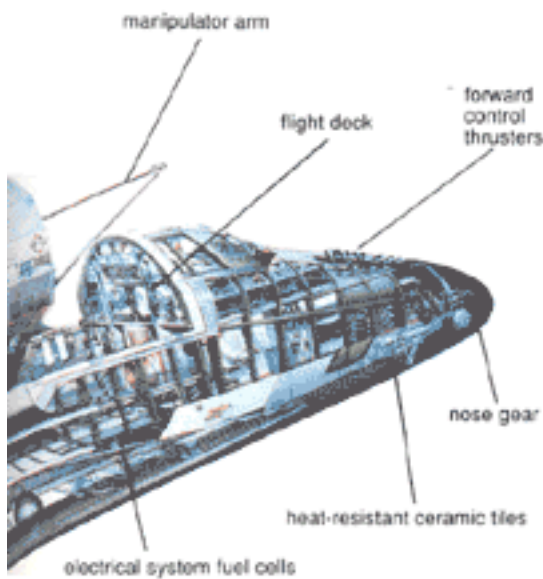
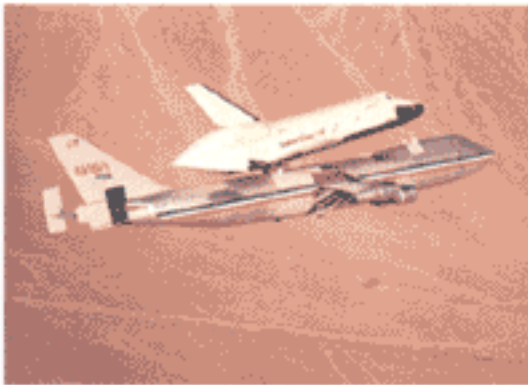


Manned Space Programs



7C-11 The space shuttle *Enterprise* is shown mounted atop a 747 during a test flight.



The shuttle also has living quarters for up to seven astronauts and passengers. The shuttle astronauts include women, for the first time in the U.S. space program. In 1983 Sally Ride became the first American woman in space as an astronaut on *Challenger*. Scientists who are not astronauts have also flown on space shuttle missions, both Americans and those from other countries. Congressmen have ridden on the space shuttle, and the United States has plans to put others such as teachers and journalists in space.

After many successful flights, the shuttle program came to a temporary halt when *Challenger* exploded during liftoff, killing all seven people aboard. Christa McAuliffe, a passenger, was to have been the first teacher in space. The cause of the explosion was apparently a defective seal in one of the boosters. The shuttle fleet was returned to its full complement of five in 1991 by the introduction of a replacement shuttle, the *Endeavour*, for the destroyed *Challenger*.

The disaster intensified a long-standing argument between advocates of manned programs and supporters of unmanned programs. Those who support mainly unmanned programs point out that not only are unmanned programs cheaper, but they are also unlikely to endanger human life. Those who support mainly manned programs point out that there are some times when human judgment is necessary, in spite of the extra cost and danger.

A major reason for exploring space has been to find evidence of life on other planets. Evolutionists thought that on Mars especially life might have begun to evolve. The entire space program has found nothing to support evolution. In spite of some wrong motivations, the space program has increased our knowledge of the solar system and thus our appreciation of God's creation.

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Probably the greatest benefit that has resulted from the space program, however, has been the resulting technological advances that were first used in space, or at least developed from space research. Some of these advances have filtered down to the consumer (you and me). Flame-retardant materials used by firefighters and in infant beddings, wash-and-wear clothing, computer technology, communications improvements, and recycling processes, just to name a few, are the indirect result of the space program. Have the benefits been sufficient to justify the cost in both money and life? Only time will ultimately answer the question fully, but few people would answer the question in a negative way if all the technological advances that have resulted from the space program could be listed.

The ultimate future of the space program seems bleak unless the countries involved somehow learn to share costs and technology. There have been some signs that cooperative efforts could develop more and more, but knowing the nature of mankind, selfish ambitions, and the lust for power may prove to be more than those in power can handle.

Without cooperative efforts, however, space exploration seems to be limited severely by cost factors. Perhaps your generation will find a way to overcome these problems.



7C-12 The Discovery being moved to the Vehicle Assembly Building where it will be fitted with an external fuel tank and booster rockets. The smaller two engines are for maneuvering.

Section Review Questions 7C

1. Who was the first American in space?
2. Who was the first man in space?
3. What did the Gemini project do?
4. What is the name given to the process of joining two spacecraft in space?
5. What was the name given to the module of the Apollo spacecraft that stayed in lunar orbit while the other module descended to the surface of the moon?
6. Who were the first two men to walk on the moon?
7. What were the Soviets doing while the United States was concentrating on putting a man on the moon?
8. Which space shuttle was lost in an explosion of the boosters in the mid 1980s?
9. List some advantages of the U.S. space program to everyday life in this country.