

AS-201 26 Feb, 1966



Objectives:

This was not only the first flight of the Saturn IB rocket but the first real flight of a production Command and Service Module (CSM-009). It was a Block I version though, whereas all manned missions would end up using the Block II.

The Saturn IB was the uprated version of the Saturn I rocket which had already flown ten times in an earlier part of the Apollo program. The main difference between the rockets was that the first stage engines produced 7.1 million Newtons as opposed to 5.8 million Newtons on the Saturn I. It also featured a new second stage (the S-IVB, which was also used as the third stage of the Saturn V). The S-IVB could be restarted in space and featured a new hydrogen-burning J-2 engine (which would also be used on the S-II second stage of the Saturn V).

The mission profile was for the first and second stages of the rocket to launch the spacecraft into a high ballistic trajectory. The Service Module engine would then fire to accelerate the spacecraft to a high-speed reentry to test the heat shield.

Flight:

Finally, after months of delays and problems, the first flight of the Saturn IB lifted off from Pad 34. The first stage worked perfectly lifting the rocket to 57 km, when the S-IVB took over and lifted the spacecraft to 425 km. The CSM separated and continued upwards to 488 km.

The CSM then fired its own rocket to accelerate the spacecraft towards Earth. The first burn lasted for 184 seconds. It then fired ten seconds later for ten seconds. This proved that the engine could restart in space, a crucial part of any manned flight to the moon. It entered the atmosphere traveling 8300 m/s. It splashed down only 37 minutes after launch, 72 km from the planned touch down point, and was on board the USS *Boxer* two hours later.

Mission name:	Apollo-Saturn 201
Call sign:	AS-201
Launch:	February 26, 1966 16:12:01 UTC Cape Canaveral Complex 34
Landing:	February 26, 1966 16:49:21 UTC 8° 11' N 11° 9' W
Duration:	37 min 19.7 s
Number of orbits:	suborbital
Apogee:	310 mi (499 km)
Range:	5,264 mi (8,472 km)
Mass:	20,820.1 kg

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