

# NASA TECH BRIEF

## *Marshall Space Flight Center*



NASA Tech Briefs announce new technology derived from the U.S. space program. They are issued to encourage commercial application. Tech Briefs are available on a subscription basis from the National Technical Information Service, Springfield, Virginia 22151. Requests for individual copies or questions relating to the Tech Brief program may be directed to the Technology Utilization Office, NASA, Code KT, Washington, D.C. 20546.

### Systems Management Techniques and Problems

A compilation of selected papers on systems management presents discussions on the history and trends of systems management, its basic principles, and the nature of various complex public and private problems which lend themselves to the systems approach. The report includes reasons for applying systems management techniques to particular subjects, and discussions on systems engineering as applied to the weapon acquisition process of the U.S. Army Materiel Command, rationality barriers in systems management principles, and systems management as applied to ecology, especially in the areas of material usage, conservation, and replenishment through reprocessing technologies. Ecological programs in water resource development by the State of California, and coastal zone management by the Federal and state governments, are discussed.

A discussion on the development of a marine recreational facility at Long Beach, California, by conversion of a ship, the Queen Mary, into essentially a floating city, and the preparation of a site capable of supporting its operation, is included in the report as a challenge for the application of the systems management processes. Educational Systems Management, its premises, problems, and progress, and the changing of the educational establishment by

philosophy and technological revolutions, are briefly analyzed, along with systems management and problems of the medical industry, particularly in areas of data processing on patients. A management information system for retail management, depicting the basic requirements and objectives for retail operations, is discussed relative to the basic classifications of merchandise and the significance of the characteristic differences of the merchandise for effective inventory management.

#### **Note:**

Requests for further information may be directed to:

Technology Utilization Officer  
Code A&TS-TU  
Marshall Space Flight Center  
Huntsville, Alabama 35812  
Reference: TSP71-10361

#### **Patent status:**

No patent action is contemplated by NASA.

Source: Scientific and Technical  
Information Division  
Marshall Space Flight Center  
(MFS-21401)

Category 01