a few minutes,



Billionaire Richard Branson waves from the window of Virgin Galactic's mothership WhiteKnightTwo. Left: Taking flight.

Photos: Reuters

they will experience weightlessness while gazing out of aeroplane-style windows at the curvature of the Earth, the thin surface of the atmosphere and, perhaps, other planets. By then the rocket's engines will have been switched off, so the ensuing silence will add to the power of the experience (trial reports from the prototype SpaceshipOne even described hearing the "ping ping" of molecules striking the bottom of the craft as it re-entered the atmosphere).

The engineering acumen behind this hugely ambitious project is led by 66-year-old Burt Rutan, an aerospace maverick who has broken records and barriers throughout his career. Under Rutan's direction, SS2 has been in development for nearly five years, alongside the construc-

tion of WhiteKnightTwo - the 140ft-wingspan "mothership" that will ferry the smaller rocket ship 50,000ft into the sky before it detaches, then blasts up to the edge of space at up to 2600mph.

While each space shuttle mission is estimated to cost around \$US1b, a Virgin Galactic flight is put at less than \$US2m. Even with 300 or so advanced bookings (flights are eventually anticipated to run once or even twice a day), Branson has sold part of the business to investors based in Abu Dhabi to bring in \$US280m of much-needed capital. For Branson and Virgin, though, who also have new Formula One racing and submarine exploration projects under way, breaking boundaries and taking calculated risks are all part of the brand.

- *Guardian News & Media*