

# First solar-sail-powered spacecraft launched

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The world's first solar-sail-powered spacecraft, Cosmos 1, was launched Tuesday from a Russian submarine in the Barents Sea on a ballistic missile, a spokeswoman for the Planetary Society said.

"It has been launched," said the spokeswoman Susan Lendroth, speaking from the organization's headquarters in Pasadena, California. The US-Russian project cost four million dollars in private funds, with the bulk of funding coming from US Cosmos Studios.

"We're waiting to get a confirmation of the time" from the Moscow liaison office in contact with the Russian submarine that launched the craft," Lendroth said. The launch had been scheduled for 7:46 pm (1946 GMT).

Signals from Cosmos 1 will reach Earth once the craft reaches an orbit of 900 kilometers (550 miles) above the Earth which will take about one hour, she said.

With the project, scientists will seek to prove that rays of light can provide a limitless energy propulsion source for space voyages, said Louis Friedman, Planetary Society president and director of the project. It carries eight triangular sails made of very tough, highly reflective, ultra-thin Mylar, one-fifth the thickness of a plastic trash bag.

Individually, the sails look like flower petals, but when they come together, they become an enormous mirror 30 meters (100 feet) in diameter.

Reflecting the powerful rays of the sun, Cosmos 1 will be visible from Earth with the naked eye as it completes one orbit every 100 minutes.

Cosmos 1 weighs 100 kilograms (220 pounds) and was created by NPO Lavochkin, a semi-independent Russian space agency.

Scientists calculate that the solar sail ship can reach 10,000 kilometers (6,200 miles) per hour within 100 days and 36,000 kilometers (22,400 miles) per hour in one year.

After three years, the spaceship should travel at more than 100,000 kilometers (62,000 miles) per hour, allowing it to reach Pluto, in the farthest reaches of our solar system, in less than five years, the Planetary Society said in a statement.

A more traditional mission to Pluto, using chemically powered engines and relying on Jupiter's gravity to accelerate, would take nine years to reach its goal.

NASA is already busy designing a solar spaceship capable of carrying 240 kilograms (531 pounds), with a solar sail the size of a football field. The Russian government funded Tuesday's launch.

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