

DD/S&T #2 4757-63-



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON 25, D.C.

LD-2

IN REPLY REFER TO: AI

OCT 12 1965

MEMORANDUM FOR Honorable McGeorge Bundy
Ambassador Llewellyn E. Thompson
Dr. John S. Foster, Jr.
Honorable John T. McNaughton
Honorable Donald F. Hornig
Dr. Edward C. Welsh
Dr. Albert Wheelon

Attached is a copy of a preliminary agreement reached at New York City on October 8 between representatives of NASA and the Academy of Sciences of the USSR which provides for the preparation and publication of a joint work on questions of space biology and medicine and on the prospects of work by both countries on these questions. This agreement was signed ad referendum, with a period of two months from the date of signature specified for making any corrections, additions, or comments on the text. At the expiration of the two-month period, the agreement will enter into force.

Please notify this office by November 15 of your concurrence in this agreement or of any changes which you would consider it necessary to make at this juncture of the negotiations. The text of the agreement will not be released until the expiration of the referendum period.

Arnold W. Frutkin
Arnold W. Frutkin
Assistant Administrator
for International Affairs

DD/S&T
FILE COPY

Enclosure

cc:
Mr. Charles E. Johnson, NSC
Mr. T.H.E. Nesbitt, D/S-SCI
Mr. Albert Weinstein, DOD-DDR&E
Col. Marshall E. Sanders, DOD-ISA

Mr. Daniel F. Margolies, OST
Dr. Robert W. Krauss,
University of Maryland
Dr. Orr E. Reynolds, NASA
Dr. John W. Townsend, Jr.,
NASA/GSFC

NASA review completed

AGREEMENT BETWEEN THE ACADEMY OF SCIENCES, USSR AND NASA, USA
FOR THE PREPARATION AND PUBLICATION OF A JOINT WORK ON SPACE
BIOLOGY AND MEDICINE

To advance the cooperation between the Academy of Sciences, USSR and the National Aeronautics and Space Administration of the USA in the exploration and use of outer space for peaceful purposes begun under the Bilateral Space Agreement on cooperation in the study of space problems of June 8, 1962, the representatives of these organizations have agreed on the following cooperation in the preparation of a joint work on questions of space biology and medicine and on the prospects of work by both countries on these questions.

1. To proceed with the publication of a two-or three-volume work to contain a review of the fundamental achievements and problems of space biology and medicine, including aspects of future development in this field, and to regard this work as a first step toward further cooperation.
2. By means of correspondence between the Academy of Sciences of the USSR and NASA of the USA to establish an Editorial Board co-chaired by a Soviet and a U.S. scientist, with equal representation of the two parties, and with the following responsibilities:
 - (a) To agree on suitable titles for the entire work as well as for the separate volumes.
 - (b) To agree on the title of each chapter and to develop an outline of the contents of each chapter. A tentative outline of the work for the Board's consideration is appended.

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- (c) The Editorial Board will offer COSPAR an opportunity to forward any comments COSPAR might wish to make on the proposed table of contents within an agreed period of time.
- (d) The representatives on the Editorial Board from each side will select a compiler (or a group of compilers) of reference material available in their countries on the subject of the corresponding chapters of the work. The compiler (compilers) shall prepare the fullest possible reference material, including: bibliographic data, annotated outlines, and original texts or copies of scientific works on corresponding subjects. The compiler (compilers) shall also provide an overall summary of each subject area such as would readily assist an author of either country to prepare a chapter embracing both Soviet and American work in the subject area. In designating the compilers for the preparatory work on each side, the representatives on the Editorial Board from each side, will consider their possible subsequent selection as authors.

The reference material and summaries prepared during an agreed-upon period of time will be transmitted through representatives of the Editorial Board from each side, in triplicate: one for the Editorial Board, a second

copy for the selected author, and a third copy to be filed with the World Data Center.

When the reference material and summaries for all chapters are available from both sides the Editorial Board will then select the principal authors for the chapters of the work and may, at their request, appoint a co-author or a group of co-authors, giving primary consideration to compilers for any of these assignments.

The author (authors) will have the right to request and the Editorial Board will offer them cooperation in obtaining the necessary additional reference material.

The Editorial Board shall ensure an objective and worthy presentation to the authors of the scientific data obtained in the USSR, USA, and other countries.

- (e) Arrange for a system of correspondence and for scientific and editorial review of the manuscripts.
- (f) It is expected that the Editorial Board would operate in the following manner:

On the basis of the material presented by compilers in the various fields, the Editorial Board would decide in each case whether

- (1) to proceed with the chapter as originally conceived
- or
- (2) to modify or drop the plan for the chapter or add a new chapter(s)

In proceeding with a chapter or chapters, the Editorial Board would decide in each case whether the most appropriate author should be from the Soviet Union or US side. The Editorial Board should, however, attempt to assign an approximately equal number of chapters to each side.

The representatives of the Editorial Board of each side shall have the deciding voice in the designation of the author (authors) of their own country.

While the Editorial Board is free to designate co-authors from the two sides for given chapters, it should give due recognition to the practical problems of co-authorship in terms of time, distance, language, and availability of material.

Since it is inevitable that some compilers cannot be selected as authors, each side may wish to give independent consideration to separate publication of material prepared by its compilers.

(g) The Editorial Board shall report quarterly on the status and progress of the work to the signatories of the agreement or their successors.

3. The publication plan will be as follows:

(a) Each volume of the series will appear both in English and Russian. The English language version will be

published by the American side, the Russian version by the Soviet side.

- (b) Each side will prepare translations of the material supplied by the other into its own language and each translation will be reviewed and edited by the side of origin before publication.
- (c) The background material prepared for the chapters shall be deposited in each of the World Data Centers for Rockets and Satellites in a convenient form for reference, and may be distributed independently by the two parties.
- (d) The costs of work performed within each country including expenses of translations, editing and travel of its nationals will be borne by the respective country.
- (e) The time schedule will be:
 - 1 January 1966 - establishment of the Editorial Board.
 - 1 March 1966 - final plan of contents and identification of and instructions to compilers.
 - 1 November 1966 - final date for receipt of background material.
 - 1 January 1967 - selection of authors.
 - 1 June 1967 - deadline for completed chapter manuscripts.
 - 1967 - 1968 - publication of all volumes.

4. After receipt of the manuscripts of all chapters the discussions between the two parties (Academy of Sciences of the USSR and NASA

of the USA) will be held on the state of the problem and the work conducted in the two countries, and a determination will be made of possible forms of further cooperation of the two countries in the field of space biology and medicine including a common program of joint research.

5. The parties agree that they will continue their normal participation in the meetings and other work of the international scientific organizations in this field.

6. In the second quarter of 1966 and at three-month intervals thereafter there will be a review of the status of the project and progress made, in the light of the Editorial Board reports specified in point 2 (g).

In the absence of mutual agreement that there has been progress in the project, the Editorial Board will take the necessary measures to resolve the difficulties that have arisen and will inform the competent authorities.

7. The provisions of this agreement arrived at by representatives of the two organizations shall have a preliminary character. They will be presented accordingly to NASA and the Academy of Sciences of USSR for final consideration. If either of the two parties finds it necessary to make any corrections, additions, or comments on the text of the prepared documents, then all of these changes should be made within the period of two months from date of signature by correspondence, which will be sent to the following address in Moscow:

Academy of Sciences of the USSR

Attention: Academician A. A. Blagonravov

Leninsky: Prospekt 14

Moscow, USSR

and to the following address in Washington:

National Aeronautics and Space Administration

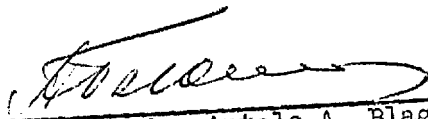
Attention: Dr. Hugh L. Dryden

400 Maryland Avenue, S. W.

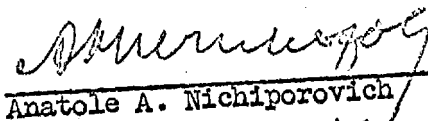
Washington, D. C. 20546, U. S. A.

At the expiration of the indicated period of time the present agreement between the Academy of Sciences of the USSR and NASA of the U. S. A. will enter into force.

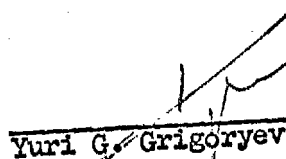
FOR THE ACADEMY OF SCIENCES
OF THE USSR:



Academician Antole A. Blagonravov



Anatole A. Nichiporovich

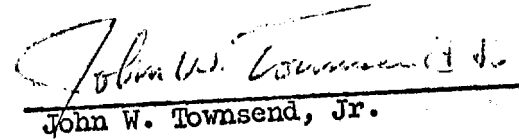


Yuri G. Grigoryev

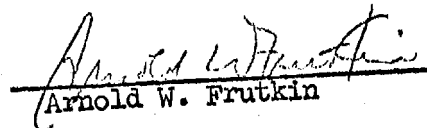
New York City

October 8, 1965

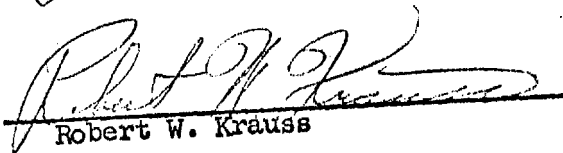
FOR THE NATIONAL AERONAUTICS
AND SPACE ADMINISTRATION OF THE
U.S.A.



John W. Townsend, Jr.



Arnold W. Frutkin



Robert W. Krauss



Orr E. Reynolds

CONTENTS OF "THE FOUNDATIONS OF SPACE BIOLOGY AND MEDICINE"

(Review of Fundamental Problems, Achievements, and Prospects for Development)

VOL. I PART I INTRODUCTION

Fundamental problems, general significance, probable lines of development of work in space biology.

PART II OUTER SPACE FROM A PHYSICAL AND BIOLOGICAL POINT OF VIEW

CHAPTER 1. Physical properties of the cosmic environment (outer space), which are important from a biological point of view.

CHAPTER 2. Planets and satellites of the solar system from a physical and ecological point of view.

CHAPTER 3. Biological action of environmental extremes (simulated under laboratory conditions).

CHAPTER 4. Exobiology. The search for and study of extra-terrestrial forms of life.

CHAPTER 5. Methods of exobiological research.

CHAPTER 6. Methods of sterilization and prevention of uncontrolled transfer of forms of life.

VOL. II PART III MEDICAL AND BIOLOGICAL PROBLEMS OF MAN'S FLIGHT INTO SPACE

CHAPTER 1. Environmental conditions during space flight. Programs and prospects for research.

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CHAPTER 2. Radiation safety during space flight.

CHAPTER 3. Foundations of gravitational biology.

CHAPTER 4. Accelerative forces during
space flight.

CHAPTER 5. Weightlessness and artificial gravitation.

CHAPTER 6. Psycho-physiological problems during
prolonged space flights.

VOL. III PART IV SYSTEMS FOR PROTECTING AND SUPPORTING MAN IN SPACE
FLIGHT

CHAPTER 1. General principles for the construction
of protective systems for man.

CHAPTER 2. Closed life support systems for man.

CHAPTER 3. Work physiology and ability to work
in space flight.

CHAPTER 4. Biological indices for manned space
flight trajectories. Review of flight experiment
results with animals and other organisms.
