NASA Contractor Report 4070

# Publications of the NASA Controlled Ecological Life Support Systems (CELSS) Program 1984-86

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# Foreword

This bibliography is an update of NASA CR-3911 Publications of the NASA CELSS (Controlled Ecological LIfe Support Systems) Program published in July 1985. The CELSS Program was established within the Office of Space Science and Applications of the National Aeronautics and Space Administration (NASA) in 1979. The purpose of the CELSS Program is to develop a technology for an autonomous bioregenerative life support system with the capability of totally maintaining humans on long-term space missions. All components of this system will be stratified, recycled, and bioconverted as in a natural ecosystem. CELSS supported research is currently being conducted in a broad range of areas including food production, waste management, and systems management and support.

The purpose of compiling this bibliography is to provide the scientific community with a list of the current publications resulting from CELSS related research and to stimulate the exchange of information and ideas between scientists working in different areas of the program. Authors conducting research under the auspices of the CELSS Program have been identified with an asterisk.

The arrangement of references included in the bibliography follows the three major divisions of research described above. Documents are listed alphabetically by author under the general research area with which they are associated. Publications from 1984 (not included in CR-3911) to 1986 which either have resulted from CELSS supported research or which are relevant to CELSS research are included.

I wish to acknowledge the assistance of: James H. Bredt for overall direction, April C. Roy for data entry, Carlos Antonio Fagundo for editing, and the CELSS principal investigators for furnishing their publications lists.

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16. Abstract

Publications of research sponsored by the NASA CELSS (Controlled Ecological Life Support Systems) Program are listed, along with publications of interest to the Program. The bibliography is divided into the three major divisions of CELSS research: 1) Food Production; 2) Waste Management; and 3) Systems Management and Control. This bibliography is an update of NASA CR-3911 and includes references from 1984 through 1986.

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