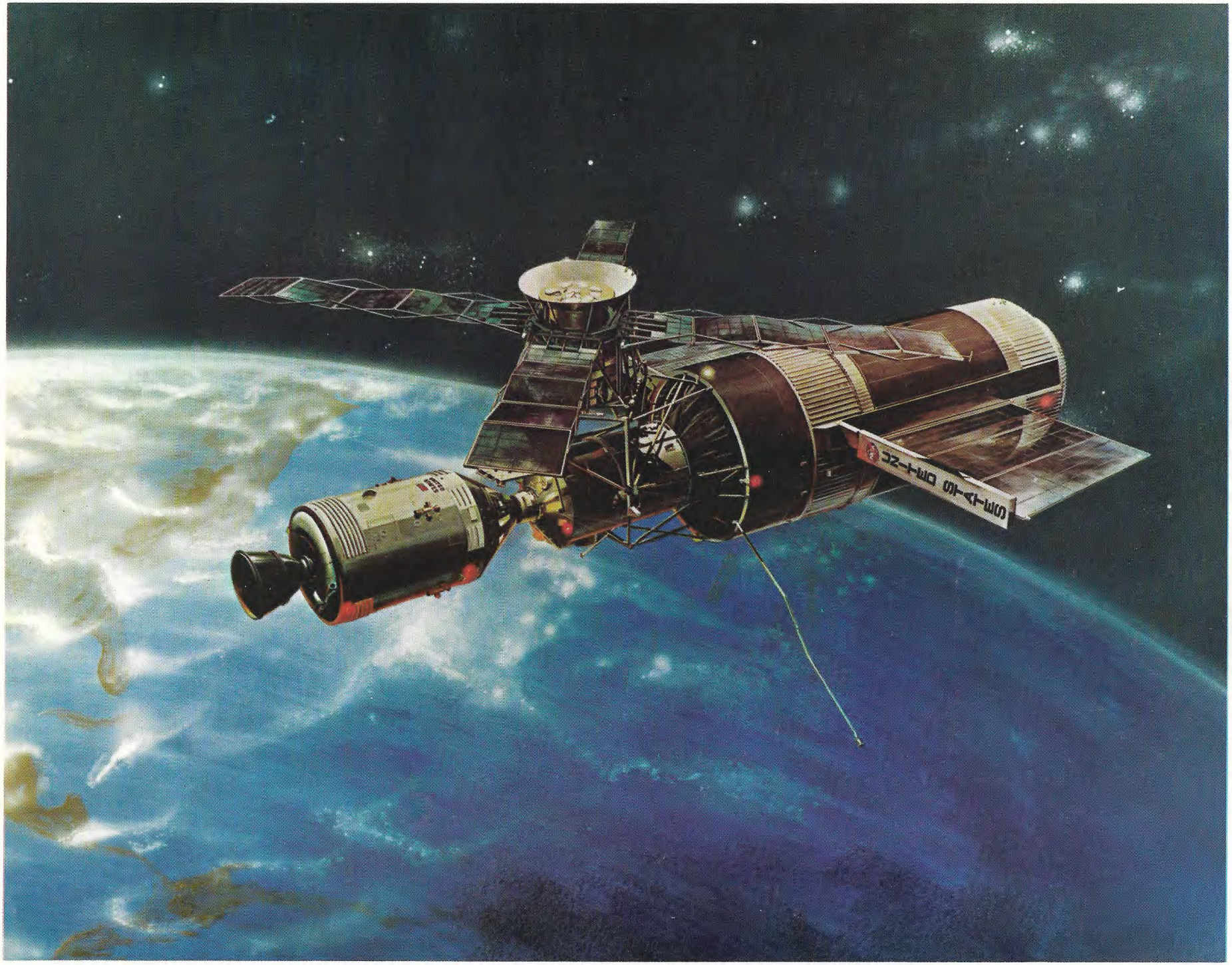

SKYLAB — MANNED ORBITAL SCIENTIFIC SPACE STATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SKYLAB

MANNED ORBITAL SCIENTIFIC SPACE STATION

Skylab is the name of an experimental space station program of the National Aeronautics and Space Administration (NASA). An extension of the manned Mercury-Gemini-Apollo space programs, the Skylab Program will make extensive use of the hardware and technological knowledge developed during those previous missions.

The Skylab Program is designed to expand our knowledge of manned earth-orbital operations and to accomplish carefully selected scientific, technological, and medical investigations.

Three groups of experiments are of particular importance: an earth resources experiment package designed for investigating and application of remote sensing of the earth resources, a series of medical experiments associated with the careful extension of man's living and working in space for longer periods of time, and several high-resolution astronomical experiments for studying the sun at short wavelengths not observable from the earth.

The Skylab Program, scheduled to begin in 1973, will consist of earth-orbital missions--approximately 235 nautical miles altitude--using the payload of the Saturn V and Saturn IB launch vehicles. The series of missions will begin with the orbital insertion of an unmanned Saturn workshop (SWS). This will be followed by three manned missions using a Saturn IB and an Apollo command and service module (CSM) that will rendezvous and dock with the SWS. The first manned mission is scheduled on the day following the orbital insertion of the workshop. The crew will enter the assembly and stay up to 28 days. The crew will enter the CSM, undock, and return to Earth leaving the SWS in orbit. This will be followed by two subsequent manned missions of up to 56 days duration each.

Because of the unique design, which incorporates the huge third stage of the Saturn V launch vehicle and provides an orbital facility equal in volume to a medium-sized home, the program is expected to provide the United States with the capability to develop and maintain permanent space stations that will be of increasing benefit to mankind.

The goal of the Skylab Program is the accomplishment of four basic objectives.

1. Scientific investigations in earth orbit. --These investigations are designed to take advantage of space operations to learn more about the universe, the space environment, the phenomena that exist in the solar system, and the manner in which these phenomena influence our earth environment.

2. Applications in earth orbit. --Applications experiments include the development and evaluation of efficient techniques using man for sensor operation, discrimination, data selection and evaluation, control, maintenance and repair, assembly and setup, and mobility. These experiments include studies in meteorology, earth resources, and communications.

3. Long-duration space flights of men and systems. --The unique capabilities of man as a participant in space flight activities will be exploited in the Skylab Program. Techniques are being developed for measuring the life-support systems and subsystems of space vehicles. Man's psychological responses and aptitudes in space will be evaluated and his postmission readaptation to the terrestrial environment will be analyzed as a function of progressively longer missions.

4. Effective and economical development of future space programs. --The Skylab missions will give man the capability to operate in space for increasingly longer periods of time. The technology developed will provide the basis for the design and development of future long-duration space stations.