

# Worldwide rocket travel is ‘another mad idea’

Would you want to travel from London to Sydney in 51 minutes? Elon Musk has revealed extraordinary plans to revolutionise travel with “big rockets”. The plan is a logistical nightmare.



**Pipe dream:** A poster for the American sci-fi film *Rocketship X-M*, which came out in 1950.

Since the invention of flight, humanity has been restricted by just four prosaic modes of transport: road, sea, rail and air.

“BORING!” cries **Elon Musk**, the inventor and founder of SpaceX. Let’s think bigger. What about space rockets?

At a space industry conference last week, Musk announced his plans to build a rocket which could travel between most points on Earth in **under half an hour**. In the time that it takes to watch an episode of *The Big Bang Theory*, you could travel between London and New York.

SpaceX would use its forthcoming “mega-rocket” to lift a spaceship into orbit around Earth. The ship would then settle down on floating landing pads near cities. Musk has said that he hopes to begin construction on the rocket in the next six to nine months.

“Once you are out of the atmosphere, it would be as smooth as silk, no turbulence, nothing,” he added.

There are — you guessed it — a few problems with this.

First off, there are risks to these breezy city breaks: SpaceX has been successfully landing its **Falcon 9** rockets for over a year, but there have been many explosions. Although successes now outnumber failures, the explosion rate is unacceptable from a commercial standpoint.

**Intercontinental ballistic missiles** can be fired into orbit and then detonate warheads at a target on Earth in about 30 minutes. But Brian Weeden of the Secure World Foundation points out: “You can’t fly humans on that same kind of orbit. The acceleration and the G-forces for both the launch and the re-entry would kill people.”

Musk has said that the cost should be about the same as full fare economy in an aircraft. But this would be almost impossible at first. And even if a flight ends up costing, say, \$10,000, it would still be seen as Silicon Valley proposing yet another idea that is **out of reach for ordinary people**.

But let’s put these snags to one side for a moment: widespread international rocket

travel would change the world in ways we can hardly imagine. Would you want to travel around the world in under an hour?

## Giant leaps

“Bring it on,” say many. Think of the thrill of going into space every time you go on holiday. Think of the mind-numbing hours you waste watching second-rate films on aeroplanes. This kind of ultra-fast travel would increase trade and open more people’s eyes to the rest of the world. What’s not to like?

“Careful what you wish for,” reply others. This is globalisation on steroids. Distance is what gives the world its variety: if that is eliminated then Bangkok will gradually become identical to Baltimore and Berlin. Travel should be an experience in itself, reminding us of the vast scale of our planet. And what about the environmental cost?

## Q & A

### Q: What do we know?

A: Elon Musk plans to revolutionise the way we travel by developing a rocket which could take passengers from London to Sydney in 51 minutes. The rocket could even help build

colonies on the Moon and Mars. Many doubt whether this will ever happen, but Musk has already detailed plans to fly two tourists to the Moon. He has also developed cutting-edge electric car technology.

### Q: What do we not know?

A: Whether this - or indeed any of Musk’s more

outlandish ideas - will ever really happen. Despite incredible technological advances, basic transport infrastructure is still appalling in many parts of the world. It could be that public demand will result in Musk focusing his efforts on more realistic and earthbound goals.

## YOU DECIDE

1. Would you want to travel from London to New York in half an hour?
2. Do you expect to venture into space at some point in your life?

## ACTIVITIES

1. For which journey would rocket travel be most necessary? Design a route and write a letter to Elon Musk recommending it for his first journey.
2. Draw a diagram illustrating the main principles of how rockets work.

## SOME PEOPLE SAY...

*"If we don't have things that inspire us, what's the point of living?"*  
Elon Musk

WHAT DO YOU THINK?

## WORD WATCH

**Elon Musk** – A South African-born business owner, investor and inventor, Musk moved to Canada before becoming a US citizen. He has stated that the goals of his various businesses include reducing global warming through promoting sustainable energy, and reducing the “risk of human extinction” by “making life multiplanetary”.

**Under half an hour** – Musk’s rocket will travel at 29,000 kilometres per hour. The furthest possible land journey on Earth is about 20,000 miles.

**Falcon 9** – A type of rocket launcher designed by SpaceX. Unlike all other launch systems in the world, the Falcon 9 Full Thrust is partially reusable. It is powered by rocket engines that burn liquid oxygen and kerosene propellants.

At its fastest, an Intercontinental ballistic missile (IBM) can travel at 6 to 7 kilometres per second.

**Out of reach for ordinary people** – Musk has been very critical of this perception, and his company Tesla recently developed and unveiled what it calls an “electric car for the people”.

**Intercontinental ballistic missiles** –

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