

1-1-1978

# Government publications: Extraterrestrial intelligence

Jo Bell Whitlatch

San Jose State University, [jobell.whitlatch@sjsu.edu](mailto:jobell.whitlatch@sjsu.edu)

Follow this and additional works at: [https://scholarworks.sjsu.edu/slis\\_pub](https://scholarworks.sjsu.edu/slis_pub)

 Part of the [Library and Information Science Commons](#)

---

## Recommended Citation

Jo Bell Whitlatch. "Government publications: Extraterrestrial intelligence" *Reference Quarterly* (1978): 345-347.

This Article is brought to you for free and open access by the School of Information at SJSU ScholarWorks. It has been accepted for inclusion in Faculty Publications by an authorized administrator of SJSU ScholarWorks. For more information, please contact [scholarworks@sjsu.edu](mailto:scholarworks@sjsu.edu).

# Government Publications

JO BELL WHITLATCH

## EXTRATERRESTRIAL INTELLIGENCE

The enormous box office success of the recent movies, *Star Wars* and *Close Encounters*, testifies to the continuing public fascination with life from other worlds. While the presence of visitors from outer space in unidentified flying objects (UFOs) is still quite controversial, the presence of life in outer space is now acknowledged almost certainly to exist. Although little has appeared in United States government publications on UFOs since the Air Force Project Blue Book, publications on extraterrestrial intelligence have begun to appear as part of the United States space effort.

The U.S. government abstract service, *Scientific and Technical Aerospace Reports (STAR)* (NASA, 1963-) (NAS 1.9/4: (v. nos & nos)), is particularly useful in locating material on extraterrestrial intelligence. *STAR* provides a subject approach to National Aeronautics and Space Administration (NASA) publications, which are usually available in both print and microfiche. *Aerospace Medicine and Biology* (NASA, 1964-) (NAS 1.21: 7011 (nos)) contains annotated references to unclassified reports and journal articles, which include frequent references to extraterrestrial life. *Publications of the Planetary Biology Program; A Special Bibliography* (NASA, 1976) would also be useful. The Planetary Biology Program

methodically investigates planetary events that may be related to the origin, evolution, and distribution of life in the universe. Other bibliographies of interest are *America in Space* (GPO, 1977) (GP 3.22/2: 020/3), listing publications in the late '60s and early '70s on the American space effort; *Astronautics* (Air Force Academy, 1976) (D 305.12:53); *NASA Educational Publications* (NASA, 1976) (NAS 1.9/2:976); and *NASA Film List* (NASA, 1976) (NAS 1.2: F48/976).

In addition, the U.S. government has provided us with two very excellent bibliographies on unidentified flying objects (or "Flying Saucers" if you prefer the Library of Congress subject heading). *UFOs and Related Subjects* (Air Force Dept., 1969) (D 301.45/ 19-2: 68-1656) was prepared by Lynn E. Catoe of the Library of Congress to assist in Air Force research on UFOs at the University of Colorado (the controversial Project Blue Book). The annotated bibliography includes extensive UFO material available at the Library of Congress and has a separate section on extraterrestrial life and visitors. The most popular thesis is that UFOs and their occupants are visitors from another planet or distant star system. *Unidentified Flying Objects: A Selected Bibliography* (Library of Congress, 1976) (LC 1.12/2: F67) provides selected coverage of the literature since 1969 and is intended for the more general reader.

According to most experts, definite identification of the existence of extraterrestrial life is still in the future. However, the present U.S. and Soviet space efforts represent what could be the first step toward developing the technology necessary

---

Readers are invited to contribute information of interest. Please address any contributions to Jo Bell Whitlatch, 815 Cambridge Ave., Menlo Park, CA 94025.

for the discovery of intelligent life elsewhere. *Questions about Aeronautics and Space* (NASA, 1976) (NAS 1.2: Q 3/2) indicates that we explore outer space to gain knowledge that contributes to the understanding of life on earth, for resulting applications of the knowledge gained in such fields as communications and navigation, for technology spin-offs in areas such as electronics and medicine, and to expand our technological base. *Skylab* (NASA, 1977) (NAS 1.21: 400) describes Skylab's design, development, launch, and successful operation. The program is a truly interdisciplinary effort, producing results in engineering, physics, astronomy, earth resources, biomedicine, and space processing in preparation for establishing a space station. *Space Settlements* (NASA, 1977) (NAS 1.21: 413) resulted from a 1975 ten-week engineering systems project and represents beginning steps in planning space colonization. *Industry Workshop on Large Space Structures* (NASA, 1976) (NAS 1.26: 2709) explores the technology needed for the development of such structures. M. M. Averner and R. D. MacElroy speculate on the possibility of using Mars as a habitat for terrestrial life in the publication *On the Habitability of Mars; An Approach to Planetary Ecosynthesis* (NASA, 1976) (NAS 1.21: 414). However, creation of an adequate oxygen- and ozone-containing atmosphere might take several million years. The Congressional Research Service has prepared a thorough and unique study on *World-wide Space Activities* (U.S. Congress, House Committee on Science and Technology, 1977) (Y 4. Sci 2: 95/G). One hundred and forty-eight of the world's 157 nations either participate actively in the space effort or share directly in the benefits of space applications. This quite comprehensive summary includes all countries except the U.S. and the USSR—the space activities of these two countries have received good coverage in many other publications.

Biological missions are attempting to discover if simple replicating chemicals, which could technically be defined as biological life, exist on Mars. There have been chemical reactions in the Martian soil samples, but it remains to be seen whether any of the reactions is associated with

biological activity. Recent studies are discussed in *Studies Related to the Development of the Viking 1975 Labeled Release Experiment* (NASA, 1976) (NAS 1.12:460), *Viking 1: Early Results* (NASA, 1976) (NAS 1.21: 408), and *Adenosine Triphosphate (ATP) as Possible Indicator of Extraterrestrial Biology* (NASA, 1974) (NAS 1.14: D-7680).

While the search for extraterrestrial intelligence is not even specifically mentioned in *Questions about Aeronautics and Space*, it is acknowledged in other NASA literature to be the most fascinating and compelling reason for man's exploration of outer space. In *Exploration of the Solar System* (NASA 1974) (NAS 1.19:122), A. Henderson and J. Grey list as one of the three broad questions, "What is the origin, evolution and distribution of life, including life elsewhere than on earth?" NASA has also sponsored *Why Man Explores* (NASA, 1976) (NAS 1.19:123) featuring James Michener, Jacques Cousteau, Philip Morrison, and Ray Bradbury as panelists. *Outlook for Space* (NASA, 1976) (NAS 1.21: 386) mentions that scientific questions of particular current significance deal with the beginning of the universe, the nature of black holes and quasars, gravity, the evolution of planets and their atmospheres, the nature of the earth's climate, and the search for extraterrestrial life, including intelligent life. The impact of the detection of life elsewhere in the solar system or beyond would be felt in every aspect of human life—in our philosophical and religious concepts, our social interactions, and our scientific institutions. Certainly, searching for other life and cultures is part of meeting the challenge of continuing the outreach of exploration.

*Life Beyond Earth and the Mind of Man* (NASA, 1973) (NAS 1.2: 328) is an abridgment of symposium proceedings conducted by an interdisciplinary panel with two astronomers, a biologist, a physicist, an anthropologist, and a theologian. The proceedings indicate that intelligent forms of life in other galaxies probably exist in abundance in the universe. The initial chemical constituents for the origin of life are the most abundant in the universe. There are billions of suns in our galaxy and billions of galaxies in the uni-

verse. It is estimated that perhaps half of these stars have planets at the biologically appropriate distance from the local sun.\* Thus, the odds that the evolutionary process has resulted in life elsewhere are overwhelming. In the proceedings, Philip Morrison, MIT physicist, indicates that communication with extraterrestrial life must be by light or radio—the universe is simply too great for other means. *The Possibility of Intelligent Life Elsewhere in the Universe* (U.S. Congress, House Committee on Science and Technology, 1975) (Y 4.Sci 2: 94 - 1/R) is also based upon the general assumption that intelligent life will exist on planets orbiting distant suns. There are three possible ways of contacting extraterrestrial intelligent life forms: sending and receiving electromagnetic signals, sending unmanned probes, and sending manned ships. Since 1960, CETI (Communication with Extraterrestrial Intelligence) efforts have been serious, although not as extensive as many people would desire. With the aid of radio telescopes, there have been several

\*Carl Sagan, *The Cosmic Connection* (New York: Dell, 1973), p.257.

attempts to receive electromagnetic signals from another civilization. *The Latest Investigations of CETI in the USSR* (NASA, 1976) briefly describes Soviet work on CETI. *The OASI Space Theme Workshop* (NASA, 1976), which includes papers on the search for extraterrestrial intelligence, urges the U.S. to maintain the lead over Soviets in this field! There are, however, encouraging signs in *World-wide Space Activities* that cooperative efforts are beginning to stretch across national boundaries. A possible benefit of CETI is that knowledge of pathways taken by extraterrestrial cultures, which allowed them to achieve stability, may be essential to our own longevity.

MISCELLANEOUS NOTE: Congressional Information Service is publishing a *Directory of Government Document Collections and Librarians* in June 1978. The *Directory*, which was compiled by the Government Documents Round Table of AIA, includes more than 2,300 libraries in the U.S. with federal, state, local, foreign, and international documents holdings. As subject areas of particular strength are identified, the *Directory* ought to be particularly useful for interlibrary loan.

## A WORLD OF KNOWLEDGE de Gruyter

### INTERNATIONAL Handbook of Universities

7th edition. 1978. 1024 pp.  
cloth, \$59.75 ISBN: 3 11 007543 1

This established reference work contains the most comprehensive listing of university administrations, faculties and departments outside the USA and the British Commonwealth; it is an indispensable companion to the *Commonwealth Universities Yearbook* and *American Universities and Colleges*. Organized country by country the in-depth entries supply extensive notes on school histories, academic structures, admission requirements and international exchange programs, with further guides to fees, necessary languages, types of degrees and diplomas awarded and statistics on academic staff and student enrollment. An enormous amount of hard-to-find data consolidated into one convenient compendium.

In 1950 UNESCO formalized its commitment to fostering communication among educational institutions around the world with the founding of the *International Association of Universities*, a unique forum of facts, figures and faculties in the contemporary educational world. Today, its set of handbooks are the authoritative source for definitive information about international colleges and universities.

Limited in form, but never equalled in scope or detail, the *IAU handbooks* provide students and administrators alike with a wealth of knowledge about whom to contact, how to reach them throughout the world. These new editions present thorough, accurate, up-to-date news about more than 6,000 schools in 152 countries, virtually every post-secondary school in the entire world.



### WORLD LIST of Universities

13th edition. 1978. 355 pp.  
cloth, \$27.95 ISBN: 3 11 007542 3

The new standard *World List* includes brief outlines of the academic structures of universities and other centers of higher education throughout the world, supplemented by a compilation of the main international and regional organizations concerned with higher education and student affairs, including UNESCO commissions and programs, principal national academic agencies and bureaus, the IAU and its eight Associate members.

The only concise world-wide directory available covering all universities and other institutes of higher learning, this handy digest of useful facts and addresses has become the respected authority in its field, locating names and addresses in every nation on the globe.

**WALTER DE GRUYTER, INC.**  
SCHOLARLY AND SCIENTIFIC PUBLISHERS  
3 Westchester Plaza Elmsford, N.Y. 10523