

Theme: Conquering Space

Text: Trip to Mars? Famed Scientist Questions Value, Cites Hazards of Manned Space Flight
Christopher Ruddy, April 19, 1998, (www.newsmax.com/articles/print.shtml?a=1998/04/19/110045)

Though Van Allen retired as the head of the university's physics department in 1985, he remains active in the [Pioneer] space program. He has played a principal role in NASA's Pioneer, Galileo and Voyager missions.

The scientist also has been a strong advocate against manned space flight, whether to Mars or just to Earth orbit in a space shuttle.

He noted the \$400 billion price tag one NASA study placed on the man-to-Mars mission. "If it doesn't cost anything, fine, do it. But it costs a lot, and there are no scientific, commercial or practical benefits for such a mission," he declared.

Make no mistake: Van Allen is a firm believer in the benefits of unmanned space probes like Pioneer, now decades old but still returning valuable information. "There are major technical problems going to Mars" with men, he explained. "There are enormous physiological problems on the human body, such as life support for several humans to live for more than two years in space."

Van Allen noted that the longest period a human has been in space is a little over a year; after landing, the Russian cosmonaut had to be taken from his capsule in a stretcher.

The weightlessness of space causes muscles to atrophy and bones to weaken. One wonders, Van Allen said, how any astronauts could simply walk off their ship onto the surface of Mars after such a long time in space.

There are other hazards, too, Van Allen noted. For instance, the long-term effect of cosmic radiation outside the Van Allen belt is unknown. (The space station orbits beneath the shield.) Putting men on rockets is inherently risky, he added, pointing to tragedies such as the Apollo 1 fire, which killed three astronauts on a launch pad, and the 1986 Challenger disaster.

After Challenger, the normally reserved Van Allen was hot under the collar. In 1989 he told Popular Science magazine that putting humans in orbit was "pretty much rubbish in my opinion." He also predicted that a space station would eventually become a "national embarrassment" and was an "absurd" idea, though it would take most people awhile to reach that conclusion.

Van Allen contends every mission to space should begin with the question, "For what purpose?" Putting humans in space, he said, has no scientific or commercial purpose.

He disagreed with President John F. Kennedy's timetable for the Apollo project, and sat on the sidelines for that \$30 billion exercise of the 1960s and early '70s. In the end Apollo left us with lunar rocks that could have been collected far more cheaply by unmanned probes, he said. [435w]

Annotations: 9 benefit – advantage 17 atrophy - decrease in size of a bodily organ or tissue
[Illustration/right: Van Allen Belt]

Assignments:

1. For what reasons is physicist Van Allen opposed to manned space flight? [Contents]
2. Allen, who is now 88, might be asked to write a critical comment on the fatal Columbia mission. You are to be his ghostwriter. Apply relevant information as presented in the text to Space Shuttle Columbia and her mission perspectives (as dealt with in class). [Analysis/Reorganisation of knowledge]
3. Do you follow Van Allen's sceptical views concerning manned space flight (as presented in the text)? Give reasons in your answer. [Comment]

