## 第4回宇宙開発委員会(定例会議) 該事次第

- 2. 場 所 宇宙開発委員会会談室
- 3. 齢 関 (1) ESRO 職員の沿へいについて (2) 実用衡星計画を登団の派遣について
  - WANTONE.
- 4. 貸 补
  - 委4-1 前回議事要旨
  - 変4-2 欧州宇宙研究機構(ESRO)職員の沿へいについて(案)
  - 委4-3 気象衛星、通信衛星および放送衛星に関する 海外調査計画概要

—— 実用衛星計画調查団 ——

# 委 4-1

第3回宇宙開発委員会(定例会議)議事要旨

1. 日 時 - 昭和4 8年1月17日**郊** 午後2 時~4 時

2. 場 所 宇宙開発変員会会識室

3. | 飄 | 題 | 昭和48年度宇宙開発関係予算について

4. 資 沿

一委3-1 第1回歸時会談影事要旨

委3-2 第2回臨時会議議事要旨

娄 3 — 3 昭和4 8 年度宇宙関係予算総括表

5. 出席者

関係省庁職員等

(代理:原田)

佐藤久爾 運輸省大臣官房参事官 (代理:池田) 石原 気象庁総務部長 (代理:高谷) 晟 高野 海上保安庁総務部長 (代理:中田) 高 田 静雄 地的省電波監理局審調官 (代理: 杯) 平野正雄 刪酌省電波監理局無濕遠信部長 (代理:片裥) 宮崎 建設大臣官房技術参爭官 (代理:須田) 東京大字宇宙航空研究所業務課長 大 野 勝 宇宙開発爭案団計画課長 事務局 科学技術庁研究調整局宇宙企画課長 松 元 6. 藏事要旨 (1) 第1回宇宙開発委員会臨時会議議事要旨について 第1回宇宙開発委員会(臨時会議) 編事要旨が確認された。 (2) 第2回宇宙開発委員会(臨時会議)議事要旨について 第2回宇宙開発委員会(臨時会議)議事要旨が確認された。 (3) 昭和48年度宇宙開発関係予算について 昭和48年度宇宙開発関係政府予算案について事務局から

説明が行なわれたのち、以下の質疑応答が行なわれた。

ጀን

細島:科学衛星関係はこれまで計画に支障をきたすことはない

## 文部省

(鈴木):計画のスケジュールは厳しくなるが、第5号科学衛星の

の試作費が一部認められており、実行は可能である。

網島: 測地衛星関係はどうなつているか。

事務局:来年度の研究費は計上されていない。

庭設省 (須田):予算には計上されていないが、国土地理院において研 究を進める予定である。

# 委 4-2

欧州宇宙研究機構(ESRO)職員の招へい について(案)

昭和48年2月21日 宇宙開発委員会

ESROとの相互理解を深め、今後の協力に質するため、下記により、ESRO事務局長および同計画局長を沿へいし、宇宙の開発および利用について、当委員会はかわが国宇宙関係者と意見を交換する。

記

#### 1. 招へい者

- (1) Dr.W.H. Alexander Hocker ESRO 事務局長
- (2) Mr.Jean Albert Dinkespieler ESRO 計画局長

## 2. 日桂

3月12日月	•	来日
13日份	午前	宇宙開発委員会委員と会談
	午後	<b>講演会</b>
14日的		宇宙開発事業団筑波宇宙センター
		祖祭
15日(株)	· ·	自由行動
16日紀	午後	科学技術庁長官を訪問
		宇宙関係者と懇談
17日出		雅日

#### 3. 階歷

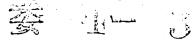
(1) Dr.W.H. Alexander Hocker ESRO 事務局長 ( 法学博士 )

1913年 出生 インスブルグ大学、ハンブルグ大学及び ライプチッヒ大学で政治、経済学を修め 地方判事となる。

1949年 ドイツ研究協会事務局次長 1956年 連邦原子力省研究・訓練部長 1961年 ユーリッヒ原子力研究所博事 1969年 フオルクス・ワーゲン財団科学顧問 1971年 ESRO事務局長

(2) Mr.Jean Albert Dinkespieler ESRO 計画局長

パリにて田生 1927年 エコール・ボリテクニック卒業、カリフオルニア 大学及びコロンビア大学に留字。 フランス海軍技師長 1954年 エコール・ポリテクニック研究所長補 1960年 フランス宇宙研究本部( CNES) 1962年 ブレデニー 宇宙センター所長 CNES事務局長補佐役 1964年 CNES監査官 1966年 ESRO計画局長 1967年



## 通信衛星,放送衛星および気象衛星収関する海外調査計画の概要について -----実用衛星計画調査団-----

### 1. 满查目的

海外における通信衛星、放送衛星計画の実態等を飛査し、わが国の実験用の中容量静止通信衛星および実験用の中型放送衛星に関する開発計画の立案に質するとともに、わが国の静止気 象衛星開発に際しての技術的問題点を調査し、静止気象衛星計画 の円滑な推進を図る。

2. 調查期間

昭和48年2月26日例~3月16日紛 19日間 (吉識宇宙開発委員会委員3月4日(日)~3月11日(日)8日間)

- 3. 調査先
  - (1)アメリカ 国務省 ・ 航空宇宙局(NASA) 連邦通信委員会(FCC) 関係会社(フイルコ・フォード、ヒューズ)
  - (2)カナダ 通信省

〃 通信研究本部(CRC)テルサット・カナダ関係会社(ノーザン・エレクトロニック、RCA)

- (3)フランス 宇宙研究本部(CNES) 関係会社(トムソンCSF、アエロスペシアル、エンジン・マトラ)
- (4)イタリア 科学研究会議 (CNR) 関係会社 (CIA)

### 4. 調査団の構成

団長	宇宙開発委員会委員			吉	識	雅	夫	
团負	科学技術庁研究語整局宇宙開発				i -			
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<b>"</b> ,	<i>"</i>	員企調	•	房	野	夏	时	
	(経団)	<b>基開発部調查</b> 役	)		-	. `.	e .	
<b>"</b>	- 那 收省官	<b>医波監理局技術</b> 記	海查課 長	劇	Ш	重	逍	
//	気象庁絲	総務部企画課長	•	有。	住	首	介.	
<b>"</b>	宇宙開新	5事莱団理事		脏		正	錢	
<i>"</i>	"	総務部の	人長	古	谷	光焰.	博	

#### MEMORANDUM OF UNDERSTANDING

#### BETWEEN THE

UNITED KINGDOM SECRETARY OF STATE FOR TRADE AND INDUSTRY

#### AND THE

UNITED STATES NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

CONCERNING THE FURNISHING OF

SATELLITE LAUNCHING AND ASSOCIATED SERVICES

cooperative relationships between United Kingdom agencies and the National Aeronautics and Space Administration (NASA) on peaceful space projects, the United Kingdom Secretary of State for Trade and Industry and NASA set forth in this Memorandum of Understanding a general understanding between NASA and the United Kingdom Department of Trade and Industry (DTI): (1) as to the conditions under which NASA will furnish to DTI launching and associated services for United Kingdom spacecraft on a reimbursable basis; and, (2) as to the responsibilities of the parties in connection with such launchings.

DTI and NASA intend that, at appropriate times in the future, they will on each such occasion enter into a separate launch services contract which shall express the specific terms and conditions under which NASA will furnish launchings and associated services for individual launchings requested by DTI, and which will be in accord with the general understandings set forth in this Memorandum.

#### Article I

#### RESPONSIBILITIES

A. DTI will take the following responsibilities:

1. The design, fabrication and testing of the spacecraft

and of the onboard experiments.

2. Furnishing advice to NASA of its requirements for a particular launching at as early a date as possible and in any event sufficiently in advance of the target date of the launching to accommodate financial, procurement, and operational requirements of both parties. Such advice will include details as to the spacecraft mission, payload

description, orbital characteristics, launching parameters, planned launching dates and back-up launching requirements, and other information needed by NASA for planning purposes.

- 3. Incorporating provisions in the spacecraft design specifications and test programs to assure and demonstrate spacecraft compatibility with the launch vehicle physical constraints and in-flight environment and with tracking and data acquisition facilities.
- 4. Providing flight-ready spacecraft at the launching range, in accordance with the time schedule established under the launch services contract.
- 5. Furnishing all ground-support equipment (GSE) peculiar to the mission and personnel required for its operation except for certain items of GSE which NASA may specifically agree to provide and/or operate.

B. NASA will take the following responsibilities:

- 1. Furnishing launch vehicle and tracking and data acquisition specifications necessary for the DTI to carry out its responsibilities under Article I, A.3 above.
- 2. Scheduling the launching within the general time period requested by the DTI, subject to the requirements of the United States program. If such requirements should arise, NASA will so notify the DTI as soon as possible.
- 3. Providing appropriate United States launch vehicles. The parties will jointly select the vehicle to meet the mission requirements.
- 4. Providing necessary facilities and support, including launch crew services, for pre-launch integration of the DTI spacecraft at the launching range, and for DTI check-out of the spacecraft.
  - 5. Launching the spacecraft from a U.S. range.
- 6. Furnishing tracking and telemetry data reception from the satellite to ascertain achievement of orbit and vehicle performance, using existing U.S. facilities. Additional or unique equipment, if required, will be supplied by the DTI.
  - 7. Performing initial orbital calculations.
- 8. Furnishing mutually agreed technical consultation, other services, and/or GSE in support of specific or general DTI launch requirements.

#### Article II

#### <u>IMPLEMENTATION</u>

A. For each launching, each party will designate a Project Manager, to be responsible for coordinating the agreed functions and responsibilities of each party with the other, pursuant to the detailed arrangements established under the launch services contract. The DTI Project

Manager will be concerned primarily with the spacecraft and the NASA Project Manager will be concerned with the vehicle, range and ground station. Together they will be responsible for the spacecraft-vehicle, spacecraft-range and spacecraftground stations interfaces.

- B. NASA will have operational authority over the vehicle, the launching, and associated services. The DTI will have operational authority over the spacecraft until it is mounted on the final stage motor, at which time it will become NASA's responsibility until the DTI assumes responsibility as specified in the launch services contract. In accordance with normal practice, the DTI Project Manager can place a "hold" on the launching operation at any time. In carrying out their relaunching operation at any time. In carrying out their respective responsibilities, both parties will be subject to the safety and other operational regulations and procedures of the range from which the launching takes place.
- C. Arrangements for the furnishing of supporting services by NASA in connection with the launching will be provided for under the launch services contract. NASA may also furnish, on a reimbursable basis, minor services in support of general DTI launching requirements, at DTI's request and under arrangements to be agreed upon separately.
- D. Each party agrees to use its best efforts to facilitate customs free entry into the United Kingdom and the United States of equipment directly related to and required in carrying out each launch services contract.

### Article III

## FINANCIAL PRINCIPLES

- A. The DTI will be responsible for all costs incurred by it in carrying out its own responsibilities, and will reimburse NASA for costs incurred by NASA in connection with furnishing the requested launching and associated services, and any other supporting services provided at the DTI's request. The general principle under which reimbursement will be made will be that the DTI will reimburse NASA for all costs incurred by NASA in connection with and properly chargeable to the services furnished by NASA for the purposes of any scheduled DTI launching, whether or not such launching actually occurs or is successful, whether or not such launching actually occurs or is successful, including an amount, to be agreed upon in advance, covering including an amount, to be agreed upon in advance, covering NASA's related agency-level overhead and administrative expenses. NASA may also charge a rental to be agreed in advance, for the use of equipment loaned to the DTI.
  - B. Reimbursement of NASA's costs will be made initially on the basis of an estimate to be furnished by NASA in advance,

under a payment schedule to be established in the launch services contract. The amount paid by the DTI on an estimated basis will be adjusted subsequently to reflect the costs actually incurred by NASA in connection with each launching.

C. The financial principles set forth above are subject to any changes in NASA policy affecting the basis of reimbursement for launching services provided by NASA for users other than the U.S. Government.

#### Article IV

#### LIABILITY

- NASA shall be liable for all damage to or the loss of U.S. government-owned property under the control of NASA, except for damage to or the loss of a vehicle or vehicle stage occurring after DTI has assumed the risk of loss, as provided in the launch services contract, for that vehicle or vehicle stage.
- B. DTI shall be liable for all damage to or the loss of property under the control of DTI, including U.S. government-owned property which has been made available by NASA for the use of DTI or its contractors.
- C. Except to the extent authorized by U.S. laws pertaining to governmental liability for the negligent acts of U.S. employees, the U.S. Government and its contractors will not be liable for damage to or the loss of a spacecraft or other property which has been delivered by DTI or its contractors into the custody of NASA or its contractors for the purposes of an agreed launch. The U.S. Government and its contractors all not be liable in any event for damage to or the loss of such DTI property which results as an indirect consequence of damage to, or the malfunctioning or loss of, a vehicle or vehicle stage occurring after DTI has assumed the risk of loss, as provided in the launch services contract, for that vehicle or vehicle stage.
- D. As between NASA and DTI, NASA will be primarily responsible for considering and settling claims, arising directly out of the launching and associated services furnished by NASA, for personal injuries or death, or for damage to or loss of property, other than the property referred to in Paragraphs A, B and C of this Article. Where such claims are based on injuries, death, or damage or loss resulting from the acts or omissions of DTI, its servants, contractors or agents, DTI will reimburse NASA for any amounts paid by NASA in settlement of such claims, but such settlement shall be

subject to the advance approval of DTI, except under an award by a U.S. court of competent jurisdiction.

- E. NASA will assist DTI in the defense against claims for personal injuries, death, or damage to or loss of property brought against DTI, except when such claims resulted from the acts or omissions of DTI, its servants, contractors or agents.
- F. DTI will indemnify and hold the U.S. Government harmless against any claims for personal injuries, death, or damage to or loss of property, or for other liability, arising out of the operation of a satellite, or from its failure to operate, after DTI has taken control of the satellite in orbit.
- G. DTI shall have no liability to NASA with respect to third party claims against NASA for patent infringement or unauthorized use of proprietary information by NASA in connection with the furnishing of launching services to DTI. except to the extent that such claims may involve patents or information pertaining to a U.K. spacecraft or associated spacecraft ground support equipment. In this latter event, DTI agrees that it will indemnify and hold the U.S. Government harmless against any such claims.

#### Article V

## DOCUMENTATION AND REPORTS

- A. NASA and the LTI will exchange, through their respective Project Managers, all documents and information relevant to the successful completion of the agreed missions and such documents and information will be used only for the aforesaid purpose.
- B. Immediately after each launching, the DTI will provide NASA all data from the satellite relevant to ascertaining the performance of the launch vehicle and such data will be used only for the aforesaid purpose.
- C. DTI will, upon NASA s request and at NASA's expense, provide NASA with any raw data received by the DTI from the satellite and any reduced data therefrom. Except with the prior permission of DTI, NASA will not duplicate, disclose, or use any unpublished data so provided.
- D. In any use of data passed to NASA under the above paragraphs A-C of this Article, NASA will respect and protect the confidentiality of proprietary information designated as such by DTI, as provided for in the launch services contract.

## Article VI

## CONFIRMATION

This Memorandum of Understanding and any mutually agreed amendments thereto, shall be subject to confirmation by the Government of the United States and the Government of the United Kingdom of Great Britain and Northern Ireland through an exchange of diplomatic notes.

For the Secretary of State for Trade and Industry

For the National Aeronautics and Space Administration

18 November 1972

Date

DEC 1 8 1972

Date