

was adjusted to 197 miles apogee 145 miles perigee, then on December 9 perigee was raised to 185.8 miles and apogee lowered to 188.3 miles. Missile reentry was observed over Pacific on December 14. Accurate controlled reentry was made, landing 7.6 miles from target. One astronaut at a time doffed his pressure suit to enhance comfort. No adverse physiological effects from 2 weeks in the space environment. Twenty experiments were incorporated into the mission, ranging from detailed medical measurements and sleep analysis to earth photography and radiometry measurements. Duration, 330 hours, 35 minutes.

Launch date: December 15, 1965.

Designation: Gemini VI-A.

Crew: Walter M. Schirra, Jr., and Thomas P. Stafford.

Remarks: Gemini spacecraft launched into 16 revolution orbital flight by modified Titan II booster (Gemini-Titan 6). This spacecraft-booster combination was originally ready for launch on October 25 but held when Agena target vehicle failed to orbit. Rescheduled to rendezvous with Gemini VII as target, launch attempted on December 12 but aborted when the first stage engine shut down immediately after ignition. Initial orbit was: apogee, 161 miles, perigee 100 miles; a series of posigrade maneuvers began the rendezvous chase and shortened the initial 1,200 miles separation distance to 730 miles. During second revolution the distance was reduced to 300 miles with another thruster firing, followed by a plane change to match Gemini VII's orbit. Orbit was adjusted to near circular at beginning of third revolution; as fourth revolution began, the terminal phase of rendezvous was initiated, resulting in approach to within 1 foot of Gemini VII. Stationkeeping and fly-around maneuvers were conducted for 5 hours, 19 minutes. Controlled reentry to landing within 13 miles of prime recovery ship. Duration—25 hours, 51 minutes.

Launch date: March 16 1966.

Designation: Gemini VIII.

Crew: Neil A. Armstrong and David R. Scott.

Remarks: Gemini spacecraft launched into orbit by modified Titan II booster, 1 hour 41 minutes after Gemini Agena Target Vehicle (GATV) Atlas booster combination. Rendezvous with the GATV was accomplished in fourth orbit, 6 hours after launch, and first docking of two vehicles in space achieved 33 minutes later. After 28 minutes of flight in the docked configuration a thruster in the orbital attitude maneuvering system stuck open and spacecraft began to spin. Gemini spacecraft was undocked from GATV and, after 25 minutes, was stabilized by use of reentry control system. Mission terminated early after 6½ revolutions, landing in secondary recovery area in Western Pacific. Scheduled extravehicular activity (EVA) was not accomplished. GATV was placed in a "storage" orbit for later use as a rendezvous target. Duration—10 hours, 41 minutes.

Launch date: June 3, 1966.

Designation: Gemini IX-A.

Crew: Thomas P. Stafford and Eugene A. Cernan.

Remarks: First mission attempt made on May 17 when an Atlas booster engine failed at 121 seconds after lift off, and the GATV failed