Launch window narrows for SpaceX's monster rocket (Update)

February 6 2018

The SpaceX Falcon Heavy sits on Pad 39A at the Kennedy Space Center in Florida ahead of its expected launch

High winds narrowed the window of opportunity Tuesday for SpaceX to launch its monster rocket, the Falcon Heavy, the most powerful in

operation today and aimed at someday toting supplies to the Moon or even Mars.

What started as a clear day in central Florida with 90 percent favorable weather gave way to high upper level winds, pushing back the liftoff to 3:45 pm (2045 GMT), just 15 minutes before the the launch window of opportunity's end for the day.

"Launch auto-sequence initiated (aka the holy mouse-click) for 3:45 liftoff," CEO Elon Musk said on Twitter.

If Tuesday's attempt is scrubbed for any reason, another window opens on Wednesday.

Loaded with Musk's own red Tesla roadster, a mannequin in a spacesuit, and a playlist consisting of David Bowie's "Space Oddity," the monster rocket's maiden voyage has captured the world's imagination.

Will it sail into deep space, sending an Earth-made car into a distant orbit around the Sun? Or will it explode on the launchpad?

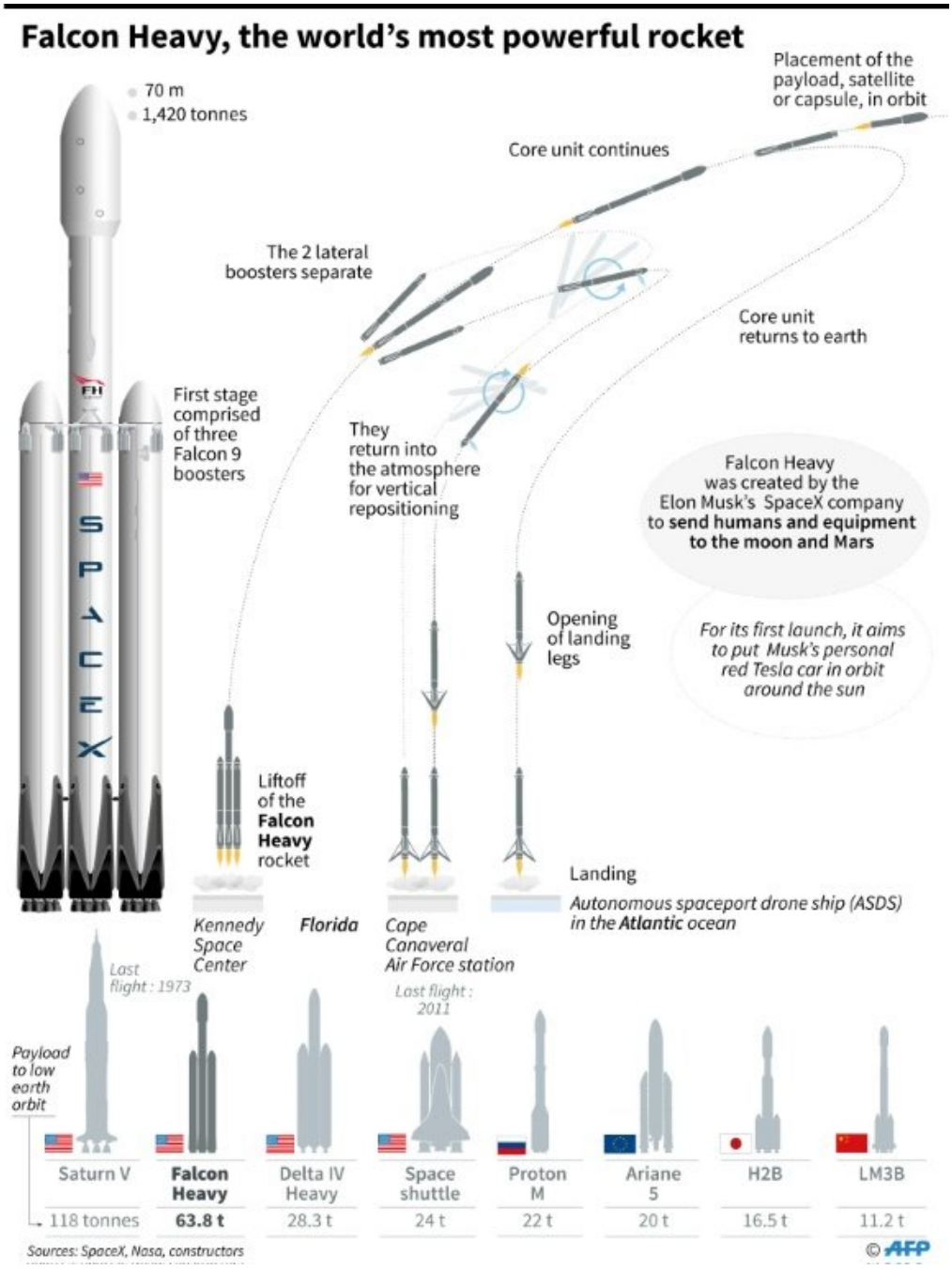
Musk himself has put the odds of success or failure at no better than 50-50.

"It is guaranteed to be exciting, one way or another," the quirky 46-year-old South African-born space visionary and wealthy businessman told reporters on the eve of the launch.

"I would consider it a win if it just clears the pad and doesn't blow the pad to smithereens," he added.

"I mean, that's four million pounds of TNT equivalent."

If successful, the launch could catch the eye of the US space agency NASA as a way to fast-track its plans to reach the Moon again for the first time since 1972.



Description and facts on the Falcon Heavy rocket, with comparison of other

And even if it fails, experts say the launch will be a win for the California-based company, which is fast becoming a leader in the global space industry.

Falcon Heavy specs

When the Falcon Heavy lifts off from the same NASA launchpad that was the base for the Apollo-era Moon missions of the 1960s and 1970s, it will be "the most powerful operational rocket in the world by a factor of two," SpaceX said.

That means it can carry twice the payload of United Launch Alliance's Delta IV Heavy, at a far lower cost—about $90 million per launch compared to $350 million for its competitor.

But the Falcon Heavy is not the most powerful rocket ever—just the biggest in operation today.

The Saturn V rocket that propelled astronauts to the Moon could deliver more payload to orbit. The Soviet-era Energia, which flew twice in 1987 and 1988, was also more powerful.

The Falcon Heavy is essentially three smaller, Falcon 9 rockets strapped together, adding up to a total of 27 engines.

The 230-foot (70-meter) tall rocket is designed to carry nearly 141,000 pounds (64 metric tonnes) into orbit—more than the mass of a fully loaded 737 jetliner.

It was initially designed to restore the possibility of sending humans to the Moon or Mars, but those plans have shifted and now the Falcon Heavy is being considered mainly as a potential equipment carrier to these deep space destinations, Musk said Monday.

Instead, another rocket and spaceship combination being developed by SpaceX, nicknamed BFR—alternately known as "Big Fucking Rocket," or "Big Falcon Rocket"—would be the vehicle eventually certified for travellers.

Musk confessed that he was experiencing none of his usual pre-launch jitters, but was feeling "giddy" ahead of the lift-off.

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