

Spacecraft to cruise on a sunbeam

A craft which could accelerate to speeds of 55 miles per second – allowing it to travel far beyond the solar system – is set to be launched this week.

Cosmos 1 will be propelled by “solar sails” which use the force exerted by sunlight in the same way that a sailboat is powered by the wind

Light: Made up of little packets of energy called **photons** – travelling in space at about 186,000 miles per second

Photons push on electrons in surface of sail, which in turn push craft through space

Mylar sail

SUN

Photons

Cosmos 1:
\$4 million project funded by Planetary Society

Once in Earth orbit eight *Mylar* panels unfurl forming 100-foot wide solar sail

Sails pivot to steer space craft

Launch: By *Volna* missile from Russian submarine in Barents Sea