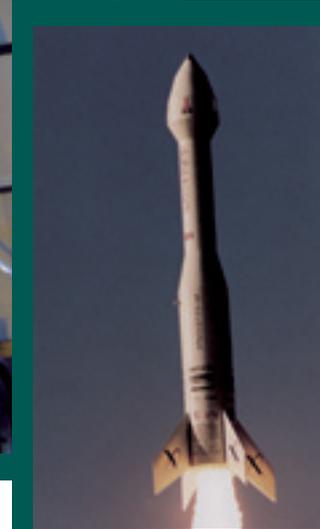




Ready for take-off? The first Starchaser tickets have already been sold



## STARSHIP ENTERPRISE

FOR THE PAST 15 YEARS STEVE BENNETT HAS BEEN WORKING ON ROCKETS THAT HE HOPES WILL SOON BE TRANSPORTING TOURISTS BEYOND THE FINAL FRONTIER. STUART ANDERSON VISITS HIS HYDE HEADQUARTERS TO FIND OUT WHETHER MR STARCHASER IS A VISIONARY OR, FOR WANT OF A BETTER WORD, A LUNAR-TIC.

**I**n 1992 I said to the missus, "I'm going to give up the day job and build a great big rocket. I want to fly a rocket all the way into space – and I want to fly on one of those rockets." The response to this declaration showed Steve Bennett's wife, Adrienne, must be just as remarkable as her husband: "She said, 'Great, go for it and I'll stick with you.'"

Bennett, a former serviceman, had been building rockets since the age of 13 and now expects to don his own spacesuit by 2010. It was not until 1996 that he was able to give up his job as a lab technician and dedicate himself full-time to rocketry, but following the expression of spousal approval for his plans he headed out to the garage of his Dukinfield home and "started looking at doing something seriously impressive".

"In 1993 I started working on a 3.5 metre rocket called Starchaser, which was then the largest amateur rocket ever built in the UK," he continues. "I got sponsorship from the sugar giants Tate & Lyle, who were keen because I was using sugar as a rocket fuel back then."

Starchaser took to the skies in 1995, and Tate & Lyle asked Bennett if he could put together something bigger. Another, twice the size, followed, then, in mid 1996, a phone call from the head of physics at Salford University enabled him to fulfil his dream of becoming a full-time rocket scientist.

"He was setting up a new degree programme called 'Physics with Space Technology' and he said, 'Steve, we like what you're doing with the rockets, come and do them at Salford,'" he recalls.

Bennett set up Starchaser Industries as a limited company in 1998. He still teaches at Salford, though he relocated to Starchaser's current premises in Hyde in 2000.

The move was made possible, in part, by bringing on board an investor. In 1997 Bennett had scraped together £70,000 to build a rocket which blew up, taking a significant chunk of Dartmoor with it. But he dusted himself down, rebuilt it, and in 1999 the skies above Morecambe Bay witnessed the highest altitude flight achieved by a private rocket in the UK – 22,000 ft.

This drew the attention of the Civil Aviation Authority, which has since changed the rules to limit the altitude of such test flights. It also, however, caught the eye of one Paul Young, who had previously made a wad from mobile phones. Young paid £2 million for a 20 per cent stake in the company, enabling Bennett to begin serious work on what he believes to be the commercial destiny of Starchaser Industries: space tourism.

Around this time Bennett also managed to sell the first two seats on the first manned spaceflight to be made by a Starchaser vehicle – something he expects to happen within three years.

"We're building a three-person capsule," he says. "The people that came on board, who want to remain anonymous, said, 'Here's the money Steve. We don't care when you do it but we want to be the first two passengers on there. And there's one condition: you've got to pilot it.'"

These tickets were sold for £250,000 apiece, providing a further capital injection. Bennett says his Hyde

facility (from which he is planning to move shortly to spanking new premises a mile down the road) and 12 staff cost around £300,000 a year to keep going. He currently covers these costs through a variety of sponsorships, both in cash and kind, and through educational outreach work: the latter bringing in about £250,000 a year.

"Schools pay us to take our rockets into school classrooms, to enthuse and excite the kids, and we link it all in with the stern subjects in the national curriculum," he explains.

Another income stream, which is just getting started, is corporate team building, whereby, rather than using three twigs and a rubber band to cross the Cheddar Gorge, participant teams get to compete to build and launch rockets.

At the beginning of this year the company also won a €150,000 one-off contract from the European Space Agency. Bennett explains, "ESA wanted to find out about small entrepreneurial space tourism companies like ours in Europe and Canada. They put up three



The force is strong in this one: Bennett built his first rocket at age 13



Down to earth guy: Bennett gets frustrated by industry "BS"

identical contracts, and essentially they want to look at our business plan and strategy.

"From what I've heard, a total of eight companies applied for these contracts but ESA only actually awarded one, and that was to us."

Bennett says the company will need to raise about another £3 million to make its first manned flight, which it plans to launch from the New Mexico state government's new Spaceport which is intended for use by private space tourism companies just as soon as any can get off the ground.

Having taken a trip to the site back in May 2004 Bennett says he "instantly fell in love with the place".

"You've got great weather all year round," he continues. "It's at an elevation of nearly a mile, and when you're launching rockets the first mile is where you get the most drag.

"And the New Mexico state government are very supportive of

companies like ours. So, we're not relocating but, rather, expanding over there. We set up Starchaser Industries Inc in January 2005. We've got two employees over there now and we're buying up 120 acres of land with a view to building a manufacturing facility and visitor centre."

The first 23 acres have already been acquired, with another 100 under contract, about 50 miles from the Spaceport and located along a stretch of Interstate 10, the main corridor between Florida and California, which carries 24,000 cars a day. This land includes an exit from the interstate – but not, as yet, a filling station.

"We're going to build a service station on there, which is all going to be rocket-themed. We've got shops going in, we're building offices, we'll have an exhibition centre," he says.

Bennett, it is clear, is no commercially-naive techie. Branching out, he has recently invested £150,000

to acquire half of the TV21 sci-fi theme bar in Manchester's Northern Quarter, which is run by his co-owners Steve and Paul Petrico. This business is, he says, on course to turn over about £1 million in its first year of trading. "It's almost like a retirement fund," he explains.

Perhaps Bennett's most ambitious plan (apart from piloting a rocket, of course) is to float the business on AIM. Via the Starchaser website he has already signed up 700 investors at a minimum of £1,000 each, and he believes the float will raise £1 million to start with. But he reckons this figure will get much bigger.

"It's going to be the big business of the early 21st Century," he says. "There's going to be tons of money in space tourism. It's going to be like dotcom all over again: you get in at the right time and you're going to make a lot of money."

The commercial Starchaser flight, he says, will last 23 minutes: "We're not talking about orbital flight here. It's a straight flight up to 100km, you get to see the curvature of the earth, the blackness of space, you'll feel weightlessness for a few minutes, and then you come down again."

Tickets are initially on sale at £98,000. However, with Richard Branson having commissioned Scaled Composites (which in 2004 won the "X Prize" for the first private manned vehicle to make it into space) to build a spaceplane for Virgin Galactic that will allow passengers to enjoy space travel in relative comfort for a similar price, how is Bennett's more "traditional" offering going to compete?

"We've designed our rocket around a couple of safety systems that we're building into it that our competitors just aren't doing," he explains.

"One of these is a launch escape system, which is a long rocket that sticks out of the top of the nosecone of the main rocket. This will pull the capsule away from the rest of the rocket if there's a problem on the launchpad or the rocket goes off course. Nasa used them for the Apollo moonshots and Russia has been using them on the Soyuz vehicles since they started.

"The other thing we've got is full pressure suits. We're going to be using Russian Sokol spacesuits. The Russians have been using those since the 1970s when they lost a crewmember because of depressurisation.

"Our contemporaries aren't doing that. They're saying, 'we'll fly you like a conventional aeroplane', but people want to do the astronaut experience. They want to do the training, they want to get in the capsule and sit in the back. And they want to have a spacesuit."

There is, of course, the worry that the rockets never get off the ground not because of lack of funds or technological problems – Bennett insists he has gathered the UK's best rocket scientists around him – but because the leisure and education sides of the business become much more attractive to future stockmarket investors than risky, expensive space travel.

"That depends on how we set the company up," Bennett counters. "From the outset I've always said that I don't want to be a T-shirt salesman."

Another, possibly greater, risk is that a competitor beats it to the launchpad and manages to kill its first passengers – in the process setting the industry back 20 years. Similarly, the number of companies out there with varying levels of expertise could be offputting for investors.

"There's a lot of talk, there's a lot of BS in this industry, especially from Americans: they just talk, talk, talk. And there are investors out there that want to get into space tourism but there's that much bollocks being talked out there that they can't actually see who's doing the good stuff and who isn't," he complains.

And the kind of money the sector can attract was demonstrated by the winner of the X Prize, Burt Rutan's Scaled Composites. Its backer, Microsoft's Paul Allen, put up \$25 million in pursuit of the \$10 million prize.

"That's the way the American's do things: overkill it. It's all about the winning," Bennett says. "And that's one of the reasons why we set up over there: if you can't beat 'em, join 'em. And then beat 'em." **EN**