A Self-Guided Tour of the National Air and Space Museum's Apollo Exhibits
Updated February 3, 2019

Located on the National Mall, 2 blocks northeast of the northern L'Enfant Plaza Metro station exit
Note: There's a museum branch near Dulles Airport, but the Apollo exhibits are in the one on the Mall

This self-guided tour is provided in case you can't make one of the scheduled live tours.
The tour should take less than an hour.

As you enter the museum, turn to the East (i.e., away from the museum shop), walk past the theater on your left, and stop at the circular pit with some tall rockets in it. The one closest to you as you arrive is the V-2 that Werner Von Braun and others developed in Germany. The Juno rocket that launched Explorer 1 (which is essentially a longer version of the Redstone that launched the suborbital Mercury flights) is also on display here. Then proceed around the pit and to the two rocket models in a case. The white one on the left is the Saturn V, the rocket the Americans used to go to the moon. Take note of three things on that model:

1) The third stage of the rocket. The first and second stages are the same diameter, but the third stage is narrower. So it should be easily recognized. There's an actual third stage elsewhere in the museum, so remember how much bigger the entire rocket is than the third stage and that will be another way to get a sense for the size of the Saturn V.
2) The conical shape on top of the third stage. That's where the Lunar Module is stored during launch. You'll get to see the lunar module later.
3) The spacecraft on top of that conical shape. You'll get to see that later too (without the long thin part at the very top – that's the launch escape tower).

Now turn around and find the biggest darn rocket in the room. That's the third stage of a real Saturn V. Walk over to the base of it and look up – that should give you a sense for how large the entire Saturn V rocket was. A Saturn V was about as long and about as heavy as a Navy ship of that era, but less than 60 seconds after launch it would be moving faster than the speed of sound – going straight up. That entire stage was a tank for the fuel and the oxidizer (the one rocket engine at the bottom has been removed from this one).

Then turn to the right and walk to the two spacecraft docked nose-to-nose that are suspended near the window. Looking from left to right you'll see an Apollo service module and then an Apollo command module. These are the two parts you saw at the very top of the Saturn V model (just below the launch escape tower). On the right you will see the Soviet Union's counterpart to the Apollo spacecraft, which was called Soyuz. The Soyuz spacecraft was designed to serve the same purpose as the Apollo command module, flying to and around the Moon, but not landing. This exhibit depicts the docking in orbit of Apollo and Soyuz spacecraft that happened in 1975, after the last Apollo lunar landing (and after the Skylab space station missions). The Soyuz spacecraft has three parts – from right to left they are the service module, the descent module, and the orbital module. Together, the decent module and the orbital module serve the same functions as the Apollo command module, but the orbital module is jettisoned before reentry into the earth's atmosphere, so only the descent module actually comes back.

Now go back to the rocket models and look at the green one on the left. That's the Soviet N-1 rocket, which was designed to take the Soyuz spacecraft, and a lunar lander, to the Moon. The Soviet Union tried to launch the N-1 four times; all of them failed. The Americans tried to launch the Saturn V thirteen times. All of them worked (although some worked better than others).

Another thing you can see here (behind glass, nearer the wall) are the American and Soviet lunar spacesuits in side by side displays. The American one has actual moon dust on it. We'll be taking about the Apollo spacesuit a bit, so take some time to get a sense for the differences between that and the Soviet spacesuit.

Now return to the point where you entered the museum. This is the Milestones of Flight hall, where some of the most significant flying machines in history can be found. The Apollo 11 command module, the only part of the first lunar landing mission to return to Earth, is usually displayed here, but it is currently on tour. Here you can see an actual lunar module, the same type of spacecraft that actually landed on the Moon. This was the second flight-ready lunar module to be built; the first worked well enough in an unmanned test that this one didn't need to fly the originally planned engineering test. The fifth one actually landed on the Moon. This is one of only two actual lunar modules still left on earth (the bottom half of six others – the "descent stages" are still on the Moon). The top part of the lunar module (the "ascent stage") is where the astronauts stood (there are no seats) as they landed on the Moon. The descent stage contains the rocket engine that they used to land on the moon, and then they later used that descent stage as a launch pad from which to fly the ascent stage back into lunar orbit.

While you're here, walk over to see the Mercury spacecraft that astronaut John Glenn flew in the first American mission to orbit the Earth. Next to it you will find the two-person Gemini spacecraft from which astronaut Ed White made the first American spacewalk. Its remarkable that it took less than 66 years to get from the first flight of an airplane to the first moon landing, but even more remarkable that it took less than 7 and a half years to get from the first orbital mission to the first Moon landing. Indeed, President Kennedy challenged the United States to land on the Moon before they had ever even put a person in orbit.

Until December of 2018, the National Air and Space Museum also had an Apollo gallery upstairs, but that is presently closed for renovations. There are three things to see upstairs, though. Take the escalator the second floor. Turn right and top of the escalator and then enter the Wright Brothers gallery. Here you will see the Wright Flyer, the first powered aircraft to successfully fly. Continue around the exhibit, and just before you exit look to the right to see a small chip taken from that aircraft. As the letter with that attests, this small part of the 1903 Wright flyer was taken to the Moon and back by Apollo 11. As you exit the Wright Brothers gallery, continue straight ahead to the stairs that go down into the third stage of the Saturn V. This third stage was modified to serve as a space station (called "Skylab") that astronauts lived in for between 1 and 3 months. This is the backup Skylab space station, which would have been launched if the first one had failed (clearly, it didn't fail, though!). Finally, as you leave the Skylab you might want to turn to the right and walk down to the balcony overlooking the Hall of Flight. There, suspended from the ceiling, you will see the "Spirit of St. Louis" airplane that Charles Lindberg flew solo across the Atlantic from New York to Paris. Notice that there is no windshield – the entire front to the airplane (behind the one engine) is a fuel tank. Fortunately, there was nobody flying the other way at the time! Nine days before the first flight to the moon, the Apollo 8 crew had dinner with Charles Lindberg.

Don't forget to take a selfie with an Apollo exhibit! That's your assignment – upload your selfie to ELMS to prove you were there.