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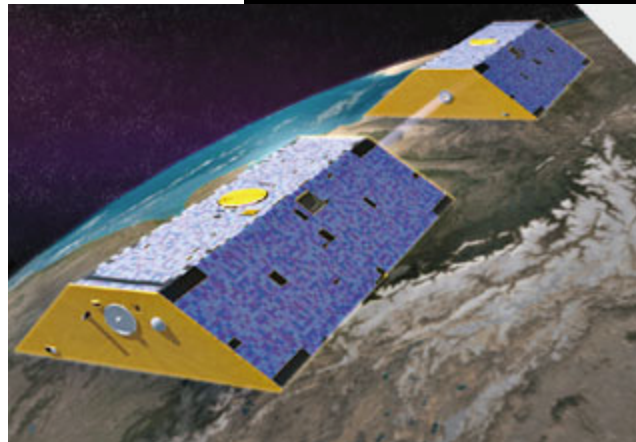
15th ANNUAL BEST OF WHAT'S NEW sponsored by **TOSHIBA**

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## Best of What's Orbiting

We award three satellites this year not for shedding light on the mysteries of space but for offering a peek into intricate processes at home. They're quite simply the most advanced Earth-observing instruments ever.

NASA's twin **GRACE** satellites, in orbit 137 miles apart and 310 miles high since March, are measuring minute gravitational variations that pull them together or push them apart. NASA can detect separation changes as small as 10 microns. The goal is to create an accurate map of Earth's gravitational field, so scientists can track changes in Earth's temperature and density—forces that drive tectonic plates and ocean circulation.

### GRACE

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## PopSci Reader's Choice Poll

Vote for your favorite Best of What's New item. Results will be announced January 10, 2003.

Click the button below to vote for **GRACE**.

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### Best of What's New: Aviation and space

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Quite a drop in price for 43



Waarhorse: years of space travel, given the rate we might see SW-Airlines picking up this business in about 10-15 years and charging about 300 a ride. Now if we can just figure out Gate-way technology.....hmmmm

Of course it will get cheaper and become accessible.

Just consider the advances in other fields. In 1959 the miracle was simply getting a small object into low earth orbit. Its evolved in "no time" to man on the moon, global (digital) TV, Hubble, more knowledge than we know what to do with.

Liam: And on the cost side, consider the reductions - quartz watches initially cost several thousand dollars, and dramatically fell to become the cheapest of technology.

And airline costs - Only generation ago it cost a fortune - but free market competition, e.g. NW Airlines in US, RyanAir in Europe have changed all that.

So, watch this space, advances in technology, competition will make it affordable. Only the timescale is in doubt.

Pat MiGroin: Is 62miles high enough for no gravity? Because if im spendin 98G's I better be floating. Just like the moon affects the tides, it is ridiculous not to think that our bodys(made up of 90something percent water) are not affected by our universe's gravity. The study of space will help us understand ourselves (know thy self). The universe is infinit...we better get a move on!

EXPLORE SPACE! dont think about money.(The key to freedom is not money its knowlege.)

daniel: how would you pee up there? i don't get it, wouldn't it float away?

Ryan: this would be so cool to do when (or if) I get that kinda spare cash thats the first thing Im going to do

Loz: That kind of money for just one hour in space?

What a bummer.

fred: Eclipse cheap bizjet got big setback when contract w/ Williams to make the EJ22 engine got canceled in late Nov. Eclipse says the EJ22 power degraded rapidly and no "real" dly schedule was set. Lack of power makes plane unfit for hot or humid weather. Delay while new engine is found will be "huge".

Eclipse is run by a former MSFT employee with no experience in aviation. Software, of course, is always sold before it works right but airplanes are different.

Doesnt look like this

Mevman: Eric Adams (the writer of the article), knows anything more about aviation or building airplans than Raburn.

Maybe they are both ex software engineers.

frank: If the EJ22 lacks thrust for the over-weight Eclipse, why is Vern looking to new companies for an engine?

Williams has in work the FJ33 which Cessna has selected for the Mustang.

bob d: I was in 5th grade when Apollo was on the moon and I hoped against hope that I would some day go into space. As I grew up, I realized that it could happen within my lifetime. Now I'm in my fourties and it looks more and more real.

How long did it take to sell tickets after Orvile and Wilbur, 10 years, 15 years?

Go XCOR! Hurry, It's getting late.

The rules. Keep it clean and stay on the subject - or we may delete your comment. Also please enter no more than 20 lines. If you see inappropriate language, [email us](#).

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