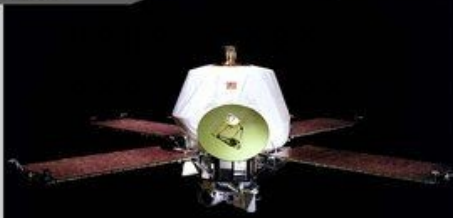


NIGHTHAWK STUDIOS

#44

MARINER 9



History

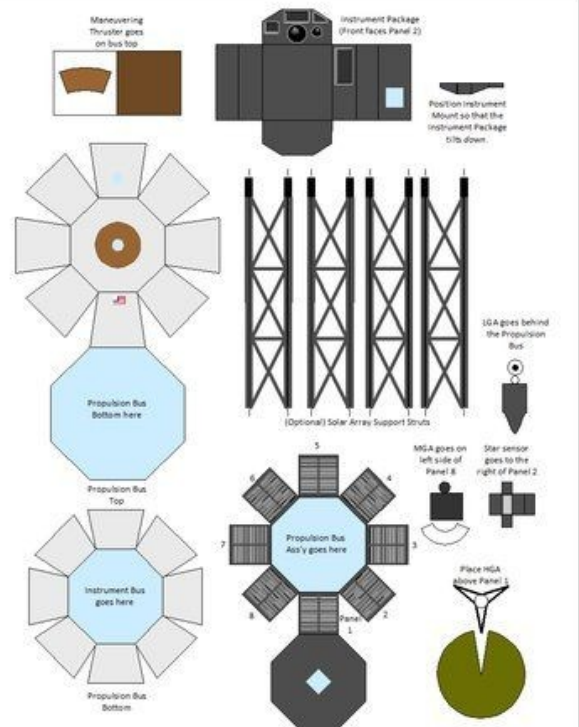
Launched on May 30, 1971, Mariner 9 was the first spacecraft to orbit another planet. The spacecraft followed the same design as its predecessors, Mariners 6 and 7. However, Mariner 9, being an orbiter, would need a whole lot more muscle than her lanky older sisters to keep her in orbit.

Up until the 1970s, planetary exploration had been done with flyby spacecraft, essentially artillery shells filled with instrumentation and basic attitude control. An orbiter would require a lot more computing capability in order to keep the ship in orbit; to make sure that the craft was never too high or too low, ascending too fast or descending into oblivion.

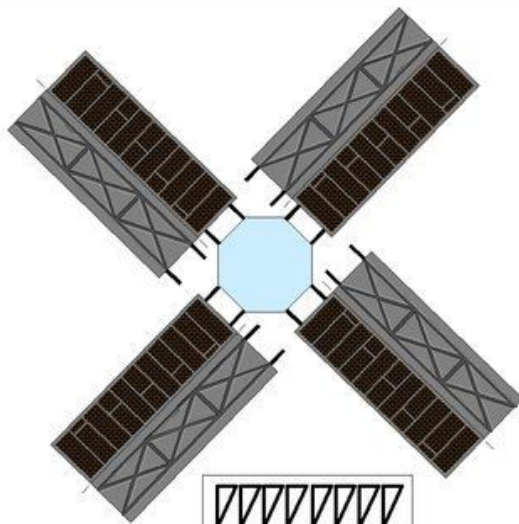
Orbiters had been sent to the moon (after all, the testflights and eventual Apollo Missions

were orbiters), however, Mars was a much more distant body, and getting a spacecraft to orbit a planet one as away would be an infinitely more complex task. While a flyby would be akin to shooting a .22 Long Rifle past a boulder some three miles away, an orbiter mission would be something along the lines of using that same round to only graze the moss along the entire side of the boulder without embedding the round in the rock itself. Also, our poor rifleman would have the added inconvenience of the boulder moving at some 30 mph.

Despite what seemed to be a high-impossible task, Mariner 9 arrived at Mars on November 13, 1972, establishing orbit nine miles above Mars' surface. The ship is still in orbit as of November 2011, forty years after her launch.



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Mount Corbis against the Instrument Bus

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MARINER 9

LAUNCHED MAY 30, 1971

ACHIEVED ORBIT NOVEMBER 13, 1971