

GIZMO

Blast off on a budget



A simulation of the Lynx, which will take a passenger almost 40 miles above Earth for an estimated £50,000

Get ready for an out-of-this-world price war. In the same way that low-cost airlines slashed the price of flying, a new type of aircraft is promising to bring the price of off-world travel within the reach of the merely well-off, as opposed to the super-rich.

The Lynx is a reusable rocket-powered "space taxi" that can take off from normal airports and blast its way nearly 40 miles into space. Reaching twice the speed of sound during the ascent, the Lynx's single passenger will get a bird's-eye view of the planet and experience weightlessness before gliding back down to Earth.

While the estimated \$100,000 (£50,000) fare may sound sky-high, it's just half the amount charged by Virgin Galactic for a flight aboard its



A new 'space taxi' promises to take tourists out of this world at half the price of rivals, writes Mark Harris

larger SpaceShipTwo vehicle, which will carry six passengers at a time.

The two-seater Lynx, unveiled last week, will be about the size of a small private jet and will use liquid fuel rockets, making it easy to refuel and reuse. Xcor, its US maker, aims to have it in operation by 2010, flying several half-hour voyages every day.

"The Lynx will be the greatest ride off Earth," says Colonel Rick Searfoss, Xcor test pilot and a former Nasa space shuttle commander.

Market research suggests that

around half of us dream of travelling into space, and many are prepared to spend several months' salary to do so. At the moment, you can take a zero-gravity flight for about £2,000, aboard a converted jet taking off from the Kennedy Space Center in Florida.

If, however, you want the experience of floating in coal-black skies, looking down at the Earth's curve, you need to fly much higher. Trips with cosmonauts aboard real Russian rocketry can be arranged today, but at truly astronomical prices. Expect to pay

\$30-\$40m (£15-£20m) for a week-long break on the international space station, or \$100m (£50m) to join the first private manned mission to the moon, planned by an American company using Russian spacecraft. It's a unique holiday destination, but apparently the atmosphere isn't great.

Nasa, currently planning its own next-generation Orion spacecraft for a moon mission by 2020 (Mars comes later), seems happy with the rise of private space companies. It is considering co-operating with Virgin Galactic to develop spacesuits, heat shields and rockets, and already uses Xcor's liquid-fuel storage expertise.

However, Lynx's rivals are saying the new low-cost competitor won't deliver the real space experience. "Nasa defines space as starting 50 miles above sea level — the Russians put it higher still. That's not to belittle

the Lynx's 40-mile limit, but it's not a trip into space," warns Will Whitehorn of Virgin Galactic.

Whitehorn is also sceptical of the launch date. "Xcor isn't a fly-by-night company but I don't think they'll meet their 2010 timescale. We're going to start test flights of SpaceShipTwo this year to obtain an FAA [Federal Aviation Administration] licence. It could take a couple of years, but I'm sure we'll carry passengers long before the Lynx."

Virgin Galactic is selling places on SpaceShipTwo — Stephen Hawking will be on an early flight — and has commissioned the architects Foster & Partners to design the world's first private spaceport in New Mexico.

Space tourism may be taking its first small steps, but the forces of free-market capitalism are staying one giant leap ahead.

gear@sunday-times.co.uk

TECHNOLOGY NEWS

MOUNTAIN GUIDE

Satmap Active 10 GPS navigator
£300 www.satmap.com
0845 873 0101

Hardy hikers and mountain bikers have long rued the fact that weatherproof GPS-based routing devices are unable to display Ordnance Survey (OS) maps that show accurate contour lines. Although some smartphones have been able to accept OS maps, until now nothing has been available that is "ruggedised" for outdoor use. The Satmap device comes with a basic UK road map but accepts SD memory cards (starting at £30) that carry OS maps (either 1:25,000 or 1:50,000 scale) of most UK areas. In tests, the Active 10 proved a tough and extremely helpful companion when hiking around the Lake District. Its combination of 7cm x 5cm colour screen, joystick and six buttons made it easy to operate and its built-in electronic magnetic compass came in handy. The Satmap runs off three AA batteries that should last about 30hr — almost long enough to take your mind off the price.



RUN SMARTER

Nike+ SportBand
£40 www.nikeplus.com 0800 056 1640

The clever Nike+ training widget previously worked only in conjunction with an Apple iPod, but now it's been made into a stand-alone device. It includes a small sensor that fits inside a hollow on some Nike footwear, and a wristband receiver that displays real-time statistics such as your pace, the distance you've run and the calories burnt. As before, you can transfer the workout data to a computer via a USB cable, and upload it to the free Nike+ online service to keep tabs on your progress or challenge your virtual training buddies.



CLOCK THIS



Phosphor Ana-Digi E Ink watch
\$250 (£124) www.phosphorwatches.com
00 1 310 295 1079

One of the first watches to use the E Ink technology developed for electronic book readers, this Phosphor watch has a dial that, in comparison with an LCD screen, remains legible from wider angles and in strong sunlight, and uses less power. The Ana-Digi lets you customise its appearance by changing the face from black to white at the touch of a button, and by selecting either digital or analogue display. The case is stainless steel and straps come in leather or polyurethane. The Ana-Digi is available to order from its US-based distributor.

DON'T PANIC

NIGEL POWELL ANSWERS
YOUR TECH-RELATED QUERIES

Q Every time I open Internet Explorer a box tells me it has encountered a problem and needs to close. What's going on?
Tim Cave, Northampton

A It sounds as if your browser is corrupted. Internet Explorer (IE) can be knocked off base in myriad ways, so it won't be easy to track the fault down. It's best to uninstall IE (see tinyurl.com/qucm5) and then install IE 6.0 by downloading it from tinyurl.com/b3z26, or try the Firefox browser instead (getfirefox.com). I'd avoid the latest version of IE (7) for now as it can have problems.

Q How can Midi audio files be played back on a CD player?
Andrew Buley, Wiltshire

A Midi files are typically used with computer-controlled instruments to create or transfer music from synthesisers and cannot be played by a standard CD player or an MP3 player. However, a freeware program called Midnight Express (tinyurl.com/3ch7j5) converts Midi files to the Wav (lossless) audio format. Then you can burn the music onto a CD and play it on a normal CD player.

dontpanic@sunday-times.co.uk

GAMES

★★★★ KO ★★★★★ A-OK
★★★ OK ★★ So-so ★ No-no



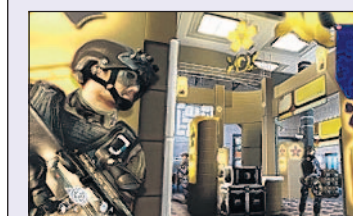
Gran Turismo 5 Prologue
★★★★★
PS3, £25. Age 3+

Gran Turismo (GT) is the best known of all the racing games, and new editions are so eagerly awaited that the maker trails each launch with a "prologue". Previously these have been glorified demos but this one is a title in its own right. You don't get all the events and courses of the full game, yet to be released, but it packs in six tracks (each in two layouts), over 70 cars and at least 30 racing events.

The crisp HD graphics are superb, with views of the Ferrari F430 and Aston Martin DB9 coupé that will make grown men swoon, plus the most detailed digital Shaftesbury Avenue you've ever sped down in an Audi R8. The handling is better than ever, particularly if you switch off the driving aids and try the new "professional" mode.

At last the GT team has realised gamers want competition, not just a polite procession of supercars. This is the first GT to offer online racing: you can test your mettle against up to 15 other gamers, which adds the thrills of the single-player game lacks.

One niggle: while the computer-controlled cars are vastly improved over GT4, they still lack a killer attitude. **Stuart Andrews**



Tom Clancy's Rainbow Six: Vegas 2 ★★★★★
Xbox 360, PS3, PC, £35-£50.
Age 16+

Rainbow Six: Vegas 2 is a classy first-person shooter with a tactical element. You still wander around blasting baddies but you are also in command of a two-man squad that can open doors, throw grenades or shoot specific targets. Having foiled one terrorist plot in Sin City, in this sequel you take your Rainbow Six team out of the Las Vegas casinos

and into the civic buildings off the Strip. The tight gunplay is as satisfying as in the original, thanks to controls that allow you to command your squad and shoot bad guys at the same time. However, the gameplay feels like more of the same and your comrades suffer occasional glitches that leave them unable to move.

Luckily, Vegas 2 works far better online. You can play through any part of the campaign with a friend or engage in terrorist hunts and team battles with up to 15 other online players. The game rewards loyalty, and every small victory (online or offline) unlocks new weapons and equipment. Throw in a huge range of character customisation options, and you have a highly addictive game. **Stuart Andrews**