

SELECTED REFERENCES RELATING TO APPLICATIONS AND BENEFITS
OF THE NASA SPACE PROGRAM

compiled by

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SELECTED REFERENCES RELATING TO APPLICATIONS AND BENEFITS OF THE NASA SPACE PROGRAM

I. GENERAL APPLICATIONS

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- DICKINSON, P.P., compiler. For the benefit of all mankind: a survey of the practical return from space investment. H-Rept. 92-748, Union Calendar 368, Serial L. 88 pp. Washington, D.C.: GPO, 1971. Presented by the Comm. on Sci. and Astronautics to the Comm. of the Whole House on the State of the Union at the 92nd Congress, 1st Session, Dec. 14, 1971. Revised.
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- KOTTENSTUTTE, J.P., et al. Applications of aerospace technology in industry. A technology transfer profile: fire safety. CR 123420. 74 pp. Washington, D.C.: NASA, July 1971. (Denver Univ., Contr. NSR 06-004-063).
- Langley Research Center. NASA. Technology in the service of man. Hampton, Virginia, 1974. 31 pp.
- LESHER, R.L. Extra dividends from government research. Perspective, 1969, 2nd Quarter, 3-8. (NASA, Tech. Utilization Div., Washington, D.C.) spin-offs: sharper x-ray pictures, longer lasting paints, safer highways, improved ambulance service, tougher metals, smaller TV cameras, new metalworking tools and miniature medical instruments.
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- MUELLER, G.E. Earthly dividends from space. Spaceflight, 1969, 11, 418-419. December. (NASA). Many aspects, particularly "technology of perfection" i.e., 99.999% reliability. Information on flammability passed on to 747, etc.

- MURRAY, D.M. Applications of aerospace technology in industry. A technology transfer profile: food technology. CR 124815. 56 pp. Contr. NASA-2022. Washington, D.C.: NASA, September 1971. (ABT Associates, Inc., Cambridge, Mass.)
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- REICHENBECKER, W.J., and J. NEUSCHKEL. NASA contributions to metals joining. SF-5064. 143 pp. Washington, D.C.: NASA, 1967. (Office of Technology Utilization)
- TANNER, J.C. Space by-products. Wall Street Journal, 1969, 174(6), 1. July 9. Photos--tuna fisherman; space suit cools patients; fireproof fabrics; inertia navigation; life raft; merging of talents; Teflon; thermal mapper; plastic resin; grooving techniques; luminous devices; smoothing hammer and medical monitoring devices.
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- U.S. House of Representatives. 86th Congress, 2nd Session. Committee on Science and Astronautics. The practical values of Space exploration. Washington, D.C.: GPO, 1960. 54 pp.
- U.S. Congress, 91st, 2nd Session. For the benefit of all mankind: a survey of the practical returns from space investment. Rept. 91-1446. 66 pp. Washington, D.C.: Committee on Science and Astronautics, GPO, 1970. Serial R.
- U.S. Congress, 91st, 2nd Session. For the benefit of all mankind: a survey of the practical returns from space investment. Rept. 91-1673. 61 pp. S/N 5271-0206. Washington, D.C.: Committee on Science and Astronautics, 1971.
- U.S. Congress, 92nd, 2nd Session. Report of the Committee on Science and Astronautics: for the benefit of all mankind. The practical returns from space investment. Washington, D.C.: GPO, 1972. 77 pp. (Page 2 has list of previous editions of this or similar publications.)

U.S. Congress. Toward a better tomorrow with aeronautical and space technology. 1973. 199 pp. il. Y 4.Ae 8; Ae8 S/N 5270-01959. Contains portions of Congressional hearings concerning NASA programs, their practical application in the world today, and the long-range benefits to be derived from NASA research.

U.S. Senate, 93rd Congress, 1st Session. Hearings before the Committee on Aeronautical and Space Sciences, Part 1, Feb. 28, March 6-9, 1973. Washington, D.C.: GPO, 1973. Pp. 245-316. For Dr. Fletcher's statements on space benefits foreseeable during the next several decades...

U.S. Senate, 93rd Congress, 1st Session. Committee on Aeronautical and Space Sciences, Part 2, March 12, 14, 15, 21, and 22, 1973. Washington, D.C.: GPO, 1973. Pp. 973-975, and 987-988. Material on spinoffs, technology utilization, and economic impact of space activities, and a list of references.

WHITLOCK, C.E. 3rd. A by-product of NASA: transfer of new technology to various sectors of the economy. Tech. Mem. X-66393. 110 pp. April 1970. NASA, Langley Res. Ctr., Langley Station, Virginia. (Coll. of William and Mary, thesis)

II. MEDICAL AND RELATED APPLICATIONS

ANON. The contributions of space medicine to world health. In: The medical problems of space travel. WHO Chronicle, 1969, 23, 133-137. March.

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BERRY, C.A. Status report on space medicine in the United States. Aerospace Medicine, 1969, 40, 762-769. July. (NASA, MSC, Houston.) Mercury, Gemini, and Apollo programs. Spinoffs: list of 12, etc.

BERRY, C.A. Medical legacy of Apollo. Aerospace Medicine, 1974, 45(9), 1046-1057. September.

Bio-Dynamics, Inc. Study of the transferral of space technology to biomedicine. Contr. NASA-570. 165 pp. + 8 pp. refs., + App. xxx pp. February 21, 1964. Cambridge, Mass. (NASA, Washington, D.C.) Includes a study of communication among scientists

MURRAY, D.M. Applications of aerospace technology in biomedicine. A technology transfer profile: patient monitoring. CR-124817. Contr. NASA-2022. 36 pp. September 1971. NASA, Washington, D.C. (ABT Associates, Inc., Cambridge, Mass.) i.e., cardiovascular monitoring...innovations in intracardiac blood pressure monitoring...

NASA. Medical benefits from space research. EP-46. 19 pp. Washington, D.C., 1967. (NR7-40267)

- NEVISON, T.O., JR. Physiologic and environmental monitoring of manned space flights. Plast. Reconstr. Surg., 1967, 39, 301-306. March. (Lovelace Fdn., Albuquerque, N.M.) Parameters discussed; spinoffs; etc.
- POOL, S.L. Medical technology advances from space research. In: Space for mankind's benefit. Proceedings of the First International Space Congress, Huntsville, Ala., Nov. 15-19, 1971. Supplement. Huntsville, Ala.: Huntsville Association of Technical Societies, 1971. Pp. 1-21. e.g., integrated medical laboratory with digital biotelemetry and automatic visual field mapping systems, spong electrode caps for EEG's, and respiratory analysis equipment.
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- WELTMAN, G., et al. NASA contributions to bioinstrumentation systems. A survey. SP-3054. 97 pp. Washington, D.C.: NASA, 1968. (Spacelabs, Inc.)
- WHO. Space medicine. World Health, 1969. May. includes spinoffs...
- WOOTEN, F.T. Application of aerospace technology to medicine. In: Space Sciences--future applications for mankind, Vandenberg Scientific & Technical Societies Council, Western Space Congress, 1st, Santa Maria, California, Oct. 27-29, 1970. Proceedings, Part 1. North Hollywood, California: Western Periodicals Co., 1970.