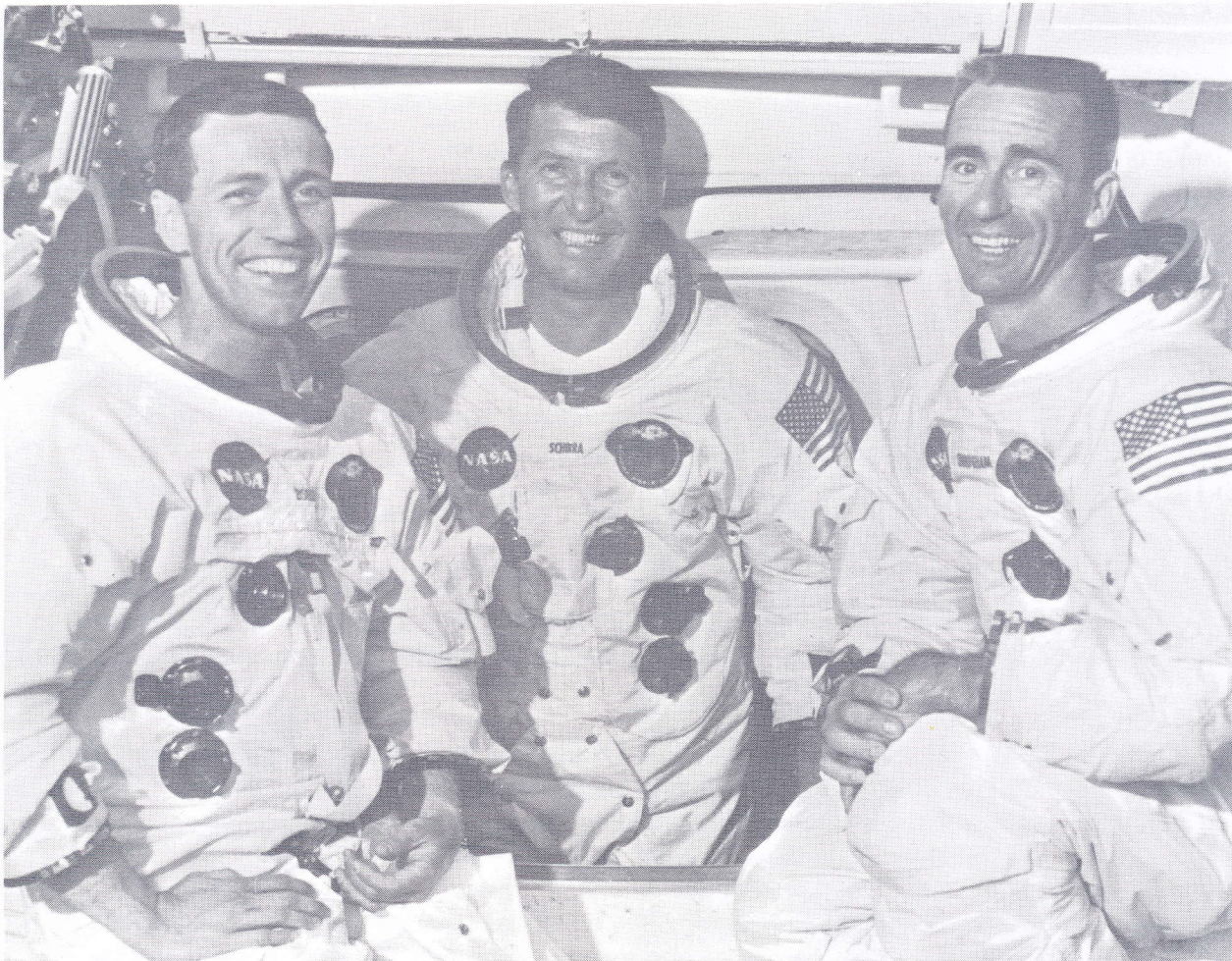




APOLLO 7 MISSION

Apollo 7, described by spacecraft Commander Walter M. Schirra, Jr. as a "magnificent flying machine," traveled some four and one-half million miles in orbit around the Earth to become the first manned flight in NASA's lunar landing program.

The successful 11-day mission began for Schirra, Donn F. Eisele (Command Module Pilot) and Walter Cunningham (Lunar Module Pilot) at 11:02 a.m. EDT lift-off on October 11, 1968. The spacecraft was injected into a 140 by 174 statute mile orbit by a Saturn IB vehicle launched from Cape Kennedy, Florida. It marked the fifteenth flight of the Saturn I's, all of which were successful.

During its 163 orbits of the Earth, Apollo 7 achieved all of its mission objectives. The mission was designed to:

- Check performance of the crew, prime and backup spacecraft systems and mission support facilities (Manned Space Flight Network);

APOLLO 7 MISSION.....

- Perform transposition and simulated docking maneuver in a rendezvous with the S-IVB stage;
- Gather data on propellant gauging system, spacecraft systems thermal balance, post-maneuver sloshing, and forward command module heat shield in entry conditions.
- Check performance of spacecraft propulsion systems, and test guidance system's inertial measurement unit in flight;
- Evaluate quality of air-to-ground voice communications, and procedures for stabilizing spacecraft systems thermal balance during the Earth-return portion of a lunar mission; and
- Conduct navigational exercises using landmarks and stars.

Also during the mission the astronauts brought "space" to millions around the world via seven live television transmissions. The telecasts showed the astronauts in various phases of operations inside the spacecraft and some views of geographic features.

Splashdown came in a squally Atlantic Ocean at 7:11 a.m. EDT, less than 30 seconds off the prescribed time. The prime recovery ship "Essex" dispatched helicopters to the splashdown area, some seven and one-half miles away, and brought the bearded trio onboard for a medical debriefing.

The perfect mission led NASA officials to plan a lunar orbital flight for Apollo 8. This first manned mission using a Saturn V launch vehicle is scheduled for December 1968. Prime crew for Apollo 8 is: Frank Borman, Commander; James A. Lovell, Jr., Command Module Pilot; and William A. Anders, Lunar Module Pilot.

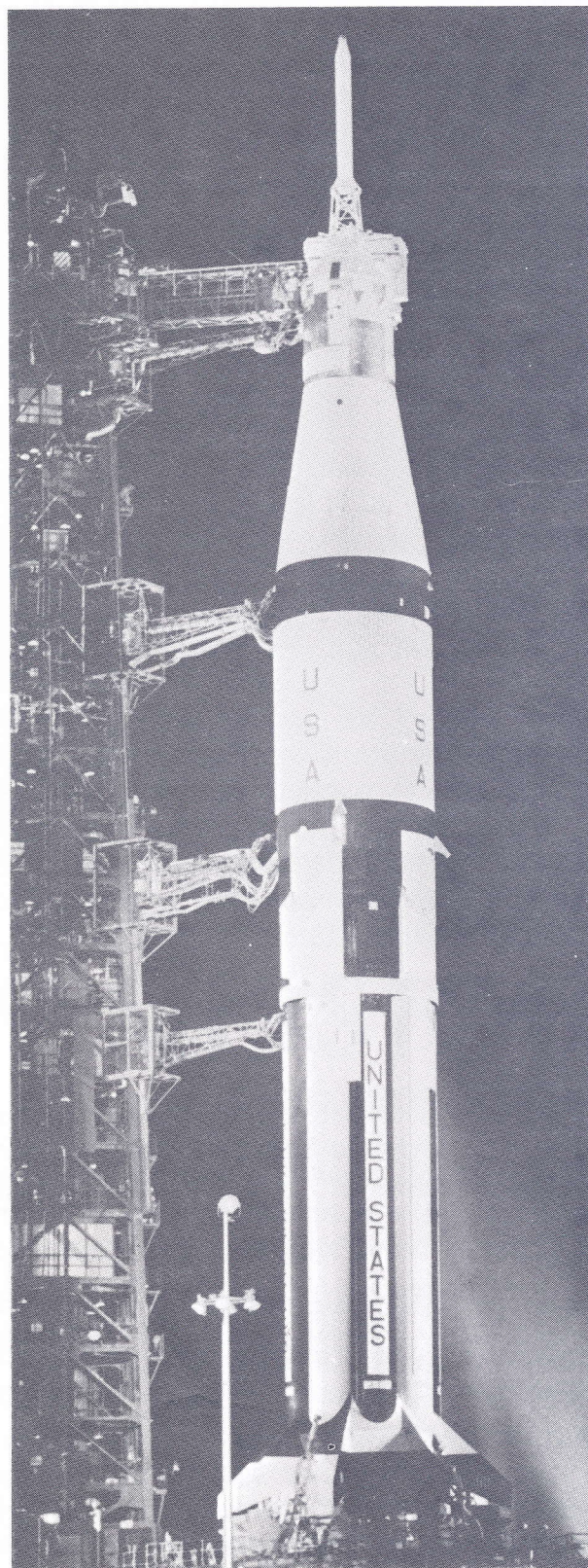
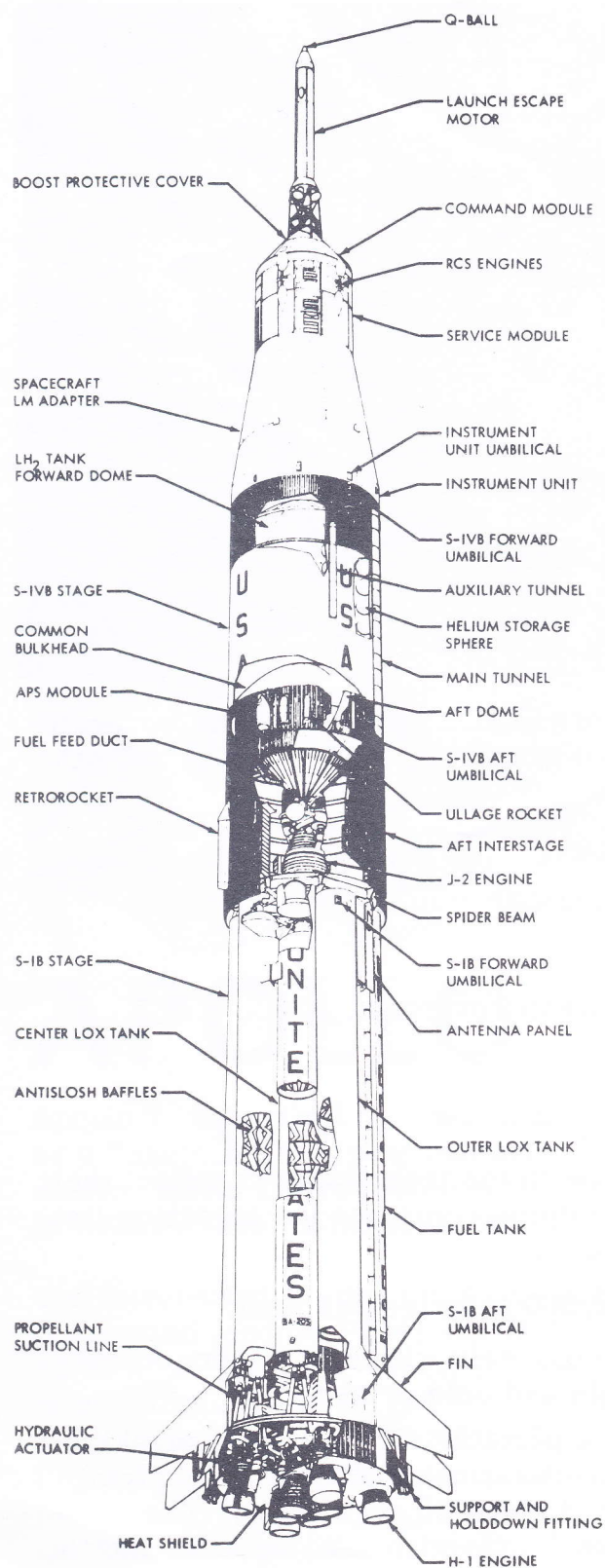
ASTRONAUT SPACESUITS

Apollo 7 crewmen, for the first hours of flight wore the A7L pressure garment assembly -- a multi-layer spacesuit consisting of a helmet, torso and gloves which can be pressurized independently of the spacecraft.

The spacesuit outer layer is Teflon-coated Beta fabric woven of fiberglass strands with inner layers of aluminized Kapton-coated Beta fabric marquisette spacer for separating insulating layers, a restraint layer, a pressure bladder and an inner high-temperature nylon liner.

Oxygen connections, communications and biomedical data lines attach to fittings on the front of the torso.

A one-piece constant wear garment, similar to "long johns," is worn as an undergarment for the spacesuit and for the in-flight coveralls provided for shirtsleeve operations. The constant wear garment is porous-knit cotton with a waist-to-neck zipper for donning. Attach points for the biomedical harness also are provided.



The Uprated Saturn I is 224 feet high with its payload. First stage produces 1, 600, 000 pounds of thrust; second stage produces 200, 000 pounds of thrust. Total weight including spacecraft is 1, 300, 000 pounds.

APOLLO 7/SIVB RENDEZVOUS -

The expended Saturn IVB stage is shown as photographed from the Apollo 7 spacecraft, approximately 100 feet away. The round, white disc inside the open panels of the S-IVB is a simulated docking target. The view is over the Atlantic Ocean off the coast of Cape Kennedy, Florida.



SPACESUITS.....

After doffing the spacesuits, the crew wore Teflon fabric in-flight coveralls over the constant wear garment. The two-piece coveralls provide warmth in addition to pockets for personal items.

The crewmen wore communications carriers inside the pressure helmet. The communications carriers provide redundancy in that each has two microphones and two earphones.

A lightweight headset is worn with the inflight coveralls.

MEALS FOR CREW

The Apollo 7 crew had a wide range of food items from which to select their daily mission space menu. More than 60 items comprise the selection list of freeze-dried bite-size rehydratable foods.

Average daily value of three meals was 2,500 calories per man.

Unlike Gemini crewmen who prepared their meals with cold water, Apollo crewmen have running water for hot meals and cold drinks.

Water is obtained from three sources -- a portable dispenser for drinking water and two water spigots at the food preparation station, one supplying water at about 155 degrees F., the other at about 55 degrees F. The portable water dispenser emits half-ounce spurts with each squeeze and the food preparation spigots dispense water in one-ounce increments.

Spacecraft potable water is supplied from service module fuel cell by-product water.