

For Six Month Period Ending **30 OCT 1991**  
(Insert date)

Name of Registrant

Registration No.

Arianespace Inc.  
Business Address of Registrant  
700 13th Street, N.W.  
Suite 230  
Washington, DC 20005

3673

I-REGISTRANT

1. Has there been a change in the information previously furnished in connection with the following:

(a) If an individual:

- (1) Residence address Yes  No
- (2) Citizenship Yes  No
- (3) Occupation Yes  No

(b) If an organization:

- (1) Name Yes  No
- (2) Ownership or control Yes  No
- (3) Branch offices Yes  No

2. Explain fully all changes, if any, indicated in item 1.

Not Applicable

IF THE REGISTRANT IS AN INDIVIDUAL, OMIT RESPONSE TO ITEMS 3, 4, and 5.

3. Have any persons ceased acting as partners, officers, directors or similar officials of the registrant during this 6 month reporting period? Yes  No

If yes, furnish the following information:

Name

Position

Date Connection Ended

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ORIGINAL DIVISION  
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INTERNAL SECURITY  
SECTION  
REGISTRATION UNIT

4. Have any persons become partners, officers, directors or similar officials during this 6 month reporting period?  
Yes  No

If yes, furnish the following information:

<i>Name</i>	<i>Residence Address</i>	<i>Citizenship</i>	<i>Position</i>	<i>Date Assumed</i>
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5. Has any person named in Item 4 rendered services directly in furtherance of the interests of any foreign principal?  
Yes  No

If yes, identify each such person and describe his services.

6. Have any employees or individuals other than officials, who have filed a short form registration statement, terminated their employment or connection with the registrant during this 6 month reporting period? Yes  No

If yes, furnish the following information:

<i>Name</i>	<i>Position or connection</i>	<i>Date terminated</i>
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7. During this 6 month reporting period, have any persons been hired as employees or in any other capacity by the registrant who rendered services to the registrant directly in furtherance of the interests of any foreign principal in other than a clerical or secretarial, or in a related or similar capacity? Yes  No

If yes, furnish the following information:

<i>Name</i>	<i>Residence Address</i>	<i>Position or connection</i>	<i>Date connection began</i>
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## II—FOREIGN PRINCIPAL

(PAGE 3)

8. Has your connection with any foreign principal ended during this 6 month reporting period? Yes  No

If yes, furnish the following information:

*Name of foreign principal*

*Date of Termination*

- 
9. Have you acquired any new foreign principal<sup>1</sup> during this 6 month reporting period? Yes  No

If yes, furnish following information:

*Name and address of foreign principal*

*Date acquired*

- 
10. In addition to those named in Items 8 and 9, if any, list the foreign principals<sup>1</sup> whom you continued to represent during the 6 month reporting period.

Arianespace SA  
Boulevard de l'Europe  
91000 Evry - Cedex  
France

## III—ACTIVITIES

11. During this 6 month reporting period, have you engaged in any activities for or rendered any services to any foreign principal named in Items 8, 9, and 10 of this statement? Yes  No

If yes, identify each such foreign principal and describe in full detail your activities and services:

During the reporting period the registrant continued to provide marketing and sales support in the U.S. market area for the satellite launch services of Arianespace, S.A. This activity consists of sales presentations and discussions with potential customers concerning the technical and business aspects of Arianespace services, followup with current customers to ensure continued satisfaction, and representation of the company at symposia and conferences, occassionally as a speaker or participant.

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<sup>1</sup>The term "foreign principal" includes, in addition to those defined in section 1(b) of the Act, an individual or organization any of whose activities are directly or indirectly supervised, directed, controlled, financed, or subsidized in whole or in major part by a foreign government, foreign political party, foreign organization or foreign individual. (See Rule 100(a)(9)).

A registrant who represents more than one foreign principal is required to list in the statements he files under the Act only those foreign principals for whom he is not entitled to claim exemption under Section 3 of the Act. (See Rule 208.)

12. During this 6 month reporting period, have you on behalf of any foreign principal engaged in political activity<sup>2</sup> as defined below?  
Yes  No

If yes, identify each such foreign principal and describe in full detail all such political activity, indicating, among other things, the relations, interests and policies sought to be influenced and the means employed to achieve this purpose. If the registrant arranged, sponsored or delivered speeches, lectures or radio and TV broadcasts, give details as to dates, places of delivery, names of speakers and subject matter.

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13. In addition to the above described activities, if any, have you engaged in activity on your own behalf which benefits any or all of your foreign principals? Yes  No

If yes, describe fully.

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<sup>2</sup>The term "political activities" means the dissemination of political propaganda and any other activity which the person engaging therein believes will, or which he intends to, prevail upon, indoctrinate, convert, induce, persuade, or in any other way influence any agency or official of the Government of the United States or any section of the public within the United States with reference to formulating, adopting, or changing the domestic or foreign policies of the United States or with reference to the political or public interests, policies, or relations of a government of a foreign country or a foreign political party.

## IV—FINANCIAL INFORMATION

## 14. (a) RECEIPTS—MONIES

During this 6 month reporting period, have you received from any foreign principal named in Items 8, 9 and 10 of this statement, or from any other source, for or in the interests of any such foreign principal, any contributions, income or money either as compensation or otherwise? Yes  No

If yes, set forth below in the required detail and separately for each foreign principal an account of such monies.<sup>3</sup>

<i>Date</i>	<i>From Whom</i>	<i>Purpose</i>	<i>Amount</i>
5/3/91	Arianespace, S.A.	Commission	50,000.00
7/5/91	Same	Commission	50,000.00
7/5/91	Same	Commission	191,181.68
8/2/91	Same	Commission	126,925.00
9/3/91	Same	Commission	163,150.00
9/3/91	Same	Commission	103,012.50
10/2/91	Same	Commission	50,000.00
10/4/91	Same	Commission	191,181.68
10/4/91	Same	Commission	196,725.00
5/3/91	Same	Reimbursement	14,310.63
6/7/91	Same	Reimbursement	20,810.50
7/5/91	Same	Reimbursement	30,203.36
8/2/91	Same	Reimbursement	13,187.79
9/3/91	Same	Reimbursement	3,341.26
10/4/91	Same	Reimbursement	34,111.91

Total: \$1,238,141.31

## (b) RECEIPTS—THINGS OF VALUE

During this 6 month reporting period, have you received any thing of value<sup>4</sup> other than money from any foreign principal named in Items 8, 9 and 10 of this statement, or from any other source, for or in the interests of any such foreign principal? Yes  No

If yes, furnish the following information:

<i>Name of foreign principal</i>	<i>Date received</i>	<i>Description of thing of value</i>	<i>Purpose</i>
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<sup>3</sup>A registrant is required to file an Exhibit D if he collects or receives contributions, loans, money, or other things of value for a foreign principal, as part of a fund raising campaign. See Rule 201(e).

<sup>4</sup>Things of value include but are not limited to gifts, interest free loans, expense free travel, favored stock purchases, exclusive rights, favored treatment over competitors, "kickbacks," and the like.

## 15. (a) DISBURSEMENTS—MONIES

During this 6 month reporting period, have you

(1) disbursed or expended monies in connection with activity on behalf of any foreign principal named in Items 8, 9 and 10 of this statement?      Yes       No

(2) transmitted monies to any such foreign principal?      Yes       No

If yes, set forth below in the required detail and separately for each foreign principal an account of such monies, including monies transmitted, if any, to each foreign principal.

<i>Date</i>	<i>To Whom</i>	<i>Purpose</i>	<i>Amount</i>
May 91-Oct. 91	Office staff and benefits suppliers	Personnel expenses	215,024.13
Same	Office service suppliers	Office operating expenses	97,905.53
Same	Airlines, Hotels, Restaurants, etc.	Travel expenses	183,649.94
Same	Various restaurants	Business entertainment*	5,752.01
Same	Miscellaneous	Other operating expenses (consulting, legal and accounting, etc.)	326,441.78
Same	D.C. Government, IRS	Local & Fed. Taxes	40,000.00
Same	Various	Reimbursable expenses	115,878.26
		<b>Total</b>	<b>\$984,651.65</b>

\* Entertainment expense consists of domestic (U.S.) business lunches and dinners with commercial prospects and customers.

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Total

15. (b) DISBURSEMENTS—THINGS OF VALUE

During this 6 month reporting period, have you disposed of anything of value<sup>5</sup> other than money in furtherance of or in connection with activities on behalf of any foreign principal named in items 8, 9 and 10 of this statement?

Yes  No

If yes, furnish the following information:

<i>Date disposed</i>	<i>Name of person to whom given</i>	<i>On behalf of what foreign principal</i>	<i>Description of thing of value</i>	<i>Purpose</i>
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(c) DISBURSEMENTS—POLITICAL CONTRIBUTIONS

During this 6 month reporting period, have you from your own funds and on your own behalf either directly or through any other person, made any contributions of money or other things of value<sup>5</sup> in connection with an election to any political office, or in connection with any primary election, convention, or caucus held to select candidates for political office?

Yes  No

If yes, furnish the following information:

<i>Date</i>	<i>Amount or thing of value</i>	<i>Name of political organization</i>	<i>Name of candidate</i>
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V—POLITICAL PROPAGANDA

(Section 1(j) of the Act defines "political propaganda" as including any oral, visual, graphic, written, pictorial, or other communication or expression by any person (1) which is reasonably adapted to, or which the person disseminating the same believes will, or which he intends to, prevail upon, indoctrinate, convert, induce, or in any other way influence a recipient or any section of the public within the United States with reference to the political or public interests, policies, or relations of a government of a foreign country or a foreign political party or with reference to the foreign policies of the United States or promote in the United States racial, religious, or social dissensions, or (2) which advocates, advises, instigates, or promotes any racial, social, political, or religious disorder, civil riot, or other conflict involving the use of force or violence in any other American republic or the overthrow of any government or political subdivision of any other American republic by any means involving the use of force or violence.)

16. During this 6 month reporting period, did you prepare, disseminate or cause to be disseminated any political propaganda as defined above? Yes  No

IF YES, RESPOND TO THE REMAINING ITEMS IN THIS SECTION V.

17. Identify each such foreign principal.

<sup>5</sup>Things of value include but are not limited to gifts, interest free loans, expense free travel, favored stock purchases, exclusive rights, favored treatment over competitors, "kickbacks," and the like.

18. During this 6 month reporting period, has any foreign principal established a budget or allocated a specified sum of money to finance your activities in preparing or disseminating political propaganda? Yes  No

If yes, identify each such foreign principal, specify amount, and indicate for what period of time.

19. During this 6 month reporting period, did your activities in preparing, disseminating or causing the dissemination of political propaganda include the use of any of the following:

- Radio or TV broadcasts
- Magazine or newspaper articles
- Motion picture films
- Letters or telegrams
- Advertising campaigns
- Press releases
- Pamphlets or other publications
- Lectures or speeches

Not Applicable

Other (specify) \_\_\_\_\_

20. During this 6 month reporting period, did you disseminate or cause to be disseminated political propaganda among any of the following groups:

- Public Officials
- Newspapers
- Libraries
- Legislators
- Editors
- Educational institutions
- Government agencies
- Civic groups or associations
- Nationality groups

Not Applicable

Other (specify) \_\_\_\_\_

21. What language was used in this political propaganda:

- English
- Other (specify) \_\_\_\_\_

Not Applicable

22. Did you file with the Registration Section, U.S. Department of Justice, two copies of each item of political propaganda material disseminated or caused to be disseminated during this 6 month reporting period? Yes  No

Not Applicable

23. Did you label each item of such political propaganda material with the statement required by Section 4(b) of the Act?

- Yes  No

Not Applicable

24. Did you file with the Registration Section, U.S. Department of Justice, a Dissemination Report for each item of such political propaganda material as required by Rule 401 under the Act? Yes  No

Not Applicable

VI-EXHIBITS AND ATTACHMENTS

25. EXHIBITS A AND B

(a) Have you filed for each of the newly acquired foreign principals in Item 9 the following:

- Exhibit A<sup>6</sup> Yes  No
- Exhibit B<sup>7</sup> Yes  No

If no, please attach the required exhibit.

Not Applicable

(b) Have there been any changes in the Exhibits A and B previously filed for any foreign principal whom you represented during this six month period? Yes  No

If yes, have you filed an amendment to these exhibits? Yes  No

If no, please attach the required amendment.

<sup>6</sup>The Exhibit A, which is filed on Form CRM-157 (Formerly OBD-67) sets forth the information required to be disclosed concerning each foreign principal.

<sup>7</sup>The Exhibit B, which is filed on Form CRM-155 (Formerly OBD-65) sets forth the information concerning the agreement or understanding between the registrant and the foreign principal.

26. EXHIBIT C

If you have previously filed an Exhibit C<sup>8</sup>, state whether any changes therein have occurred during this 6 month reporting period. Yes  No

If yes, have you filed an amendment to the Exhibit C? Yes  No

If no, please attach the required amendment.

27. SHORT FORM REGISTRATION STATEMENT

Have short form registration statements been filed by all of the persons named in Items 5 and 7 of the supplemental statement? Yes  No

If no, list names of persons who have not filed the required statement.

The undersigned swear(s) or affirm(s) that he has (they have) read the information set forth in this registration statement and the attached exhibits and that he is (they are) familiar with the contents thereof and that such contents are in their entirety true and accurate to the best of his (their) knowledge and belief, except that the undersigned make(s) no representation as to the truth or accuracy of the information contained in attached Short Form Registration Statement, if any, insofar as such information is not within his (their) personal knowledge.

(Type or print name under each signature)

(Both copies of this statement shall be signed and sworn to before a notary public or other person authorized to administer oaths by the agent, if the registrant is an individual, or by a majority of those partners, officers, directors or persons performing similar functions who are in the United States, if the registrant is an organization.)

Douglas A. Heydon  
Douglas A. Heydon

Subscribed and sworn to before me at Washington D.C

this 25th day of November, 1991

Julia E Windsor  
(Signature of notary or other officer)  
my Comm Exp 1-1-94

<sup>8</sup>The Exhibit C, for which no printed form is provided, consists of a true copy of the charter, articles of incorporation, association, constitution, and bylaws of a registrant that is an organization. (A waiver of the requirement to file an Exhibit C may be obtained for good cause upon written application to the Assistant Attorney General, Criminal Division, Internal Security Section, U.S. Department of Justice, Washington, D.C. 20530.)

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Washington, May 3, 1991

### **ARIANESPACE FLIGHT 44: INFORMATION ON THE DELAY**

The complementary work on the margins related to the third stage engine operation which has been carried out by SEP over the last eight days needs to be pursued further. In addition, one of the ground stations required for ERS-1 control is not continuously available for this satellite in the coming weeks.

Therefore, the V44 launch cannot occur before May 22. Flight 44 preparation campaign remains on hold in the D-3 configuration. The ERS-1 spacecraft, the microsattelites auxiliary payload and the launch vehicle are in stand by on ELA 2 launch pad. Flight 45 launch vehicle campaign will start, as planned originally, on Monday, May 13.

#### **Contacts:**

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Tel. (813) 592 2766

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Washington, May 24, 1991

### **ARIANESPACE FLIGHT 44 DELAYED SEVERAL WEEKS**

Based on the results of technical tests and analysis carried out during the last weeks, ARIANESPACE along with SEP and the French Space Agency CNES have decided to modify the hydrogen feed line on Ariane's third stage engine.

Work has already begun on this modification, which will involve adding a pressure relief system to the hydrogen feed line. The current schedule for the validation and qualification testing program should enable the campaign to resume for a July launch.

ARIANESPACE will provide further information as this program is carried out.

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91/9

Washington, May 15, 1991

## ARIANESPACE AND ARABSAT SIGN NEW LAUNCH CONTRACT

Evry, May 15, 1991. Mr. Abdelkader BAÏRI, Director General of Arabsat, and Mr. Charles BIGOT, Chairman and CEO of Arianespace, today signed a contract for the launch of the ARABSAT 1C communications satellite.

Aerospatiale is prime contractor for the construction of ARABSAT 1C, which is based on the Spacebus 100 platform. Liftoff weight will be about 1,360 kg (2,992 lb). The communications payload includes 25 C-band transponders, with a capacity of 8,000 simultaneous telephone circuits and seven television programs. It will provide full coverage of North Africa and the Middle East.

Arabsat, founded by the Arab League in 1976, provides satellite telecommunications services for its 21 member countries. Arianespace launched the first ARABSAT communications satellite on an Ariane 3 on February 8, 1985.

"Arianespace is pleased by Arabsat's renewed confidence; we will make sure that the quality of our service and our flexibility fully meet our customer's expectations", said Charles BIGOT.

This latest contract is Arianespace's 93rd launch contract in 11 years of operation. The company's backlog now stands at 35 launch contracts, covering a period of four years and worth a total of 15.4 billion francs (about US\$ 2.75 billion).

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

### Contacts:

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Washington, June 14, 1991

## **SUCCESS AND CONFIDENCE FOR ARIANESPACE**

Following the Annual General Meeting of shareholders of Arianespace at the 39th Paris Air Show, Chairman and Chief Executive Officer Charles Bigot reviewed the company's performance and future perspectives.

### **ARIANE LAUNCH SYSTEM MATURITY DRIVES POSITIVE FINANCIAL RESULTS FOR 1990**

Arianespace carried out seven launches 1988, seven in 1989, six in 1990 and has a total of eight scheduled for 1991. This sustained launch rate reflects the company's mature expertise in the new business of commercial space transportation. Arianespace generated sales of FF 3,979.2 million in 1990, a 5 percent rise over 1989, and posted net income of FF 135.4 million. The dividend payout of FF 16.2 million equals 6 percent of capital. Provisions for technical and commercial risks related to the company's space transportation business totaled FF 1,152 million as of December 31, 1990. Since its founding in March 1980, Arianespace has always enjoyed a healthy financial position and has paid dividends to its shareholders for the past six years.

### **ARIANESPACE PARTICIPATION: EUROPEAN INDUSTRIAL SOLIDARITY**

Arianespace restructured its capital on February 1, 1990 by creating a holding company, Arianespace Participation, in order to better reflect industrial contributions to the Ariane program. Arianespace SA, which is 95 percent controlled by the holding company, has opened its capital to two new shareholders: Fiat Aviazione (Italy) and Société Nationale des Poudres et Explosifs (SNPE-France). Italian firms have thus increased their stake in Arianespace from 3.6 to 7 percent.

These moves reflect Italy's broader role in production of the ARIANE 4 launcher and in industrial ramp-up of the ARIANE 5 program. The new structure also provides greater flexibility for subsequent capital increases to support Arianespace's growing commercial and industrial operations.

## **WITH OVER 50 PERCENT OF THE WORLD MARKET, ARIANESPACE CONSOLIDATES LEADERSHIP POSITION**

Arianespace logged excellent commercial performance in 1990, booking fifteen orders worth an estimated FF 6.3 billion. The company's deep backlog expresses the confidence of its global customer base amidst a fierce and often extremely aggressive competitive environment. Four additional contracts have already been signed in 1991, giving Arianespace an aggregate total of 93 firm orders for satellite launches since the company's birth. This business is worth nearly FF 33 billion.

The company's order book currently stands at 35 satellites - 17 of them non European - worth FF 15.4 billion. These contracts represent four years of work and already cover the first 20 ARIANE 4 launchers in the 50-launcher batch order signed with European manufacturers in 1989.

### **42 SATELLITES LAUNCHED IN 43 MONTHS**

Over a period of nearly four years, Arianespace has sustained an impressive launch rate of one satellite per month. Unrivaled in the commercial launch service market, this performance was achieved despite a halt of several months following the Flight 36 failure. To further improve productivity and ensure maximum levels of quality, Arianespace implemented a new operating plan, aimed at reducing costs and operating risks, as well as the interval between launches. The sustained rate of launches after Flight 36 - seven in nine months - enabled Arianespace to make up for the slight delay in its launch schedule.

### **COMMERCIAL SUCCESS THROUGH A FOCUS ON QUALITY**

Following Flight 36, Arianespace asked its industrial contractors to significantly and immediately improve manufacturing procedures and controls. The company's cautious approach, the foundation of launcher reliability, was behind the decision to delay Flight 44, thus providing the time needed to understand and correct an operating anomaly on the third-stage cryogenic engine. Corrective actions currently being carried out by Arianespace in conjunction with CNES and engine manufacturer SEP (Société Européenne de Propulsion) should enable the launch campaign to resume at the end of June, with the launch in mid-July. Customers understand and accept this extremely rigorous approach, which is the source of ARIANE's reliability.

### **A BUSY SECOND SEMESTER**

Taking into account the launch planned for July and the availability of satellites on the launch manifest, Arianespace plans to carry out five more launches by the end of

the year, for a total of eight in 1991. The first launcher in the batch of 50 ARIANE 4 ordered by Arianespace will be rolled-out in the last quarter of 1991, and sent to Kourou for Flight 50 at the beginning of 1992. ARIANE 4 launchers will continue to keep pace with evolving market requirements, thanks to increased productivity due to this large scale production, and upgrades such as the enhanced-performance third stage program initiated by Arianespace.

## EXPANDING SERVICES

Starting in 1996, Arianespace will be able to call on the ARIANE 5 heavy-lift launcher to satisfy new market needs at the turn of the century. ARIANE 5 is being developed by the European Space Agency, with French space agency CNES acting as prime contractor. Offering a payload capacity into geostationary transfer orbit (GTO) of 6 metric tons (two 3-ton satellites in dual launch configuration), ARIANE 5 will be in a perfect position to handle the heavier satellites expected to be launched by the end of the century. ARIANE 4 and ARIANE 5 operations will overlap for about three years, giving this new launch system the time needed to reach the required level of maturity under optimum conditions of safety and security. Given the current international competitive environment, Arianespace believes that there should be a level playing field for all launch service operators, with identical regulations allowing access to still-protected government markets. Arianespace has acquired extensive experience as a space transport provider. However, to maintain its leading edge, Arianespace is also closely studying and implementing new tools for access to space. Today, this strategy is represented by the ARIANE Structure for Auxiliary Payload (ASAP), already deployed on ARIANE 4 to launch microsattellites under 50 kg, and by marketing the PEGASUS launch system in Europe for satellites from 100 to 500 kg. For the future, Arianespace is keeping a close eye on the development of recoverable capsules and is also studying the operational aspects involved in launch of the HERMES spaceplane.

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

### Contacts:

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91/12

Washington, June 26, 1991

## **ARIANESPACE SIGNS NEW CANADIAN LAUNCH CONTRACT**

Telesat Mobile Inc.'s MSAT slated for spring 1994 launch on Ariane 4.

Eldon Thompson, Chairman and CEO of Telesat Mobile Inc., Michael Zuliani, President of this company, and Charles Bigot, Chairman and CEO of Arianespace, yesterday signed in Ottawa a launch contract for the first Canadian mobile communications satellite MSAT 1.

Following the 1991 launch of two Canadian Anik E satellites, MSAT 1 will also be placed into geostationary transfer orbit (GTO) by Europe's Ariane 4 launcher from the Guiana Space Center in Kourou, French Guiana.

MSAT 1, built by Spar Aerospace of Montreal (Canada), and Hughes Aircraft of El Segundo (California), is Canada's first mobile telecommunications satellite providing services for land, air and maritime vehicles. The satellite will weigh 2,500 kg (5,510 lb) at liftoff and has a design life of over 12 years. MSAT 1 is designed to support simultaneously up to 3,200 radio channels and provide radio and telephone links, data transmission and position determination for mobiles operating throughout North America.

During the signing ceremony, Charles Bigot said, "This contract, won against stiff international competition, shows Canadian operators' confidence in our company and also continues a long tradition of close cooperation between Arianespace and Canada. We are proud to contribute to the efforts of a new operator, Telesat Mobile, to put in place and develop this new mobile satellite communications service."

With this contract, the fifth of the year for Arianespace, the company's backlog now stands at 36 satellite launches, worth FF 15.9 billion (about U.S. \$2.7 billion), and covers a period of four years.

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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91/13

Washington, July 16, 1991

### **ARIANESPACE FLIGHT 44 IS SUCCESSFUL**

**Arianespace has orbited ERS 1, first European remote sensing satellite for the European Space Agency, and 4 microsattellites as auxiliary passengers.**

The launch took place on Tuesday, July 16, 1991 from Kourou, French Guiana, at 10:46:31 p.m. local time, or :

9:46:31 p.m. (EDT) Washington, DC time

1:46:31 a.m. GMT on July 17

3:46:31 a.m. Paris time on July 17

The ARIANE 40 vehicle (without strap-on boosters), lifted off from the ELA 2 launch complex in Kourou, with a required performance of 2633 kg (i.e. 5805 lb).

The satellites were placed into a polar orbit. Provisional parameters at third stage injection were :

Perigee : 766 km ( $\pm$  5 km) for a target of 767 km

Apogee : 787 km ( $\pm$  5 km) for a target of 787 km

Inclination : 98.5 ( $\pm$  0.05) degrees for a target of 98.5 degrees

ERS 1 with a mass at lift-off of 2384 kg (5256 lb) is the first European remote sensing satellite developed by the European Space Agency. Built by Dornier in Germany, its design is based on the utilization of the multimission platform, developed by Matra Marconi Space for the French SPOT program, with a payload composed of a set of active microwave sensors and complementary instruments. Its main mission consists in remote sensing and environment monitoring of oceans, ice and land.

The auxiliary payload was composed of 4 microsattellites :

- SARA, with a mass of 26.6 kg (58.6 lb) is a radioastronomy satellite developed and manufactured by the aerospace club of the "Ecole Supérieure d'Ingénieurs en Electronique"- ESIEESPACE (France). It will be operated in cooperation with Meudon Observatory.

- ORBCOMM-X, with a mass of 22.8 kg (50.3 lb) was developed by Orbital Science Corporation to prove technologies which will be used in the future 20 satellite ORBCOMM network in the USA.

- TUBSAT, with a mass of 38 kg (84 lb), was developed and manufactured by the Technical University of Berlin, Germany. Its main mission is to monitor migrations of animals.

- UOSAT F, with a mass of 50 kg (110 lb), was developed and manufactured by the University of Surrey (Great Britain). It will carry communication and technology demonstration payloads.

Following the success of Flight 44, Charles BIGOT, Chairman and CEO of Arianespace, said " The launch of the ERS1 satellite is a great event for Europe and the European space industry. We are proud of our role in helping the European Space Agency implement this new high-performance system, which will lead us to a better understanding of our environment. By taking the time needed to prepare for this evening's launch -a decision reached within the scope of our cautious overall approach- Arianespace has clearly placed the focus on safety and enhanced the reliability of the ARIANE 4 launcher."

The next launch is currently scheduled for mid-August, 1991. An ARIANE 44L (equipped with 4 liquid propellant strap-on boosters) will orbit the INTELSAT VI F5 for INTELSAT, the International Telecommunications Satellite Organization.

As of July 17th, 1991, and after Flight 44, the Arianespace backlog stands at 35 satellites to be launched, worth about 15.4 Billion FF, i.e. about US\$ 2.6 Billion which represents a four year workload.

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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91/14

Washington, August 14, 1991

**ARIANESPACE SUCCESSFULLY LAUNCHES  
ANOTHER INTELSAT VI SATELLITE**

**Arianespace placed INTELSAT VI (F5) satellite into orbit on August 14, 1991. This is the second of three spacecraft to be launched by the European launcher for Intelsat, the International Telecommunications Organization.**

The launch took place on Wednesday August 14, 1991 from Kourou, French Guiana, at 8:15:13 p.m. local time, or :

7:15:13 p.m. (EDT) Washington, DC time

11:15:13 p.m. GMT

1:15:13 a.m. Paris time on August 15

An Ariane 44L launch vehicle (the most powerful version in the ARIANE4 series) equipped with four liquid propellant strap-on boosters was launched from the ELA 2 launch pad in Kourou. The high performance of this launch vehicle was required to carry aloft the largest civil telecommunications satellite with a mass of 4,296 kg.

Arianespace placed the satellite into a geostationary transfer orbit. The provisional parameters at third-stage injection were:

Perigee : 199 km ( $\pm 1$  km) for a target of 199 km

Apogee : 36,011km ( $\pm 1$  km) for a target of 36,019 km

Inclination : 6.99 ( $\pm 0.05$ ) degrees for a target of 7 degrees

Intelsat VI (F5) is one of the five new spacecraft of the sixth generation built by the U.S. firm Hughes Aircraft Company. Carrying 24,000 telephone circuits and three television channels, the satellite will provide telecom and TV broadcasting services to the South and North Atlantic regions. It will be positioned at 14.5 degrees West above the East Atlantic Ocean. The third Intelsat VI satellite to be launched by Arianespace is scheduled to be orbited in October 1991.

"We are proud to share this evening's success with Intelsat, one of our oldest and most loyal customers and the world's leading satellite telecommunications operator. This new spacecraft will make a significant contribution to the development of the international satellite communication network. Arianespace is also extremely proud to be a privileged partner in the increasingly important global satellite telecommunications business", said Arianespace Chairman And CEO Charles BIGOT.

The next launch by an Ariane launch vehicle, Flight 46, is scheduled for September 26, 1991, when an Ariane 44P (equipped with four solid-propellant strap-on boosters) will orbit the second Anik E1 telecommunications satellite for Canada's Telesat.

As of August 15, 1991, and after Flight 45, Arianespace's backlog stands at 34 satellites to be launched, worth about FF 14.6 billion, i.e. about \$2.4 billion.

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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91/15

Washington, Sept. 19, 1991

## ARIANESPACE LAUNCH MANIFEST

ARIANESPACE today issued the launch manifest through the end of 1992. This document, updated once a year, lists the sequence of ARIANE launches.

<u>FLIGHT</u>		<u>LAUNCHER</u>	<u>SATELLITES</u>
Flight 46	Sept. 91	44P	ANIK E1
Flight 47	Oct. 91	44L	INTELSAT VI F1
Flight 48	Dec. 91	44L	TELECOM IIA & INMARSAT 2 F3
Flight 49	Jan. 92	44L	SUPERBIRD B & (INMARSAT 2 F4 or ARABSAT 1C)
Flight 50	Feb. 92	44L	EUTELSAT II F4 & INSAT IIA
Flight 51	Mar. 92	44L	TELECOM IIB & (ARABSAT 1C or INMARSAT II F4)
Flight 52	June 92	42P	TOPEX-POSEIDON & ASAP #3 (*)
Flight 53	July 92	44L	HISPASAT IA & SATCOM C4
Flight 54	Aug. 92	42P	GALAXY VII
Flight 55	Oct. 92	44L	EUTELSAT II F5 & INSAT II B
Flight 56	Nov. 92	44L	HISPASAT 1B (or SUPERBIRD A (**)) & F.O.
Flight 57	Dec. 92	42P	GALAXY IV

(\*) = *The third Ariane Structure for Auxiliary Payloads carrying: Kitsat-A & S 80/T*

(\*\*) = *Priority launch, requested by the SCC company (Japan) to replace a satellite which failed in orbit.*

F.O. = *Flight Opportunity*

This schedule takes into consideration the contractual obligations of the company and the availability of the satellites. It is based on the proven operational and industrial capability of Arianespace, demonstrated in the last 4 years by a launch rate of one satellite per month.

Arianespace's backlog stands at 34 satellites worth a total of FF 15 billion ( or approx. US \$ 2.5 billion).

*Note: The Arianespace manifest is published for information purposes - and only those dates announced formally by the company are to be taken into consideration.*

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARLANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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91/16

Washington, Sept. 24, 1991

## **MEXICO SIGNS LAUNCH CONTRACT WITH ARIANESPACE**

**SOLIDARIDAD 1 and 2 set for ARIANE launches at end 1993 / early 1994.**

Andres CASO LOMBARDO, the Mexican Minister of Communications and Transportation, Carlos LARA SUMANO, Director General of "Telecomunicaciones de Mexico", and Charles BIGOT, Chairman and CEO of Arianespace, yesterday signed a launch contract for the SOLIDARIDAD 1 and 2 telecommunications satellites in Mexico City.

The two Solidaridad satellites will be launched into geostationary transfer orbit by the European Ariane 4 from the Kourou Space Center in French Guiana at the end of 1993 and the beginning of 1994.

SOLIDARIDAD 1 and 2 are second-generation telecommunication satellites built by Hughes Aircraft Company. Using the HS 601 platform, the satellites will each weigh about 2,740 kg (6,028 lb) at launch, and offer 2,500 watts of power. Equipped with 12 Ku-band and 18 C-band transponders each, they will be used for telecommunications, television and digital signal transmissions. A single L-band transponder will also provide land, air and sea mobile communications links for Mexico. Design life for these spacecraft is 14 years.

"It is a great accomplishment for Arianespace and the whole European Industry to be selected for the launch of the second-generation Solidaridad satellites. This contract adds another prestigious name to our list of customers, which includes nearly all satellite operators worldwide. Arianespace won this contract because of Ariane's proven reliability and availability against strong competition. Arianespace is honored by the Mexican government's confidence in Europe and is proud to contribute in the development of telecommunication services in Mexico," said Charles BIGOT, Arianespace Chairman and CEO.

The Arianespace backlog now stands at 34 satellites to be launched, worth about 15 billion Francs (US \$ 2.5 billion).

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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91/17  
Washington, Sept. 26, 1991

## SECOND SUCCESSFUL CANADIAN LAUNCH FOR ARIANESPACE

Arianespace successfully launched the second E series telecommunications satellite Anik E1 for Telesat of Canada.

The launch took place on Thursday, September 26, 1991 from Kourou, French Guiana, at 8:43 p.m. local time, or :

7:43 p.m. (EDT) Washington, DC  
11:43 p.m. GMT  
1:43 a.m. Paris, September 27.

The second ARIANE 44 P (equipped with 4 solid propellant strap-on boosters) lifted into geostationary transfer orbit a total mass of 2977 kg (i.e. 6,550 lb) of which 2,932 kg (6,450lbs) represents the satellite's mass.

Provisional parameters at third stage injection were :

Perigee : 268 km ( $\pm$  1 km) for a target of 268 km  
Apogee : 35,962 km ( $\pm$  100 km) for a target of 35,952 km  
Inclination : 4.04 ( $\pm$  0.05) degrees for a target of 4.00 degrees

ANIK E1 is the second model in the fifth telecommunications satellite series operated by TELESAT. It was built by SPAR AEROSPACE of Canada. This spacecraft will be used as part of the Canadian telecommunications and television transmission network, with extended coverage to the United States. Anik E1 will be positioned over the East Pacific Ocean. Arianespace launched ANIK E2, the first satellite in this series, on April 4, 1991.

Following completion of Flight 46, Arianespace Chairman and CEO, Charles Bigot, said: "Tonight, Arianespace continues to celebrate its "Canadian" year with the successful launch of ANIK E1; not only did we launch two ANIK E satellites, but we also signed a launch contract for the MSAT satellite with Telesat Mobile Inc. Arianespace also strengthened its market position in the Americas this year - in addition to contracts already signed with Brazil, the United States and Canada, Arianespace signed a launch contract for two Mexican satellites three days ago. This year has demonstrated our role and responsibilities vis a vis the international telecommunications community. With an average launch rate of one satellite a month over the past four years, Arianespace has launched two-thirds of all telecommunication satellites world wide."

The next launch is currently scheduled for October 29, 1991. An ARIANE 44L launch vehicle (with 4 liquid strap-on boosters), will launch a second Intelsat VI satellite for INTELSAT, the International Telecommunications Satellite Organization.

Following Flight 46, Arianespace's backlog now stands at 33 satellites to be launched, worth about 14.9 Billion FF, i.e. about US\$ 2.5 Billion.

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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91/19

Washington, October 29, 1991

## ARIANESPACE COMPLETES CONTRACT WITH THIRD SUCCESSFUL INTELSAT VI LAUNCH

Arianespace successfully launched tonight the INTELSAT VI F1 satellite, the third and last of the INTELSAT VI series awarded by INTELSAT, the International Telecommunications Satellite Organization.

The launch took place on Tuesday, October 29, 1991 from Kourou, French Guiana, at 8:08 p.m. local time, or :

11:08 p.m. GMT

6:08 p.m. (EST) Washington, DC

12:08 a.m. Paris, October 30.

An Ariane 44L, the most powerful version of this launcher with four liquid-propellant strap-on boosters, put the world's biggest civil telecommunications satellite into orbit from the ELA 2 launch site in Kourou. The ARIANE required performance was 4,330 Kg (9,526 lb).

The satellite was placed in a geostationary transfer orbit (GTO). Provisional parameters at third stage injection were :

Perigee : 198.2 km ( $\pm 1$  km) for a target of 199.2 km

Apogee : 35,881 km ( $\pm 100$  km) for a target of 36,020 km

Inclination : 7.03 ( $\pm 0.05$ ) degrees for a target of 7.00 degrees

INTELSAT VI F1, one of INTELSAT's sixth generation of satellites, was built by Hughes Aircraft of the United States. It is equipped with 38 C-band transponders and 10 K-band transponders for a capacity of 24,000 telephone circuits on two simultaneous channels and three color television channels. Positioned at 27.5 degrees West over the Atlantic Ocean, it will provide international telecommunications services.

"Combined with our successful launch of another INTELSAT VI just two months ago, this evening's launch marks a dual achievement for ARIANESPACE. In the last 5 years, ARIANESPACE has successfully put into orbit over 80% of all INTELSAT satellites which underscores the confidence of the world's leading telecommunications satellite operator in the European launcher", said ARIANESPACE chairman and CEO Charles BIGOT.

Following Flight 47, Arianespace's backlog stands at 33 satellite launch contracts, worth about FF 14.5 billion, i.e. about \$ 2.5 billion.

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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91/18  
Washington, October 25, 1991

**THE FIRST U.S. DIRECTV™ SATELLITE WILL BE LAUNCHED BY  
ARIANESPACE FOR HUGHES COMMUNICATIONS INC.**

ARIANESPACE and HUGHES COMMUNICATIONS INC. announced today that they have signed a contract to launch Hughes' first DirecTv™ satellite.

The Hughes satellite will be launched by an Ariane 4 in December 1993 from the Kourou Space Center in French Guiana.

The advanced Hughes satellite will deliver news, sports, movies and specialty television programming directly to households equipped with low cost, 18 inch receiving antennas. Located at the 101 degree West longitude orbital position, the DirecTv satellite will provide a national broadcasting platform for the entire lower 48 states.

"Arianespace is pleased by the renewed confidence demonstrated with the signature of this important contract by Hughes, the largest private operator of satellites as well as one of the world's most important satellite manufacturer. Also, Arianespace is particularly proud to launch the United States' first high-power direct-to-home TV satellite covering the entire U.S. territory", said Charles Bigot, Chairman and CEO of Arianespace.

The Arianespace backlog now stands at 34 satellites to be launched, worth about 15.2 billion French Francs (US \$2.6 billion).

Arianespace, an industrial and commercial company, is a world leader in the provision of commercial space transportation services. Arianespace also markets and sells ARIANE launch services and provides launch operations from the Guiana Space Center in French Guiana. Arianespace Inc., a wholly-owned subsidiary of Arianespace, is responsible for marketing launch services in the United States; a liaison office in Tokyo assures an Arianespace presence in Japan and in the Pacific region.

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