SpaceX lands all three Falcon Heavy rocket boosters for the first time ever

Following the second launch of SpaceX's Falcon Heavy, all three of the rocket's booster cores successfully landed back on Earth. The two outer cores of the rocket touched down on SpaceX's two concrete landing pads at Cape Canaveral, Florida near the site of the launch. The center core touched down on one of the company's drone ships in the Atlantic Ocean.

It's the first time that SpaceX has landed all three rocket cores from one Falcon Heavy flight. The first time Falcon Heavy flew, back in February of 2018, only the two outer cores made it back to Earth in one piece. The center core of that launch missed its target drone ship, when it failed to light all three engines needed to land because of a fuel shortage. So instead the rocket booster slammed into the ocean at 300 miles per hour. Still, the synchronized booster landing became one of the most iconic images of the launch, with many likening it to a ballet.

The center booster hit the drone ship at 300 miles per hour last year

But today, SpaceX managed to stick all three landings, and it may have helped that all three boosters used for this flight were upgraded versions of SpaceX's rockets, knows as Block 5. This version is made to optimize reusability, making it easier for SpaceX to land the vehicles and then turn them around quickly for future flights.



The center core booster on a drone ship in the Atlantic
Image: SpaceX

SpaceX first tried these landings a little more than four years ago with its Falcon 9 rocket boosters. The first attempt at sea (in January 2015) ended in a spectacular fireball after the booster slammed into the drone ship, video of which SpaceX released on Vine. The second attempted landing was in April 2015, and the booster *almost* made it, but ultimately tipped over and exploded.

SpaceX landed its first rocket booster in December 2015 at Cape Canaveral on the original concrete landing pad. From there, it took three more tries to stick one of the sea landings. But between that point and last year's inaugural Falcon Heavy launch, SpaceX rattled off 20 successful landings with just one failure. And since last year's first Falcon Heavy launch, the company has only had one unsuccessful booster landing.

https://www.theverge.com/2019/4/11/18305112/spacex-falcon-heavy-launch-rocket-landing-success-failure