

Private space taxis to replace shuttle

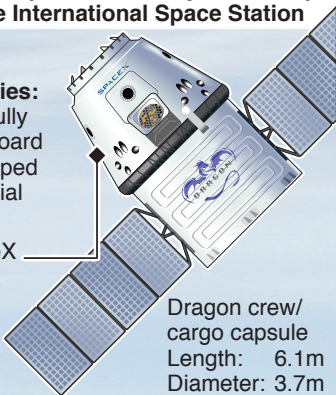
President Barack Obama is scrapping NASA's bid to return to the Moon by 2020 and killing the Ares 1 rocket – the planned successor to the space shuttle. Instead, the White House will turn to private industry to develop space taxis to ferry U.S. astronauts to the International Space Station

SPACEX

Space Exploration Technologies:

In July 2009, **SpaceX** successfully launched Malaysian satellite aboard **Falcon 1** – first privately developed liquid fuel rocket to lift commercial satellites into orbit

Dragon space capsule: SpaceX is in final development stage of man-rated craft which can dock with International Space Station



Dragon crew/
cargo capsule
Length: 6.1m
Diameter: 3.7m



Boeing: Working with **Bigelow Aerospace** which successfully launched two **Genesis** space habitats in 2006-07. Boeing has its own Delta rocket family



Orbital Sciences Corp: Private space company first launched its **Taurus** rocket in 1994.

In 2008, NASA and Orbital Sciences signed \$170 million agreement under **Commercial Orbital Transportation Services** project to develop service to deliver cargo to ISS



Sierra Nevada Corp: High-tech government contractor recently bought private space firm, **SpaceDev Inc.**

LOCKHEED MARTIN



Lockheed Martin: Had been building **Orion** crew capsule for NASA's abandoned moon mission. Aerospace giant has its own family of **Atlas** rocket launch vehicles.

Since 2006 Lockheed Martin and Boeing have operated **United Launch Alliance** – joint venture to launch satellites for NASA and U.S. Department of Defence

